THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

N.J.A.C. 7:7
COASTAL ZONE MANAGEMENT RULES

Statutory authority:

N.J.S.A. 13:19-1 et seq.; 12:3-1 et seq., 12:5-3; 13:9A-1 et seq.

Date last amended:

February 20, 2020

For regulatory history and effective dates, see the New Jersey Administrative Code

Table of Contents

SUBCHAPTER 1. GENERAL PROVISIONS....13

7:7-1.1 Purpose....13

7:7-1.2 Scope....17

7:7-1.3 Review, revision, and expiration....19

7:7-1.4 Standards for evaluating permit applications....19

7:7-1.5 Definitions....19

7:7-1.6 Forms, checklists, information; Department address and website....34

7:7-1.7 Liberal construction....35

7:7-1.8 Severability....35

SUBCHAPTER 2. APPLICABILITY AND ACTIVITIES FOR WHICH A PERMIT IS REQUIRED....35

7:7-2.1 When a permit is required....35

7:7-2.2 CAFRA....36

7:7-2.3 Coastal wetlands....48

7:7-2.4 Waterfront development....49

7:7-2.5 Obtaining an applicability determination....55

SUBCHAPTER 3. GENERAL PROVISIONS FOR PERMITS-BY-RULE, GENERAL PERMITS-BY-CERTIFICATION, AND GENERAL PERMITS....55

7:7-3.1 Purpose and scope....56

7:7-3.2 Standards for issuance, by rulemaking, of permits-by-rule, general permits-by-certification, and general permits....56

7:7-3.3 Use of a permit-by-rule, or an authorization pursuant to a general permit-by-certification or a general permit to conduct regulated activities....57

7:7-3.4 Use of more than one permit on a single site....57

7:7-3.5 Duration of an authorization under a general permit-by-certification....58

7:7-3.6 Duration of an authorization under a general permit for which an application was declared complete for review prior to July 6, 2015....58

7:7-3.7 Duration of an authorization under a general permit for which an application is deemed complete for review on or after July 6, 2015 59

7:7-3.8 Conditions applicable to a permit-by-rule, or to an authorization pursuant to a general permit-by-certification or a general permit 60

SUBCHAPTER 4. PERMITS-BY-RULE 60

7:7-4.1 Permit-by-rule 1 - expansion of a single-family home or duplex 60

7:7-4.2 Permit-by-rule 2 - development of a single-family home or duplex and/or accessory development on a bulkheaded lagoon lot 61

7:7-4.3 Permit-by-rule 3 - placement of public safety or beach/dune ordinance signs on beaches or dunes and placement of signs on beaches or dunes at public parks 62

7:7-4.4 Permit-by-rule 4 - construction of nonresidential docks, piers, boat ramps, and decks located landward of mean high water line 62

7:7-4.5 Permit-by-rule 5 - construction of portion of a recreational dock or pier located landward of mean high water line 63

7:7-4.6 Permit-by-rule 6 - reconstruction of a residential or commercial development within the same footprint 63

7:7-4.7 Permit-by-rule 7 – expansion or relocation (with or without expansion) landward or parallel to the mean high water line of the footprint of a residential or commercial development 64

7:7-4.8 Permit-by-rule 8 - construction of a utility line attached to a bridge or culvert 64

7:7-4.9 Permit-by-rule 9 - previous filling of tidelands associated with an existing single family home or duplex 65

7:7-4.10 Permit-by-rule 10 - construction of portion of boat ramp located landward of the mean high water line at a residential development 65

7:7-4.11 Permit-by-rule 11 - construction and/or installation of a boat wash wastewater system at a marina, boatyard, or boat sales facility 66

7:7-4.12 Permit-by-rule 12 - construction of one to three wind turbines less than 200 feet in height having a cumulative rotor swept area no greater than 2,000 square feet 67

7:7-4.13 Permit-by-rule 13 - installation of solar panels on a maintained lawn or landscaped area at a single-family home or duplex lot 68

7:7-4.14 Permit-by-rule 14 – reconfiguration of any legally existing dock, wharf, or pier at a legally existing marina 68

7:7-4.15 Permit-by-rule 15 - placement of sand fencing to create or sustain a dune 69

7:7-4.16 Permit–by-rule 16 - placement of land-based upwellers and raceways for aquaculture activities 69

7:7-4.17 Permit-by-rule 17 - placement of predator screens and oyster spat attraction devices within a shellfish lease area 70

7:7-4.18 Permit-by-rule 18 - placement of shellfish cages within a shellfish lease area 70

7:7-4.19 Permit-by-rule 19 - construction and/or installation of a pumpout facility and/or pumpout support facilities 71

7:7-4.20 Permit-by-rule 20 – implementation of a sediment sampling plan for sampling in a water area as part of a dredging or dredged material management activity or as part of a remedial investigation of a contaminated site 71

7:7-4.21 Permit-by-rule 21 – application of herbicide within coastal wetlands to control invasive plant species 72

7:7-4.22 Permit-by-rule 22 - construction of a swimming pool, spa, or hot tub and associated decking on a bulkheaded lot without wetlands 72

7:7-4.23 Permit-by-rule 23 – installation of an at-grade dune walkover at a residential, commercial, or public development other than a single-family home or duplex 73

SUBCHAPTER 5. GENERAL PERMITS-BY-CERTIFICATION 74

7:7-5.1 General permit-by-certification 10 – reconstruction of a legally existing functioning bulkhead in-place or upland of a legally existing functioning bulkhead 74

7:7-5.2 General permit-by-certification 15 – construction of piers, docks, including jet ski ramps, pilings, and boatlifts in man-made lagoons 74

7:7-5.3 General permit-by-certification 1A – installation of an elevated timber dune walkover at a residential, commercial, or public development other than a single-family home or duplex 75

SUBCHAPTER 6. GENERAL PERMITS 76

7:7-6.1 General permit 1 - amusement pier expansion 76

7:7-6.2 General permit 2 – activities on a beach and dune 77

7:7-6.3 General permit 3 - voluntary reconstruction of certain residential or commercial development 77

7:7-6.4 General permit 4 - development of one or two single-family homes or duplexes 78

7:7-6.5 General permit 5 - expansion, or reconstruction (with or without expansion), of a single-family home or duplex 82

7:7-6.6 General permit 6 - construction of a bulkhead and placement of associated fill on a man-made lagoon 87

7:7-6.7 General permit 7 - construction of a revetment at a single-family home or duplex lot 87

7:7-6.8 General permit 8 - construction of gabions at a single family/duplex lot 88

7:7-6.9 General permit 9 - construction of support facilities at legally existing and operating marinas 89

7:7-6.10 General permit 10 –reconstruction of a legally existing functioning bulkhead 91

7:7-6.11 General permit 11 – investigation, cleanup, removal, or remediation of hazardous substances 92

7:7-6.12 General permit 12 – landfall of utilities 93

7:7-6.13 General permit 13 – construction of recreational facilities at public parks 94

7:7-6.14 General permit 14 – bulkhead construction and placement of associated fill at a single-family home or duplex lot 95

7:7-6.15 General permit 15 – construction of piers, docks, including jet ski ramps, pilings, and boatlifts in man-made lagoons 96

7:7-6.16 General permit 16 - minor maintenance dredging in man-made lagoons..... 97

7:7-6.17 General permit 17 – stabilization of eroded shorelines 97

7:7-6.18 General permit 18 – avian nesting structures 98

7:7-6.19 General permit 19 – modification of existing electrical substations 98

7:7-6.20 General permit 20 –legalization of the filling of tidelands..... 98

7:7-6.21 General permit 21 –construction of telecommunication towers..... 99

7:7-6.22 General permit 22 –construction of certain structures related to the tourism industry at hotels and motels, commercial developments, and multi-family residential developments over 75 units..... 99

7:7-6.23 General permit 23 –geotechnical survey borings 100

7:7-6.24 General permit 24 - habitat creation, restoration, enhancement, and living shoreline activities 102

7:7-6.25 General permit 25 – construction of one to three wind turbines less than 200 feet in height and having a cumulative rotor swept area no greater than 4,000 square feet 105

7:7-6.26 General permit 26 – construction of wind turbines less than 250 feet in height and having a cumulative rotor swept area no greater than 20,000 square feet..... 106

7:7-6.27 General permit 27 –dredging of sand from a man-made lagoon deposited as a result of a storm event for which the Governor declared a State of Emergency..... 108

7:7-6.28 General permit 28 – dredging of material from a waterway at a residential or commercial development deposited as a result of the failure of a bulkhead as a consequence of a storm event for which the Governor declared a State of Emergency..... 109

7:7-6.29 General permit 29 –dredging and management of material from a marina deposited as a result of a storm event for which the Governor declared a State of Emergency 110

7:7-6.30 General permit 30 – commercial shellfish aquaculture activities..... 111

7:7-6.31 General permit 31 – placement of shell within shellfish lease areas..... 112

7:7-6.32 General permit 32 – application of herbicide within coastal wetlands to control invasive plant species..... 112

SUBCHAPTER 7. LONG BRANCH REDEVELOPMENT ZONE PERMIT 113

7:7-7.1 Applicability; permit conditions..... 113

7:7-7.2 Notification to the Department regarding developments requiring planning board approval .. 114

7:7-7.3 Notification to the Department regarding developments not requiring planning board approval 115

7:7-7.4 Publication of notice of Department's decision that Long Branch Redevelopment Zone Permit is or is not applicable to development 116

7:7-7.5 Requests for adjudicatory hearings 116

SUBCHAPTER 8. INDIVIDUAL PERMITS 116

7:7-8.1 Requirement to obtain an individual permit 116

7:7-8.2 Duration of an individual permit 116

7:7-8.3 Conditions applicable to an individual permit 118

SUBCHAPTER 9. SPECIAL AREAS 118

7:7-9.1 Purpose and scope 119

7:7-9.2 Shellfish habitat 119

7:7-9.3 Surf clam areas 128

7:7-9.4 Prime fishing areas 129

7:7-9.5 Finfish migratory pathways 130

7:7-9.6 Submerged vegetation habitat 131

7:7-9.7 Navigation channels 134

7:7-9.8 Canals 135

7:7-9.9 Inlets 135

7:7-9.10 Marina moorings 136

7:7-9.11 Ports 136

7:7-9.12 Submerged infrastructure routes 137

7:7-9.13 Shipwreck and artificial reef habitats 137

7:7-9.14 Wet borrow pits 138

7:7-9.15 Intertidal and subtidal shallows 140

7:7-9.16 Dunes 142

7:7-9.17 Overwash areas 145

7:7-9.18 Coastal high hazard areas 147

7:7-9.19 Erosion hazard areas 149

7:7-9.20 Barrier island corridor 152

7:7-9.21 Bay islands 152

7:7-9.22 Beaches 155

7:7-9.23 Filled water's edge 158
7:7-9.24 Existing lagoon edges 162
7:7-9.25 Flood hazard areas 162
7:7-9.26 Riparian zones 164
7:7-9.27 Wetlands 166
7:7-9.28 Wetlands buffers 171
7:7-9.29 Coastal bluffs 173
7:7-9.30 Intermittent stream corridors 173
7:7-9.31 Farmland conservation areas 174
7:7-9.32 Steep slopes 175
7:7-9.33 Dry borrow pits 176
7:7-9.34 Historic and archaeological resources 177
7:7-9.35 Specimen trees 180
7:7-9.36 Endangered or threatened wildlife or plant species habitats 180
7:7-9.37 Critical wildlife habitat 182
7:7-9.38 Public open space 183
7:7-9.39 Special hazard areas 184
7:7-9.40 Excluded Federal lands 184
7:7-9.41 Special urban areas 185
7:7-9.42 Pinelands National Reserve and Pinelands Protection Area 186
7:7-9.43 Meadowlands District 189
7:7-9.44 Wild and scenic river corridors 191
7:7-9.45 Geodetic control reference marks 193
7:7-9.46 Hudson River waterfront area 194
7:7-9.47 Atlantic City 198
7:7-9.48 Lands and waters subject to public trust rights 206
SUBCHAPTER 10. STANDARDS FOR BEACH AND DUNE ACTIVITIES 208
7:7-10.1 Purpose and scope 209
7:7-10.2 Standards applicable to routine beach maintenance 209
7:7-10.3 Standards applicable to emergency post-storm beach restoration 215
7:7-10.4 Standards applicable to dune creation and maintenance 217

7:7-10.5 Standards applicable to the construction of boardwalks 220

SUBCHAPTER 11. STANDARDS FOR CONDUCTING AND REPORTING THE RESULTS OF AN ENDANGERED OR THREATENED WILDLIFE OR PLANT SPECIES HABITAT IMPACT ASSESSMENT AND/OR ENDANGERED OR THREATENED WILDLIFE SPECIES HABITAT EVALUATION 221

7:7-11.1 Purpose and scope 221

7:7-11.2 Standards for conducting endangered or threatened wildlife or plant species habitat impact assessment 222

7:7-11.3 Standards for conducting endangered or threatened wildlife species habitat evaluation 223

7:7-11.4 Standards for reporting the results of impact assessments and habitat evaluations 223

SUBCHAPTER 12. GENERAL WATER AREAS 225

7:7-12.1 Purpose and scope 225

7:7-12.2 Shellfish aquaculture 226

7:7-12.3 Boat ramps 227

7:7-12.4 Docks and piers for cargo and commercial fisheries 228

7:7-12.5 Recreational docks and piers 228

7:7-12.6 Maintenance dredging 231

7:7-12.7 New dredging 234

7:7-12.8 Environmental dredging 237

7:7-12.9 Dredged material disposal 238

7:7-12.10 Solid waste or sludge dumping 240

7:7-12.11 Filling 240

7:7-12.12 Mooring 242

7:7-12.13 Sand and gravel mining 242

7:7-12.14 Bridges 243

7:7-12.15 Submerged pipelines 244

7:7-12.16 Overhead transmission lines 245

7:7-12.17 Dams and impoundments 245

7:7-12.18 Outfalls and intakes 246

7:7-12.19 Realignment of water areas 246

7:7-12.20 Vertical wake or wave attenuation structures 246

7:7-12.21 Submerged cables 248

7:7-12.22 Artificial reefs 251

7:7-12.23 Living shorelines 254

7:7-12.24 Miscellaneous uses 255

SUBCHAPTER 13. REQUIREMENTS FOR IMPERVIOUS COVER AND VEGETATIVE COVER FOR GENERAL LAND AREAS AND CERTAIN SPECIAL AREAS 256

7:7-13.1 Purpose and scope 256

7:7-13.2 Definitions 259

7:7-13.3 Impervious cover requirements that apply to sites in the upland waterfront development and CAFRA areas 260

7:7-13.4 Vegetative cover requirements that apply to sites in the upland waterfront development and CAFRA areas 262

7:7-13.5 Determining if a site is forested or unforested 265

7:7-13.6 Upland waterfront development area regions and growth ratings 267

7:7-13.7 Determining the environmental sensitivity of a site in the upland waterfront development area 269

7:7-13.8 Determining the development potential of a site in the upland waterfront development area 271

7:7-13.9 Determining the development potential for a residential or minor commercial development site in the upland waterfront development area 272

7:7-13.10 Determining the development potential for a major commercial or industrial development site in the upland waterfront development area 274

7:7-13.11 Determining the development potential for a campground development site in the upland waterfront development area 276

7:7-13.12 Determining the development intensity of a site in the upland waterfront development area 277

7:7-13.13 Impervious cover limits for a site in the upland waterfront development area 280

7:7-13.14 Vegetative cover percentages for a site in the upland waterfront development area 283

7:7-13.15 Coastal Planning Areas in the CAFRA area 285

7:7-13.16 Boundaries for Coastal Planning Areas, CAFRA centers, CAFRA cores, and CAFRA nodes; non-mainland coastal centers 288

7:7-13.17 Impervious cover limits for a site in the CAFRA area 291

7:7-13.18 Vegetative cover percentages for a site in the CAFRA area 294

7:7-13.19 Mainland coastal centers 297

SUBCHAPTER 14. GENERAL LOCATION RULES 300

7:7-14.1 Rule on location of linear development 300

7:7-14.2 Basic location rule 301

7:7-14.3 Secondary impacts 301

SUBCHAPTER 15. USE RULES 302

7:7-15.1 Purpose and scope 302

7:7-15.2 Housing 303

7:7-15.3 Resort/recreational 314

7:7-15.4 Energy facility 320

7:7-15.5 Transportation 334

7:7-15.6 Public facility 336

7:7-15.7 Industry 337

7:7-15.8 Mining 339

7:7-15.9 Port 340

7:7-15.10 Commercial facility 342

7:7-15.11 Coastal engineering 344

7:7-15.12 Dredged material placement on land 348

7:7-15.13 National defense facilities 350

7:7-15.14 High-rise structures 350

SUBCHAPTER 16. RESOURCE RULES 351

7:7-16.1 Purpose and Scope 351

7:7-16.2 Marine fish and fisheries 352

7:7-16.3 Water quality 354

7:7-16.4 Surface water use 355

7:7-16.5 Groundwater use 355

7:7-16.6 Stormwater management 356

7:7-16.7 Vegetation 356

7:7-16.8 Air quality 357

7:7-16.9 Public access 358

7:7-16.10 Scenic resources and design 378

7:7-16.11 Buffers and compatibility of uses 380

7:7-16.12 Traffic 381

7:7-16.13 Subsurface sewage disposal systems 383

7:7-16.14 Solid and hazardous waste 383

SUBCHAPTER 17. MITIGATION 384

7:7-17.1 Definitions 384
7:7-17.2 General mitigation requirements 386
7:7-17.3 Timing of mitigation 389
7:7-17.4 Amount of mitigation required 389
7:7-17.5 Property suitable for mitigation 389
7:7-17.6 Conceptual review of a mitigation area 391
7:7-17.7 Basic requirements for mitigation proposals 391
7:7-17.8 Department review and approval of a mitigation proposal 394
7:7-17.9 Requirements for shellfish habitat mitigation 394
7:7-17.10 Requirements for submerged vegetation habitat mitigation 395
7:7-17.11 Requirements for intertidal and subtidal shallows and tidal water mitigation 395
7:7-17.12 Requirements for riparian zone mitigation 398
7:7-17.13 Requirements for wetlands mitigation 398
7:7-17.14 Wetlands mitigation hierarchy 400
7:7-17.15 Requirements for credit purchase from an approved mitigation bank 402
7:7-17.16 Requirements for in-lieu fee payment 402
7:7-17.17 Financial assurance for mitigation projects; general provisions 402
7:7-17.18 Financial assurance; fully funded trust fund requirements 404
7:7-17.19 Financial assurance; line of credit requirements 405
7:7-17.20 Financial assurance; letter of credit requirements 405
7:7-17.21 Financial assurance; surety bond requirements 406
7:7-17.22 Mitigation banks 406
7:7-17.23 Application for a mitigation bank 409
SUBCHAPTER 18. CONSERVATION RESTRICTIONS 411
7:7-18.1 Conservation restriction form and recording requirements 411
7:7-18.2 Additional requirements applicable to a conservation restriction for mitigation areas 412
7:7-18.3 Reservation of rights 413
SUBCHAPTER 19. RELAXATION OF PROCEDURES; RECONSIDERATION OF APPLICATION OF RULES 413
7:7-19.1 Relaxation of procedures in this chapter 413
7:7-19.2 Reconsideration of the application of a rule(s) in this chapter 413
SUBCHAPTER 20. PROVISIONAL PERMITS 419

7:7-20.1 Provisional permits 419

SUBCHAPTER 21. EMERGENCY AUTHORIZATIONS 419

7:7-21.1 Standard for issuance of an emergency authorization 419

7:7-21.2 Procedure to request an emergency authorization 419

7:7-21.3 Issuance of emergency authorization; conditions 420

SUBCHAPTER 22. PRE-APPLICATION CONFERENCES 422

7:7-22.1 Purpose and scope 422

7:7-22.2 Request for a pre-application conference; scheduling; information required 423

SUBCHAPTER 23. APPLICATION REQUIREMENTS 424

7:7-23.1 Purpose and scope 424

7:7-23.2 General application requirements 425

7:7-23.3 Additional application requirements for an authorization under a general permit-by-certification 427

7:7-23.4 Additional application requirements for an authorization under a general permit or for an individual permit 428

7:7-23.5 Compliance statement requirement for an application for authorization under a general permit 430

7:7-23.6 Additional requirements specific to an application for an individual permit 430

SUBCHAPTER 24. REQUIREMENTS FOR AN APPLICANT TO PROVIDE PUBLIC NOTICE OF AN APPLICATION 431

7:7-24.1 Purpose and scope 431

7:7-24.2 Timing of public notice of an application 432

7:7-24.3 Contents and recipients of public notice of an application 433

7:7-24.4 Additional requirements for public notice of an application for a CAFRA individual permit 435

7:7-24.5 Content and format of newspaper notice 436

7:7-24.6 Documenting public notice of an application; documenting public notice of public comment period or public hearing on CAFRA individual permit application 438

SUBCHAPTER 25. APPLICATION FEES 438

7:7-25.1 Application fees 439

7:7-25.2 Adjustment of application fees 442

SUBCHAPTER 26. APPLICATION REVIEW 443

7:7-26.1 General application review provisions 443

7:7-26.2 Applications for all coastal general permit authorizations and applications for waterfront development and coastal wetlands individual permits – completeness review 445

7:7-26.3 CAFRA individual permit application – initial completeness review 446

7:7-26.5 CAFRA individual permit application – public hearing 448

7:7-26.6 Department decision on an application that is complete for review 450

7:7-26.7 Cancellation of an application 451

7:7-26.8 Withdrawal of an application 452

7:7-26.9 Re-submittal of an application after denial, cancellation, or withdrawal 452

7:7-26.10 Fee refund or credit when an application is returned, withdrawn, or cancelled 452

SUBCHAPTER 27. PERMIT CONDITIONS; MODIFICATION, TRANSFER, SUSPENSION, AND TERMINATION OF AUTHORIZATIONS AND PERMITS 453

7:7-27.1 Purpose and scope 453

7:7-27.2 Conditions that apply to all coastal permits 453

7:7-27.3 Extension of an authorization under a general permit or of a waterfront development individual permit for activities waterward of the mean high water line 456

7:7-27.4 Transfer of an emergency authorization, an authorization under a general permit or an individual permit 458

7:7-27.5 Modification of an authorization under a general permit or an individual permit 459

7:7-27.6 Application for a modification 461

7:7-27.7 Suspension of an authorization under a general permit, an individual permit, or an emergency authorization 462

7:7-27.8 Termination of an authorization under a general permit, an individual permit, or an emergency authorization 464

SUBCHAPTER 28. REQUESTS FOR ADJUDICATORY HEARINGS 465

7:7-28.1 Procedure to request an adjudicatory hearing; decision on the request 465

7:7-28.2 Procedure to request dispute resolution 466

7:7-28.3 Effect of request for hearing on operation of permit or authorization 467

7:7-28.4 Notice of certain settlement discussions on a coastal permit decision; notice of settlement agreement 467

SUBCHAPTER 29. ENFORCEMENT 468

7:7-29.1 General provisions 468

7:7-29.2 Issuance of an administrative order 468

7:7-29.3 Assessment, settlement, and payment of a civil administrative penalty 469

7:7-29.4 Procedures to request and conduct an adjudicatory hearing to contest an administrative order and/or a notice of civil administrative penalty assessment 470

7:7-29.5 Civil administrative penalties for failure to obtain a permit prior to conducting regulated activities 472

7:7-29.6 Civil administrative penalties for violations other than failure to obtain a permit prior to conducting regulated activities 476

7:7-29.7 Civil penalties 477

7:7-29.8 Civil actions 478

7:7-29.9 Criminal action 478

7:7-29.10 Grace period applicability; procedures 479

APPENDICES 486

APPENDIX A 486

APPENDIX B 488

APPENDIX C 491

APPENDIX D 494

APPENDIX E 503

APPENDIX F 504

APPENDIX G 505

APPENDIX H 598

APPENDIX I 600

APPENDIX J 604

SUBCHAPTER 1. GENERAL PROVISIONS

7:7-1.1 Purpose

(a) This chapter establishes the rules of the Department regarding the use and development of coastal resources**.** The rules are used in reviewing applications for coastal permits under the Coastal Area Facility Review Act, N.J.S.A. 13:19-1 et seq. (CAFRA permits), the Wetlands Act of 1970, N.J.S.A. 13:9A-1 et seq. (coastal wetlands permits), and the Waterfront Development Law, N.J.S.A. 12:5-3 (waterfront development permits). The rules are also used in the review of water quality certificates subject to Section 401 of the Federal Clean Water Act, 33 U.S.C. § 1341, and Federal consistency determinations under Section 307 of the Federal Coastal Zone Management Act, 16 U.S.C. § 1456. The rules also provide a basis for recommendations by the Program to the Tidelands Resource Council on applications for riparian grants, leases**,** and licenses.

(b) The Department interprets the "public health, safety, and welfare" clause in CAFRA (N.J.S.A. 13:19-10.f) and the Wetlands Act of 1970 (N.J.S.A. 13:9A-4.d) as providing for full consideration of the national interest in the wise use of coastal resources as required under the Federal Coastal Zone Management Act (16 U.S.C. §§ 1451 et seq.).

(c) Both the New Jersey Coastal Management Program and the Coastal Zone Management Rules are founded on the eight broad coastal goals described at (c)1 through 8 below. The coastal goals express results that the New Jersey Coastal Management Program strives to attain. Each goal is supplemented by related policies that set forth the means to realize that goal. The Coastal Zone Management Rules, including the coastal goals and policies set forth below, are enforceable policies of the New Jersey Coastal Management Program as approved under the Federal Coastal Zone Management Act (16 U.S.C. §§ 1451 et seq.). The New Jersey Coastal Management Program goals and supplemental policies are:

1. Healthy coastal ecosystems.
    i. Protect, enhance and restore coastal habitats and their living resources to promote biodiversity, water quality, aesthetics, recreation and healthy coastal ecosystems; and
    ii. Manage coastal activities to protect natural resources and the environment;
2. Effective management of ocean and estuarine resources.
    i. Develop and implement management measures to attain sustainable recreational and commercial fisheries;
    ii. Manage commercial uses to reduce conflict between users and encourage water-dependent uses; and
    iii. Administer the safe and environmentally sound use of coastal waters and beaches to protect natural, cultural and aesthetic resources, promote safe navigation, and provide recreational opportunities;
3. Meaningful public access to and use of tidal waterways and their shores.
    i. Preserve public trust rights to tidal waterways and their shores;
    ii. Preserve and enhance views of the coastal landscape to enrich aesthetic and cultural values and vital communities;
    iii. Conserve and increase safe, environmentally sound, and meaningful public access from both the land and water to the tidal waterways and their shores for recreation and aesthetic experiences;
    iv. Enhance public access by promoting adequate affordable public facilities and services;
    v. Balance diverse uses of tidal waterways and their shores; and
    vi. Protect, enhance and promote waterfront parks;
4. Sustained and revitalized water-dependent uses.

i. Encourage, sustain and enhance active port and other water-dependent facilities, and maritime uses;

ii. Encourage the redevelopment of inactive and under-utilized waterfront facilities for port, water-dependent and maritime uses;

iii. Conserve waterfront sites for water-dependent activities; and

iv. Manage dredging in an environmentally sound manner, promote environmentally sound and economically feasible dredged material management practices and preserve historic dredged material placement sites;

5. Coastal open space.

i. Preserve, enhance and restore open space including natural, scenic, historic and ecologically important landscapes that:

(1) Provide opportunities for passive and active recreation;

(2) Protect valuable wildlife and plant habitats and ecosystem health, foster aesthetic and cultural values;

(3) Minimize natural hazards; and

(4) Abate impacts from nonpoint sources of pollution;

ii. Promote and enhance public access to and use of open space where appropriate; and

iii. Promote strategies for the creation of open space;

6. Safe, healthy and well-planned coastal communities and regions.

i. Manage coastal activities and foster well-planned communities and regions that:

(1) Encourage mixed-use redevelopment of distressed waterfront communities including underutilized, abandoned and contaminated sites;

(2) Promote concentrated patterns of development;

(3) Ensure the availability of suitable waterfront areas for water dependent activities;

(4) Sustain coastal economies;

(5) Create vibrant coastal communities and waterfronts;

(6) Conserve water supply;

(7) Protect the natural environment;

(8) Minimize the threat of natural hazards to life and property;

(9) Provide meaningful public access to tidal waterways and their shores; and

(10) Preserve and restore significant historic and cultural resources and aesthetic coastal features;

ii. Maintain, enhance and encourage maritime uses;

iii. Preserve and enhance beach and dune systems and wetlands, and manage natural features to protect the public from natural hazards;

iv. Promote public health, safety and welfare;

v. Promote and implement strategies for the development of hazard mitigation plans; and

vi. Promote and implement strategies that eliminate or reduce risks to human health and the ecosystem from coastal activities;

7. Coordinated coastal decision-making, comprehensive planning and research.

i. Promote the attainment of the New Jersey Coastal Management Program goals by encouraging other government agencies to employ the policies which supplement the goals;

ii. Encourage incorporation of the coastal goals and supplemental policies into State, regional and municipal land use management, funding and acquisition programs within the coastal zone;

iii. Coordinate cooperative government sponsored and academic coastal research and information dissemination to foster informed decision-making;

iv. Ensure opportunities for public participation in coastal decision-making;

v. Encourage the preparation of comprehensive plans, including:

(1) Land acquisition plans that further the goals and supplemental policies of New Jersey's Coastal Management Program; and

(2) Special area management plans that protect significant natural resources and provide the opportunity for sound coastal dependent economic development; and

8. Coordinated public education and outreach.

i. Coordinate education and outreach activities on coastal issues; and

ii. Encourage coastal related education and participation opportunities for the public.

(d) The coastal land and water areas of New Jersey are diverse. The Coastal Zone Management rules address a wide range of land and water types (locations), current and potential land and water uses, and natural, cultural, social and economic resources in the coastal zone. In developing these rules, balances were struck among various conflicting, competing, and contradictory local, State, and national interests in coastal resources and in uses of coastal locations. This balancing and conflict-reducing approach reflects that coastal management involves consideration of a broad range of concerns in contrast to other resource management programs which are more limited in scope.

(e) The location rules (N.J.A.C 7:7-9 through 14), use rules (N.J.A.C. 7:7-15)**,** and resource rules (N.J.A.C. 7:7-16) stem from the coastal goals at (c) above. The Department does not expect

each proposed use of coastal resources to involve all location rules, use rules, and resource rules. Decision-making on proposed actions involves examining, weighing, and evaluating complex interests using the framework provided by this chapter. The Coastal Zone Management Rules provide a mechanism for integrating professional judgment by Department officials, as well as recommendations and comments by applicants, public agencies, specific interest groups, corporations, and citizens into the coastal decision-making process. In this process, interpretations of terms, such as "prudent," "feasible," "minimal," "practicable," and "maximum extent," as used in a rule or a combination of rules, may vary depending upon the context of the proposed use, location, and design.

7:7-1.2 Scope

(a) This chapter shall apply to actions and decisions by the Department, as described at (d) through (h) below, on uses and development of coastal resources within or affecting the coastal zone, which is described at (b) below.

(b) This chapter shall apply geographically to the New Jersey coastal zone, which comprises:

1. The CAFRA area;
2. Coastal waters, which are any tidal waters of the State and all lands lying thereunder. Coastal waters of the State of New Jersey extend from the mean high water line out to the three-geographical-mile limit of the New Jersey territorial sea, and elsewhere to the interstate boundaries of the States of New York, and Delaware and the Commonwealth of Pennsylvania, except as provided at (c) below;
3. All lands outside of the CAFRA area extending from the mean high water line of a tidal water body to the first paved public road, railroad, or surveyable property line existing on September 26, 1980, generally parallel to the waterway, provided that the landward boundary of the upland area shall be no less than 100 feet and no more than 500 feet from the mean high water line;
4. All areas containing tidal wetlands; and
5. The Hackensack Meadowlands District as defined by N.J.S.A. 13:17-4.

(c) In accordance with the decree of the United States Supreme Court in *State of New Jersey v. State of Delaware*, 552 *U.S.* 597, 623-24 (2008), the State of New Jersey may, under its laws, grant and thereafter exercise governing authority over ordinary and usual riparian rights for the construction, maintenance, and use of wharves and other riparian improvements appurtenant to the eastern shore of the Delaware River within the 12-mile circle and extending outshore of the mean low water mark. The 12-mile circle is the circle the radius of which is 12 miles, and the center of which is the building used prior to 1881 as the courthouse at New Castle, Delaware, the arcs of which are as set forth in the decree of the United States Supreme Court in *New Jersey v. Delaware*, 295 *U.S.* 694 (1935).

1. The State of Delaware may, under its laws and subject to New Jersey's authority over

riparian rights as stated at (c) above, exercise governing authority over the construction, maintenance, and use of those same wharves and other improvements appurtenant to the eastern shore of the Delaware River within the 12-mile circle and extending outshore of the low-water mark, to the extent that they exceed ordinary and usual riparian uses.

(d) This chapter shall apply to all coastal permits**.**

(e) This chapter shall apply to decisions on the consistency or compatibility of proposed actions by Federal, State, and local agencies within or affecting the coastal zone, including, but not limited to Federal consistency determinations, determinations of consistency or compatibility under the Federal Coastal Zone Management Act, comments on Draft and Final Environmental Impact Statements prepared under the National Environmental Policy Act, 42 U.S.C. §§ 4321 et seq., and comments on other public and private plans, programs, projects**,** and policies. This chapter shall also apply to decisions on proposed activities that require a water quality certificate. Requests for water quality certificates shall also be reviewed in accordance with all applicable statutes and regulations administered by the Department including the Surface Water Quality Standards, N.J.A.C. 7:9B.

1. An activity requiring a Federal consistency determination may also require a coastal permit. In this instance, the coastal permit is the Federal consistency determination.
2. An activity requiring a water quality certificate may also require a coastal permit. In this instance, the coastal permit will include the water quality certificate.
3. A water quality certificate not issued in conjunction with a coastal permit shall be valid for five years from the date of issuance or for the duration of the underlying Federal permit (without renewals), whichever period is shorter.
4. A Federal consistency determination or a water quality certificate issued in conjunction with an authorization under a coastal general permit-by-certification or a general permit shall be valid for the duration of that authorization.
5. A Federal consistency determination issued in conjunction with an individual coastal permit shall be valid for the duration of that individual permit.

(f) This chapter shall apply to State aid financial assistance decisions by the Department under the Shore Protection Program and Green Acres Program within the coastal zone, to the extent permissible under existing statutes and regulations.

(g) This chapter shall apply, to the extent statutorily permissible, to Department management actions**,** including permit decisions, approvals, certifications, conveyances, and compliance activities, in or affecting the coastal zone.

(h) This chapter shall provide the basic policy direction for planning actions undertaken by the Department in the coastal zone as the lead state agency for Coastal Management under Section 306 of the Federal Coastal Zone Management Act.

7:7-1.3 Review, revision, and expiration

As provided by the Federal Coastal Zone Management Act, the Department shall periodically review the rules and revise, amend, or readopt the rules in accordance with the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq.

7:7-1.4 Standards for evaluating permit applications

(a) All applications for coastal permits shall be approved, conditionally approved**,** or denied pursuant to this chapter.

(b) The Department shall issue a permit pursuant to CAFRA only upon a finding as required by N.J.S.A. 13:19-10 that the development:

1. Conforms with all applicable air, water and radiation emission and effluent standards and all applicable water quality criteria and air quality standards;
2. Prevents air emissions and water effluents in excess of the existing dilution, assimilative and recovery capacities of the air and water environments at the site and within the surrounding region;
3. Provides for the collection and disposal of litter, recyclable and solid waste in such a manner as to minimize adverse environmental effects and the threat to the public health, safety and welfare;
4. Would result in minimal feasible impairment of the regenerative capacity of water aquifers or other ground or surface water supplies;
5. Would cause minimal feasible interference with the natural functioning of plant, animal, fish and human life processes at the site and within the surrounding region;
6. Is located or constructed so as to neither endanger human life or property nor otherwise impair the public health, safety and welfare;
7. Would result in minimal practicable degradation of unique or irreplaceable land types, historical or archaeological areas and existing public scenic attributes at the site and within the surrounding region; and
8. Provides, pursuant to standards established in this chapter, onsite public access to the waterfront and adjacent shoreline, or offsite public access to the waterfront and adjacent shoreline if on-site public access is not feasible as determined by the Department.

7:7-1.5 Definitions

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise. Additional definitions specifically applicable to N.J.A.C. 7:7-13, Requirements for Impervious Cover and Vegetative Cover for General Land Areas and Certain Special Areas, are set forth at N.J.A.C. 7:7-13.2. Additional definitions specifically applicable to N.J.A.C. 7:7-17, Mitigation, are set forth at N.J.A.C. 7:7-17.1.

"Acceptable" means that a proposed use of coastal resources is likely to be approved.

"Administratively complete" means that every item required on the application checklist for the coastal permit being sought is included in the application.

"Amusement pier" means an elevated, pile-supported structure located on a beach and/or tidal water, seaward of a bulkhead or boardwalk, and perpendicular to the mean high water line, on which amusements are located. For purposes of this definition, "amusements" includes rides, games of skill or chance for prizes other than cash payoffs, and vendors of toys and/or other merchandise. "Amusements" also means bar and restaurant establishments and entertainment venues such as stage and band shells and associated seating areas. "Amusements" do not include games for cash payoffs.

"Area" means "site," as defined elsewhere in this section.

"Beach" means the special area described at N.J.A.C. 7:7-9.22(a).

"Beach berm" means the nearly horizontal part of the beach lying between the crest of the berm and the toe of the primary dune or first paved public right-of-way, whichever is more waterward. The berm is the sloping portion of the beach profile from the upper limit of wave up-rush to the lower limit of wave run-down at low tide.

"Bulkhead" means a vertical shore protection structure installed to withstand the forces of waves and currents. A bulkhead is not a "revetment" or a "gabion" as defined elsewhere in this section.

"CAFRA" means the Coastal Area Facility Review Act, N.J.S.A. 13:19-1 et seq.

"CAFRA area" means the "coastal area" defined in CAFRA at N.J.S.A. 13:19-4.

"Charitable conservancy" means a corporation or trust that meets the definition of a charitable conservancy at N.J.S.A. 13:8B-2. (Note: As of July 6, 2015, the definition of charitable conservancy at N.J.S.A. 13:8B-2 is a corporation or trust whose purposes include the acquisition and preservation of land or water areas or of a particular land or water area, or either thereof, in a natural, scenic or open condition, no part of the net earnings of which inures to the benefit of any private shareholder or individual, and which has received tax exemption under section 501(c) of the 1954 Internal Revenue Code.)

"City of the fourth class" means a city as defined at N.J.S.A. 40A:6-4d which borders on the Atlantic Ocean and which is a seaside or summer resort.

"Coastal bluff" means the special area described at N.J.A.C. 7:7-9.29(a).

"Coastal permit" or "permit" means a permit or an authorization issued under this chapter pursuant to CAFRA, the Wetlands Act of 1970, N.J.S.A. 13:9A-1 et seq., or the Waterfront Development Law, N.J.S.A. 12:5-3.

"Coastal zone" means the areas described at N.J.A.C. 7:7-1.2(b).

"Commercial development" means a development designed, constructed, or intended to accommodate commercial, retail, or office uses. "Commercial development" shall include, but need not be limited to, any establishment used for the wholesale or retail sale of food, beverage, or other merchandise, or any establishment used for providing professional, financial, or other commercial services.

"Commissioner" means the Commissioner of the Department, or designated representative.

"Complete for public comment" means that an application for a CAFRA individual permit is both administratively and technically complete and is ready for the public comment process set forth at N.J.A.C. 7:7-26.4.

"Complete for public hearing" means that an application for a CAFRA individual permit is both administratively and technically complete and is ready for the public hearing and comment process set forth at N.J.A.C. 7:7-26.5.

"Complete for review" means that an application for a coastal permit is both administratively and technically complete and is ready to be evaluated by the Department for compliance with the applicable requirements of this chapter. However, an application for a CAFRA individual permit is complete for review only when it is both administratively and technically complete and either the public comment process set forth at N.J.A.C. 7:7-26.4 or the public hearing and comment process set forth at N.J.A.C. 7:7-26.5 has been completed.

"Conditionally acceptable" means that a proposed use of coastal resources is likely to be acceptable, provided that conditions specified in the rules are satisfied.

"Conservation restriction" means a restriction, easement, covenant, or condition, in any deed, will or other instrument, other than a lease, executed by or on behalf of the owner of the land, appropriate to retaining land or water areas predominantly in their natural state, scenic or open or wooded condition, or for conservation of soil or wildlife, or for outdoor recreation or park use, or for public access to tidal waterways and their shores, or as suitable habitat for fish or wildlife, to forbid or limit any or all of the following:

1. Construction or placing of buildings, roads, signs, billboards or other advertising, or other structures on or above the ground;
2. Dumping or placing of soil or other substance or material as landfill, or dumping or placing of trash, waste or unsightly or offensive materials;
3. Removal or destruction of trees, shrubs or other vegetation;

4. Excavation, dredging or removal of loam, peat, gravel, soil, rock or other mineral substance;
5. Surface use except for the purposes permitting the land or water area to remain predominantly in its natural condition;
6. Activities detrimental to drainage, flood control, water conservation, erosion control or soil conservation, or fish and wildlife habitat preservation; and/or
7. Other acts or uses detrimental to the retention of land or water areas according to the purposes of this chapter.

"Critical infrastructure" means the same as "Homeland security facility."

"Deck" means a horizontal platform that is not enclosed by windows, walls, doors, or screens and is not covered by a roof.

"Department" means the Department of Environmental Protection.

"Development" means any activity for which a coastal wetlands permit, waterfront development permit, or Federal consistency determination is required, including site preparation and clearing. Development for an application under CAFRA means the construction, relocation, or enlargement of the footprint of development of any building or structure and all site preparation therefor, the grading, excavation, or filling on beaches and dunes, and shall include residential development, commercial development, industrial development, and public development. Development under CAFRA and the Waterfront Development Law does not include repairs or maintenance such as replacing siding, windows, or roofs, unless such repairs or maintenance are associated with enlargements which are not exempt under CAFRA pursuant to N.J.A.C. 7:7-2.2(c)4 or the Waterfront Development Law pursuant to N.J.A.C. 7:7-2.4(d). Development under CAFRA does not include debris removal or cleanup provided such activities do not involve excavation, grading, or filling on beaches and dunes.

"Discouraged" means that a proposed use of coastal resources is likely to be rejected or denied as the Department has determined that such uses of coastal resources should be deterred. In cases where the Department considers the proposed use to be in the public interest despite its discouraged status, the Department may permit the use provided that mitigating or compensating measures can be taken so that there is a net gain in quality and quantity of the coastal resource of concern.

"Division" means the Division of Land Use Regulation in the Department.

"Dredged material" means the sediment removed from below the spring high water line. In accordance with the Solid Waste rules at N.J.A.C. 7:26-1.6, dredged material is not considered a solid waste.

"Dredging" means the removal of sediment located waterward of the spring high water line. Dredging does not include excavation.

"Dune" means the special area described at N.J.A.C. 7:7-9.16(a).

"Duplex" means a residential structure of two attached units in which the interior living space of one unit directly abuts the interior living space of the other unit, either in a side-by-side arrangement sharing a common wall or in a lower unit-upper unit arrangement.

"Dwelling unit" means a house, townhouse, apartment, cooperative, condominium, cabana, hotel or motel room, a patient/client room in a hospital, nursing home or other residential institution, mobile home, campsite for a tent or recreational vehicle, floating home, or any other habitable structure of similar size and potential environmental impact, except that dwelling unit shall not mean a vessel as defined at N.J.S.A. 12:7-71.

"Electrical substation" means a subsidiary facility of an electric power system through which electricity is passed for transmission, transformation, or distribution. For example, an electrical substation may transform high voltage electricity to low voltage electricity for distribution. An electrical substation consists of the footprint of the substation equipment, the safety zone, and the area necessary for access and parking.

"Encouraged" means that a proposed use of coastal resources is acceptable and is a use, by its purpose, location, design, and effect, that the Department has determined should be fostered and supported in the coastal zone.

"Engineered beach" means a beach built in accordance with either:

1. A Federally authorized beach berm design template for shore protection and/or storm damage reduction purposes for which the Department has issued a Federal consistency determination under this chapter; or
2. A beach berm design template for shore protection and/or storm damage reduction purposes that has been funded through the New Jersey Shore Protection Program and for which the Department has issued a permit under this chapter.

For purposes of this definition, the beach berm design template is the height, width, slope, and length of the engineered beach.

"Engineered dune" means a dune built in accordance with either:

1. A Federally authorized dune design template for shore protection and/or storm damage reduction purposes for which the Department has issued a Federal consistency determination under this chapter; or
2. A dune design template for shore protection and/or storm damage reduction purposes that has been funded through the New Jersey Shore Protection Program and for which the Department has issued a permit under this chapter.

For purposes of this definition, the dune design template is the height, width, slope, and length of the engineered dune.

"Engineering certification" means a document, signed and sealed by a New Jersey licensed professional engineer, which confirms that one or more requirements of this chapter are met, and which is accompanied by all supporting documentation, calculations, and other information upon which the certification is based. Upon clear and compelling evidence of a threat to public health, safety, welfare, and the environment, a New Jersey licensed professional engineer employed by the Department can reject an engineering certification submitted under this chapter.

"Excavation" means the removal of soil or any other material located landward of the spring high water line.

"Federal consistency determination" means a determination by the Department of the consistency with this chapter of a proposed Federal action that has reasonably foreseeable effects on any land or water use or natural resource of the coastal zone pursuant to Section 307 of the Federal Coastal Zone Management Act, 16 U.S.C. § 1456. There are four types of Federal actions:

1. Federal agency activities, which are activities and development projects performed by a Federal agency, or a contractor for the benefit of the Federal agency;
2. Federal license or permit activities, which are activities performed by a non-Federal entity requiring a Federal permit, license, or other form of Federal authorization;
3. Outer Continental Shelf (OCS) Plans, which are the Department of the Interior, Bureau of Ocean Energy Management approvals of OCS plans, pursuant to the Outer Continental Shelf Lands Act, 43 U.S.C. §§ 1331 et seq.; and
4. Federal assistance to state and local governments, which are the applications for Federal financial assistance by state or local governments.

"FEMA" means the Federal Emergency Management Agency.

"FEMA flood mapping" means information published or publicly released by FEMA regarding the frequency, location, and/or extent of flooding in a community, such as flood elevations, flood profiles, flow rates, and floodway limits, and FEMA 100-year flood elevation as defined in the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13-1.2. For the purposes of this chapter, such information shall include only that information adopted as part of the most recent effective FEMA Flood Insurance Study, dated on or after January 31, 1980, or any more recent advisory or proposed (preliminary) flood mapping, if the more recent advisory or proposed (preliminary) mapping results in higher flood elevations, wider floodway limits, and greater flow rates, than depicted in the most recent effective FEMA Flood Insurance Study, or indicates a change from an A zone to a V zone or coastal A zone. Effective and proposed (preliminary) FEMA flood mapping can be viewed at https://msc.fema.gov and advisory flood mapping for coastal areas, where available, can be viewed at http://www.region2coastal.com. Questions regarding the availability, use, derivation, or modification of FEMA flood mapping should be directed to FEMA at (800) 358-9616.

"Filling" means the depositing of sand, gravel, earth or any other material.

"Floating home" means any waterborne structure designed and intended primarily as a permanent or seasonal dwelling, not for use as a recreational vessel, which will remain stationary for more than 10 consecutive days.

"Floodway" has the same meaning as the definition of that term in the Flood Hazard Area Control Act rules at N.J.A.C. 7:13-1.2.

"Footprint of development" means the vertical projection to the horizontal plane of the exterior of all exterior walls of a structure.

"Gabion" means a shore protection structure that is comprised of wire mesh basket(s) or mattress(es) filled with rock and used in multiples as a structural unit installed to withstand the forces of waves and currents. A gabion is not a "bulkhead" or a "revetment" as defined elsewhere in this section.

"Governmental agency" means the Government of the United States, the State of New Jersey, or any other state, or a political subdivision, authority, agency or instrumentality thereof, and shall include any interstate agency or authority.

"Grace period" means the period of time afforded under the Grace Period Law, N.J.S.A. 13:1D-125 et seq., for a person to correct a minor violation in order to avoid imposition of a penalty that would otherwise be applicable for such violation.

"Grading" means leveling off to a smooth horizontal or sloping surface.

"Habitable" with reference to structures or development means a structure or development that has been or could have been legally occupied in the most recent five-year period.

"Homeland security facility" means any facility deemed by the Department in consultation with the New Jersey Office of Homeland Security and Preparedness or the United States Department of Homeland Security to be either critical in nature or a key resource. These facilities may include, but are not limited to, airports and military facilities, certain transportation infrastructure, and certain chemical or energy facilities and utilities, marine terminal or transfer facilities, and freight or passenger rail lines.

"Impervious cover" means any structure, surface, or improvement that reduces and/or prevents absorption of stormwater into land. Porous paving, paver blocks, gravel, crushed stone, crushed shell, elevated structures (including boardwalks), and other similar structures, surfaces, or improvements are considered impervious cover. Grass, lawns, or any other vegetation are not considered impervious cover.

"Industrial development" means a development that involves a manufacturing or industrial process, and shall include, but is not limited to, electric power production, food and food by-product processing, paper production, agrichemical production, chemical processes, storage

facilities, metallurgical processes, mining and excavation processes, and processes using mineral products.

"Invasive plant species" means a plant species that is non-native (or alien) to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

"Linear development" means a development with the basic function of connecting two points, such as a road, drive, public walkway, railroad, sewerage pipe, stormwater management pipe, gas pipeline, water pipeline, or electric, telephone or other transmission lines.

"Living shoreline" means a shoreline management practice that addresses the loss of vegetated shorelines, beaches, and habitat in the littoral zone by providing for the protection, restoration or enhancement of these habitats. This is accomplished through the strategic placement of plants, stone, sand, or other structural and organic materials. There are three types of living shorelines: natural, hybrid, and structural. Natural living shorelines include natural vegetation, submerged aquatic vegetation, fill, and biodegradable organic materials. Hybrid living shorelines incorporate natural vegetation, submerged aquatic vegetation, fill, biodegradable organic materials, and low-profile rock structures such as segmented sills, stone containment, and living breakwaters seeded with native shellfish. Structural living shorelines include, but are not limited to, revetments, break-waters, and groins.

"Location" means "site," as defined elsewhere in this section.

"Major commercial development" means a commercial development with a cumulative building area of greater than 100,000 square feet.

"Man-made lagoon" means an artificially created linear waterway sometimes branched, ending in a dead end with no significant upland drainage. Lagoons have been created through dredging and filling of wetlands, bay bottom and other estuarine water areas for the purpose of creating waterfront lots for residential development adjacent to the lagoon. A natural waterway which is altered by activities including, but not limited to, filling, channelizing, or bulkheading shall not be considered a man-made lagoon, nor shall a bulkheaded boat slip be considered a lagoon.

"Mean high water" is a tidal datum that is the arithmetic mean of the high water heights observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). For the New Jersey coast, the two high waters of each tidal day are included in the mean. This datum is available from the Department, Bureau of Tidelands Management.

"Mean high water line" is the intersection of the land with the water surface at the elevation of mean high water. The elevation of mean high water varies along the oceanfront and the tidal bays and streams in the coastal zone.

1. For practical purposes, the mean high water line is often referred to as the "ordinary"

high water line, which is typically identified as the limit of wet sand or debris line on a beach, or by a stain line on a bulkhead or piling. However, for the purpose of establishing regulatory jurisdiction pursuant to CAFRA and the Waterfront Development Law, the surveyed mean high water elevation will be used.

"Minor commercial development" means a commercial development with a cumulative building area of 100,000 square feet or less.

"Mitigation area" means the portion of a site or piece of property upon which mitigation is proposed or performed. If a mitigation area includes a wetland, a wetland buffer is included as part of the mitigation area in accordance with N.J.A.C. 7:7-17.14(b).

"Mitigation bank" means an operation in which wetlands, uplands, and/or other aquatic resources are restored, created, enhanced, or preserved by a mitigation bank operator, for the purpose of providing compensatory mitigation.

"Mooring" means the structure and/or water area adjacent to the structure where boats and/or jet skis are secured by cables, anchors, or lines. Examples of moorings that are structures include docks, jet ski drive-on docks, bulkheads, boat lifts, pilings, and buoys.

"Navigable" means waters that are deep enough and wide enough to afford passage to watercraft, including canoes or kayaks, at high tide. Navigability will also apply to areas upstream of obstructions (for example, culverts), provided that the water course is still tidally influenced in the upstream area.

"NOAA" means the National Oceanic and Atmospheric Administration.

"Non-polluting material" means a material such as plastic, natural cedar or other untreated wood, polymer coated pressure-treated wood, concrete, steel or other inert products. Creosote and pressure-treated lumber (that is, treated with preservatives such as CCA-C, ACZA, CC, and ACQ) which is susceptible to leaching is not considered "non-polluting material."

"Non-waterward side of development" means the area of the site located landward of the line(s) drawn through point(s) of the footprint of the building closest to the water and parallel to the water body, which line extends to the property boundaries.

"Parcel" means the totality of all contiguous lots under common ownership on April 4, 2011.

"Person" means any corporation, corporate official, company, association, society, firm, partnership, individual, government agency, or joint stock company.

"Pesticide" means any substance defined as a pesticide pursuant to the provisions of N.J.A.C. 7:30.

"Porch" means a covered or uncovered entrance, directly connected to a residential dwelling.

"Prohibited" means that a proposed use of coastal resources is unacceptable and that the Department will use its legal authority to reject or deny the proposal.

"Property as a whole" means all property assembled as one investment or to further one development plan. The property as a whole may include more than one municipal tax block or lot. The property as a whole may also include blocks or lots that were previously sold or developed, if those blocks or lots and the remaining unsold or undeveloped blocks or lots were part of one investment or development plan. In determining the property as a whole in a particular case, the Department shall consider existing legal precedent regarding what constitutes "property as a whole" at the time of the determination.

"Public accessway" means a route that provides a means for the public to reach, pass along, and/or use lands and waters subject to public trust rights. Public accessways include streets, paths, trails, walkways, easements, paper streets, dune walkovers/walkways, piers and other rights-of-way.

"Public development" means a solid waste facility, including incinerators and landfills, wastewater treatment plant, public highway, airport including single or multi-air strips, an above or underground pipeline designed to transport petroleum, natural gas, or sanitary sewage, and a public facility, and shall not mean a seasonal or temporary structure related to the tourism industry, an educational facility or power lines. "Public development" does not have to be publicly funded or operated.

"Public highway" means a "public highway" as defined at N.J.S.A. 27:1B-3, namely public roads, streets, expressways, freeways, parkways, motorways**,** and boulevards, including bridges, tunnels, overpasses, underpasses, interchanges, rest areas, express bus roadways, bus pullouts and turnarounds, park-ride facilities, traffic circles, grade separations, traffic control devices, the elimination or improvement of crossings of railroads and highways, whether at grade or not at grade, and any facilities, equipment, property, rights-of-way, easements**,** and interests therein needed for the construction, improvement**,** and maintenance of highways.

"Public Trust Doctrine" means a common law principle that recognizes that the public has particular inalienable rights to certain natural resources. These resources include, but are not limited to, tidal waterways, the underlying submerged lands and the shore waterward of the mean high water line, whether owned by a public, quasi-public or private entity. In the absence of a grant from the State, submerged lands under tidal waterways and the shore of tidal waterways waterward of the mean high water line are owned by the State. Regardless of the ownership of these resources, under the Public Trust Doctrine, the public has rights of access to and use of these resources, as well as a reasonable area of shoreline landward of the mean high water line. Under the Public Trust Doctrine, the State is the trustee of these publicly owned resources and public rights for the common benefit and use of all people without discrimination. As trustee, the State has a fiduciary obligation to ensure that its ownership, regulation and protection of these

properties and rights will safeguard them for the enjoyment of present and future generations. The public rights to use these resources extend both to traditional activities such as navigation and fishing, but also to recreational uses such as swimming, sunbathing, fishing, surfing, sport diving, bird watching, walking and boating. The specific rights recognized under the Public Trust Doctrine, a common law principle, continue to develop through individual court decisions. See, for example, Arnold v. Mundy, 6 N.J.L. 1 (1821), Borough of Neptune v. Borough of Avon-by-the-Sea, 61 N.J. 296 (1972), Hyland v. Borough of Allenhurst, 78 N.J. 190 (1978); Matthews v. Bay Head Improvement Association, 95 N.J. 306 (1984); Slocum v. Borough of Belmar, 238 N.J.Super. 179 (Law Div. 1989); National Ass'n of Homebuilders v. State, Dept. of Envt'l Protect., 64 F.Supp.2d 354 (D.N.J. 1999); Raleigh Ave. Beach Ass'n v. Atlantis Beach Club, Inc., 185 N.J. 40 (2005); Illinois Central R.R. v. Illinois, 146 U.S. 387 (1892); Phillips Petroleum Co. v. Mississippi, 484 U.S. 469 (1988); Karam v. NJDEP, 308 N.J. Super. 225, 240 (App. Div. 1998), aff'd, 157 N.J. 187 (1999), cert. denied, 528 U.S. 814 (1999).

"Pumpout facility" means a facility intended to receive the discharge of wastewater from a marine sanitation device. Pumpout facilities include, but are not limited to, fixed pumpout stations, dockside pumpouts, portable pumpouts, pumpout boats, and dump stations.

"Qualifying municipality" means a municipality that qualifies under N.J.S.A. 52:27D-178 et seq. to receive State aid for the purpose of enabling such municipalities to maintain and upgrade municipal services and offset local property taxes. Under N.J.S.A. 52:27D-178 et seq., the Department of Community Affairs (DCA) establishes a list of qualifying municipalities for each State fiscal year. DCA's list of qualifying municipalities may be obtained on request from the Department at the address set forth at N.J.A.C. 7:7-1.6.

"Reconstruction" means the repair or replacement of a building, structure, or other parts of a development, provided that such repair or replacement does not increase or change the location of the footprint of the preexisting development, does not increase the area covered by buildings and/or asphalt or concrete pavement, and does not result in a change in the use of the development. Reconstruction of docks and piers means repair or replacement in the same location and size of the preexisting structure. Reconstruction does not include repairs or maintenance, such as replacing siding, windows, or roofs, unless such repairs or maintenance are associated with enlargements which are not exempt pursuant to N.J.A.C. 7:7-2.2(c)4.

"Redevelopment" means the development of a previously developed site that has been inactive, underutilized, or abandoned for five years or less.

"Regulated activity" or "activity" means any activity for which a permit is required under CAFRA, the Wetlands Act of 1970**,** or the Waterfront Development Law, and shall also include the terms "project" and "development."

"Regulated wetland" means any wetland which has been mapped and the map promulgated pursuant to the Wetlands Act of 1970.

"Residential development" means a development that provides one or more dwelling units.

"Revetment" means a sloped shore protection structure consisting of a facing made of stone, placed on a bank, bluff, or shoreline to withstand the forces of waves and currents. A revetment is not a "gabion" or "bulkhead" as defined elsewhere in this section.

"Rotor swept area" means the area of the circle delineated by the tips of the blades of the wind turbine for a horizontal axis wind turbine, and the area determined by multiplying the rotor radius times the rotor height times 3.14 for a vertical axis wind turbine.

"Seasonal or temporary structures related to the tourism industry" means lifeguard stands and associated temporary equipment storage containers, picnic tables, benches and canopies, beach badge sheds, wooden walkways, stage platforms, and portable restrooms, which remain in place only during the period from May 1 through October 31, and provided that the placement of such structures does not involve the excavation, grading or filling of a beach or dune.

"Sewer service area" means the land area identified in an areawide Water Quality Management plan from which wastewater generated is designated to flow to a domestic treatment works or industrial treatment works. A distinct sewer service area is established for each domestic treatment works and industrial treatment works. Adopted updates to sewer service area maps and proposed changes to sewer service areas can be viewed at https://www.nj.gov/dep/wrm.

"Site" means the lot or lots upon which a proposed development is to be constructed.

"Site plan" or "plan" means, for the purposes of this chapter, a graphic depiction of land, vegetation, water, structures, and other physical features on paper, such as a blueprint, construction plan, cross-section, topographic map, architectural rendering, or other similar illustration, which is submitted to the Department to describe an existing or proposed activity or condition.

"Site preparation" means physical activity which is an integral part of a continuous process of land development or redevelopment for a particular development which must occur before actual construction of that development may commence. It does not include the taking of soil borings, performing percolation tests, or driving of less than three test pilings.

"Solar panel" means an elevated panel or plate, or a canopy or array thereof, that captures and converts solar radiation to produce power, and includes flat plate, focusing solar collectors, or photovoltaic solar cells and excludes the base or foundation of the panel, plate, canopy, or array.

"Spring high water line" means the intersection of the land with the water surface at the elevation of spring high tide.

"Spring tide" means a tide that occurs at or near the time of new and full moon and which rises highest (spring high tide) and falls lowest (spring low tide) from the mean level.

"State Aid Agreement" means a binding agreement between the Department and a municipality or county for the construction of a shore protection project funded through the State Shore Protection Fund. The State Aid Agreement for Federally-funded projects contains the project agreement between the Department and the USACE which defines the project design template.

"Stormwater management facility" means a facility which receives, stores, conveys, or discharges stormwater runoff and is designed in accordance with all applicable local, county, and State regulations. A stormwater management facility may be a retention or detention basin; infiltration structure; grassed swale; filter fabric; rip-rap channel; and/or stormwater outfall.

"Structure" means any assembly of materials above, on**,** or below the surface of the land or water, including**,** but not limited to**,** buildings, fences, dams, pilings, footings, breakwaters, culverts, pipes, pipelines, piers, roads, railroads, and bridges, and includes floating structures.

"Technically complete" means that each item included in an application for a coastal permit other than a CAFRA individual permit provides sufficient information for the Department to declare the application complete for review. For an application for a CAFRA individual permit, technically complete means that each item included in the application provides sufficient information for the Department to determine the application is complete for public comment or complete for public hearing.

"Tidelands instrument" means a written document conveying, leasing or licensing lands owned or claimed to be owned as present or formerly flowed tidelands by the State of New Jersey to public entities or private interests pursuant to N.J.S.A. 12:3-1 et seq. and N.J.S.A. 13:1B-13 et seq. Tidelands instruments include licenses, long-term leases, conveyances (often called grants), and management agreements. These documents are recorded in the office of the clerk of the county or registrar of deeds and mortgages of the county in which the property is located.

"Tidelands Map" means the Tidelands Base Photo Map, adopted by the Department's Tidelands Resource Council under N.J.S.A. 13:1B-13.1 et seq., and which is dated 1977/1978.

"UCC" means the Uniform Construction Code, N.J.A.C. 5:23.

"Upland waterfront development area" means the area described at N.J.A.C. 7:7-2.4(a)3ii.

"USACE" means the United States Army Corps of Engineers.

"USEPA" means the United States Environmental Protection Agency.

"USFWS" means the United State Fish and Wildlife Service.

"USGS quad map" means a topographic quadrangle map issued by the United States Geological Survey (USGS), 7.5 minute series, drawn at a scale of 1:24,000.

"Water dependent" means development that cannot physically function without direct access to the body of water along which it is proposed. Uses, or portions of uses, that can function on sites not adjacent to the water are not considered water dependent regardless of the economic advantages that may be gained from a waterfront location. Maritime activity, commercial fishing, public waterfront recreation, and marinas are examples of water dependent uses, but only the portion of the development requiring direct access to the water is water dependent. The test for water dependency shall assess both the need of the proposed use for access to the water and the capacity of the proposed water body to satisfy the requirements and absorb the impacts of the proposed use. A proposed use will not be considered water dependent if either the use can function away from the water or if the water body proposed is unsuitable for the use. For example, in a maritime operation, a dock or quay and associated unloading area would be water dependent, but an associated warehouse would not be water dependent.

1. Examples of water dependent uses include: docks, piers, marina activities requiring access to the water, such as commissioning and decommissioning new and used boats, boat repairs and short term parking for boaters, storage for boats which are too large to be feasibly transported by car trailer (generally greater than 24 feet), rack systems for boat storage, industries such as fish processing plants and other commercial fishing operations, port activities requiring the loading and unloading of vessels, and water-oriented recreation.
2. Water dependent uses exclude, for example: housing, hotels, motels, restaurants, warehouses, manufacturing facilities (except for those which receive and quickly process raw materials by ship), dry boat storage for boats that can be transported by car trailer, long-term parking, parking for persons not participating in a water-dependent activity, boat sales, automobile junk yards, and non-water oriented recreation such as roller rinks and racquetball courts.

"Water oriented" means development that serves the general public and derives economic benefit from direct access to the water body along which it is proposed. (Industrial uses need not serve the general public.) A hotel or restaurant, since it serves the public, could be water-oriented if it takes full advantage of a waterfront location. An assembly plant could be water oriented if overland transportation is possible but water-borne receipt of raw materials and shipment of finished products is economically advantageous. Housing is not water-oriented despite the economic premium placed on waterfront housing, because it only benefits those who can afford to buy or rent the housing units.

"Water quality certificate" means a determination by the Department of the consistency with this chapter of an activity that proposes a discharge to waters of the United States that requires a Federal license or permit pursuant to Section 401 of the Federal Clean Water Act, 33 U.S.C. §

1341. Federal licenses and permits for which water quality certificates are issued include, but are not limited to:

1. NPDES permits by USEPA under Section 402 of the Federal Clean Water Act, 33 U.S.C. § 1342;
2. Permits for the discharge of dredged or fill material issued by the USACE under Section 404 of the Federal Clean Water Act, 33 U.S.C. §1 344;
3. Permits for activities that have a potential to discharge in navigable waters issued by the USACE under Sections 9 and 10 of the Rivers and Harbors Act, 33 U.S.C. §§ 403 and 404; and
4. Hydropower licenses issued by the Federal Energy Regulatory Commission under Sections 3(11), 4(e) and 15 of the Federal Power Act, 16 U.S.C. §§ 796(11), 797(e), and 808.

"Waters of the State" means the ocean and its estuaries, all springs, streams, wetlands, and bodies of surface or groundwater, whether natural or artificial, within the boundaries of the State of New Jersey or subject to its jurisdiction.

"Waters of the United States" means:

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), wetlands, mudflats, sand flats, sloughs, wet meadows, or natural ponds, the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
    i. Which are or could be used by interstate or foreign travelers for recreational or other purposes;
    ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce;
    iii. Which are used or could be used for industrial purposes by industries in interstate commerce;
    iv. Which are or would be used as habitat by birds protected by Migratory Bird Treaties;
    v. Which are or would be used as habitat by other migratory birds which cross state lines;
    vi. Which are or would be used as habitat for endangered and threatened species; or
    vii. Which are used to irrigate crops sold in interstate commerce;

4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs 1 through 4 of this definition;
6. The territorial seas; and
7. Wetlands adjacent to waters identified in paragraphs 1 through 6 of this definition, other than those that are themselves wetlands.

"Waterward side of development" means the area of the site located between a tidal water body and a line(s) drawn through point(s) of the footprint of the building closest to the water, and parallel to the water body, which line extends to the property boundaries (see Appendix A, herein incorporated by reference).

"Working day" means a day on which the offices of the Department are open for business.

7:7-1.6 Forms, checklists, information; Department address and website

(a) Forms, checklists, and other information related to this chapter can be obtained from the Division of Land Use Regulation at the address in (b) below, by telephone at (609) 984-0162, or through the Division's website at https://www.nj.gov/dep/landuse. Further information about the Department can be accessed at https://www. nj.gov/dep.

(b) Applications, fees, and other correspondence shall be submitted to the following addresses:

1. For regular mail:

   New Jersey Department of Environmental Protection

   Division of Land Use Regulation

   Mail code 501-02A, P.O. Box 420

   Trenton, NJ 08625;
2. For hand delivery, courier service, and overnight mail:

   New Jersey Department of Environmental Protection

   Division of Land Use Regulation

   501 East State Street

   5 Station Plaza, Second Floor

   Trenton, NJ 08609; and
3. For submittal of an application for authorization under a general permit-by-certification, the Department's website at https://www. nj.gov/dep/online.

(c) Questions regarding the requirements of this chapter or about the status of a particular application can be directed to the Division of Land Use Regulation Technical Support Center at

(609) 777-0454, via e-mail at LURTechSupport@dep.nj.gov, or by using an online contact form at https://www.nj.gov/dep/landuse/contact.html.

(d) Applications or other materials sent or delivered to the Department at an address other than those listed in (b) above shall not be deemed to have been received for the purposes of calculating application review deadlines or other time periods under this chapter.

7:7-1.7 Liberal construction

This chapter shall be liberally construed to effectuate the purpose of the Acts under which it was adopted.

7:7-1.8 Severability

If any subchapter, section, subsection, provision, clause, or portion of this chapter, or the application thereof to any person, is adjudged unconstitutional or invalid by a court of competent jurisdiction, such judgment shall be confined in its operation to the subchapter, section, subsection, provision, clause, portion, or application directly involved in the controversy in which the judgment was rendered and it shall not affect or impair the remainder of this chapter or the application thereof to other persons.

SUBCHAPTER 2. APPLICABILITY AND ACTIVITIES FOR WHICH A PERMIT IS REQUIRED

7:7-2.1 When a permit is required

(a) No person shall engage in a regulated activity subject to this chapter without a coastal permit. Initiation of a regulated activity without a coastal permit is considered a violation of this chapter and shall subject the person or persons responsible for the regulated activity to enforcement action in accordance with N.J.A.C. 7:7-29.

(b) A person undertaking any regulated activity under this chapter shall do so only in accordance with:

1. A permit-by-rule, pursuant to N.J.A.C. 7:7-3 and 4;
2. An authorization under a general permit-by-certification, pursuant to N.J.A.C. 7:7-3 and 5;
3. An authorization under a general permit, pursuant to N.J.A.C. 7:7-3 and 6;
4. An individual permit, pursuant to N.J.A.C. 7:7-8; or
5. An emergency authorization, pursuant to N.J.A.C. 7:7-21.

(c) Certain activities under CAFRA and the Waterfront Development Law are exempt from the requirement to obtain a coastal permit under this chapter. The exemptions and process for obtaining an exemption under CAFRA are set forth at N.J.A.C. 7:7-2.2(c) through (f) and under the Waterfront Development Law at N.J.A.C. 7:7-2.4(d), (f), and (h).

7:7-2.2 CAFRA

(a) Subject to the interpretation and definition of certain statutory terms as provided at (b) below and subject to the exemptions identified at (c) below, a CAFRA permit shall be required for:

1. Any development located on a beach or dune;
2. A development located in the CAFRA area between the mean high water line of any tidal waters, or the landward limit of a beach or dune, whichever is most landward, and a point 150 feet landward of the mean high water line of any tidal waters or the landward limit of a beach or dune, whichever is most landward, that would result either solely or in conjunction with a previous development, in:
    i. A development if there is no intervening development that is either completed or under active construction as of July 19, 1994 between the proposed site of the development and the mean high water line of any tidal waters;
    ii. A residential development having three or more dwelling units if there is an intervening development that is either completed or under active construction as of July 19, 1994 between the proposed site of the development and the mean high water line of any tidal waters;
    iii. A commercial development having five or more parking spaces or equivalent parking area if there is an intervening development that is either completed or under active construction as of July 19, 1994 between the proposed site of the development and the mean high water line of any tidal waters; or
    iv. A public development or industrial development;
3. A development located in the CAFRA area between a point greater than 150 feet landward of the mean high water line or any tidal waters or the landward limit of a beach or dune, whichever is most landward, and a point 500 feet landward of the mean high water line of any tidal waters or the landward limit of a beach or dune, whichever is most landward, which is located within the boundaries of a qualifying municipality or which is located within the boundaries of a city of the fourth class with a population of over 30,000 persons according to the latest decennial census, that would result, either solely or in conjunction with a previous development, in:
    i. A residential development having 25 or more dwelling units;
    ii. A commercial development having 50 or more parking spaces or equivalent parking area; or
    iii. A public development or industrial development;

4. A development located in the CAFRA area beyond 500 feet landward of the mean high water line of any tidal waters or the landward limit of a beach or dune, whichever is most landward, and which is located within the boundaries of a qualifying municipality or which is located within the boundaries of a city of the fourth class with a population of over 30,000 persons according to the latest decennial census, that would result, either solely or in conjunction with a previous development, in:
   i. A residential development having 75 or more dwelling units;
   ii. A commercial development having 150 or more parking spaces or equivalent parking area; or
   iii. A public development or industrial development; and
5. Except as otherwise provided above, a development in the CAFRA area at a point 150 feet landward of the mean high water line of any tidal waters or the landward limit of a beach or dune, whichever is most landward, that would result, either solely or in conjunction with a previous development in:
   i. A residential development having 25 or more dwelling units;
   ii. A commercial development having 50 or more parking spaces or equivalent parking area; or
   iii. A public development or industrial development.

(b) The Department interprets its obligation and responsibility to regulate development as defined by CAFRA to include review of the potential impacts of any development, if at least part of that development is located within the area in which a CAFRA permit is required. Therefore, if any development requires a CAFRA permit, the Department will review all of the components of the development, not just those that triggered the regulatory thresholds of CAFRA. In addition, the Department will review all the components of a development that spans the zones in (a) above if the total development exceeds a regulatory threshold. The Department interprets the statutory intent as excluding developments with relatively minor impacts. In addition, the repair and maintenance of utilities within rights-of-way on beaches and dunes are not development**,** provided that all disturbed areas are restored to their pre-disturbance condition. To that end, the following statutory terms are interpreted to mean the following, for the purposes of this section.

1. The method for determining whether an existing development is an intervening development is as follows:
   i. For proposed developments other than single family home or duplex and/or accessory development as described in (b)1ii below, extend a line landward and perpendicular to the mean high water line from each of the widest shore-parallel points of the footprint of the existing development (see Appendix B, incorporated herein by reference). If the proposed development does not fall entirely within these lines, then the existing development is not considered intervening development.
   ii. For a proposed single family home or duplex and/or accessory development (such as garages, sheds, pools, driveways, excluding shore protection structures) that is not

part of a larger development, extend a line landward and perpendicular to the mean high water line from each of the widest shore-parallel points of the footprint of the existing development (see Appendix C, incorporated herein by reference). If the proposed single family home or duplex and/or accessory development extends beyond these lines more than 15 feet on either side or a cumulative total of 20 feet, then the existing development is not considered intervening development.

iii. Existing developments that may be considered intervening development include above-ground structures such as houses, garages, cabanas or bath houses which are fully enclosed and serviced by a municipal sewer system, and commercial, industrial or public buildings provided the above-ground structure received all necessary Federal, State and local approvals and was:

(1) Completed or under active construction as of July 19, 1994;

(2) Exempt from CAFRA; or

(3) Constructed under a CAFRA permit.

iv. Existing developments that are not considered intervening development include shore protection structures, seawalls, bulkheads, retaining walls, gabions, revetments, fences, boardwalks, promenades, patios, decks, carports, prefabricated sheds without foundations, docks, piers, lifeguard stands, gazebos, swimming pools, utility lines, culverts, railroads, roadways, sewage pump stations, or seasonal or temporary structures associated with the tourism industry or constructed under the general permit for the construction of certain types of temporary and seasonal developments at hotels and motels, commercial developments**,** and multi-family residential developments of 75 units, N.J.A.C. 7:7-6.22.

2. If located in an area other than a beach or a dune, public development is not the following:

i. The maintenance, repair or replacement (including upgrade) of existing petroleum, sewage or natural gas pipelines, and associated pump stations and connection junctions, and electrical substations, located completely within paved roadways or paved, gravel, or cleared and maintained rights-of-way, provided that the replacement of sewage pipelines and associated pump stations does not result in an increase in the associated sewer service area;

ii. The maintenance, repair, modification, or replacement of sanitary system components other than pipelines and associated pump stations, including upgrading of systems from primary to secondary treatment, provided that an increase in capacity will not result;

iii. The construction, maintenance, repair or replacement (including upgrade) of water lines, telecommunication and cable television lines, including fiber optic cables, poles and transfer and/or switching stations associated with telecommunication lines, provided the transfer and/or switching station is located completely within paved roadways or paved, gravel, or cleared and maintained rights-of-way. This does not

include the construction of telecommunication towers such as cellular telephone towers;

iv. The maintenance, repair or replacement of existing and functional railroads and related structures located completely within cleared and maintained rights-of-way;

v. The maintenance and repair of existing stormwater management facilities which receive, store, convey or discharge stormwater runoff;

vi. The construction of less than 1,200 linear feet of new stormwater pipes;

vii. The construction or expansion of educational facilities;

viii. The construction of seasonal or temporary structures related to the tourism industry; or

ix. The construction, maintenance, repair or replacement of power lines.

3. In addition to the activities identified at (b)2 above, if located more than 150 feet from the mean high water line of any tidal waters, or the landward limit of a beach or a dune, whichever is most landward, public development is not the following:

   i. The construction of a new road, sanitary sewer pipeline, petroleum pipeline or natural gas pipeline of less than 1,200 feet in length or the extension of a road, sanitary sewer pipeline, stormwater management facility, petroleum pipeline or natural gas pipeline of less than 1,200 feet in length, not to exceed a cumulative total of 1,200 feet in any one municipality at any one site, unless the construction is located within a development requiring a CAFRA permit in which case it shall be considered part of the development for which a permit is required; or

   ii. The construction of telecommunication towers such as cellular telephone towers.

4. Equivalent parking areas will be calculated at 270 square feet per parking space, including one half of the associated aisle area, excluding access drives. This calculation shall apply to both paved and unpaved parking areas.

5. A development that is used solely for the storage of food or other merchandise, excluding storage of agrichemical and petroleum products, and that is not associated with any on-site manufacturing or industrial process and is not specifically included in the definition of industrial development at N.J.A.C. 7:7-1.5 is considered a "commercial development."

6. Municipal or other government administrative, public works**,** or emergency services buildings that are not specifically included in the definition of public development at N.J.A.C. 7:7-1.5 or parks which are publicly owned or controlled are considered commercial developments.

7. Churches, synagogues or other houses of worship are considered commercial developments.

8. Development or expansion of existing developments "either solely or in conjunction with a previous development" is described at (b)8i through iv below. "Previous development" includes developments that either were previously constructed after September 19, 1973

or developments that previously received a CAFRA permit which remains valid but the approved development has not yet been built. For the purposes of (b)8i, ii and iii below, contiguous parcels shall include, but not be limited to, those land areas which directly abut or are separated by a general access roadway or other right-of-way, including waterways, or those land areas which are part of a subdivision existing and under common ownership on or after September 19, 1973.

i. The construction of any residential or commercial development on contiguous parcels of property, regardless of present ownership, where there is a proposed sharing of infrastructure constructed to serve those parcels including, but not limited to, roads, utility lines, drainage systems, open spaces or septic drain fields;

ii. The construction of any residential or commercial development on contiguous parcels of property which were under common ownership on or after September 19, 1973, regardless of present ownership, or any subdivision or re-subdivision of a parcel of land which occurred after September 19, 1973;

iii. The construction of any residential or commercial development on contiguous parcels of property, where there is some shared pecuniary, possessory, or other substantial common interest by one or more individuals in the units;

iv. The addition of one or more parking spaces or dwelling units or equivalent to any existing dwelling units or parking spaces or equivalent parking area for which construction had commenced subsequent to September 19, 1973 where such addition, when combined with the existing dwelling units or parking area, results in a total exceeding the regulatory threshold. Any dwelling units or parking areas in existence on or before September 19, 1973 which have been determined by the Department to be exempt from the requirements of this subchapter due to on-site construction on or before September 19, 1973 will not be counted when determining if a new or expanded development exceeds the regulatory threshold.

(1) The addition of parking spaces by restriping is not regulated.

v. The total number of dwelling units or parking spaces in a new or expanded development need not be restricted to any single municipal tax block nor to any one period in time in order to require a permit;

vi. The construction of a development below the regulatory threshold as defined in this section, where such construction is part of a larger planned development in which the total development will exceed the regulatory threshold.

9. Commercial development not located on a beach or a dune and not located within 150 feet of the beach, dune or mean high water line unless there is an intervening development as described at (b)1 above, excludes development which:

i. Does not cause the number of parking spaces (either solely or in conjunction with the existing development) to exceed the regulatory threshold of the appropriate zone; or

ii. Does not propose development of any new parking spaces, regardless of whether the total number of existing parking spaces exceeds the regulatory threshold of the appropriate zone.

10. The elevating of an existing residential, commercial, industrial, or public building on pilings does not require a CAFRA permit, unless the elevating of the existing building is associated with an enlargement and such enlargement is not exempt under CAFRA pursuant to (c)4 below or unless the elevating of the existing building involves excavation, filling, or grading on a beach or a dune. Additional parking spaces located under a building elevated in accordance with this paragraph are not counted toward the parking space or equivalent parking area limits at (a) above.

11. Residential developments which include the offsite construction of more than 1,200 linear feet of new sewer pipelines or roads require a CAFRA permit regardless of the number of dwelling units. For all other residential developments which are not located on a beach or dune, whether a CAFRA permit is required is based on the number of dwelling units proposed only and not the length of roadways or sewer pipelines on-site.

12. The classification or removal from classification of the municipality in which a development is located as a "qualifying municipality" affects the requirement for a CAFRA permit for such development as follows:

i. If construction of the development under a valid CAFRA permit has been started and the municipality in which the development is located either becomes classified or is removed from classification as a "qualifying municipality," the permittee is obligated to comply with all conditions of the permit;

ii. If construction of the development under a valid CAFRA permit has not been started at a time when the municipality in which the development is located is classified as a "qualifying municipality" such that the development does not require a CAFRA permit under (a)3 or 4 above, the permittee need not comply with the conditions of the issued permit;

iii. If construction of the development is started in accordance with all necessary approvals at a time when the municipality in which the development is located is classified as a "qualifying municipality" such that the development does not require a CAFRA permit under (a)3 or 4 above, and if subsequently the municipality is removed from classification as a "qualifying municipality," the Department shall not require a CAFRA permit for the development provided construction continues to completion with no lapses in construction that cumulatively total one year or more;

iv. If site plan approval is obtained for the development pursuant to the Municipal Land Use Law (N.J.S.A. 40:55D-1 et seq.) at a time when the municipality in which the development is located is classified as a "qualifying municipality" such that the development does not require a CAFRA permit under (a)3 or 4 above, and if subsequently the municipality is removed from classification as a "qualifying municipality," the Department shall not, for a period of one year from the date that the municipality is removed from classification as a "qualifying municipality,"

require a CAFRA permit for the development, provided construction is started within this one-year period and continues through completion with no lapses in construction that cumulatively total one year or more;

v. If preliminary subdivision approval is obtained for a residential development pursuant to the Municipal Land Use Law (N.J.S.A. 40:55D-1 et seq.), and no subsequent site plan approval is required, at a time when the municipality in which the development is located is classified as a "qualifying municipality" such that the development does not require a CAFRA permit under (a)3 or 4 above, and if subsequently the municipality is removed from classification as a "qualifying municipality," the Department shall not, for a period of one year from the date that the municipality is removed from classification as a "qualifying municipality," require a CAFRA permit for the development, provided construction is started within this one-year period and continues through completion with no lapses in construction that cumulatively total one year or more;

vi. For the purposes of (b)12iii through v above, construction means having completed one of the following, as approved as part of the municipal site plan or subdivision approval:

(1) The foundation for one of the buildings or structures;

(2) The subsurface improvements for the roadways; or

(3) The bedding for utilities.

vii. Development under (b)12iii through v above is limited to the specific project depicted on the approved site plan or for residential developments only, the specific project that was the subject of the subdivision approval, namely development of the subdivision which is consistent with the lot coverage, use and density restrictions of the zoning ordinances that were in effect at the time of the subdivision approval or that were authorized by the subdivision approval.

13. Development is not the following:

i. The installation of a wind turbine(s) provided the wind turbine(s) is:

(1) On or structurally attached to a legally existing building;

(2) Less than 200 feet in height, measured from the ground surface to the tip of the blade at its highest position;

(3) No greater than 2,000 square feet in cumulative rotor swept area; and

(4) Any portion of the tower of the wind turbine more than 100 feet above the ground surface is a freestanding monopole;

ii. The installation of a solar panel(s) provided the solar panel(s) is:

(1) On or structurally attached to a legally existing building;

(2) On or structurally attached to a utility pole (electric, telephone, cable and lighting) within a maintained utility right-of-way or on or structurally attached to a parking lot light pole;

(3) On legally existing impervious cover unless the solar panel would be located in a floodway; or

(4) On a sanitary landfill provided the solar panel is authorized under a solid waste landfill closure and post-closure plan or disruption approval issued by the Department pursuant to N.J.A.C. 7:26-2A.8 or 2A.9; or

iii. The rehabilitation and use of an existing dredged material management area within the same footprint.

(c) A CAFRA permit shall not be required for:

1. A development which received preliminary site plan approval pursuant to the Municipal Land Use Law, N.J.S.A. 40:55-1 et seq., or a final municipal building or construction permit on or before July 19, 1994, provided that construction began by July 19, 1997, and continues to completion with no lapses in construction activity of more than one year;

i. An exemption under this section is granted only for the specific project depicted on the approved site plan or described in the building or construction permit.

ii. Any development that required a permit pursuant to CAFRA prior to July 19, 1994**,** shall continue to require a CAFRA permit and shall not be exempted under this section.

iii. For purposes of this paragraph, "construction" means having completed one of the following as approved as part of the site plan:

(1) The foundation for one of the buildings or structures;

(2) All of the subsurface improvements for roadways;

(3) The installation of all of the bedding materials for utility lines; or

(4) The installation of a well or septic system, for projects which are exempt based on receipt of a final municipal building or construction permit.

iv. To determine if construction of a development or part of a development began by July 19, 1997, the Department shall evaluate such proofs as may be provided by the applicant, including, but not limited to, the following: documentation that the local construction official has completed the inspection at N.J.A.C. 5:23-2.18(b)1i(2) or 2.18(b)1i(3) for foundations of buildings or structures; reports from the municipal engineer documenting inspections of road bed construction; or billing receipts documenting the completion of the above construction activities.

v. In the event the final municipal building or construction permit expired and the permit was renewed or a new permit was obtained for the same project, the development will remain exempt provided construction began by July 19, 1997. In

cases where the municipal approval expired and was renewed or that a new permit was issued, the Department will require documentation that the new or renewed permit authorized the same construction as the original permit, and that the currently authorized construction would not result in additional adverse impacts to any special areas as defined at N.J.A.C. 7:7-9 that are greater than any adverse impacts associated with the development authorized before July 19, 1994, and the proposed construction is either 15 feet inshore of a bulkhead or no closer to the water than the original approval.

2. A residential development which received preliminary subdivision approval or minor subdivision approval pursuant to the Municipal Land Use Law, N.J.S.A. 40:55D-1et seq.**,** on or before July 19, 1994**,** where no subsequent site plan approval is required, provided that construction began by July 19, 1997, and continues to completion with no lapses in construction activity of more than one year;

   i. An exemption under this section is granted only for the specific project that was the subject of the subdivision approval, namely development of the subdivision which is consistent with the lot coverage, use and density restrictions of the zoning ordinances that were in effect at the time of the subdivision approval or that were authorized by the subdivision approval.

   ii. Any development that required a permit pursuant to CAFRA prior to July 19, 1994**,** shall continue to require a CAFRA permit and shall not be exempted under this section.

   iii. For purposes of this paragraph, "construction" means having completed one of the following as approved as part of the subdivision approval:

      (1) The foundation for one of the buildings or structures;

      (2) All of the subsurface improvements for roadways; or

      (3) The installation of all of the bedding materials for utility lines.

   iv. To determine if construction of a development or part of a development began by July 19, 1997, the Department shall evaluate such proofs as may be provided by the applicant, including, but not limited to, the following: documentation that the local construction official completed the inspection at N.J.A.C. 5:23-2.18(b)1i(2) or 2.18(b)1i(3) for foundations of buildings or structures; reports from the municipal engineer documenting inspections of road bed construction; or billing receipts documenting the completion of the above construction activities.

3. The reconstruction of any development which was legally existing on and damaged subsequent to July 19, 1994 that is damaged or destroyed, in whole or in part, by fire, storm, natural hazard or act of God, provided that such reconstruction is in compliance with existing requirements or codes of municipal, State and Federal law; and further provided that such reconstruction does not result in:

   i. The enlargement or relocation of the footprint of the development; or

ii. An increase in the number of dwelling units or parking spaces within the development.

iii. A relocation landward or laterally may qualify for the exemption at (c)3 above if the Department determines, in writing, that such a relocation would result in less environmental impact than the in place reconstruction of damaged or destroyed development.

iv. Any person requesting a determination concerning relocation landward shall follow the procedures for an exemption determination at (f)2 below.

v. An increase in the area covered by buildings and/or asphalt or concrete pavement.

4. The enlargement of any building provided that such enlargement does not result in:

i. The enlargement of the footprint of the development; or

ii. An increase in the number of dwelling units or parking spaces associated with the building;

5. The construction of a patio, deck, or similar structure at a residential development, provided such construction does not result in the grading, excavation, or filling of a beach or dune.

i. For the purposes of this paragraph, "similar structure" includes porches, balconies and verandahs. The exemption for the construction of a patio, deck, porch, balcony or veranda only remains in effect as long as the patio, deck, porch, balcony or veranda remains used for the purpose that it was originally constructed. Further, the exemption shall not include the placement of any structure such as a pool, roof or enclosure with walls or windows on a patio, deck, porch, balcony or veranda. Such activities will require a CAFRA permit.

ii. For the purposes of this paragraph, the following shall be considered "similar structures" at a residential development, provided that their construction does not include the placement of pilings or placement of a structure on a beach, dune, or wetland: fences, flower boxes, gardens, a landscape wall (for example, railroad ties) no more than one foot in height (or a series of walls not to exceed a cumulative total of one foot in height), satellite dishes and antennas, and wooden boardwalks and gravel or brick/paver block walkways.

iii. For the purposes of this paragraph, the following shall also be considered "similar structures" at a residential development, provided that their construction does not include the placement of pilings or placement of a structure on a beach, dune, wetland or coastal bluff: sheds (with a footprint of 120 square feet or less), open carports, gazebos, propane tanks properly anchored, and showers, spas, hot tubs and above ground swimming pools (not exceeding 500 square feet of surface area) which do not discharge to surface waters or wetlands.

iv. For the purposes of this paragraph, the construction of elevated timber or at-grade dune walkover structures constructed in accordance with Department specifications

found at N.J.A.C. 7:7-10.4(d) and (e)1, 2, and 3, respectively, shall be considered a "similar structure" at a residential development.

v. For the purposes of this paragraph, the following shall not be considered "similar structures" at a residential development: swimming pools, garages, retaining walls, bulkheads, revetments, driveways and associated parking areas, paved yard areas, or outbuildings, except as provided at (c)5iii above.

6. Services provided, within the existing public right-of-way, by any government entity which involve:

   i. The routine reconstruction, substantially similar functional replacement, or maintenance or repair of public highways. The paving of an existing unpaved roadway is not considered to be a substantially similar functional replacement;

   ii. Public highway lane widening, intersection and shoulder improvement projects (including new paving or repaving) which do not increase the number of travel lanes;

   iii. Public highway signing, lighting, guide rail and other nonintrusive safety projects, including traffic control devices; or

   iv. Re-striping of public highways and the addition of toll booths provided that these activities do not result in any increase in asphalt or concrete pavement.

7. Any development that has an existing, valid CAFRA permit dated prior to July 19, 1994**,** provided that construction, as defined at N.J.A.C. 7:7-2.2(c)1iii, begins prior to the expiration date of the permit and continues with no cumulative lapses in construction activity of more than one year.

8. The expansion of an existing, functional amusement pier, provided such expansion does not exceed the footprint of the existing, functional amusement pier by more than 25 percent, and provided such expansion is located in the area beyond 150 feet landward of the mean high water line, beach or dune, whichever is most landward.

(d) Any exemption based upon on-site construction, as defined at N.J.A.C. 7:7-2.2(c)1iii on or before September 19, 1973**,** expired on July 19, 1997.

(e) A development shall no longer be exempt from the requirement of obtaining a CAFRA permit if significant changes are made to the development which would void the approvals listed at (c)1and 2 above, or which would result in additional impacts to special areas, as defined at N.J.A.C. 7:7-9, which additional impacts are greater than the impacts associated with the originally exempt development.

(f) Development that is exempt from CAFRA requires no certification or approval from the Department, except as may be required by other programs administered by the Department. Any person who wishes may request from the Department a written determination of a development's exemption from the requirements of this chapter.

1. For an exemption pursuant to (c)1 and 2 above, the following shall be submitted:
   i. A folded copy of the approved site plan or subdivision plan, a copy of the resolution approving the site plan or subdivision, or a copy of the building permit and approved plan and soil conservation district approval where required;
   ii. In the event that the final municipal building or construction permit expired and the permit was renewed or a new permit was obtained for the same project, the development will remain exempt provided construction began by July 18, 1997. To make such a determination, the Department will require documentation that the new permit authorized exactly the same construction as the original permit, such as a copy of the original building permit with approved plan and soil conservation district approval where required and a copy of the new building permit with approved plan depicting the exact development as the original;
   iii. The fee specified at N.J.A.C. 7:7-25.1; and
   iv. A completed application form described at N.J.A.C. 7:7-23.4(a)1 and available from the Department at the address set forth at N.J.A.C. 7:7-1.6.
2. For an exemption pursuant to (c)3, 4, and 5 above, the following shall be submitted:
   i. Plans showing the existing structures and site conditions with locations and dimensions, and all proposed structures, filling, grading, excavation and clearing;
      (1) For exemptions based on fire, storm, natural hazard or Act of God, the site plans submitted shall also indicate all preexisting structures to be rebuilt.
   ii. Photographs of the site;
   iii. The fee specified at N.J.A.C. 7:7-25.1; and
   iv. A completed application form described at N.J.A.C. 7:7-23.4(a)1 and available from the Department at the address set forth at N.J.A.C. 7:7-1.6.
3. For an exemption pursuant to (c)8 above, the following shall be submitted:
   i. A description of the location of the amusement pier including county, municipality, lot(s) and block(s);
   ii. A copy of a site plan showing the location of the existing, functional amusement pier and the proposed location of the expansion;
   iii. Documentation concerning the size of the footprint of the existing functional amusement pier and the size of the proposed expansion;
   iv. Photographs of the site;
   v. The fee specified at N.J.A.C. 7:7-25.1; and
   vi. A completed application form described at N.J.A.C. 7:7-23.4(a)1 and available from the Department at the address set forth at N.J.A.C. 7:7-1.6.

7:7-2.3 Coastal wetlands

(a) Coastal wetlands permits are required for all activities in coastal wetlands delineated and mapped pursuant to the Wetlands Act of 1970 including, but not limited to:

1. The cultivation and harvesting of naturally occurring agricultural or horticultural products. This provision shall not apply to the continued production of commercial salt hay or other agricultural crops on lands utilized for these purposes on or before April 13, 1972;
2. The excavation of an individual mooring slip;
3. The maintenance or repair of bridges, roads, highways, railroad beds or the facilities of any utility or municipality. This provision shall not apply to emergency repairs necessitated by a natural disaster or a sudden and unexpected mechanical, electrical or structural failure. Written notification of such repairs shall be provided to the Program within seven days after their initiation;
4. The construction of catwalks, piers, docks, landings, footbridges and observation decks;
5. The installation of utilities;
6. Excavation of boat channels and mooring basins;
7. The construction of impoundments;
8. The construction of sea walls;
9. The diversion or appropriative use of water;
10. The use of pesticides, except those applied to the skin or clothing for personal use;
11. Driving or causing to pass over or upon wetlands, any mechanical conveyance which may alter or impair the natural contour of the wetlands or the natural vegetation; and
12. Filling, excavation or the construction of any structure.

(b) The following activities are prohibited on regulated wetlands:

1. Placing, depositing or dumping any solid waste, garbage, refuse, trash, rubbish or debris;
2. Dumping or discharging treated or untreated domestic sewage or industrial wastes, either solid or liquid;
3. Applying any pesticide on areas containing significant stands of high vigor *Spartina alterniflora* (Saltmarsh cordgrass), *Zizania aquatica* (Wildrice), *Typha sp.* (Cattail), and *Scirpus americanus* (common threesquare) as shown generally on wetlands maps;
4. The storage or disposal of pesticides;
5. The application of persistent pesticides.

(c) These rules shall be applicable only in those areas shown waterward of the upper wetland boundary on the coastal wetlands maps (base map photography dated 1971, 1972) listed in chapter Appendix D and incorporated herein by reference.

7:7-2.4 Waterfront development

(a) The waterfront area regulated under this chapter varies in width in accordance with the following:

1. Within any part of the Hackensack Meadowlands District delineated at N.J.S.A. 13:17-4, the area regulated by this section shall include any tidal waterway of this State and all lands lying thereunder, up to and including the mean high water line.
2. Within the CAFRA area, the regulated waterfront area shall include any tidal waterway of this State and all lands lying thereunder, up to and including the mean high water line.
3. In those areas of the State outside both the CAFRA area and outside of the Hackensack Meadowlands District, the regulated waterfront area shall include:
   i. All tidal waterways and lands lying thereunder, up to and including the mean high water line; and
   ii. Adjacent upland areas within 100 feet of the mean high water line. For properties within 100 feet of the mean high water line that extend inland beyond 100 feet from the mean high water line, the regulated waterfront area shall extend inland to the lesser of the following distances:
      (1) 500 feet from the mean high water line; or
      (2) To the first paved public road, railroad, or surveyable property line that:
         (A) Existed on September 26, 1980; and
         (B) Generally parallels the waterway.
4. In the 12-mile circle as described at N.J.A.C. 7:7-1.2(c), the regulated waterfront area shall include the area within the circle and extending outshore of the low-water mark of the Delaware River consistent with the decree of the United States Supreme Court in *State of New Jersey v. State of Delaware*, 552 *U.S.* 597, 623-24 (2008). The area landward of the boundary of the 12-mile circle is regulated waterfront area as set forth at (a)2 and 3 above.

(b) This chapter shall apply to all man-made waterways and lagoons subject to tidal influence.

(c) The development activities at (c)1 through 4 below will require a permit in that portion of the waterfront area at or waterward of the mean high water line. In accordance with N.J.A.C. 7:7-1.2(c), within the 12-mile circle, these development activities require a permit if the development activity affects New Jersey's riparian rights. Development activities that affect New Jersey's riparian rights include, but are not limited to, the construction, maintenance, and use of wharves

and other riparian improvements appurtenant to the eastern shore of the Delaware River that extend outshore of the mean low water line or will help to maintain access from the navigable water to such improvement.

1. The removal or deposition of sub-aqueous materials (for example, dredging or filling).
2. The construction or alteration of a dock (fixed or floating), wharf, pier (including covered or enclosed structures such as gazebos or sheds located on or above the decking of the dock, wharf or pier), bulkhead, breakwater, groin, jetty, seawall, bridge, piling, boat lift, mooring dolphin, pipeline, cable, or other similar structure.
3. The mooring of a floating home for more than 10 consecutive days. Floating homes in use within the waters of this State prior to June 1, 1984**,** shall not require a permit.
4. The installation of temporary aids to navigation by any person, if they remain in place for more than 10 consecutive days.

(d) A permit shall be required for the construction, reconstruction, alteration, expansion**,** or enlargement of any structure, or for the excavation or filling of any area, any portion of which is in the waterfront area as defined in (a) above, with the exceptions listed below:

1. In the waterfront area defined in (a)3 above, the construction, alteration, expansion or reconstruction of an individual single family dwelling unit or addition to such unit, if constructed more than 100 feet landward of the mean high water line;
2. In the waterfront area defined in (a)3 above, the reconstruction, conversion, alteration or enlargement of any existing structure located more than 100 feet landward of the mean high water line, provided that no change in land use results, and that enlargements do not exceed 5,000 square feet;
3. In the waterfront area defined in (a)3 above, minor additions to or changes in existing structures or manufacturing operations that do not result in adverse environmental impacts to special areas defined at N.J.A.C. 7:7-9, provided the addition is located in an existing cleared area of the site, and is set back a minimum of 15 feet landward of the mean high water line, where such changes or additions do not result in a change in the present land use of the site;
4. In the waterfront area defined in (a)3 above, the installation of a wind turbine(s) provided the wind turbine(s) is:
    i. On or structurally attached to a legally existing building;
    ii. Less than 200 feet in height, measured from the ground surface to the tip of the blade at its highest position;
    iii. No greater than 2,000 square feet in cumulative rotor swept area; and
    iv. Any portion of the tower of the wind turbine more than 100 feet above the ground surface is a freestanding monopole;
5. In the waterfront area defined in (a)3 above, the installation of solar panels provided the

solar panels are:

i. On or structurally attached to a legally existing building;

ii. On or structurally attached to a utility pole (electric, telephone, cable and lighting) within a maintained utility right-of-way or on or structurally attached to a parking lot light pole;

iii. On legally existing impervious cover provided the solar panels are not located within a floodway; or

iv. On a sanitary landfill provided the solar panel is authorized under a solid waste landfill closure and post-closure plan or disruption approval issued by the Department pursuant to N.J.A.C. 7:26-2A.8 or 2A.9;

6. The repair, replacement, renovation, or reconstruction, in the same location and size, as determined in accordance with (d)6i and ii below of the preexisting structure, of any dock, wharf, pier, bulkhead, or building, legally existing prior to January 1, 1981, that appears on the applicable Tidelands Map or that appears on the applicable coastal wetlands map identified pursuant to N.J.A.C. 7:7-2.3(c) and chapter Appendix D or that received a waterfront development permit subsequent to the date of the Tidelands Map or coastal wetlands map, as applicable, provided that the repair, replacement, renovation, or reconstruction is in the same location as the preexisting structure, and does not increase the size of the structure and the structure is used solely for residential purposes or for the docking of or servicing of pleasure vessels.

   i. The size of a dock or pier over wetlands, a low-profile bulkhead where the top of the bulkhead is constructed at an elevation below the spring high water line, or a building over wetlands or water shall be measured in three dimensions, that is, length, width, and height; and

   ii. The size of any dock, wharf, pier**,** or bulkhead, or building not identified at (d)6i above shall be measured in two dimensions, that is, length and width;

7. The repair, replacement, renovation, or reconstruction, in the same location and size, as measured in two dimensions, that is, length and width, of the preexisting structure, of any floating dock, mooring raft, or similar temporary or seasonal improvement or structure, legally existing prior to January 1, 1981, that appears on the applicable Tidelands Map, or that appears on the applicable coastal wetlands map identified pursuant to N.J.A.C. 7:7-2.3(c) and chapter Appendix D, or that received a waterfront development permit subsequent to the date of the Tidelands Map or coastal wetlands map, as applicable, provided that the repair, replacement, renovation, or reconstruction is in the same location and size as the preexisting structure, and does not exceed in length the waterfront frontage of the parcel of real property to which it is attached and is used solely for the docking of servicing of pleasure vessels; and

8. The redecking and replacement of bridge surfaces provided there is no change in width, length or height.

(e) Those portions of a dock or pier proposed to be constructed landward of the mean high water line and in the coastal zone may be subject to the permits-by-rule at N.J.A.C. 7:7-4.4 and 4.5.

(f) Development that is exempt from the Waterfront Development Law requires no certification or approval from the Department, except as may be required by other programs administered by the Department. Any person who wishes may request from the Department a written determination of a development's exemption from the requirements of this chapter.

1. For a written determination of exemption pursuant to (d)1 and 2 above, the following shall be submitted:
   - i. A completed application form described at N.J.A.C. 7:7-23.4(a)1 and available from the Department at the address set forth at N.J.A.C. 7:7-1.6;
   - ii. A written description of the proposed development;
   - iii. The general site location of the development, which shall be identified on a county or local road map or an insert from a USGS quad map;
   - iv. The fee specified at N.J.A.C. 7:7-25.1; and
   - v. A site plan depicting the following:
     - (1) The location of the proposed construction, reconstruction, alteration, conversion expansion, or enlargement; and
     - (2) The location of the mean high water line.
2. For a written determination of exemption pursuant to (d)3 above, the following shall be submitted:
   - i. A completed application form described at N.J.A.C. 7:7-23.4(a)1 and available from the Department at the address set forth at N.J.A.C. 7:7-1.6;
   - ii. A written description of the proposed development;
   - iii. The general site location of the development, which shall be identified on a county or local road map or an insert from a USGS quad map;
   - iv. The fee specified at N.J.A.C. 7:7-25.1; and
   - v. A site plan depicting the following:
     - (1) The location of the proposed construction, reconstruction, alteration, conversion expansion, or enlargement;
     - (2) The location of the mean high water line; and
     - (3) The limits of all special areas as defined at N.J.A.C. 7:7-9.
3. For a written determination of exemption pursuant to (d)4 above, the following shall be submitted:

i. A completed application form described at N.J.A.C. 7:7-23.4(a)1 and available from the Department at the address set forth at N.J.A.C. 7:7-1.6;

ii. A written description of the proposed development;

iii. The fee specified at N.J.A.C. 7:7-25.1;

iv. The total height and rotor swept area of the proposed wind turbine(s); and

v. A site plan depicting the following:

(1) The location of the proposed wind turbine(s);

(2) The height of the wind turbine(s) in relation to the ground surface elevation; and

(3) Details of the wind turbine monopole.

4. For a written determination of exemption pursuant to (d)5 above, the following shall be submitted:

i. A completed application form described at N.J.A.C. 7:7-23.4(a)1 and available from the Department at the address set forth at N.J.A.C. 7:7-1.6;

ii. A written description of the proposed development;

iii. The fee specified at N.J.A.C. 7:7-25.1;

iv. A site plan depicting the following:

(1) The location of the proposed solar panels; and

(2) The floodway, if appropriate; and

v. If located on a sanitary landfill, a copy of the Closure and Post-Closure Care Plan or modified plan as approved by the Department in accordance with the Solid Waste Management rules at N.J.A.C. 7:26.

5. For a written determination of exemption pursuant to (d)6 above, the following shall be submitted:

i. A completed application form described at N.J.A.C. 7:7-23.4(a)1 and available from the Department at the address set forth at N.J.A.C. 7:7-1.6;

ii. A written description of the proposed development;

iii. The fee specified at N.J.A.C. 7:7-25.1; and

iv. A site plan depicting the following:

(1) The location of the proposed activity; and

(2) The mean high water line.

6. For a written determination of exemption pursuant to (d)6 and 7 above, the following shall be submitted:

i. A completed application form described at N.J.A.C. 7:7-23.4(a)1 and available from the Department at the address set forth at N.J.A.C. 7:7-1.6;

ii. A written description of the proposed development;

iii. The fee specified at N.J.A.C. 7:7-25.1;

iv. A copy of the Tidelands instrument (grant, lease or license);

v. If applicable, a copy of any previous waterfront development permit issued for the structures to be replaced, renovated or reconstructed;

vi. A copy of the applicable portion of the Tidelands Map or coastal wetlands map showing the location and dimensions of the structures to be replaces, renovated**,** or reconstructed;

vii. Photograph(s) of the existing structures labeled as to orientation;

viii. The general site location of the development, which shall be identified on a county or local road map or an insert from a USGS quad map; and

ix. A site plan showing the location and dimensions of the structures to be replaced, renovated or reconstructed.

7. For a written determination of exemption pursuant to (d)8 above, the following shall be submitted:

i. A completed application form described at N.J.A.C. 7:7-23.4(a)1 and available from the Department at the address set forth at N.J.A.C. 7:7-1.6;

ii. A written description of the proposed development;

iii. The fee specified at N.J.A.C. 7:7-25.1; and

iv. A site plan depicting the location of the existing and proposed bridge surface to be redecked.

(g) A waterfront development permit is required for the filling of any lands formerly flowed by the tide, if any filling took place after 1914 without the issuance of a tidelands instrument by the Department of Environmental Protection and Tidelands Resource Council or their predecessor agencies, even where such lands extend beyond the landward boundary of the upland area defined in (a)3 above, or up to and including the mean high water line in the areas defined in (a)1 and 2 above.

1. A waterfront development permit application submitted under this subsection must be submitted in conjunction with an application for a tidelands instrument.

(h) A waterfront development permit shall not be required for any development or activity in the upland area defined in (a)3 above and in manmade waterways and lagoons for which on-site construction, excluding site preparation, was in progress on or prior to September 26, 1980. For the purpose of this section, "construction, excluding site preparation" does not include clearing vegetation, bringing construction materials to the site, site grading or other earth work associated

with preparing a site for construction or structures. For the purposes of this section, "construction, excluding site preparation" does encompass improvements which include, but are not limited to, paved roads, curbs, and storm drains.

1. Any person who believes that a proposed development is exempt from the requirements of this subchapter due to on-site construction may request in writing a determination of exemption from the Department in accordance with (g)2 below.
2. Exemptions shall be applied for and considered upon submission of information sufficient for the Department to determine that the physical work specified in (g)1 above necessary to begin the construction of the proposed development, was actually performed prior to September 26, 1980 in the area defined in (a)3 above.
    i. Any lapse in construction activity of more than one year may be cause for denial of an exemption request, or where previously exempted, it may be cause for revocation of such exemption, by the Department.
    ii. A finding that a proposed development is exempt from the requirements of this subchapter shall apply only to the development as conceived and designed prior to September 26, 1980. Any modification which expands or substantially changes the exempted development shall require a permit.

7:7-2.5 Obtaining an applicability determination

(a) A person may request a written applicability determination from the Department to determine the applicability of CAFRA, the Wetlands Act of 1970 (N.J.S.A. 13:9A-1 et seq.), and/or the Waterfront Development Law (N.J.S.A. 12:5-3 et seq.) to a proposed project. An applicability determination is optional, but the Department encourages persons to request one if there is uncertainty about whether a particular activity is regulated, since conducting unauthorized activities may result in enforcement action.

(b) A person requesting an applicability determination shall submit to the Department, at the address set forth at N.J.A.C. 7:7-1.6, the following:

1. A completed applicability determination/pre-application request form available from the Department at the address set forth at N.J.A.C. 7:7-1.6, including a written description of the site and the proposed development including the dimensions, number, and uses of any proposed structures; the length of any proposed linear development; and the number of any parking spaces proposed;
2. A copy of the site plan or survey for the proposed project; and
3. A copy of a USGS quad map or local street map with the project site clearly indicated.

SUBCHAPTER 3. GENERAL PROVISIONS FOR PERMITS-BY-RULE, GENERAL PERMITS-BY-CERTIFICATION, AND GENERAL PERMITS

7:7-3.1 Purpose and scope

This subchapter sets forth the standards for the Department to issue, by rulemaking, permits-by-rule, general permits-by-certification, and general permits; the use of these permits to conduct authorized activities; the standards governing the use of more than one of these permits on a single site; the duration of authorizations under these permits; and the conditions that apply to these permits.

7:7-3.2 Standards for issuance, by rulemaking, of permits-by-rule, general permits-by-certification, and general permits

(a) The Department will, in accordance with the rulemaking provisions of the New Jersey Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq., promulgate each permit-by-rule, general permit-by-certification, or general permit after publication of a notice of rule proposal in the New Jersey Register and consideration of public comment

(b) The Department will promulgate a permit-by-rule, general permit-by-certification, or general permit only if all of the following conditions are met:

1. The Department determines that the regulated development will cause only minimal adverse environmental impacts when performed separately, will have only minimal cumulative adverse impacts on the environment, and is in keeping with the legislative intent to protect and preserve the coastal area from inappropriate development;
2. The Department determines that the development will be in conformance with the purposes of applicable statutes; and
3. The Department has provided public notice and an opportunity for public comment with respect to the proposed permit-by-rule, general permit-by-certification, or general permit. After a general permit-by-certification or general permit has been promulgated pursuant to this subchapter, the Department will not hold public hearings on individual applications for authorization under a general permit-by-certification or general permit.

(c) Each permit-by-rule, general permit-by-certification, or general permit shall contain a specific description of the type(s) of development which are authorized, including limitations for any single operation, to ensure that the conditions of (b)1 and 2 above are satisfied. At a minimum, these limitations shall include:

1. The size and type of the development that may be undertaken; and
2. A precise description of the geographic area to which the permit-by-rule, general permit-by-certification, or general permit applies.

(d) The Department will include in each permit-by-rule, general permit-by-certification, or general permit promulgated pursuant to this subchapter appropriate conditions applicable to particular types of sites or development which must be met in order for a proposed development or activity to qualify for authorization under the permit-by-rule, general permit-by-certification, or general permit.

(e) The Department may, by undertaking rulemaking in accordance with (a) above, **r**epeal a permit-by-rule, general permit-by-certification, or general permit, and thereafter require individual permits for development previously covered by the permit-by-rule, general permit-by-certification, or general permit, if it finds that the permit-by-rule, general permit-by-certification, or general permit no longer meets the purposes of applicable statutes and of this chapter.

7:7-3.3 Use of a permit-by-rule, or an authorization pursuant to a general permit-by-certification or a general permit to conduct regulated activities

(a) An activity that meets the requirements of a permit-by-rule may be conducted without prior Department approval, except that activities under the permits-by-rule at N.J.A.C. 7:7-4.4, 4.5, and 4.9 may be conducted only after the Department has issued the waterfront development permit that is a necessary condition of those permits-by-rule.

(b) An activity that meets the requirements of a general permit-by-certification may be conducted when the person proposing to conduct the activity receives the automatic authorization resulting from completion of the application submission through the Department's electronic permitting system in accordance with N.J.A.C. 7:7-5.

(c) An activity that meets the requirements of a general permit may be conducted when the person proposing to conduct the activity receives authorization from the Department in accordance with N.J.A.C. 7:7-26.

(d) A permit-by-rule or an authorization under a general permit-by-certification or general permit does not relieve the person conducting the authorized regulated activities from the obligation to obtain any other applicable permits or approvals required by law.

7:7-3.4 Use of more than one permit on a single site

(a) A person may undertake a regulated activity more than once on a single site. The activity may be authorized each time under a single permit-by-rule, general permit-by-certification, or general permit, provided the individual limits and conditions of the permit are not exceeded.

(b) A person may undertake more than one regulated activity on a single site. The activities may be authorized under one or more permit-by-rule, general permit-by-certification and/or general permit, provided the individual limits and conditions of each permit are not exceeded.

(c) Once the limits and conditions of a permit-by-rule, general permit-by-certification, and/or general permit have been reached on a single site:

1. No further activities under that permit can be authorized on that site, regardless of how much time passes, or whether the site is subsequently subdivided or transferred to a new owner; and

2. A person seeking to undertake the regulated activity on that site must obtain an individual permit under this chapter authorizing the regulated activity.

(d) On a single site, the following may be used in combination with an individual permit:

1. Any permit-by-rule;
2. An authorization under any general permit-by-certification; or
3. An authorization under one or more of the following general permits:
   i. General permit 4 for the development of one or two single-family homes or duplexes, at N.J.A.C. 7:7-6.4;
   ii. General permit 5 for the expansion or reconstruction (with or without expansion) of a single-family home or duplex, at N.J.A.C. 7:7-6.5; or
   iii. General permit 12 for the landfall of utilities, at N.J.A.C. 7:7-6.12.

7:7-3.5 Duration of an authorization under a general permit-by-certification

(a) An authorization under a general permit-by-certification is valid for five years from the date of issuance of the authorization.

(b) The five-year term of an authorization under a general permit-by-certification shall not be extended.

(c) All regulated activities being conducted pursuant to an authorization under a general permit-by-certification shall immediately cease if the authorization expires.

(d) If an authorization under a general permit-by-certification expires and the person intends to commence or continue the regulated activities, the person shall obtain a new authorization or permit under this chapter authorizing the regulated activities.

7:7-3.6 Duration of an authorization under a general permit for which an application was declared complete for review prior to July 6, 2015

(a) This section sets forth the duration of an authorization under a general permit for which the application was declared complete for review prior to July 6, 2015. The duration of an authorization under a general permit for which an application is declared complete for review on or after July 6, 2015 is set forth in N.J.A.C. 7:7-3.7.

(b) An authorization governed by this section is valid for five years from the date of issuance of the authorization.

(c) The five-year term of an authorization governed by this section shall not be extended.

(d) Except where construction has commenced under (e) below, all regulated activities being conducted pursuant to an authorization governed by this section shall immediately cease if the authorization expires.

(e) If construction pursuant to an authorization governed by this section was commenced prior to the expiration of the authorization, construction can continue to completion provided there are no cumulative lapses in construction activity of greater than one year.

1. For the purposes of this subsection, "construction" means having completed the foundations for buildings or structures, the subsurface improvements for roadways, or the necessary excavation and installation of bedding materials for utility lines. To determine if construction of a development or part of a development has begun, the Department shall evaluate such proofs as may be provided by the applicant including, but not limited to, the following: documentation that the local construction official has completed the inspection at N.J.A.C. 5:23-2.18(b)1i(2) or (b)1i(3) for foundations of structures; reports from the municipal engineer documenting inspections of road bed construction; or billing receipts documenting the completion of the above construction activities. "Construction" does not include clearing vegetation, bringing construction materials to the site, or site grading or other earth work associated with preparing a site for construction.

(f) If construction pursuant to an authorization governed by this section is not commenced prior to the expiration of the authorization, construction can commence and subsequently continue only if a new authorization or permit under this chapter is obtained authorizing the regulated activity.

7:7-3.7 Duration of an authorization under a general permit for which an application is deemed complete for review on or after July 6, 2015

(a) This section sets forth the duration of an authorization under a general permit for which the application is declared complete for review on or after July 6, 2015. The duration of an authorization under a general permit for which an application was declared complete for review prior to July 6, 2015 is set forth in N.J.A.C. 7:7-3.6.

(b) Except as provided in (c) below, an authorization governed by this section is valid for five years from the date of issuance of the authorization.

(c) The five-year term of an authorization governed by this section may be extended one time for five years pursuant to N.J.A.C. 7:7-27.3.

(d) All regulated activities being conducted pursuant to an authorization governed by this section shall immediately cease if the authorization expires, including any extension thereof under N.J.A.C. 7:7-27.3.

(e) If an authorization governed by this section expires and the person intends to commence or continue the regulated activities, the person shall obtain a new authorization or permit under this chapter authorizing the regulated activities.

1. If no regulated activities have occurred prior to the expiration of the authorization, the Department shall issue a new authorization under the general permit only if the project is revised where necessary to comply with the requirements of this chapter in effect when the application for the new authorization is declared complete for review;
2. If any regulated activities have occurred prior to the expiration of the authorization, the Department shall issue a new authorization under the general permit only if the project is revised where feasible to comply with the requirements of this chapter in effect when the application for the new authorization is declared complete for review. In determining the feasibility of compliance with the requirements in effect at the time the application is declared complete for review, the Department shall consider the amount of construction that has been completed prior to the expiration of the original authorization, the amount of reasonable financial investment that has been made in the original design consistent with the requirements applicable under the original authorization, and whether continuing construction as approved under the original authorization would have an adverse impact on the environment.

7:7-3.8 Conditions applicable to a permit-by-rule, or to an authorization pursuant to a general permit-by-certification or a general permit

(a) A person conducting regulated activities pursuant to a permit-by-rule, or pursuant to an authorization under a general permit-by-certification or general permit, shall comply with:

1. The conditions set forth in the permit-by-rule, general permit-by-certification, or general permit itself; and
2. The conditions that apply to all permits at N.J.A.C. 7:7-27.2.

(b) In addition to the conditions that apply to every authorization pursuant to a general permit under (a) above, the Department shall establish conditions in a specific authorization pursuant to a general permit, on a case-by-case basis, as required to ensure the authorized regulated activity meets all applicable requirements of this chapter and its enabling statutes.

SUBCHAPTER 4. PERMITS-BY-RULE

7:7-4.1 Permit-by-rule 1 - expansion of a single-family home or duplex

(a) This permit-by-rule authorizes the expansion of a legally constructed, habitable single-family home or duplex on the non-waterward sides of the single-family home or duplex, provided the expansion:

1. Is not proposed on a beach, dune, or wetland;

2. Meets the requirements of N.J.A.C. 7:7-9.25; and
3. Does not exceed a cumulative surface area of 400 square feet on the property constructed after July 19, 1994. For example, a 200 square foot expansion of a single family home or duplex could be authorized under this permit-by-rule and an additional 200 square foot expansion could later be authorized under this permit-by-rule, since the cumulative footprint of the development for both expansions would not exceed 400 square feet on the property. However, a property on which a 300-square-foot expansion was already constructed pursuant to a permit-by-rule would not be eligible for another permit-by-rule subsequently for an additional 200-square-foot expansion since the cumulative total footprint of development for both expansions would exceed 400 square feet.

7:7-4.2 Permit-by-rule 2 - development of a single-family home or duplex and/or accessory development on a bulkheaded lagoon lot

(a) This permit-by-rule authorizes the development (including expansion or reconstruction and expansion) of a single-family home or duplex and/or accessory development (such as garages, sheds, pools driveways, grading, excavation and clearing excluding shore protection structures) provided the single family home or duplex and accessory development are located on a bulkheaded lagoon lot and provided the proposed single-family home or duplex and/or accessory structures comply with all of the following:

1. Development under this permit-by-rule shall not result in development of more than one single-family home or duplex either solely or in conjunction with a previous development as defined at N.J.A.C. 7:7-2.2(b)8;
2. The site is located on a man-made lagoon lot, with an existing bulkhead along the entire waterfront portion of the site;
3. All waterfront portions of the site are protected by a currently serviceable bulkhead;
4. There are no wetlands on the site landward of the bulkhead;
5. The proposed single family home or duplex and accessory structures, excluding decks, are set back a minimum of 15 feet from the waterward face of the bulkhead. If there is no alternative to locating the proposed single family home or duplex and accessory structures at least 15 feet landward of the bulkhead, the setback shall be reduced if an engineering certification is provided demonstrating that, after the proposed development has been constructed, the shore protection structure can be replaced within 18 inches of the existing bulkhead and a conservation restriction is recorded for the property which states that any reconstruction of a bulkhead shall be within 18 inches of the existing bulkhead;
6. A silt fence is erected landward of the bulkhead with a 10-foot landward return on each end prior to construction. This fence shall be maintained and remain in place until all construction and landscaping activities are completed;

7. If the development includes the construction of a driveway, any newly constructed portion of the driveway shall be covered with a permeable material or else be pitched to drain all runoff onto permeable areas of the site;
8. The development shall meet the requirements of N.J.A.C. 7:7-9.25;
9. The single family home or duplex shall be serviced by an existing municipal sewer system; and
10. All sub-gravel liners must be made of filter cloth or other permeable material.

7:7-4.3 Permit-by-rule 3 - placement of public safety or beach/dune ordinance signs on beaches or dunes and placement of signs on beaches or dunes at public parks

(a) This permit-by-rule authorizes the placement of:

1. Public safety or beach/dune ordinance signs on beaches and dunes**,** provided no footings are required**;** and
2. Signs on beaches or dunes at public parks by governmental entities.

7:7-4.4 Permit-by-rule 4 - construction of nonresidential docks, piers, boat ramps, and decks located landward of mean high water line

(a) This permit-by-rule authorizes the construction of nonresidential docks, piers**,** and boat ramps located landward of the mean high water line, provided that a waterfront development permit has been obtained for the construction waterward of the mean high water line.

(b) The structure shall meet the following requirements:

1. The width of the structure landward of the mean high water line shall not exceed the width of the structure waterward of the mean high water line; and
2. For docks and piers, the width of the structure over wetlands shall not exceed six feet and the height of the structure shall be a minimum of four feet.

(c) This permit-by-rule also authorizes the construction of a nonresidential deck located landward of the mean high water line, provided**:**

1. The deck is not located on a beach, dune**,** or wetland;
2. The construction does not require clearing of forest vegetation; and
3. The deck does not exceed a footprint area of 400 square feet.

(d) This permit-by-rule does not authorize a boat ramp located within wetlands.

(e) The waterfront development permit for the construction waterward of the mean high water line may include additional conditions (including**,** but not limited to**,** public access to the waterfront) on the upland construction to ensure compliance with this chapter.

7:7-4.5 Permit-by-rule 5 - construction of portion of a recreational dock or pier located landward of mean high water line

(a) This permit-by-rule authorizes the construction of the portion of a recreational dock or pier located landward of the mean high water line at a residential development, provided that a waterfront development permit has been obtained for the construction waterward of the mean high water line.

(b) The structure shall meet the following requirements:

1. The width of the structure landward of the mean high water line shall not exceed the width of the structure waterward of the mean high water line; and
2. Over wetlands, the width of the structure shall not exceed six feet and the height of the structure shall be a minimum of four feet.

(c) The waterfront development permit for the construction waterward of the mean high water line may include additional conditions on the upland construction to ensure compliance with this chapter. For example, the waterfront development permit may have a condition requiring the dock to cross the wetlands at the narrowest point on the property or to allow continued access along the shoreline.

7:7-4.6 Permit-by-rule 6 - reconstruction of a residential or commercial development within the same footprint

(a) Other than reconstruction within the CAFRA area that meets the exemption from a CAFRA permit at N.J.A.C. 7:7-2.2(c)3, this permit-by-rule authorizes the reconstruction, within the same footprint, of a legally constructed residential or commercial development that has been or could have been legally occupied in the most recent five-year period, provided that such reconstruction**:**

1. Is in compliance with existing requirements or codes of municipal, State, and Federal law;
2. Does not result in the enlargement or relocation of the footprint of the development;
3. In the case of a residential development, does not result in an increase in the number of dwelling units;
4. In the case of a commercial development, does not result in an increase in the number of parking spaces or equivalent paved area associated with the development;
5. Meets the requirements of N.J.A.C. 7:7-9.25; and
6. Does not increase the area covered by buildings and/or asphalt or concrete pavement.

(b) This permit-by-rule does not apply to repairs or maintenance of the residential or commercial development, such as replacing siding, windows or roofs.

7:7-4.7 Permit-by-rule 7 – expansion or relocation (with or without expansion) landward or parallel to the mean high water line of the footprint of a residential or commercial development

(a) This permit-by-rule authorizes the expansion or relocation (with or without expansion) landward or parallel to the mean high water line of the footprint of a legally constructed residential development, including accessory development such as sheds, garages, pools, and driveways, or commercial development that has been or could have been legally occupied in the most recent five-year period, provided:

1. The expansion or relocation is in compliance with the applicable requirements or codes of municipal, State and Federal law;
2. Except as provided in (a)8 below, the expansion or relocation is not proposed on a beach, dune, or wetland;
3. In the case of residential development, the expansion does not result in an increase in the number of dwelling units;
4. In the case of commercial development, the expansion does not result in an increase in the number of parking spaces or equivalent parking area associated with the development;
5. Except as provided in (a)8 below, the expansion or relocation does not result in additional impacts to special areas as defined at N.J.A.C. 7:7-9;
6. The expansion or relocation meets the requirements of N.J.A.C. 7:7-9.25 and 9.26; and
7. The expansion does not increase the surface area of the footprint of the development by a cumulative total of more than 400 square feet on the property constructed after July 19, 1994. For an example of how the cumulative total limitation would apply, see (a)3 above.
8. Where the expansion includes structures such as stairs or an ADA-compliant ramp, which are constructed only for access to a residential or commercial development required to be elevated pursuant to the New Jersey Uniform Construction Code, N.J.A.C. 5:23, in accordance with the Flood Hazard Area Control Act rules, N.J.A.C. 7:13, there is no feasible alternative location for these structures outside of a beach, dune, wetland, or other special areas as defined at N.J.A.C. 7:7E-3. ADA means the Americans with Disabilities Act of 1990 (42 USC sect. 1201 et seq.).

7:7-4.8 Permit-by-rule 8 - construction of a utility line attached to a bridge or culvert

(a) This permit-by-rule authorizes the construction of a utility line, including cable (for example, electric, television, or fiber optic), telecommunication, wastewater, petroleum, natural gas, or water, attached to a bridge or culvert. This permit-by-rule applies only to that portion of the utility line that will be constructed across the tidal waterway up to the mean high water line, provided a tidelands instrument has been obtained for the utility line. The construction of the utility line shall comply with the following:

1. No excavation, dredging or filling shall be undertaken within the water body over which the utility line crosses;
2. The utility line shall be firmly attached to the existing bridge or culvert structure so that no part of the utility line, its encasement, or any attachment device extends above or below the existing bridge or culvert structure;
    i. If the crossing is a bridge, the utility line, its encasement, and all attachment devices shall be located entirely above the elevation of the low chord of the superstructure and entirely below the elevation of the bridge surface;
    ii. If the crossing is a culvert, the utility line, its encasement, and all attachment devices shall be located entirely above the overt elevation of the culvert and entirely below the elevation of the top of the culvert;
    iii. If the utility line is a pipeline that conveys any substance other than potable water, the utility line shall be sufficiently encased within ductile iron or concrete to protect the utility line from damage from impact with floating debris during floods; and
    iv. If there is a predominant direction of flow within the water body, the utility line shall be attached to the downstream face of the bridge or culvert;
3. The installation of the utility line shall have no adverse impacts to special areas as described at N.J.A.C. 7:7-9; and
4. Construction equipment shall be operated from land, the top of the bridge or culvert, or from barges, and shall under no circumstances be allowed to enter the water body**.**

(b) This permit-by-rule does not relieve the permittee from the obligation of obtaining all necessary approvals from the U.S. Army Corps of Engineers.

7:7-4.9 Permit-by-rule 9 - previous filling of tidelands associated with an existing single family home or duplex

(a) Where a single family home or duplex is proposed or exists on a lot which was previously filled and is not part of a larger development, the prior filling of any lands on the lot formerly flowed by the tide shall be considered by the Department to be authorized under this permit-by-rule, provided the filling appears on the applicable Tidelands Map.

(b) This permit-by-rule applies only if a tidelands instrument has been obtained for all filled tidelands areas.

7:7-4.10 Permit-by-rule 10 - construction of portion of boat ramp located landward of the mean high water line at a residential development

(a) This permit-by-rule authorizes the construction of the portion of a boat ramp landward of the mean high water line at a residential development, provided that a waterfront development permit has been obtained for the construction waterward of the mean high water line.

(b) This permit-by-rule does not authorize a boat ramp located within wetlands.

(c) The width of the boat ramp landward of the mean high water line shall not exceed the width of the boat ramp waterward of the mean high water line.

(d) The waterfront development permit for the construction waterward of the mean high water line may include additional conditions on the upland construction to ensure compliance with this chapter.

7:7-4.11 Permit-by-rule 11 - construction and/or installation of a boat wash wastewater system at a marina, boatyard, or boat sales facility

(a) This permit-by-rule authorizes the construction and/or installation, at a marina, a boatyard**,** or a boat sales facility, of a boat wash wastewater system that prevents the discharge of boat wash wastewater to the waters of the State, including a boat wash wastewater system necessary to comply with the Equipment and Vehicle Washing provisions of the New Jersey Pollutant Discharge Elimination System (NJPDES) Basic Industrial Stormwater General Permit NJ0088315 (5G2) established under the NJPDES rules, N.J.A.C. 7:14A. This permit-by-rule authorizes the construction of a boat wash wastewater system, including an impervious wash pad or pads connected to a collection system, reclaim/recycling system, or infrastructure to connect to an existing sanitary sewer. This permit-by-rule additionally authorizes a sump or other mechanism to collect the boat wash wastewater, shed(s) to house the treatment system**,** and/or a tank(s) to store the wash water for reuse or collection, as applicable for the system utilized. This permit-by-rule authorizes at any one marina, boatyard, or boat sales facility one to three wash pads and a maximum of three boat wash wastewater systems.

(b) This permit-by-rule does not relieve a marina, boatyard, or boat sales facility of the obligation to obtain any other permits from the Department, including a Treatment Works Approval for a sanitary sewer connection or a Basic Industrial Stormwater General Permit NJ0088315 (5G2).

(c) Each boat wash wastewater system authorized under this permit-by-rule shall:

1. Be located on the upland portion of the marina, boatyard, or boat sales facility;
2. Be located outside of any wetlands;
3. Include a wash pad that is:
    i. Equipped with a pit, trough, trench drain, or settling chamber with sump or similar type pump;
    ii. Bermed or pitched to drain all boat wash wastewater to the pit, trough, trench drain, or settling chamber;
    iii. Less than or equal to a surface area of 1,250 square feet; and

iv. Connected to a reclaim/recycling system, collection tank to store boat wash wastewater for reuse or collection/pump out, or a sanitary sewer;

4. If the system has a shed or storage unit to house the boat wash wastewater system, the shed or storage unit shall be:

   i. Used exclusively to house the boat wash wastewater system;

   ii. Less than or equal to 150 square feet in size; and

   iii. Limited to one shed or storage unit per system; and

5. If the system will discharge to a sanitary sewer, connection shall be to an existing sewer line located on-site or immediately adjacent to the site.

7:7-4.12 Permit-by-rule 12 - construction of one to three wind turbines less than 200 feet in height having a cumulative rotor swept area no greater than 2,000 square feet

(a) This permit-by-rule authorizes the construction of one to three wind turbines less than 200 feet in height, measured from the ground surface to the tip of the blade at its highest position, and having a cumulative rotor swept area no greater than 2,000 square feet, provided:

1. No portion of the wind turbine(s), including blades, tower and site disturbance, shall be located in, on or over dunes, beaches, wetlands, coastal bluffs, or wild and scenic river corridors;

2. No wind turbine tower(s) or site disturbance shall be located in floodways;

3. The wind turbine(s), including blades, tower and site disturbance, is set back a minimum of 50 feet, as measured parallel to the ground:

   i. Landward of the mean high water line and the inland limit of any beach or dune. This setback does not apply to manmade lagoons and manmade ditches; and

   ii. From the boundary of any wetlands;

4. No portion of the wind turbine, including blades, tower, and site disturbance, shall be located within an area mapped as threatened or endangered species habitat on the Department's Landscape Maps of Habitat for Endangered, Threatened and Other Priority Wildlife (Landscape Maps) except as provided at (a)4i and ii below. The Landscape Maps are available from the Department's Division of Fish and Wildlife, Endangered and Nongame Species Program at https://www.nj.gov/dep/fgw/ensp/landscape/index.htm;

   i. The wind turbine(s) is located within 120 feet of an existing building on an actively maintained lawn or area of land that has been manipulated by contouring of the soil and/or by intentional planting of flowers, grasses, shrubs, trees or other ornamental vegetation, which is maintained in such a condition by regular and frequent (at least one time per year) cutting, mowing, pruning, planting, weeding or mulching; or

   ii. The wind turbine(s) is located on legally existing impervious cover;

5. If the wind turbine(s) is more than 120 feet tall, measured from the ground surface to the tip of the blade at its highest position, the tower shall be a freestanding monopole(s); and
6. No lighting shall be placed on or directed at the wind turbine except for lighting required by the Federal Aviation Administration. Shielded ground level security lighting may be used. Lighting is shielded when it is covered in a way that light rays are not emitted above the horizontal plane of the light**.**

(b) Development under this permit-by-rule shall not result in construction of more than three wind turbines on a site, either solely or in conjunction with a previous wind turbine development.

7:7-4.13 Permit-by-rule 13 - installation of solar panels on a maintained lawn or landscaped area at a single-family home or duplex lot

(a) This permit-by-rule authorizes the installation of solar panels on a maintained lawn or landscaped area at a single-family home or duplex lot**,** provided:

1. The solar panel development shall not be located in or on dunes, beaches, wetlands, floodways, or coastal bluffs;
2. The solar panel development shall be set back a minimum of 50 feet from the inland limit of any wetlands, beach, or dune;
3. The maintained lawn or landscaped area is not subject to a previous coastal permit requirement that it remain as vegetative cover; and
4. The solar panel development shall not be located within an area mapped as threatened or endangered species habitat on the Department's Landscape Maps of Habitat for Endangered, Threatened and Other Priority Wildlife (Landscape Maps), except as provided at (a)4i and ii below. The Landscape Maps are available from the Department's Division of Fish and Wildlife, Endangered and Nongame Species Program at https://www.nj.gov/dep/fgw/ensp/landscape/index.htm;
    i. The solar panel(s) is located within 120 feet of an existing building on an actively maintained lawn or area of land that has been manipulated by contouring of the soil and/or by intentional planting of flowers, grasses, shrubs, trees or other ornamental vegetation, which is maintained in such a condition by regular and frequent (at least one time per year) cutting, mowing, pruning, planting, weeding or mulching; or
    ii. The solar panel(s) is located on legally existing impervious cover.

7:7-4.14 Permit-by-rule 14 – reconfiguration of any legally existing dock, wharf, or pier at a legally existing marina

(a) This permit-by-rule authorizes the reconfiguration of any legally existing dock, wharf, or pier, including pilings, located at a legally existing marina, provided the marina is not located within shellfish habitat, submerged vegetation habitat, or a wetland.

(b) Activities that qualify for this permit-by-rule also qualify for a water quality certificate pursuant to Section 401 of the Federal Clean Water Act, 33 U.S.C. §§ 1251 et seq.

(c) The proposed reconfiguration shall:

1. Not extend outside of the area covered by an existing Tidelands instrument;
2. Not result in an increase in the number of boat slips;
3. Not hinder navigation;
4. Not increase the total linear footage of docks or piers within the marina;
5. Minimize the water area covered by structures by:
    i. Providing a minimum of eight feet of open water between any docks if the combined width of the docks over water exceeds eight feet; and
    ii. For sites which have existing dock or pier structures exceeding eight feet in width over water areas and/or wetlands, which were constructed prior to September 1978 and for which the applicant proposes to relocate, the existing oversized structures must be reduced to a maximum of eight feet in width over water areas and six feet in width over wetlands and intertidal flats; and
6. Provide a minimum of four feet from all property lines, for docks which are perpendicular to the adjacent bulkhead or shoreline.

7:7-4.15 Permit-by-rule 15 - placement of sand fencing to create or sustain a dune

(a) This permit-by-rule authorizes the placement of sand fencing to create or sustain a dune, provided the sand fencing complies with (a)1 through 3 below. This permit-by-rule does not authorize the excavation or grading of a dune. The sand fencing shall:

1. Be placed on the landward side of the dune;
2. Be placed parallel to the mean high water line; and
3. Not prevent perpendicular public access to the beach.

7:7-4.16 Permit–by-rule 16 - placement of land-based upwellers and raceways for aquaculture activities

(a) This permit-by-rule authorizes the placement of land-based upwellers and raceways, including intakes and discharges, for shellfish aquaculture activities. Activities that qualify for this permit-by-rule also qualify for a water quality certificate pursuant to Section 401 of the Federal Clean Water Act, 33 U.S.C. §§ 1251 et seq. The aquaculture activities shall comply with the following:

1. The structures are located on the upland portion of a lot with a legally existing, functioning bulkhead;

2. No grading, excavation, filling, or placement of a structure(s) is undertaken on a beach, dune, or wetland; and
3. The discharge from the aquaculture activities is to a water body and not directly into a wetland.

7:7-4.17 Permit-by-rule 17 - placement of predator screens and oyster spat attraction devices within a shellfish lease area

(a) This permit-by-rule authorizes the placement of predator screens and oyster spat attraction devices in an area subject to a valid shellfish lease pursuant to N.J.S.A. 50:1-23. Upon expiration or termination of the shellfish lease, or the cessation of the use of predator screens and oyster spat attraction devices, whichever occurs first, within five days the permittee shall remove all predator screens and oyster spat attraction devices placed within the lease area. This permit-by-rule does not authorize the placement of shell within a shellfish lease area. Activities that qualify for this permit-by-rule also qualify for a water quality certificate pursuant to Section 401 of the Federal Clean Water Act, 33 U.S.C. §§ 1251 et seq. The placement of predator screens and oyster spat attraction devices shall comply with the following:

1. So as not to pose a hazard to navigation, predator screens shall not extend more than six inches above the substrate and oyster spat attraction devices shall not extend more than 24 inches above the substrate; and
2. No activity undertaken pursuant to this permit-by-rule shall prevent the catching and taking of free swimming fish from the tidal waters of the State in any lawful manner pursuant to N.J.S.A. 50:1-33.

7:7-4.18 Permit-by-rule 18 - placement of shellfish cages within a shellfish lease area

(a) This permit-by-rule authorizes the placement of shellfish cages in an area subject to a valid shellfish lease pursuant to N.J.S.A. 50:1-23. Upon expiration or termination of the shellfish lease, or the cessation of the use of shellfish cages, whichever occurs first, within five days the permittee shall remove all shellfish cages placed within the lease area. Activities that qualify for this permit-by-rule also qualify for a water quality certificate pursuant to Section 401 of the Federal Clean Water Act, 33 U.S.C. §§ 1251 et seq. The placement of shellfish cages shall comply with the following:

1. There shall be a minimum of four feet of water between the top of any cage and the water surface at mean low water;
2. The cages shall be continuously checked and repaired to ensure that they are not displaced off the lease area;
3. The cages shall be constructed of non-polluting materials; and
4. No activity undertaken pursuant to the permit-by-rule shall prevent the catching and taking of free swimming fish from the tidal waters of the State in any lawful manner pursuant to N.J.S.A. 50:1-33.

7:7-4.19 Permit-by-rule 19 - construction and/or installation of a pumpout facility and/or pumpout support facilities

(a) This permit-by-rule authorizes the construction and/or installation of a pumpout facility and/or pumpout support facilities in the circumstances set forth at (a)1 and 2 below. The construction and/or installation of a pumpout facility or pumpout support facility shall have no adverse impacts to any special areas described at N.J.A.C. 7:7-9.

1. At a marina, boat yard, boat sales facility, yacht club, restaurant, boat ramp or other waterfront facility, the construction and/or installation of a pumpout facility and/or the construction of pumpout support facilities, such as stanchions, hydrants, piping, pumps, holding tanks, a concrete pad for a holding tank (not to exceed a surface area of 100 square feet), a platform to elevate a pump above flood level, macerator pumps or other equipment necessary to transfer sewage from the holding tank on a boat to a sanitary sewer line or holding tank, provided the pumpout discharges to:
   i. A municipal or regional treatment plant where practicable;
   ii. A subsurface sewage disposal system; or
   iii. A holding tank with waste being removed by a licensed septage hauler.
      (1) Any facility using a holding tank for the pumpout discharge shall maintain a record of removal of the waste.
2. A sewer line connecting a pumpout facility and/or pumpout support facility into an existing sewer line located on-site or located immediately adjacent to the site, provided:
   i. The sewer line and the area of the connection into the existing sewer are located within areas of non-porous cover;
   ii. For a sewer line that connects from a pumpout facility and/or pumpout support facility that is located on an existing dock, the sewer line does not extend below the stringers of the dock; and
   iii. The sewer line receives a Treatment Works Approval as required in accordance with the Department's rules at N.J.A.C. 7:14A from the Department's Division of Water Quality.

7:7-4.20 Permit-by-rule 20 – implementation of a sediment sampling plan for sampling in a water area as part of a dredging or dredged material management activity or as part of a remedial investigation of a contaminated site

(a) This permit-by-rule authorizes the implementation of a sediment sampling plan for sampling in a water area as part of a dredging or dredged material management activity or as part of a remedial investigation of a contaminated site. Activities that qualify for this permit-by-rule also qualify for a water quality certificate pursuant to Section 401 of the Federal Clean Water Act, U.S.C. 33 §§ 1251 et seq. This permit-by-rule authorizes the implementation of a sediment sampling plan for sampling to be conducted within a water area described at N.J.A.C. 7:7-12.1,

as part of a dredging or dredged material management activity or as part of a remedial investigation, provided:

1. If the sampling is part of a dredging or dredged material management activity, the sediment sampling plan shall be prepared in accordance with chapter Appendix G, incorporated herein by reference, and approved in writing by the Department's Office of Dredging and Sediment Technology; or
2. If the sampling is part of a remedial investigation of a contaminated site, the sediment sampling plan shall be prepared in accordance with the Technical Requirements for Site Remediation, N.J.A.C 7:26E, and approved by the Department or certified by a Licensed Site Remediation Professional in accordance with the Administrative Requirements for the Remediation of Contaminated Sites (ARRCS), N.J.A.C. 7:26C.

7:7-4.21 Permit-by-rule 21 – application of herbicide within coastal wetlands to control invasive plant species

(a) This permit-by-rule authorizes the application of herbicide within coastal wetlands to control invasive plant species, provided:

1. The area to which the herbicide is applied shall not exceed a total area of one-quarter acre or less on a site;
2. The activities do not adversely affect the habitat of any threatened or endangered wildlife or plant species, as described at N.J.A.C. 7:7-9.36; and
3. When conducted within waters of the State or waters of the United States, the activities are conducted pursuant to an aquatic pesticide permit issued by the Department's Bureau of Licensing and Pesticide Operations.

7:7-4.22 Permit-by-rule 22 - construction of a swimming pool, spa, or hot tub and associated decking on a bulkheaded lot without wetlands

(a) This permit-by-rule authorizes the construction of a swimming pool, spa, or hot tub and associated decking (for example, wood or recycled plastic planking, concrete, or paver blocks) on a lot with a legally existing, functioning bulkhead along the entire waterfront portion of the site and no wetlands landward of the bulkhead, provided:

1. No excavation, grading, or filling of a beach or dune is conducted;
2. The swimming pool, spa, or hot tub is set back a minimum of 15 feet from the waterward face of the bulkhead;
3. The footprint of the area covered by the current construction in combination with any existing swimming pool, spa, and/or hot tub, constructed under this permit-by-rule after July 6, 2015 at a residential development does not exceed a cumulative total of 750 square feet on the lot. For example, a 600-square-foot in-ground swimming pool could be constructed on a lot under this permit-by-rule and at a later time an additional 150-square-foot spa or hot tub could be constructed on the lot under this permit-by-rule,

because the cumulative footprint of the development for both structures would not exceed 750 square feet. However, the construction of a 200-square-foot spa or hot tub would not be authorized on a lot under this permit-by-rule where a 600-square-foot in-ground swimming pool had already been constructed pursuant to this permit-by-rule, because the cumulative total footprint of development for both structures would exceed 750 square feet;

4. The footprint of the area covered by the current construction in combination with any existing swimming pool, spa, and/or hot tub, including associated decking, constructed under this permit-by-rule after July 6, 2015 at a development other than a residential development does not exceed a cumulative total of 750 square feet on the lot. For example, a 600-square-foot in-ground swimming pool and associated decking could be constructed on a lot under this permit-by-rule and at a later time an additional 150-square-foot spa or hot tub could be constructed on the lot under this permit-by-rule, because the cumulative footprint of the development for both structures would not exceed 750 square feet. However, the construction of a 200-square-foot spa or hot tub would not be authorized on a lot under this permit-by-rule where a 600-square-foot in-ground swimming pool and associated decking had already been constructed pursuant to this permit-by-rule, because the cumulative total footprint of development for both structures would exceed 750 square feet;
5. The backwash system of the swimming pool, spa, or hot tub does not discharge to the adjacent water body;
6. Prior to construction, a silt fence is erected landward of the bulkhead with a 10-foot landward return on each end. The silt fence shall be maintained and remain in place until all construction and landscaping activities are completed;
7. All subgravel liners are made of filter cloth or other permeable material; and
8. The swimming pool, spa, or hot tub and associated decking are not constructed on a coastal bluff.

7:7-4.23 Permit-by-rule 23 – installation of an at-grade dune walkover at a residential, commercial, or public development other than a single-family home or duplex

(a) This permit-by-rule authorizes the installation of an at-grade dune walkover, such as a stabilization mat, at a residential, commercial, or public development other than a single-family home or duplex, provided:

1. Only one walkover is installed at the site unless New Jersey 2012 High Resolution Orthophotography (available for download at https://njgin.state.nj.us/NJ_NJGINExplorer/DataDownloads.jsp) reflects that more than one walkover was present on the site on the date depicted in the image. In such case, the maximum number of walkovers that may be installed shall be equal to the number of walkovers reflected on the 2012 orthophotography;
2. The installation does not require the grading or excavation of a beach or dune;

3. For non-commercial properties, the width of the at-grade walkover structure does not exceed six feet and the total width of the at-grade walkover, fencing, and/or edging does not exceed eight feet;
4. For commercial properties, the width of the at-grade walkover structure does not exceed 10 feet and the total width of the at-grade walkover, fencing, and/or edging does not exceed 12 feet;
5. The walkover is fenced on both sides using sand fencing, split rail fencing, or open handrails, unless prohibited by the municipality; and
6. The activity complies with any applicable management plan for protection of State or Federally listed threatened or endangered species, as approved by the Department and the USFWS, and/or the endangered or threatened wildlife or vegetation species habitat rule, N.J.A.C. 7:7-9.36.

SUBCHAPTER 5. GENERAL PERMITS-BY-CERTIFICATION

7:7-5.1 General permit-by-certification 10 – reconstruction of a legally existing functioning bulkhead in-place or upland of a legally existing functioning bulkhead

(a) This permit-by-certification authorizes the reconstruction of a legally existing bulkhead in-place or upland of a legally existing functioning bulkhead, provided:

1. The replacement bulkhead is located upland of any wetlands;
2. The construction of a bulkhead subject to wave run-up forces (that is, in a V zone as described at N.J.A.C. 7:7-9.18) shall be designed and certified by a New Jersey licensed professional engineer to withstand the forces of wave run-up;
3. The structure shall not create net adverse shoreline movement downdrift, including erosion or shoaling;
4. The construction shall have no adverse impact to any special areas as described at N.J.A.C. 7:7-9; and
5. Clean fill from an upland source shall be used for backfill.

7:7-5.2 General permit-by-certification 15 – construction of piers, docks, including jet ski ramps, pilings, and boatlifts in man-made lagoons

(a) This permit-by-certification authorizes the construction of piers, docks, including jet ski ramps, pilings, and boatlifts in man-made lagoons, provided:

1. The structures shall be located on individual single family or duplex lots and shall be for recreational or non-commercial use;
2. The structures, including mooring area and mooring piles, shall not extend beyond a distance of 20 percent of the width of a man-made lagoon;

3. The width of the dock or pier shall not exceed twice the clearance between the structure and the surface of the ground below or the water surface at mean high water, except for floating docks. For example, an eight foot wide dock must be elevated a minimum of four feet above the water surface at mean high water;
4. The maximum width of the structure shall be eight feet, except where crossing wetlands, where the proposed structure shall be constructed perpendicular to the shoreline to access sufficient water depth and shall not exceed six feet in width. In any case, the height of the structure over wetlands shall be a minimum of four feet;
5. Any wetlands disturbed during construction shall be restored to pre-project conditions;
6. The proposed structure, including mooring area and mooring piles, does not hinder navigation or access to adjacent docks, piers, moorings, or water areas;
7. A minimum of eight feet of open water shall be provided between any docks including jet ski ramps, if the combined width of any existing or proposed docks over the water exceeds eight feet;
8. For docks which are perpendicular to the adjacent bulkhead or shoreline, construction and placement of the dock shall be a minimum of four feet from all property lines;
9. The space between horizontal planking is maximized and the width of horizontal planking is minimized to the maximum extent practicable. Under normal circumstances, a minimum of 3/8 inch, 1/2 inch, 3/4 inch, or one inch space is to be provided for four inch, six inch, eight to 10 inch, or 12 inch plus wide planks, respectively;
10. Jet ski ramps are inclined floating docks which are typically attached to existing docks for the purpose of docking jet skis. Jet ski ramps shall not exceed eight feet in width; and
11. For sites which have existing dock structures exceeding eight feet in width over water areas and/or wetlands, which were constructed prior to September 1978 and for which the applicant proposes to increase the coverage over the water area or wetland by increasing the number or size of boat slips, docks, or piers, the existing oversized structures shall be reduced to a maximum of eight feet in width.

7:7-5.3 General permit-by-certification 1A – installation of an elevated timber dune walkover at a residential, commercial, or public development other than a single-family home or duplex

(a) This general permit-by-certification authorizes the installation of an elevated timber dune walkover at a residential, commercial, or public development other than a single-family home or duplex, provided:

1. Only one walkover is installed at the site unless New Jersey 2012 High Resolution Orthophotography (available for download at https://njgin.state.nj.us/NJ_NJGINExplorer/DataDownloads.jsp) reflects that more than one walkover was present on the site on the date depicted in the image. In such case, the

maximum number of walkovers that may be installed shall be equal to the number of walkovers reflected on the 2012 orthophotography;

2. The construction of elevated timber dune walkover is in accordance with the standards and specifications described in Beach Dune Walkover Structures (Florida Sea Grant, 1981) available from the Department at the address set forth at N.J.A.C. 7:7-1.6;
3. For non-commercial properties, the width of the walkover structure does not exceed six feet and the total width of the elevated timber walkover, fencing, and/or edging not to exceed eight feet;
4. For commercial properties, the width of the walkover structure does not exceed 10 feet and the total width of the walkover, fencing, and/or edging not to exceed 12 feet; and
5. The activity complies with any applicable management plan for protection of State and Federally listed threatened or endangered species, as approved by the Department and the USFWS, and/or the endangered or threatened wildlife or vegetation species habitat rule, N.J.A.C. 7:7-9.36.

SUBCHAPTER 6. GENERAL PERMITS

7:7-6.1 General permit 1 - amusement pier expansion

(a) This general permit authorizes the expansion of an existing, functional amusement pier provided that the expansion complies with the following:

1. The amusement pier was existing and functional as of July 19, 1993;
2. The expansion does not exceed by more than 25 percent the footprint of the amusement pier as it existed on July 19, 1993;
3. The expansion is located more than 150 feet landward of the mean high water line;
4. The expansion will not eliminate or adversely affect existing, direct public access from the boardwalk to the beach, unless for each access point eliminated or adversely affected another access point is provided immediately adjacent to the expanded amusement pier;
5. The expansion includes a provision for public seating and viewing at the terminal end of the expansion;
6. The expansion may consist of either structures or beach grading which does not result in change in existing beach elevations of more than one foot;
7. The expansion shall not result in excavation or grading of a dune;
8. The expanded amusement pier shall continue to be used only for amusements;
9. The expansion is consistent with the Water Quality Management Plan adopted pursuant to N.J.A.C. 7:15; and

10. Public access shall be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

7:7-6.2 General permit 2 – activities on a beach and dune

(a) This general permit authorizes the following activities on a beach and dune:

1. Routine beach maintenance activities performed in accordance with N.J.A.C. 7:7-10.2;
2. Emergency post-storm beach restoration performed in accordance with N.J.A.C. 7:7-10.3;
3. Dune creation and maintenance performed in accordance with N.J.A.C. 7:7-10.4; and
4. The construction of dune walkovers constructed in accordance with N.J.A.C. 7:7-10.4(e) and(f).

(b) The activity shall not be conducted in any wetlands.

(c) Public access to the beach shall be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

(d) The activity is conducted in accordance with the Operation and Maintenance Manual associated with the Federal or State project, or where such manual does not exist, the activity does not compromise the design template of the engineered beach and/or dune.

(e) The activity complies with any applicable management plan for protection of State and Federally listed threatened or endangered species, as approved by the Department and the USFWS, and/or the endangered or threatened wildlife or vegetation species habitat rule, N.J.A.C. 7:7-9.36.

(f) As of November 5, 2015, the Department shall not approve authorization under this general permit to any municipality that does not have a Department-approved municipal public access plan in accordance with N.J.A.C. 7:7-16.9(c) through (m).

7:7-6.3 General permit 3 - voluntary reconstruction of certain residential or commercial development

(a) This general permit authorizes the voluntary reconstruction of a non-damaged legally constructed, currently habitable residential or commercial development landward of the existing footprint of development provided:

1. Such reconstruction is in compliance with existing requirements or codes of municipal, State and Federal law;
2. The reconstruction does not result in the enlargement of the footprint of the development;

3. In the case of residential reconstruction, the reconstruction does not result in an increase in the number of dwelling units;
4. In the case of commercial reconstruction:
   i. The reconstruction does not result in an increase in the number of parking spaces or equivalent parking area associated with the development; and
   ii. The development is consistent with the Water Quality Management Plan adopted pursuant to N.J.A.C. 7:15;
5. The reconstruction does not result in additional impacts to special areas as defined at N.J.A.C. 7:7-9;
6. The reconstruction does not increase the area covered by buildings and/or asphalt or concrete pavement;
7. The reconstruction meets the requirements of N.J.A.C. 7:7-9.25 and 9.26; and
8. Public access shall be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

(b) Authorization under this general permit is not required for repairs or maintenance, such as replacing siding, windows**,** or roofs which is not regulated, unless the repair or maintenance is associated with an expansion of the footprint of development.

7:7-6.4 General permit 4 - development of one or two single-family homes or duplexes

(a) This general permit authorizes the development of one or two single-family homes or duplexes and/or accessory development (such as garages, sheds, pools, driveways, grading, filling, and clearing, excluding shore protection structures), provided the one or two single-family homes or duplexes and accessory development are located landward of the mean high water line.

(b) Development under this general permit shall not result in the development of more than two single-family homes or duplexes either solely or in conjunction with a previous development as defined at N.J.A.C. 7:7-2.2(b)8.

(c) Development under this general permit shall comply with N.J.A.C. 7:7-9.22, Beaches; 9.25, Flood hazard areas; 9.27, Wetlands; 9.28, Wetland buffers; and 9.36, Endangered or threatened wildlife or vegetation species habitats.

(d) Development under this general permit within a riparian zone, as defined in the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13-1.2 and in this chapter at N.J.A.C. 7:7- 9.26, shall comply with the following requirements:

1. No disturbance is located within 25 feet of any top of bank, unless the project lies adjacent to a lawfully existing bulkhead, retaining wall, or revetment along a tidal water or impounded fluvial water;

2. Within a 50-foot riparian zone, no more than 3,500 square feet of riparian zone vegetation is cleared, cut, and/or removed; and
3. Within a 150-foot or 300-foot riparian zone, no more than 7,000 square feet of riparian zone vegetation is cleared, cut, and/or removed.

(e) In addition to meeting the requirements at (c) and (d) above, the development of two single-family homes or duplexes under this general permit on filled water's edge sites that have included a water dependent use at any time since July of 1977, shall comply with N.J.A.C. 7:7-9.23(g) of the filled water's edge rule.

(f) Development under this general permit shall comply with N.J.A.C. 7:7-9.16, Dunes, except as provided under (f)1 or 2 below:

1. Development that is located on the landward slope of a secondary or tertiary dune described at (f)1ii below, whichever is most landward, need not comply with the dunes rule, N.J.A.C. 7:7-9.16, if the site and the development meet all of the following conditions:
   i. The area of the site proposed to be developed is located greater than 500 feet landward of the mean high water line of the adjacent water body;
   ii. The cross-sectional area of the primary frontal dune waterward of the proposed development, as measured above the 100-year stillwater elevation and waterward of the primary frontal dune crest, is greater than 1,100 square feet. For the purpose of this subparagraph, primary frontal dune means a continuous or nearly continuous mound or ridge of sand with relatively steep waterward and landward slopes immediately landward of and adjacent to the beach, and subject to erosion and overtopping from high tides and waves during major coastal storms. Secondary and tertiary dunes means the second and third dune mound or ridge, respectively, landward from and adjacent to the primary frontal dune;
   iii. The beach area adjacent to the proposed development is either naturally stable without beach nourishment or naturally accretional without beach nourishment, as determined using the method described at N.J.A.C. 7:7-9.19, Erosion hazard areas, and the information in the Department's Geographic Information System (GIS) database as found in the Historical Shorelines coverage 1836-1986; and
   iv. The site disturbance, including grading, excavation and vegetation removal, is limited to that necessary to develop the single family home or duplex and/or accessory structures; or
2. Development that is located on a dune which is isolated from a beach and dune system by a paved public road, public seawall or public bulkhead, existing on July 19, 1993, need not comply with the dunes rule, N.J.A.C. 7:7-9.16, if the site and the development meet all of the following criteria:
   i. The road, seawall, or bulkhead is of sufficient size to be designated as the V zone boundary on the applicable FEMA flood mapping;

ii. The road, seawall or bulkhead has eliminated the protective function of the isolated dune, by providing a significant barrier to coastal processes, including storm waves and flooding;

iii. The road, seawall or bulkhead is functional and is currently maintained by a public entity;

iv. The area of proposed construction is designated as an A zone, B zone, or C zone on the applicable FEMA flood mapping;

v. The site disturbance, including grading, excavation and vegetation removal, is limited to that necessary to develop the single family home or duplex and/or accessory structures; and

vi. The proposed development does not include the construction of a shore protection structure.

(g) Development under this general permit shall comply with N.J.A.C. 7:7-9.29, Coastal bluffs, if the site is located on the Atlantic Ocean, Delaware Bay, Raritan Bay, or Sandy Hook Bay. Coastal bluffs are defined at N.J.A.C. 7:7-9.29(a). If the site is not located on one of the four water bodies listed above, the development shall comply with the setback requirements at (n)1 below, unless the development meets either (g)1 or 2 below:

1. The development is located in the "developed bluff area." For the purposes of this paragraph, a "developed bluff area" is an area delineated by the limit of existing buildings, in-ground pool or tennis court that existed on July 19, 1993; or
2. The development on the coastal bluff is located landward of the developed bluff area as defined at (g)1 above, and does not exceed the cumulative surface area of the developed bluff area on the site. If all or part of the proposed development on the coastal bluff is located landward of the existing developed bluff area, an equivalent area of the existing developed bluff area shall be restored through the planting of native woody vegetation species.

(h) Development under this general permit shall comply with N.J.A.C. 7:7-9.18, Coastal high hazard areas, and 9.19, Erosion hazard areas, except as excluded under (h)1 below;

1. Development under this general permit that is located on a site partially or completely within an erosion hazard area or coastal high hazard area need not comply with the

   coastal high hazard areas rule, N.J.A.C. 7:7-9.18, and the erosion hazard areas rule, N.J.A.C. 7:7-9.19, if:

   i. The lot was shown as a subdivided lot prior to July 19, 1993;

   ii. The lot is served by a municipal sewer system; and

   ii. A house or commercial building is located within 100 feet of each of the lot lines that run roughly perpendicular to the mean high water line. The 100 feet shall be

measured outward from each lot line, along a line generally parallel to the mean high water line;

(i) Public access shall be provided in accordance with the public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

(j) The use of plastic under landscaped or gravel areas is prohibited. All sub-gravel liners shall be made of filter cloth or other permeable material.

(k) Any driveway shall be covered with a permeable material or else shall be pitched to drain all runoff onto permeable areas of the site.

(l) For a wooded site, site clearing shall be limited to an area no more than 20 feet from the footprint of the single family home or duplex and the area necessary for driveway, septic, and utility line installations.

(m) For a site adjacent to or including surface water bodies or wetlands, a silt fence with a 10-foot landward return shall be erected at the limit of disturbance along the waterward and wetland sides of the development before construction begins. This fence shall be maintained and remain in place until all construction and landscaping is completed.

(n) Development under this general permit shall comply with the following setbacks:

1. On a site with coastal bluffs that is not located on the Atlantic Ocean, Delaware Bay, Raritan Bay or Sandy Hook Bay, the single family home or duplex and/or accessory structures shall be set back a minimum of 10 feet from the crest of the bluff provided that the development will not result in a loss of stability of the bluff or vegetation on the bluff face. Any structure that requires excavation shall be set back one foot beyond the 10 foot setback for every foot of excavation below existing grade;
2. On an oceanfront site with existing or proposed shore protection structures, the single family home or duplex and/or accessory structures (except decks) shall be set back at least 25 feet from existing or proposed oceanfront shore protection structures. This distance shall be measured from the waterward face of a bulkhead or seawall and from the top of slope on the waterward face of the revetment. This setback shall not apply to below grade structures;
3. On a non-oceanfront site with existing or proposed shore protection structures, the single-family home or duplex and/or accessory structures (except decks) shall be set back at least 15 feet from existing or proposed shore protection structures. If the single-family home or duplex and/or accessory structures cannot be located at least 15 feet landward of the shore protection structure, the Department shall reduce the required setback if an engineering certification is submitted demonstrating that, after the proposed development has been constructed, the shore protection structure can be replaced within 18 inches of the existing shore protection structure and a conservation restriction that complies with N.J.A.C. 7:7-18 is recorded for the property which states that any reconstruction of a

shore protection structure shall be within 18 inches of the existing shore protection structure. A site with coastal bluffs shall instead comply with (n)1 above.

(o) This general permit does not authorize any activities regulated under the Wetlands Act of 1970, N.J.S.A. 13:9A-1 et seq.

7:7-6.5 General permit 5 - expansion, or reconstruction (with or without expansion), of a single-family home or duplex

(a) This general permit authorizes the expansion, or reconstruction (with or without expansion), of a legally constructed, habitable single-family home or duplex and/or accessory development (such as garages, sheds, pools, driveways, grading, excavation, and clearing, excluding shore protection structures), provided the single-family home or duplex and accessory structures are located landward of the mean high water line, and provided the single-family home or duplex is not located on a bulkheaded lagoon lot.

(b) Development under this general permit shall not result in development of more than one single-family home or duplex either solely or in conjunction with a previous development as defined at N.J.A.C. 7:7-2.2(b)8.

(c) Development under this general permit shall comply with N.J.A.C. 7:7-9.22, Beaches; 7:7-9.25, Flood hazard areas; 7:7-9.26, Riparian zones; 7:7-9.27, Wetlands; 7:7-9.28, Wetland buffers; and 7:7-9.36, Endangered or threatened wildlife or vegetation species habitats.

(d) Development under this general permit shall comply with N.J.A.C. 7:7-9.16, Dunes, except as provided under (d)1 through 4 below:

1. Development that is located on the landward slope of a secondary or tertiary dune described at (d)1ii below, whichever is most landward, need not comply with the dunes rule, N.J.A.C. 7:7-9.16, if the site and the development meet all of the following conditions:

   i. The area of the site proposed to be developed is located greater than 500 feet landward of the mean high water line of the adjacent water body;

   ii. The cross-sectional area of the primary frontal dune waterward of the proposed development, as measured above the 100-year stillwater elevation and waterward of the primary frontal dune crest, is greater than 1,100 square feet. For the purpose of this subparagraph, primary frontal dune means a continuous or nearly continuous mound or ridge of sand with relatively steep waterward and landward slopes

   immediately landward of and adjacent to the beach, and subject to erosion and overtopping from high tides and waves during major coastal storms. Secondary and tertiary dunes means the second and third dune mound or ridge, respectively, landward from and adjacent to the primary frontal dune;

iii. The beach area adjacent to the proposed development is either naturally stable without beach nourishment or naturally accretional without beach nourishment, as determined by using the method described at N.J.A.C. 7:7-9.19, Erosion hazard areas, and the information in the Department's Geographical Information System (GIS) database as found in the Historical Shorelines coverage 1836-1986; and

iv. The site disturbance, including grading, excavation and vegetation removal, is limited to that necessary to expand or reconstruct the single family home or duplex and/or accessory structures;

2. Development that is located on a dune which is isolated from a beach and dune system by a paved public road, public seawall**,** or public bulkhead, existing on July 19, 1993, need not comply with the dunes rule, N.J.A.C. 7:7-9.16, if the site and the development meet all of the following criteria:

i. The road, sea wall**,** or bulkhead is of sufficient size to be designated as the V zone boundary on the applicable FEMA flood mapping;

ii. The road, seawall or bulkhead has eliminated the protective function of the isolated dune, by providing a significant barrier to coastal processes, including storm waves and flooding;

iii. The road, seawall or bulkhead is functional and is currently maintained by a public entity;

iv. The area of proposed construction is designated as an A zone, B zone, or C zone on the applicable FEMA flood mapping;

v. The site disturbance, including grading, excavation and vegetation removal, is limited to that necessary to expand or reconstruct the single family home or duplex and/or accessory structures; and

vi. The proposed development does not include the construction of a shore protection structure.

3. Development that is located on a dune need not comply with the dunes rule, N.J.A.C. 7:7-9.16, if the development meets the following criteria:

i. The single family home or duplex legally existed on July 19, 1993;

ii. The development constructed after July 19, 1993 does not exceed a cumulative surface area of 750 square feet on the dune, excluding the area of reconstruction within the existing footprint of development and the area of development authorized under (d)4 below;

iii. The development is located within the footprint of development of the existing single family home or duplex and/or on the landward side of the existing footprint of development and within the area between lines extended landward and perpendicular to the mean high water line from the widest shore parallel points of the existing footprint of development, except as provided at (d)3iv below;

iv. For every 10 feet the footprint of development of the single family home or duplex is set back landward on the lot from the existing footprint of development of the single family home or duplex, the total area of development may be increased by 200 square feet in addition to that authorized in (d)3ii above, provided the additional square footage is constructed on the non-waterward side of the single family home or duplex;

v. The dune area waterward of the single-family home or duplex is enhanced as follows:

(1) Sand fill shall be placed as necessary to establish a uniform dune crest elevation matching the highest dune crest elevation at the site; and

(2) Native dune vegetation shall be planted as necessary to establish vegetative cover in accordance with the specifications contained in Guidelines and Recommendations for Coastal Dune Restoration and Creation Projects (DEP, 1985) and/or Restoration of Sand Dunes Along the Mid-Atlantic Coast (U.S. Soil Conservation Service, 1992). These documents are available upon request from the Department's Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6

vi. A conservation restriction for the dune areas waterward of the existing and/or approved single-family home or duplex and/or accessory development which complies with N.J.A.C. 7:7-18 is recorded; and

4. Development that is located on a dune and entails the enclosure of an existing deck, patio, or porch need not comply with the dunes rule, N.J.A.C. 7:7-9.16, if the development meets the following criteria:

i. The development is the enclosure of a deck, patio, or porch;

ii. The deck, patio, or porch enclosure is located on the non-waterward side of the single-family home or duplex;

iii. The deck, patio, or porch legally existed on July 19, 1993;

iv. The deck, patio, or porch abuts the dwelling;

v. The enclosure does not extend beyond the limit of the existing deck, patio, or porch as it existed on July 19, 1993;

vi. The footprint of development of the deck, patio, or porch enclosure does not exceed 400 square feet; and

vii. The dune area waterward of the single-family home or duplex is enhanced as follows:

(1) Sand fill shall be placed as necessary to establish a uniform dune crest elevation matching the highest existing dune crest elevation at the site;

(2) Native dune vegetation shall be planted in accordance with the specifications contained in Guidelines and Recommendations for Coastal Dune Restoration and Creation Projects (DEP, 1985) and/or Restoration of Sand Dunes Along the Mid-Atlantic Coast (U.S. Soil Conservation Service, 1992). These

documents are available upon request from the Department's Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6; and

viii. A conservation restriction for the dune areas waterward of the existing and/or approved single family home or duplex and/or accessory development which complies with N.J.A.C. 7:7-18 is recorded.

(e) Development under this general permit shall comply with N.J.A.C. 7:7-9.29, Coastal bluffs, if the site is located on the Atlantic Ocean, Delaware Bay, Raritan Bay, or Sandy Hook Bay. Coastal bluffs are defined at N.J.A.C. 7:7-9.29(a). If the site is not located on one of the four water bodies listed above, the development shall comply with the setback requirements at (l)1 below, unless the development meets either (e)1 or 2 below:

1. The development is located in the "developed bluff area." For the purposes of this paragraph, a "developed bluff area" is an area delineated by the limit of existing buildings, in-ground pool or tennis court that existed on July 19, 1993; or
2. The development on the coastal bluff is located landward of the developed bluff area as defined at (e)1 above, and does not exceed the cumulative surface area of the developed bluff area on the site. If all or part of the proposed development on the coastal bluff is located landward of the existing developed bluff area, an equivalent area of the existing developed bluff area shall be restored through the planting of native woody vegetation species.

(f) Development under this general permit shall comply with N.J.A.C. 7:7-9.18, Coastal high hazard areas, and 7:7-9.19, Erosion hazard areas, except as excluded under (f)1 below;

1. Development under this general permit that is located on a site partially or completely within an erosion hazard area or coastal high hazard area need not comply with the coastal high hazard areas rule, N.J.A.C. 7:7-9.18, and the erosion hazard areas rule, N.J.A.C. 7:7-9.19, if:
   i. The lot was shown as a subdivided lot prior to July 19, 1993;
   ii. The lot is served by a municipal sewer system; and
   iii. A house or commercial building is located within 100 feet of each of the lot lines that run roughly perpendicular to the mean high water line. The 100 feet shall be measured outward from each lot line, along a line generally parallel to the mean high water line.

(g) Public access shall be provided in accordance with the public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

(h) The use of plastic under landscaped or gravel areas is prohibited. All sub-gravel liners shall be made of filter cloth or other permeable material.

(i) Any driveway shall be covered with a permeable material or else shall be pitched to drain all runoff onto permeable areas of the site.

(j) For a wooded site, site clearing shall be limited to an area no more than 20 feet from the footprint of the single family home or duplex and the area necessary for driveway, septic, and utility line installations.

(k) For a site adjacent to or including surface water bodies or wetlands, a silt fence with a 10-foot landward return shall be erected at the limit of disturbance along the waterward and wetland sides of the development before construction begins. This fence shall be maintained and remain in place until all construction and landscaping is completed.

(l) Development under this general permit shall comply with the following setbacks:

1. On a site with coastal bluffs that are not located on the Atlantic Ocean, Delaware Bay, Raritan Bay or Sandy Hook Bay, the single family home or duplex and/or accessory structures shall be set back a minimum of 10 feet from the crest of the bluff provided that the development will not result in a loss of stability of the bluff or vegetation on the bluff face. Any structure that requires excavation shall be set back one foot beyond the 10 foot setback for every foot of excavation below existing grade;
2. On an oceanfront site with existing or proposed shore protection structures, the single family home or duplex and/or accessory structures (except decks) shall be set back at least 25 feet from existing or proposed oceanfront shore protection structures. This distance shall be measured from the waterward face of a bulkhead or seawall and from the top of slope on the waterward face of the revetment. This setback shall not apply to other below grade structures; and
3. On a non-oceanfront site with existing or proposed shore protection structures, the single-family home or duplex and/or accessory structures (except decks) shall be set back at least 15 feet from existing or proposed shore protection structures. If the single-family home or duplex and/or accessory structures cannot be located at least 15 feet landward of the shore protection structure, the Department shall reduce the required setback if an engineering certification is submitted demonstrating that, after the proposed development has been constructed, the shore protection structure can be replaced within 18 inches of the existing shore protection structure and a conservation restriction that complies with N.J.A.C. 7:7-18 is recorded for the property which states that any reconstruction of a shore protection structure shall be within 18 inches of the existing shore protection structure. A site with coastal bluffs shall instead comply with (l)1 above.

(m) This general permit does not authorize any activities regulated under the Wetlands Act of 1970, N.J.S.A. 13:9A-1 et seq.

7:7-6.6 General permit 6 - construction of a bulkhead and placement of associated fill on a man-made lagoon

(a) This general permit authorizes the construction of a bulkhead on a lot located on a substantially developed manmade lagoon, provided that the bulkhead complies with the following:

1. The site is located on a substantially developed manmade lagoon;
2. The bulkhead shall be located at or above the spring high water line unless it is between two existing legally constructed bulkheads not more than 75 feet apart. In such cases, the connecting bulkhead shall not extend waterward of a straight line connecting the ends of the existing bulkheads;
3. There shall be no disturbance to wetlands during construction;
4. The bulkhead is located inshore of any wetlands;
5. A minimum 10-foot return shall be constructed at each end of the bulkhead unless it is tied into an existing adjacent bulkhead;
6. Clean fill from an upland source or the dredged material removed as part of the bulkhead installation, provided such dredged material meets the criteria for structural or non-structural fill material and is managed in accordance with Appendix G, shall be used for backfill.
7. Public access shall be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

7:7-6.7 General permit 7 - construction of a revetment at a single-family home or duplex lot

(a) This general permit authorizes the construction of a revetment at a single-family home or duplex lot that is not part of a larger development owned or controlled by the same property owner and which has an eroding shoreline along any shore other than the Atlantic Ocean, Delaware Bay, Raritan Bay, or Sandy Hook Bay. (General permit 8 –construction of gabions at a single-family home is found at N.J.A.C. 7:7-6.8.)

(b) Construction of the revetment shall comply with the following:

1. The revetment slope shall not be steeper than one vertical to two horizontal;
2. The placement of rip rap in the waterway shall be limited to that necessary to protect the shoreline;
3. Fill material placed to achieve the required slope shall be:
    i. Added only to the upland;
    ii. Free of large stones; and
    iii. Firmly compacted before revetment construction begins;

4. Filter fabric (or graded stone filter) shall be installed to prevent loss of slope materials through voids in the revetment material;
5. Revetment stones shall be angular and blocky, not rounded;
6. The toe of the revetment shall be located at least three feet below existing grade to prevent undercutting;
7. Weight of individual stone shall be determined by a design engineer based on wave height range for the site;
8. Placement of a revetment in dunes or wetlands is prohibited. Any wetlands disturbed by the construction activities shall be restored to pre-construction conditions; and
9. The revetment shall be placed in such a way as to not result in instability of a coastal bluff or cause erosion of adjacent properties or offshore areas.

(c) Public access shall be provided in accordance with the public trust rights rule, N.J.A.C 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

7:7-6.8 General permit 8 - construction of gabions at a single family/duplex lot

(a) This general permit authorizes the construction of gabions at a single-family home or duplex lot that is not part of a larger development owned or controlled by the same property owner and which has an eroding shoreline along any shore other than the Atlantic Ocean, Delaware Bay, Raritan Bay, or Sandy Hook Bay. (General permit 7 –construction of revetments at a single-family home is found at N.J.A.C. 7:7-6.7.)

(b) The design and construction of the gabions shall comply with the following:

1. The gabions shall be laid along the face of the shore such that the waterward slope of the gabions, as measured along the face of the gabions, shall be no steeper than one vertical to two horizontal. However, if the steepness and height of the slope of the non-storm shoreline profile preclude construction of a sloped gabion system, then the waterward slope of a step faced gabion system, as measured along a line connecting the gabions shall be no steeper than one vertical to one horizontal;
2. The placement of the gabions in the waterway shall be limited to that necessary to protect the shore;
3. The toe of the gabions shall be located at least three feet below existing grade to prevent undercutting;
4. Rip rap shall be placed along the waterward toe of the gabion only if the Department determines that such rip-rap is required to limit scour potential and the areas and volume of rip rap are minimized;
5. Placement of gabions on dunes or in wetlands is prohibited. Any wetlands disturbed by the construction activities shall be restored to pre-construction conditions;

6. The gabions shall be placed in such a way as to not result in instability of a coastal bluff or cause erosion of adjacent properties or offshore areas;
7. The gabions shall be tightly packed with four inch to eight inch diameter stone (to minimize movement of the interior stone and consequent damage to the wire) and the edges shall be laced together with steel wire;
8. Individual gabions shall be wired together;
9. The size and number of gabions shall be determined by a design engineer based on wave height range for the site; and
10. Fill material placed to achieve the required slope shall be:
    i. Added only to the upland;
    ii. Free of large stones; and
    iii. Firmly compacted before construction of the gabions begins.

(c) Public access shall be provided in accordance with the public trust rights rule, N.J.A.C 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9

7:7-6.9 General permit 9 - construction of support facilities at legally existing and operating marinas

(a) This general permit authorizes the construction of support facilities at legally existing and operating commercial marinas including marinas operated by public agencies, commissions**,** and authorities.

(b) The construction of the following support facilities listed at (b)1 through 6 below is acceptable provided they comply with the specific conditions for each facility and also with (c) below:

1. Construction of boat rack systems/marina support buildings including, but not limited to, showroom, maintenance/repair, marine supplies, bait/tackle, boat sales, dock masters office buildings, sheds**,** and storage, excluding residential development provided:
    i. The building(s) shall be no more than one story or level;
    ii. The building(s) shall be set back a minimum of 15 feet from a shore protection structure and 25 feet from the mean high water line where no shore protection structures are present;
    iii. The building(s) and rack system shall be set back a minimum of 50 feet from the inland limit of any wetlands;
    iv. The building(s) and rack system shall be located in an existing cleared and maintained area of the site;

v. The marina must provide or maintain restrooms and at least one portable toilet emptying receptacle in accordance with N.J.A.C. 7:7-15.3(d); and

vi. Marinas with dockage for 25 or more vessels or any one vessel with live aboard arrangement must provide for adequate and conveniently located pumpout facilities.

2. Construction of restroom facilities provided:

i. Discharge from the facilities shall either be to a municipal or regional treatment plant where practicable, or to a subsurface sewage disposal system designed with capacity to accommodate the new restroom facilities in accordance with N.J.A.C. 7:9A;

ii. The restroom building shall be set back a minimum of 15 feet from a shore protection structure and 25 feet from the mean high water line where no shore protection structures are present; and

iii. The restroom building shall be set back a minimum of 50 feet from the inland limit of any wetlands, unless the Department determines that there is no alternate location.

3. Construction of fences, water lines, and new sewer lines to connect restrooms**,** pumpout facilities, and/or pumpout support facilities to existing sewer lines provided:

i. The construction has no prudent or feasible alternative alignment which would have less impact to special areas as defined at N.J.A.C. 7:7-9;

ii. The construction shall not result in permanent or long term loss of special areas as defined at N.J.A.C. 7:7-9;

iii. The construction utilizes appropriate measures to mitigate adverse environmental impacts to the maximum extent feasible, such as restoration of disturbed vegetation, habitats, and land and water features; and

iv. For sewer lines only:

(1) The sewer line receives a Treatment Works Approval as required in accordance with the Department's rules at N.J.A.C. 7:7-14A, from the Department's Division of Water Quality;

(2) The sewer line shall not result in adverse secondary impacts; and

(3) The sewer line connects to an existing sewer line located on-site or immediately adjacent to the site;

4. Construction of a gasoline pump(s) and associated pipes and tanks on the upland portion of the marina provided:

i. The marina has available adequate floating containment booms and absorbent materials in the event of hydrocarbon spills;

ii. Fuel pumps include back pressure cutoff valves. Main cut-off valves shall be available both at the dock and in the upland area of the marina; and

iii. All necessary approvals for the construction of underground or above ground storage tanks are obtained.

5. Construction of boat handling facilities including, but not limited to, winches, gantries, railways, platforms and lifts, hoists, cranes, fork lifts and ramps provided:
   i. The boat handling facility (excluding boat ramp and railways) is located landward of the mean high water line; and
   ii. The boat handling facility is not located in a wetland area.
6. The one time construction of a single marina support building not exceeding a footprint of 120 square feet provided the building is located on the upland portion of the marina and is not located within wetlands.

(c) The construction of support facilities listed at (b)1 through 6 above shall also comply with the following:

1. The marina complies with N.J.A.C. 7:7-15.3(d), the standards relevant to the construction of marinas;
2. Public access shall be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9;
3. The development is consistent with the Water Quality Management Plan adopted pursuant to N.J.A.C. 7:15; and
4. The development shall meet the requirements of N.J.A.C. 7:7-9.25.

(d) Nothing in this section shall be construed to relieve a marina from compliance with applicable requirements of other State or local agencies.

7:7-6.10 General permit 10 –reconstruction of a legally existing functioning bulkhead

(a) This permit authorizes the reconstruction of a legally existing functioning bulkhead provided:

1. For project sites which are located on a lagoon lot, the reconstruction of a legally existing bulkhead is located in-place or upland of the existing bulkhead;
2. For project sites which are not located on a lagoon lot:
   i. The reconstruction of a legally existing bulkhead is located in-place or upland of the existing bulkhead; or
   ii. The reconstruction of a legally existing bulkhead is:
      (1) Located within 18 inches outshore of the existing bulkhead (measured from the waterward face of the original bulkhead alignment of the existing bulkhead to the waterward face of the proposed bulkhead) when a timber bulkhead is used; or

(2) Located up to a maximum of 24 inches outshore of the existing bulkhead (measured from the waterward face of the original bulkhead alignment of the existing bulkhead to the waterward face of the proposed bulkhead) when a vinyl bulkhead is used, provided the vinyl bulkhead abuts the pilings of the existing bulkhead; and

3. For all project sites, reconstruction of certain bulkhead structures in place located below the mean high water line may be exempt from the Waterfront Development Law pursuant to N.J.A.C. 7:7- 2.4(d)7.

(b) The reconstruction of a legally existing bulkhead as described in (a) above is acceptable provided that:

1. The replacement bulkhead is located upland of any wetlands;
2. Public access shall be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.
3. The construction of bulkheads subject to wave run up forces (V zones) shall be designed and certified by a professional engineer to withstand the forces of wave runup;
4. The placement of rip-rap along the seaward toe of the replacement bulkhead structure may qualify for this coastal general permit if the Department determines that such rip rap is required to limit scour potential and the areas and volume of rip rap are minimized;
5. The structure will not create net adverse shoreline movement downdrift, including erosion or shoaling;
6. The construction shall have no adverse impact to any special areas defined at N.J.A.C. 7:7-9; and
7. Clean fill from an upland source or the dredged material removed as part of the bulkhead installation, provided such dredged material meets the criteria for structural or non-structural fill material and is managed in accordance with Appendix G, shall be used for backfill.

7:7-6.11 General permit 11 – investigation, cleanup, removal, or remediation of hazardous substances

(a) This general permit authorizes all regulated activities landward of the mean high water line that are undertaken, authorized**,** or otherwise expressly approved in writing by the Department or by a licensed site remediation professional pursuant to the Administrative Requirements for the Remediation of Contaminated Sites, N.J.A.C. 7:26C, for the investigation, cleanup, removal**,** or remediation of hazardous substances as defined by or pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq., or pollutants, as defined by the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., provided the following conditions are met:

1. If the proposed cleanup activity is to take place in special areas as defined at N.J.A.C. 7:7-9, the general permit authorization shall be issued only if the Department or a

licensed site remediation professional finds that there are no practicable alternatives to the investigation, cleanup, removal, and remediation of the hazardous substances or pollutants that would involve less or no disturbance or destruction of special areas as defined at N.J.A.C. 7:7-9;

2. Mitigation may be required in accordance with N.J.A.C. 7:7-17 for disturbance to special areas as defined at N.J.A.C. 7:7-9; and
3. For coastal wetlands, mitigation shall be performed in accordance with N.J.A.C. 7:7-17. The mitigation plan may be incorporated as part of the document by which the Department or a licensed site remediation professional approves the clean-up or it may be submitted as part of the application for authorization under a general permit The general permit will not be issued until the mitigation plan is submitted and approved by the Division according to the standards at N.J.A.C. 7:7-17.

7:7-6.12 General permit 12 – landfall of utilities

(a) This general permit authorizes the landfall of utilities including cable (that is electric, television, and fiber optics), telecommunication, petroleum, natural gas, water, and sanitary sewer lines constructed in tidal water bodies authorized pursuant to the Waterfront Development Law or Flood Hazard Area Control Act.

(b) Construction authorized under this general permit is acceptable provided:

1. The section of the utility line that extends landward from the mean high water line of the tidal water body shall be no more than 150 feet long and shall connect to an existing utility line in the adjacent upland;
2. The width of the area disturbed within the right-of-way of the project is no more than 20 feet;
3. Excavated areas for the placement of the utility landfall shall be returned to the pre-existing elevation using the original soil, if feasible or other suitable material to backfill from a depth of 18 inches to the original grade and be revegetated;
4. The utility landfall shall have no adverse impacts to special areas as defined at N.J.A.C. 7:7-9;
5. A silt fence and/or other soil erosion controls shall be installed prior to excavation and shall remain in place until final restoration is complete;
6. The staging area and construction equipment shall not be placed directly into the tidal water. Construction equipment shall be land based or based on barges;
7. All underground cutting agents/lubricants shall be contained and properly disposed. Use of a vacuum truck may be required for large drilling operations;
8. The location of existing facilities prior to excavation shall be performed pursuant to the Underground Facility Protection Act, P.L. 1994, c.118 (N.J.S.A. 48:2-73 et seq.); and

9. The sanitary sewer line is consistent with the Water Quality Management Plan adopted pursuant to N.J.A.C. 7:15.

7:7-6.13 General permit 13 – construction of recreational facilities at public parks

(a) This general permit authorizes the construction of the following recreational facilities at parks which are publicly owned or controlled for the purposes of public access. Construction of the facilities listed below is acceptable provided that the construction has no adverse impact on any special areas defined at N.J.A.C. 7:7-9 and provided that the facility complies with the specific conditions listed below for each facility.

1. Construction of the following facilities provided they are not located on a dune or in a wetland, except as noted at (a)3 below:
   i. Playground equipment including, but not limited to, swings, slides, and jungle gyms;
   ii. Picnic tables, benches and grills which are not seasonal;
   iii. Gazebos, rain shelters and sheds provided they do not exceed a footprint 200 square feet;
   iv. Pathways, bicycle paths and jogging and nature trails and associated fitness equipment provided they are not located on a beach; and
   v. Fences which do not require permanent footings.
2. Construction of restroom facilities not located on a beach, dune, or in a wetland, provided that:
   i. The restroom facilities connect to an existing sewer line located within or abutting the park, or facilities discharge to a subsurface sewerage disposal system;
   ii. The connection at (a)2i above shall be consistent with the Water Quality Management Plan adopted pursuant to N.J.A.C. 7:15;
   iii. The restroom building shall be set back a minimum of 100 feet from the mean high water line unless the Department determines that there is no alternate location; and
   iv. The restroom building shall be set back a minimum of 50 feet from the inland limit of any wetlands, unless the Department determines there is no alternate location.
3. Trail or boardwalk construction in wetlands is acceptable provided that:
   i. The width of the trail or boardwalk does not exceed six feet, except for barrier free trails or boardwalks designed in accordance with the Barrier Free Subcode of the Standard Uniform Construction Code, N.J.A.C. 5:23-7. The construction of restrooms, gazebos, rain shelters, or any covered or enclosed structure is not authorized on the boardwalk or trail;
   ii. The height of the structure over wetlands, other than wetlands regulated under the Freshwater Wetlands Protection Act and implementing rules at N.J.A.C. 7:7A, shall be a minimum of four feet regardless of width;

iii. The project does not interfere with the natural hydrology of the area; and

iv. The project does not encroach upon or adversely affect the habitat of any threatened or endangered species.

(b) Public access shall be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

7:7-6.14 General permit 14 – bulkhead construction and placement of associated fill at a single-family home or duplex lot

(a) This general permit authorizes the construction of a bulkhead and associated fill at a single-family home or duplex lot on a natural water body provided that the proposed bulkhead complies with the following:

1. Legally existing functional bulkheads are located on the lots adjacent to the proposed bulkhead and are no more than 75 feet apart;
2. The bulkhead shall be located at or above the spring high water line;
3. The bulkhead is located a minimum of five feet inshore of any wetlands;
4. The bulkhead shall not be located on a dune or oceanfront beach;
5. Clean fill from an upland source or the dredged material removed as part of the bulkhead installation, provided such dredged material meets the criteria for structural or non-structural fill material and is managed in accordance with Appendix G, shall be used for backfill;
6. The bulkhead shall not be located further waterward than the bulkheads on the adjacent properties;
7. In the event that the bulkhead will be located landward of the adjacent bulkheads, the new bulkhead shall connect to the bulkhead on either side;
8. The construction of bulkheads subject to wave run-up forces (V zones) shall be designed and certified by a professional engineer to withstand the forces of wave run-up;
9. The placement of rip-rap along the seaward toe of the bulkhead structure may qualify for this coastal general permit if the Department determines that such rip rap is required to limit scour potential and the areas and volume of rip rap are minimized;
10. There shall be no disturbance to wetlands during construction; and
11. Public access shall be provided in accordance with the public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

(b) This general permit is not available for activities subject to the Wetlands Act of 1970, N.J.S.A. 13:9A-1 et seq.

7:7-6.15 General permit 15 – construction of piers, docks, including jet ski ramps, pilings, and boatlifts in man-made lagoons

(a) This general permit authorizes the construction of piers, docks, including jet ski ramps, pilings, and boatlifts in man-made lagoons, provided that:

1. The structures shall be located on individual single-family or duplex lots and shall be for recreational or noncommercial use;
2. The structures, including mooring area and mooring piles, shall not extend beyond a distance of 20 percent of the width of a man-made lagoon;
3. The width of the dock or pier shall not exceed twice the clearance between the structure and the surface of the ground below or the water surface at mean high water, except for floating docks. For example, an eight foot wide dock must be elevated a minimum of four feet above the water surface at mean high water;
4. The maximum width of the structure shall be eight feet, except where crossing wetlands, where the proposed structure shall be constructed perpendicular to the shoreline to access sufficient water depth and shall not exceed six feet in width. In any case, the height of the structure over wetlands shall be a minimum of four feet;
5. Any wetlands disturbed during construction shall be restored to pre-project conditions;
6. The proposed structure, including mooring areas and mooring piles, does not hinder navigation or access to adjacent docks, piers, moorings or water areas;
7. A minimum of eight feet of open water shall be provided between any docks including jet ski ramps, if the combined width of any existing or proposed docks over the water exceeds eight feet;
8. For docks which are perpendicular to the adjacent bulkhead or shoreline, construction and placement of the dock shall be a minimum of four feet from all property lines;
9. Space between horizontal planking is maximized and width of horizontal planking is minimized to the maximum extent practicable. Under normal circumstances, a minimum of 3/8 inch, 1/2 inch, 3/4 inch, or one inch space is to be provided for four inch, six inch, eight to 10 inch, or 12 inch plus wide planks, respectively. An alternative dock design which allows for sunlight penetration equal to or greater than that allowed by the spacing of planking described in this paragraph is also acceptable. Alternative designs include, for example, grate decking that is constructed of metal, wood, aluminum, or other similar materials that allow sunlight penetration through the grates within the dock or pier;
10. Jet ski ramps are inclined floating docks which are typically attached to existing docks for the purpose of docking jet skis. Jet ski ramps shall not exceed eight feet in width; and
11. For sites which have existing dock structures exceeding eight feet in width over water areas and/or wetlands, which were constructed prior to September 1978 and for which the applicant proposes to increase the coverage over the water area or wetland by increasing the number or size of boat slips, docks or piers, the existing oversized structures shall be reduced to a maximum of eight feet in width.

7:7-6.16 General permit 16 - minor maintenance dredging in man-made lagoons

(a) This general permit authorizes minor maintenance dredging in man-made lagoons provided that:

1. The volume of the material to be dredged shall not exceed 100 cubic yards;
2. The proposed depth shall not exceed six feet below mean low water;
3. Dredged material shall be placed on an upland site and shall be stabilized;
4. The proposed slope from the waterward edge of any wetlands to the nearest edge of the dredged area shall not exceed three horizontal to one vertical; and
5. The proposed depth does not exceed the water depth outshore of the dredged area.

7:7-6.17 General permit 17 – stabilization of eroded shorelines

(a) This general permit authorizes the stabilization of eroded shorelines along tidal waterways, excluding the Atlantic Ocean, provided that the proposed method complies with all of the following:

1. The stabilization materials are limited to live branch cuttings, live facings, live stakes, vegetative cuttings, vegetated earth buttresses, coir fiber products, fiber plugs, plants and clusters, selected plant materials, fiber pallets, fiber carpet, and wood stake anchor systems. Materials shall be installed in accordance with the construction guidelines of Chapter 16--"Streambank and Shoreline Stabilization Protection," of the National Engineering Handbook (NEH), Part 650, 1996, published by the United States Department of Agriculture, incorporated herein by reference, as amended and supplemented. This coastal general permit does not authorize the use of geotubes, stone, concrete, gabions, wood sheathing, pvc pipe, used tires, discarded Christmas trees, or other material not specifically stated in this paragraph;
2. The stabilization of the eroded shoreline shall have no adverse impact on special areas defined at N.J.A.C. 7:7-9;
3. No disturbance to wetlands shall occur;
4. Where shoreline stabilization will occur outshore of a wetland, the construction shall result in minimum feasible alteration or impairment of natural tidal circulation;
5. Where shoreline stabilization will occur outshore of a wetlands, the construction shall result in minimum feasible alteration or impairment of the natural contour or the natural vegetation of the wetlands;
6. For sites where grading is required, no grading shall occur below the spring high water line, and all soil or other graded materials shall be pulled back away from the water. Grading by pushing soil or other material below the spring high water line is prohibited;
7. The placement of bioengineering materials, with the exception of plantings, shall be limited to that necessary to protect the shoreline;

8. Plant material shall be chosen and installed in accordance with "Vegetation For Tidal Shoreline Stabilization In the Mid-Atlantic States" in Chapter 16--"Streambank and Shoreline Stabilization Protection," of the National Engineering Handbook (NEH), Part 650, 1996, published by the United States Department of Agriculture, incorporated herein by reference, as amended and supplemented.
9. For projects on public lands, public access to the waterfront shall be provided and maintained during construction, and thereafter; and
10. If the Department determines that construction has resulted in adverse shoreline sand movement, including erosion or shoaling, the Department may require the permittee to remove the shoreline stabilization materials.

7:7-6.18 General permit 18 – avian nesting structures

(a) This general permit authorizes the construction of pile supported avian nesting structures provided:

1. The construction shall not alter or impair the natural contour or vegetation of the wetlands. Protective measures such as wide track vehicles and mats shall be utilized during construction;
2. Disturbance to wetlands is restored except for those permanently impacted by the pilings; and
3. The construction of the pile supported nesting structure shall not adversely impact special areas as defined at N.J.A.C. 7:7-9.

7:7-6.19 General permit 19 – modification of existing electrical substations

(a) This general permit authorizes the modification of existing electrical substations within the existing fence line to maintain substation and electrical load and system reliability provided that:

1. The activities occur within the cleared, maintained portions of the site within the existing fenced area; and
2. The activities shall not have an adverse impact on special areas as defined at N.J.A.C. 7:7-9.

7:7-6.20 General permit 20 –legalization of the filling of tidelands

(a) This general permit authorizes the legalization of the filling of any lands formerly flowed by the tide provided:

1. The filling occurred after 1914;
2. The fill appears on the applicable Tidelands Map; and
3. Public access shall be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9;

(b) The legalization of the filling of any lands formerly flowed by the tide associated with a single-family home that is not part of a larger development, is eligible for a permit-by-rule. See N.J.A.C. 7:7-4.9.

7:7-6.21 General permit 21 –construction of telecommunication towers

(a) This general permit authorizes the construction of telecommunication towers such as cellular telephone and radio towers, including access roads and associated support buildings located upland of the mean high water line**,** provided:

1. The development shall not be located in or on dunes, beaches, wetlands, bay islands, coastal bluffs or wild and scenic river corridors;
2. The limits of disturbance associated with the development shall not exceed 0.25 acres;
3. The development shall be located a minimum of 50 feet landward of the mean high water line except on sites defined as filled water's edge sites at N.J.A.C. 7:7-9.23 where the development shall instead be located a minimum of 100 feet landward of the mean high water line;
4. The development shall be setback a minimum of 50 feet from the inland limit of any wetlands; and
5. The development shall comply with the endangered or threatened wildlife or vegetation species habitats rule, N.J.A.C. 7:7-9.36, and the critical wildlife habitat rule, N.J.A.C. 7:7-9.37.

7:7-6.22 General permit 22 –construction of certain structures related to the tourism industry at hotels and motels, commercial developments, and multi-family residential developments over 75 units

(a) This general permit authorizes the construction of structures such as equipment storage containers and sheds, stage platforms, bleachers, portable restrooms, food concession stands, gazebos, lockers, canopied shelters, and wooden walkways related to the tourism industry, at hotels and motels, commercial developments**,** and multi-family residential developments over 75 units provided that:

1. Except as provided in (a)1i below, the structure remains in place only from May 1 through October 31;
   i. Underground utilities, floor decking, open drink and food concession stand shells, and stage shells may remain in place on a year-round basis;
2. All structures authorized by this general permit that are located on a beach, except underground utilities, shall be immediately removed from the beach and relocated to a secure place at any time that the National Weather Service issues a Severe Weather Alert for the municipality in which the development is located, for significant weather events, such as Coastal Flood Warning, Extreme Wind Warning, Hurricane Warning, Tornado

Warning or Tropical Storm Warning, that would directly affect structures left on the beach, until the Severe Weather Alert is lifted.

3. The structure is not located on a dune, coastal bluff, or in a wetland;
4. Placement of the structure does not include the excavation, grading or filling of a beach;
5. The structure shall have no adverse impact on special areas defined at N.J.A.C. 7:7-9;
6. The structure is located a minimum of 50 feet landward of the mean high water line, except on beaches where the development is located on the most landward portion of the beach. Development on beaches shall additionally be subject to the following:
   i. The development shall occupy a maximum of 33 percent of the total width of the beach berm area within the limits of the project and is limited to the most landward one-third of the useable beach berm area; and
   ii. The total area of beach coverage, including all structures and support facilities, shall not exceed one acre. However, the Department reserves the right to limit the coverage to a greater extent due to prevailing beach conditions, public access and safety concerns;
7. The structure is located a minimum of 50 feet from any wetlands;
8. If the structure is proposed on a beach, the structure does not unreasonably conflict with ocean views or other beach uses;
9. If the structure is proposed on a beach, the beach is open to the public;
10. Public access shall be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9; and
11. Where the structure(s) is located on a beach, for each year of the duration of the permit, the permittee shall submit on or before April 1st to the Department for its review and approval one copy of a revised site plan, dated no more than 30 days prior to the submittal, including supplemental documents as appropriate, showing:
    i. The location of the beach berm area; and
    ii. Compliance with (a)2 through 9 above. Based on review of this information, the Department may approve the structure(s) as proposed or require modifications to the footprint or design of the structures to comply with these standards.

(b) Seasonal and temporary structures related to the tourism industry at public developments are not regulated as public development under CAFRA pursuant to N.J.A.C. 7:7-1.5 and 2.2(b)2viii.

7:7-6.23 General permit 23 –geotechnical survey borings

(a) This general permit authorizes geotechnical survey borings including survey borings or excavations constructed for the purpose of obtaining information on subsurface conditions, for

the purpose of determining the presence or extent of contamination in subsurface soils or groundwater, and for obtaining seismic information, provided the following conditions are met.

1. Borings and related site disturbance shall not be located in shellfish habitat (N.J.A.C. 7:7-9.2), submerged vegetation habitat (N.J.A.C. 7:7-9.6) or endangered or threatened wildlife or plant species habitats (N.J.A.C. 7:7-9.36).
2. Borings and related site disturbance shall comply with wild and scenic river corridors, (N.J.A.C. 7:7-9.44), wetlands (N.J.A.C. 7:7-9.27), and wetlands buffers (N.J.A.C. 7:7-9.28).
3. Borings for remedial investigation shall be permitted, constructed, and completed in accordance with the Well Construction and Maintenance; Sealing of Abandoned Well rules, N.J.A.C. 7:9D, and N.J.A.C. 7:26E-1.5(b) and 4 of the Technical Requirements for Site Remediation;
    i. Any excavation shall not adversely impact existing remedial investigation/remediation action (RI/RA) activities:
    ii. Workers on-site shall be notified, in writing, prior to the start of site preparation, of the possible presence of contaminated materials. Appropriate measures shall be taken to protect workers from exposure to possible contaminants; and
    iii. Any potential or actual impact to existing monitoring wells shall be reported to the Department's Site Remediation Program and the licensed site remediation professional (LSRP) of record assigned to the case, if applicable. The LSRP (or the Site Remediation Program if there is no LSRP involved in the case) will coordinate appropriate measures required to protect, decommission, or install the monitoring wells. The LSRP is responsible for ensuring that all damaged or destroyed wells are decommissioned in accordance with N.J.A.C. 7:9D. Any replacement wells shall be installed in accordance with N.J.A.C. 7:9D. Decommissioning of monitoring wells and drilling of regulated soil borings shall be performed by a New Jersey licensed well driller of the proper class in accordance with N.J.A.C. 7:9D.
4. Disturbance shall be limited to that which is necessary to access and conduct the geotechnical borings.
    i. Disturbance to vegetation shall be limited to a maximum width of five feet for access.
5. Borings and related site disturbance shall not be conducted during the following time periods:
    i. During the migration of anadromous fish from April 1 thru June 30 (inclusive);
    ii. During the period from March 1 thru June 30 and from October 1 thru November 30 (inclusive), within and adjacent to waters on the Delaware River System from the mouth of bay to Delaware Memorial Bridge and tidal Maurice River, identified as American shad migratory pathways; and

iii. During the period from April 1 thru June 30 and from September 1 thru November 30 (inclusive), within and adjacent to waters on the Delaware River System from the Delaware Memorial Bridge to the New York State line and tidal portions of Rancocas and Raccoon Creeks, identified as American shad migratory pathways.

6. Bore holes shall be backfilled to the original surface level with appropriate, non-contaminated, soil material.

   i. Sand may not be used for backfilling in either freshwater or coastal wetlands. Restoration of all bore holes must maintain the hydrologic integrity of the wetlands. To avoid the potential for draining a wetland by puncturing a hard-pan or confining layer, all borings must be sealed with grout or bentonite in accordance with the Department's Water Monitoring Management Program rules, N.J.A.C. 7:9-6.

   ii. Water used to flush a boring may be discharged to the ground provided the boring is not conducted in proximity to a stream or in an area of hazardous waste or acid-producing soils. When the boring is performed in proximity to a stream, and water or drilling fluid is used to remove soil from the hole, the sediment-laden water shall not be allowed to flow overland such that it would enter the stream. Soil erosion and sediment control measures shall be used as necessary to contain/filter excess water. Drilling fluid shall be contained when working adjacent to a fish-populated watercourse during the relevant restricted period, and in any other situation where containment represents the only method of ensuring that there is no impact to adjacent streams.

7:7-6.24 General permit 24 - habitat creation, restoration, enhancement, and living shoreline activities

(a) This general permit authorizes habitat creation, restoration, enhancement, and living shoreline activities necessary to implement a plan for the restoration, creation, enhancement, or protection of the habitat, water quality functions, and values of wetlands, wetland buffers, and open water areas, which is sponsored by a Federal or State agency or other entity described in (b) below. For the purposes of this general permit, a "sponsor" shall endorse the activities in writing.

(b) The following habitat creation, restoration, enhancement, and living shoreline plans are acceptable provided they demonstrate compliance with (c) through (g) below:

1. A fish and/or wildlife management plan created or approved by the Department's Division of Fish and Wildlife;
2. A project plan approved under the Partners for Fish and Wildlife program, Coastal Program, or a similar program administered by the USFWS;
3. A project plan created by the U.S. Department of Agriculture's Natural Resources Conservation Service under the Wetlands Reserve program, the Conservation Reserve program, the Conservation Reserve Enhancement program, the Wildlife Habitat Incentive program (WHIP), or a similar program, and approved by the local Soil Conservation District;

4. A plan approved by the Department's Office of Natural Resource Damages for the restoration, creation or enhancement of natural resources injured as the result of an oil spill or release of a hazardous substance;
5. A mitigation project required or approved by a government agency, such as the USACE;
6. A habitat creation, restoration or enhancement plan carried out by one of the Federal or State agencies at (b)1 through 5 above or by a government resource protection agency such as a parks commission;
7. A habitat creation, restoration, or enhancement plan carried out by a charitable conservancy-provided that the plan is part of a program listed at (b)2 through 5 above;
8. A living shoreline plan designed and/or sponsored by the Department, the USFWS, the Natural Resource Conservation Services, the USACE, the USEPA, or NOAA's Restoration Center; or
9. A living shoreline plan implemented by a college or university for the purpose of research.

(c) Habitat creation, restoration, enhancement, and living shoreline activities that are authorized by this general permit include, but are not limited to, the following:

1. Altering hydrology to restore or create wetlands conditions, such as by blocking, removing, or disabling a human-made drainage ditch or other drainage structure such as a tile, culvert or pipe;
2. Breaching a structure such as a dike or berm in order to allow water into an area;
3. Placing habitat improvement structures such as:
   i. Nesting islands;
   ii. Fencing to contain, or to prevent intrusion by, livestock or other animals; and
   iii. Fish habitat enhancement devices or fish habitat improvement structures such as placed boulders, stream deflectors, or brush piles;
4. Regrading to provide proper elevation or topography for wetlands restoration, creation, or enhancement;
5. Cutting, burning or otherwise managing vegetation in order to increase habitat diversity or control nuisance flora; or
6. Establishing a living shoreline to protect, restore, or enhance a habitat.

(d) To be eligible for authorization under this general permit, an applicant shall demonstrate that the proposed project:

1. Is part of a plan for the restoration, creation or enhancement of the habitat and water quality functions and values of wetlands, wetland buffers, and/or State open waters;

2. Is consistent with the requirements of the Wetlands Act of 1970, the Waterfront Development Law, the Coastal Area Facility Review Act and this chapter;
3. Will improve or maintain the values and functions of the ecosystem; and
4. Will have a reasonable likelihood of success, or, if performed by a college or university, in accordance with (b)9 above, will advance the level of knowledge regarding living shorelines in the State.

(e) Activities under this general permit**,** except for living shoreline activities, which are subject to the requirements of (f) below, shall comply with the following:

1. If the proposed habitat creation**,** restoration, or enhancement activity is to take place in special areas, as defined at N.J.A.C 7:7-9, the general permit authorization shall be issued only if the Department finds that there are no practicable alternatives that would involve less or no disturbance or destruction of special areas;
2. The activities shall disturb the minimum amount of special areas as defined at N.J.A.C. 7:7-9 necessary to successfully implement the project plan;
3. The activities shall not decrease the total combined area of special areas on a site. However, the Department may approve a decrease if the Department determines that the activities causing the decrease are sufficiently environmentally beneficial to outweigh the negative environmental effects of the decrease. In addition, the Department may approve conversion of one special area to another special area if the Department determines that such conversion is environmentally beneficial; and
4. If the activities involve the removal of a dam, the activities shall be conducted in accordance with a permit issued pursuant to N.J.A.C. 7:20 by the Department's Dam Safety Section in the Division of Engineering and Construction.

(f) Living shoreline activities shall comply with the following:

1. The project area below the mean high water line is one acre in size or less, unless the applicant is a county, State or Federal agency that demonstrates that a larger project size is necessary to satisfy the goals of the project;
2. The project shall disturb the minimum amount of special areas as defined at N.J.A.C. 7:7-9, necessary to successfully implement the project plan. The Department may approve a reduction in the size of a particular special area in order to allow an increase in a different special area if the Department determines that the activities causing the reduction are sufficiently environmentally beneficial to outweigh the negative environmental effects of the reduction; and
3. Where the living shoreline is intended to restore an existing shoreline to a previous location, the living shoreline, including all associated fill, shall not exceed the footprint of the shoreline as it appeared on the applicable Tidelands Map, except for a structural component of the project intended to reduce wave energy.

(g) Public access shall be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

(h) This general permit does not authorize an activity unless the sole purpose of the activity is habitat creation, restoration, enhancement, or a living shoreline. For example, this general permit does not authorize construction of a detention basin in wetlands for stormwater management, even if the detention basin or the project of which the basin is a part will also result in habitat creation or enhancement.

7:7-6.25 General permit 25 – construction of one to three wind turbines less than 200 feet in height and having a cumulative rotor swept area no greater than 4,000 square feet

(a) This general permit authorizes the construction of one to three wind turbines less than 200 feet in height, measured from the ground surface to the tip of the blade at its highest position, and having a cumulative rotor swept area no greater than 4,000 square feet provided:

1. No portion of the wind turbine(s), including blades, tower and site disturbance, shall be located in, on or over dunes, beaches, wetlands, coastal bluffs, or wild and scenic river corridors;
2. No wind turbine tower(s) or site disturbance shall be located in floodways;
3. The wind turbine(s), including blades, tower and site disturbance, is set back a minimum of 50 feet, as measured parallel to the ground:
    i. Landward of the mean high water line and the inland limit of any beach or dune. This setback does not apply to manmade lagoons and manmade ditches; and
    ii. From the boundary of any wetlands;
4. The wind turbine(s) shall comply with N.J.A.C. 7:7-9.36, Endangered or threatened wildlife or plant species habitats, and 7:7-9.37, Critical wildlife habitats;
5. Development under this general permit shall not result in construction of more than three wind turbines on a site, either solely or in conjunction with a previous wind turbine development;
6. If the wind turbine(s) is more than 120 feet tall, measured from the ground surface to the tip of the blade at its highest position, the tower shall be a freestanding monopole(s);
7. No lighting shall be placed on or directed at the wind turbine except for lighting required by the Federal Aviation Administration. Shielded ground level security lighting may be used. Lighting is shielded when it is covered in a way that light rays are not emitted above the horizontal plane of the light; and
8. In order to assess the impact of the operation of wind turbines authorized under this coastal general permit on avian species and bats, post-construction monitoring shall be required for the first 15 wind turbine developments constructed under this coastal general permit, where the rotor swept area either individually or cumulatively on a site, exceeds 2,000 square feet. The monitoring shall be conducted for one full year beginning

immediately after the wind turbines begin operation and shall consist of bird and bat carcass searches as well as removal and efficiency trials. The monitoring methodology shall be approved by the Department prior to initiation and a complete report of findings submitted to the Department within three months of completion of the monitoring. The Department has prepared a technical manual titled, "Technical Manual for Evaluating Wildlife Impacts of Wind Turbines Requiring Coastal Permits," which provides guidance on monitoring and reporting. The technical manual is available from the Department's Division of Land Use Regulation website https://www.nj.gov/dep/landuse.

(b) In accordance with N.J.A.C. 7:7-3.8(b) the Department may add a special condition to an authorization under this general permit, that would curtail the operation of the wind turbines, as directed by the Department pursuant to (b)1 below, during peak spring (April through June) and fall (August through November) migration periods when migrating birds or bats would likely be flying at the height of the rotor swept area or be present at seasonally high densities throughout the entire air column. Such curtailment shall not exceed 360 hours in a calendar year per turbine that occurs within the normal range of operation of the turbine. Curtailment measures include establishing a minimum wind speed that must be achieved prior to starting operations and shutting down operations during certain weather conditions or migratory events. Weather conditions that may necessitate curtailment include low wind speeds, low altitude cloud cover, strong storms, or approaching weather fronts favorable to bird or bat migration (such as southerly winds in the spring or northwest winds in the fall). Migratory events that may necessitate curtailment include high concentrations of migrating birds and bats using the coastal area (for example, high concentrations of shorebirds making daily flights between coastal feeding areas, such as mudflats, and roosting areas during spring migration).

1. Limitations on operation shall be developed by the Department based on monitoring results and published and unpublished studies or data. The Department shall notify the permittee in writing of the operational limitations by March 15th of the first year curtailment is required during the spring migration and by July 15th of the first year curtailment is required during the fall migration. These operational limitations shall remain in effect unless the Department notifies the permittee in writing by the above dates in subsequent years that changes to operational limitations are required. This information shall also be made available on the Department's website at https://www.nj.gov/dep/landuse.

7:7-6.26 General permit 26 – construction of wind turbines less than 250 feet in height and having a cumulative rotor swept area no greater than 20,000 square feet

(a) This general permit authorizes the construction of wind turbines less than 250 feet in height, measured from the ground surface to the tip of the blade at its highest position, and having a cumulative rotor swept area no greater than 20,000 square feet provided:

1. No portion of the wind turbine(s), including blades, tower and site disturbance, shall be located in, on or over dunes, beaches, wetlands, coastal bluffs, or wild and scenic river corridors;

2. No wind turbine tower(s) or site disturbance shall be located in floodways;
3. The wind turbine(s), including blades, tower and site disturbance, is set back a minimum of 50 feet, as measured parallel to the ground:
   i. Landward of the mean high water line and the inland limit of any beach or dune. This setback does not apply to manmade lagoons and manmade ditches; and
   ii. From the boundary of any wetlands;
4. No portion of the wind turbine(s), including blades, tower**,** and site disturbance shall be located within:
   i. An area mapped as threatened or endangered species habitat on the Department's Landscape Maps of Habitat for Endangered, Threatened and Other Priority Wildlife (Landscape Maps). The Landscape Maps are available from the Department's Division of Fish and Wildlife, Endangered and Nongame Species Program at https://www.nj.gov/dep/fgw/ensp/landscape/index.htm;
   ii. An area identified on the Department's Large Scale Wind Turbine Siting Map, dated August 8, 2009, incorporated by reference into this chapter. The Department's Large Scale Wind Turbine Siting Map is available on the Department's interactive mapping website at https://www.nj.gov/dep/gis; or
   iii. One-quarter mile of an area identified on the Department's Large Scale Wind Turbine Siting Map;
5. The wind turbine(s) shall comply with N.J.A.C. 7:7-9.37, Critical wildlife habitats;
6. Development under this general permit shall not result in construction of turbines with a cumulative rotor swept area-greater than 20,000 square feet on a site, either solely or in conjunction with a previous wind turbine development;
7. If the wind turbine(s) is more than 120 feet tall, measured from the ground surface to the tip of the blade at its highest position, the tower shall be a freestanding monopole(s);
8. No lighting shall be placed on or directed at the wind turbine except that lighting required by the Federal Aviation Administration and shielded ground level security lighting may be used. Lighting is shielded when it is covered in a way that light rays are not emitted above the horizontal plane of the light; and
9. In order to assess the impact of the operation of wind turbines authorized under this coastal general permit on avian species and bats, post-construction monitoring shall be required. The monitoring shall be conducted for one full year beginning immediately after the wind turbines begin operation and shall include bird and bat carcass searches as well as removal and efficiency trials. The monitoring methodology shall be approved by the Department prior to initiation and a complete report of findings submitted to the Department within three months of completion of the monitoring. The Department has prepared a technical manual titled, "Technical Manual for Evaluating Wildlife Impacts of Wind Turbines Requiring Coastal Permits," which provides guidance on monitoring and

reporting. The technical manual is available from the Department's Division of Land Use Regulation website https://www.nj.gov/dep/landuse.

(b) In accordance with N.J.A.C. 7:7-3.8(b), the Department may add a special condition to an authorization under this general permit, that would curtail the operation of the wind turbines as directed by the Department pursuant to (b)1 below, during peak spring (April through June) and fall (August through November) migration periods when migrating birds or bats would likely be flying at the height of the rotor swept area or be present at seasonally high densities throughout the entire air column. Such curtailment shall not exceed 360 hours in a calendar year per turbine that occurs within the normal range of operation of the turbine. Curtailment measures include establishing a minimum wind speed that must be achieved prior to starting operations and shutting down operations during certain weather conditions or migratory events. Weather conditions that may necessitate curtailment include low wind speeds, low altitude cloud cover, strong storms, or approaching weather fronts favorable to bird or bat migration (such as southerly winds in the spring or northwest winds in the fall). Migratory events that may necessitate curtailment include high concentrations of migrating birds and bats using the coastal area (for example, high concentrations of shorebirds making daily flights between coastal feeding areas, such as mudflats, and roosting areas during spring migration).

1. Limitations on operation shall be developed by the Department based on monitoring results and published and unpublished studies or data. The Department shall notify the permittee in writing of the operational limitations by March 15th of the first year curtailment is required during the spring migration and by July 15th of the first year curtailment is required during the fall migration. These operational limitations shall remain in effect unless the Department notifies the permittee in writing by the above dates in subsequent years that changes to operational limitations are required. This information shall also be made available on the Department's website at https://www.nj.gov/dep/landuse.

7:7-6.27 General permit 27 –dredging of sand from a man-made lagoon deposited as a result of a storm event for which the Governor declared a State of Emergency

(a) This general permit authorizes the dredging of sand from a man-made lagoon that was deposited as a result of a storm event for which the Governor declared a State of Emergency, provided (a)1 through 5 below are met. Sand means, for the purposes of this section, a material consisting of 90 percent or greater of particles by weight retained on a 0.0625 mm sieve.

1. The volume of sand to be dredged is limited to that which was deposited as a result of the storm event;
2. The area to be dredged is limited to that where the sand was deposited as a result of the storm event;
3. The sand removed by dredging is placed on an upland site, dewatered as necessary within a temporary dewatering area, and capped with a six-inch layer of clean fill and stabilized;

4. No wetlands are present within 25 feet of the area to be dredged. A 25 foot buffer shall be provided from any wetlands to the nearest edge of the area to be dredged; and
5. Any debris contained within the dredged sand shall be removed and disposed of properly.

(b) An application that meets the requirements of N.J.A.C. 7:7-23 for authorization under this general permit shall be received by the Department no later than 24 months after the date the Governor declared a State of Emergency.

(c) An authorization of dredging issued under this general permit shall not be considered in determining whether a future dredging activity constitutes maintenance dredging as defined at N.J.A.C. 7:7-12.6 at the same site.

7:7-6.28 General permit 28 – dredging of material from a waterway at a residential or commercial development deposited as a result of the failure of a bulkhead as a consequence of a storm event for which the Governor declared a State of Emergency

(a) This general permit authorizes the dredging of material from a waterway at a residential or commercial lot that was deposited as a result of the failure of a legally existing bulkhead that was damaged as a result of a storm event for which the Governor declared a State of Emergency, provided:

1. The volume of the material to be dredged is limited to that which resulted from the failure of the bulkhead;
2. The area to be dredged is limited to that where the material was deposited as a result of the failure of the bulkhead;
3. The dredged material is placed on an upland portion of the lot, dewatered as necessary within a temporary dewatering area, and capped with a six-inch layer of clean fill and stabilized;
4. A 25 foot buffer shall be provided from any wetlands to the nearest edge of the area to be dredged; and
5. Any debris contained within the dredged material shall be removed and disposed of properly.

(b) An application that meets the requirements of N.J.A.C. 7:7-23 for authorization under this general permit shall be received by the Department no later than 24 months after the date the Governor declared a State of Emergency.

(c) An authorization of dredging issued under this general permit shall not be considered in determining whether a future dredging activity constitutes maintenance dredging as defined at N.J.A.C. 7:7-12.6 at the same site.

7:7-6.29 General permit 29 –dredging and management of material from a marina deposited as a result of a storm event for which the Governor declared a State of Emergency

(a) This general permit authorizes the dredging and management of material from a marina that was deposited as a result of a storm event for which the Governor declared a State of Emergency, provided (a)1 and 2 below are met. Sand means, for the purposes of this section, a material consisting of 90 percent or greater of particles by weight retained on a 0.0625 mm sieve.

1. The dredged material is sand; or
2. If the dredged material is not sand, the material is temporarily disposed of in an existing upland confined disposal facility located on the marina property until a final placement site is determined in accordance with (e) below.

(b) Dredging activities under this general permit shall comply with the following:

1. The depth in the area after the proposed dredging is completed shall not exceed the depth in that area prior to the storm event;
2. The area to be dredged is limited to the area in which material was deposited as a result of the storm event; and
3. A 25 foot buffer shall be provided from any wetlands to the nearest edge of the area to be dredged, unless the area to be dredged is within an existing maintained navigation channel or basin. In such cases, the area to be dredged shall be limited to the existing channel or basin.

(c) An application that meets the requirements of N.J.A.C. 7:7-23 for authorization under this general permit shall be received by the Department no later than 24 months after the date the Governor declared a State of Emergency.

(d) Material determined to be sand shall be placed at either an on-site or off-site location that has been approved by the Department. The beneficial use of this dredged sand is encouraged.

(e) Material determined not to be sand shall be disposed of in an existing upland confined disposal facility located on the marina property, until beneficially used at an on- or off-site location. The dredged material shall remain within the confined disposal facility until an acceptable use determination for the final placement site, in accordance with Appendix G, is issued by the Department. Additional testing of the material may be required as part of the Department's assessment of a final placement site. The upland confined disposal facility shall:

1. Be large enough to contain and dewater the dredged material, considering any bulking that occurs during dredging;
2. Not be located within wetlands or wetlands buffers; and
3. Be operated and maintained in a manner to minimize the discharge of dredged material into the adjacent surface waters and wetlands.

(f) An authorization of dredging issued under this general permit shall not be considered in determining whether a future dredging activity constitutes maintenance dredging as defined at N.J.A.C. 7:7-12.6 at the same site.

7:7-6.30 General permit 30 – commercial shellfish aquaculture activities

(a) This general permit authorizes the construction and/or placement and maintenance of shellfish aquaculture equipment, including floating upwellers, shellfish rafts, racks and bags, lantern nets, and cages, provided:

1. The structures are located in an area with a valid shellfish lease authorized under N.J.S.A. 50:1-23;
2. The structures are not located within submerged infrastructure routes, N.J.A.C. 7:7-9.12, shipwreck and artificial reef habitat, N.J.A.C. 7:7-9.13, or wetlands, N.J.A.C. 7:7-9.27;
3. The structures are not located within 50 feet of any designated navigation channel, unless it is demonstrated that the proposed structure will not hinder navigation. The placement of structures within designated navigation channels is prohibited;
4. The boundaries of the area where the structures are placed are clearly marked in accordance with US Coast Guard requirements for regulatory and informational markers (*(US Coast Guard "U.S. Aids to Navigation System" http://uscgboating.org/regulations/navigation-rules.php*). Specifically, the corners of the footprint of the area where the structures are placed must be marked with buoys or stakes;
5. The structures are constructed of non-polluting materials:
6. The structures are properly secured; and
7. No activity undertaken pursuant to this general permit shall prevent the catching and taking of free swimming fish from the tidal waters of the State in any lawful manner, pursuant to N.J.S.A. 50:1-33.

(b) Upon expiration or termination of the shellfish lease, or the cessation of shellfish aquaculture activities, whichever occurs first, within five days the permittee shall remove all structures placed within the lease area.

(c) Prior to the commencement of activities authorized by this general permit, the permittee shall notify the Department's Bureau of Shellfisheries in writing:

1. For Atlantic Coast Shellfish Leases:

   Nacote Creek Shellfish Office

   PO Box 418

   Port Republic, NJ 08241
2. For Delaware Bay Shellfish Leases:

Delaware Bay Shellfish Office

1672 East Buckshutem Road

Millville, NJ 08332

(d) The notification under (c) above shall contain the following information:

1. A copy of the permit and associated plans;
2. The shellfish lease number;
3. The shellfish species to be cultured; and
4. The estimated date of commencement of activities.

7:7-6.31 General permit 31 – placement of shell within shellfish lease areas

(a) This general permit authorizes the placement of shell in an area with a valid shellfish lease authorized under N.J.S.A. 50:1-23, provided:

1. The shell to be planted is comprised of processed oyster, surf clam and/or ocean quahog shell or other shell material approved by the Department;
2. The height of the shell material placed on the bottom of the water body does not exceed six inches above the substrate;
3. The placement of shell does not pose a hazard to navigation; and
4. All shell is clean and free of contaminants.

(b) This general permit does not authorize the stockpiling of shell or dredging activities.

7:7-6.32 General permit 32 – application of herbicide within coastal wetlands to control invasive plant species

(a) This general permit authorizes the application of herbicide within an area of coastal wetlands greater than 0.25 acres in size to control invasive plant species, provided the activities:

1. Do not adversely affect the habitat of any threatened or endangered wildlife or plant species habitat, as defined at N.J.A.C. 7:7-9.36;
2. Do not require the application of any herbicide on areas containing significant stands of high vigor Saltmarsh cordgrass (*Spartina alterniflora*), Wildrice (*Zizania aquatica*), Cattail (T*ypha sp.*), and Common threesquare (*Scirpus americanus*) as shown generally on wetlands maps, see chapter Appendix D; and
3. When conducted within waters of the State or waters of the United States, are conducted pursuant to an aquatic use permit issued by the Department's Bureau of Licensing and Pesticide Operations.

SUBCHAPTER 7. LONG BRANCH REDEVELOPMENT ZONE PERMIT

7:7-7.1 Applicability; permit conditions

(a) This Long Branch Redevelopment Zone Permit authorizes the construction of any development regulated under N.J.A.C. 7:7-2.2 within the Redevelopment Zone of the City of Long Branch, as defined in the Redevelopment Plan Ordinance of the City of Long Branch and as described at (a)1 below, provided the conditions at (b) through (g) below and the notification requirements at N.J.A.C. 7:7-7.2 or 7.3, as applicable, are met:

1. The Redevelopment Zone of the City of Long Branch comprises that area circumscribed by a line starting at the point of intersection of North Bath Avenue and Ocean Boulevard, then moving northward along Ocean Boulevard to the intersection of Ocean Boulevard and Chelsea Avenue. Then move westward along Chelsea Avenue to the intersection of Chelsea Avenue and Second Avenue. Then move northward along Second Avenue to the intersection of Second Avenue and Broadway. Continue across Broadway in a northerly direction along Union Avenue until Union Avenue makes a 90 degree turn westward. At this point, continue in a northerly direction until meeting the southerly property line of the abandoned Conrail Railroad right-of-way. At this point, follow the southerly side of the right-of-way eastward to Long Branch Avenue. Continue in a northerly direction along Long Branch Avenue until the northerly side of the Conrail right-of-way is reached. From this point, follow the northerly side of the Conrail right-of-way westward to a point which intersects the westerly fence line of the New Jersey Natural Gas facility. Continue in a northerly direction along the fence line past the foot of Brook Street (C.P. Williams Way). Continue to follow fence in northern and eastern directions along the property line, which divides New Jersey Natural Gas/Jersey Central Power & Light property from City of Long Branch Housing Authority property, to Central Avenue. Continue in an easterly direction to the Open Brook. Follow the Open Brook in a northerly direction to the point of intersection with the property line of the former Jerry Morgan Park, known as Block 309, Lot 6.02. Follow this property line in an easterly and southerly direction until Long Branch Avenue is met. Continue in a southerly direction along Long Branch Avenue to the intersection of Long Branch Avenue and Cooper Avenue. Continue in an easterly direction along Cooper Avenue until the intersection of Cooper Avenue and Witmer Place. Continue northward along Witmer Place until the intersection of Witmer Place and Sea View Avenue. Follow Sea View Avenue eastward until meeting the high water mark of the Atlantic Ocean. Follow the mean high water line inclusive of existing Pier riparian lands, known as Block 298, Lots 1.01 and 1.02, southward until reaching a point created by the intersection of the mean high water line and a line projected from the right-of-way for North Bath Avenue. Then turn westward along this line to North Bath Avenue to the point of origin, which is the intersection of Ocean Boulevard and North Bath Avenue.

(b) The development shall be in compliance with the Redevelopment Plan Ordinance and the Design Guidelines Ordinance of the City of Long Branch.

(c) The development must be approved by the Planning Board of the City of Long Branch, or, if it is a public development, by the City Council or the Redevelopment Agency of the City of Long Branch.

(d) The Long Branch Redevelopment Zone Permit established under this subchapter does not apply to applications for development before the Board of Adjustment of City of Long Branch or any other agency not specified in (c) above.

(e) If the Planning Board, the City Council, or the Redevelopment Agency of the City of Long Branch approves a development with a variance or waiver from a provision(s) of the Redevelopment Plan Ordinance or the Design Guidelines Ordinance of the City of Long Branch, and if the Department concurs in writing with such variance or waiver, the development is authorized under this Long Branch Redevelopment Zone Permit. The Department shall concur if the waiver or variance complies with this chapter, and if, notwithstanding the waiver or variance, the developments within the Redevelopment Zone continue to comply individually and collectively with this chapter.

(f) Construction, including site preparation, of a development proposed under this Long Branch Redevelopment Zone Permit shall not be started until either 45 calendar days after receipt by the Department of the final Planning Board approval under N.J.A.C. 7:7-7.2 or 90 calendar days after receipt by the Department of notice under N.J.A.C. 7:7-7.3(a)1, whichever is applicable.

(g) For any development within the Redevelopment Zone of the City of Long Branch that does not meet the conditions for approval under this Long Branch Redevelopment Zone Permit, the applicant shall, pursuant to the applicable requirements of this chapter, either obtain from the Department a CAFRA individual permit or meet the requirements for authorization under a CAFRA general permit or permit-by-rule.

7:7-7.2 Notification to the Department regarding developments requiring planning board approval

(a) The notification requirements for developments within the Redevelopment Zone of the City of Long Branch requiring Planning Board approval are as follows:

1. The Planning Board of the City of Long Branch shall provide notice to the Manager of the Bureau of Urban Growth and Redevelopment, Division of Land Use Regulation, at the address set forth at N.J.A.C. 7:7-1.6, that an application for a development within the Redevelopment Zone has been filed with the Planning Board as soon as the Planning Board determines under the Municipal Land Use Law, N.J.S.A. 40:55D-10.3, that the application is complete for review. This notice shall include a copy of the application and of the development plan(s).
2. If the Department intends to comment on the development application prior to the Planning Board's taking action on the application, it shall provide the Planning Board

with written comments within 30 calendar days after receipt by the Department of notice under (a)1 above. The Department's comments may include suggestions regarding how the development should be modified in order to meet the requirements of the Long Branch Redevelopment Zone Permit.

3. The applicant shall provide notice, via certified mail, to the Manager of the Bureau of Urban Growth and Redevelopment, Division of Land Use Regulation, at the address set forth at N.J.A.C. 7:7-1.6, of the date of the Planning Board hearing on the development application at least 10 calendar days prior to the hearing.
4. The applicant shall provide notice of the preliminary and final Planning Board approvals to the Manager of the Bureau of Urban Growth and Redevelopment, Division of Land Use Regulation, at the address set forth at N.J.A.C. 7:7-1.6, within seven calendar days of the Planning Board's adoption of each memorializing resolution. This notice shall include a copy of the approved development plan(s) and of the resolution.
5. If the Department determines that the Long Branch Redevelopment Zone Permit under this section is not applicable and that a CAFRA individual permit, general permit or permit-by-rule is instead required, the Department shall, within 45 calendar days of its receipt under (a)4 above of notice of preliminary and final Planning Board approval, so notify the applicant and the Planning Board.

7:7-7.3 Notification to the Department regarding developments not requiring planning board approval

(a) The notification requirements for developments within the Redevelopment Zone of the City of Long Branch not requiring Planning Board approval are as follows:

1. The City Council or the Redevelopment Agency of the City of Long Branch shall provide notice to the Manager of the Bureau of Urban Growth and Redevelopment, Division of Land Use Regulation, at the address set forth at N.J.A.C. 7:7-1.6, that a development within the Redevelopment Zone is under consideration by the City Council or

   Redevelopment Agency 90 calendar days prior to the solicitation of bids for construction of the development. This notice shall include a copy of the development plan(s).
2. If the Department intends to comment for the purpose of suggesting modifications to the development plan(s), it shall provide the City Council or the Redevelopment Agency with written comments within 30 calendar days after receipt by the Department of notice under (a)1 above.
3. If the Department determines that the Long Branch Redevelopment Zone Permit under this section is not applicable and that a CAFRA individual permit, general permit or permit-by-rule is instead required, the Department shall, within 90 calendar days of its receipt under (a)1 above of notice that a development is under consideration by the City Council or the Redevelopment Agency, so notify the City Council or the Redevelopment Agency.

7:7-7.4 Publication of notice of Department's decision that Long Branch Redevelopment Zone Permit is or is not applicable to development

The Department shall publish notice in the DEP Bulletin of its decision under N.J.A.C. 7:7-7.2 or 7.3 that the Long Branch Redevelopment Zone Permit is applicable or inapplicable.

7:7-7.5 Requests for adjudicatory hearings

(a) To contest a decision of the Department under N.J.A.C. 7:7-7.2 or 7.3, a person shall submit an adjudicatory hearing request within 10 calendar days of the publication of notice of such decision in the DEP Bulletin pursuant to N.J.A.C. 7:7-7.4, in accordance with (a)1 below and the provisions of N.J.A.C. 7:7-28.1(c) through (g).

1. The person submitting the request for hearing shall mail a copy of the request to the Monmouth County Clerk and the City of Long Branch Clerk, and shall include proof of such mailing with the hearing request submitted to the Department.

SUBCHAPTER 8. INDIVIDUAL PERMITS

7:7-8.1 Requirement to obtain an individual permit

A person shall obtain an individual permit under this subchapter in order to undertake any activity that does not meet the requirements of a permit-by-rule pursuant to N.J.A.C. 7:7-4, an authorization under a general permit-by-certification pursuant to N.J.A.C. 7:7-5, or an authorization under a general permit pursuant to N.J.A.C. 7:7-6.

7:7-8.2 Duration of an individual permit

(a) An individual permit for any activity waterward of the mean high water line is valid for five years from the date of issuance, and may be extended one time for five years pursuant to N.J.A.C. 7:7-27.3.

(b) An individual coastal wetlands permit cannot be extended.

(c) Except as provided in (d), (e), and (f) below, an individual permit for any activity landward of the mean high water line is valid for five years from the date of issuance.

(d) If construction under an individual permit for an activity landward of the mean high water line commences within five years from the date of issuance and construction must continue beyond five years from the original date of issuance, then the permit shall be valid until the project is completed, provided:

1. The permittee submits a written request for approval to continue construction that is received by the Department no less than 20 working days prior to the five-year expiration date of the permit. Construction may continue while the request is under review;

2. The permittee obtains written approval from the Department to continue construction of the project as authorized under the permit until completion; and
3. Construction beyond the five years from the original date of issuance of the permit does not cease for a cumulative period of one year or longer.

(e) If construction under an individual permit for an activity landward of the mean high water line does not commence within five years from the date of issuance due to circumstances that are beyond the permittee's control or has commenced but will cease for a cumulative period of one year or longer due to circumstances that are beyond the permittee's control, then the permit shall be valid for 10 years from the original permit issuance date, provided:

1. Where construction does not commence within five years from the date of issuance, the permittee submits a written request for approval to commence construction before the end of the period that is 10 years from the original permit issuance date and to continue construction thereafter to completion. The request must be received by the Department no less than 20 working days prior to the five-year expiration date of the permit. Construction may continue while the request is under review;
2. Where construction has commenced within five years from the date of issuance of the permit and the permit continues valid under (d) above, the permittee submits a written request for approval to cease construction and re-commence construction before the end of the period that is 10 years from the original permit issuance date and to continue construction thereafter to completion. The request must be received by the Department no less than 20 working days prior to the date that the cumulative one-year period in (d)3 above would be exceeded. Construction may continue while the request is under review; and
3. The permittee obtains written approval from the Department to, as applicable, commence and continue, or cease and re-commence and continue, construction of the project as authorized under the permit until completion.

(f) The individual permit for an activity landward of the mean high water line for which the Department issued approval under (e) above shall expire if construction either does not commence or does not re-commence after cessation, whichever is contemplated by the approval, before the end of the period that is 10 years from the original permit issuance date. However, if construction does commence or re-commence before the end of that 10-year period and construction must continue beyond that 10-year period, then the permit shall be valid until the project is completed, provided:

1. The permittee submits a written request for approval to continue construction that is received by the Department no less than 20 working days prior to the 10-year expiration date of the permit. Construction may continue while the request is under review;
2. The permittee obtains written approval from the Department to continue construction of the project as authorized under the permit until completion; and

3. Construction beyond the 10 years from the date of issuance of the permit does not cease for a cumulative period of one year or longer.

(g) All regulated activities authorized by an individual permit shall immediately cease if the permit expires, including any extension thereof under N.J.A.C. 7:7-27.3. If a person intends to commence or continue regulated activities that had been authorized under an individual permit that has expired, the person shall obtain a new individual permit under this chapter authorizing the regulated activities.

1. If no regulated activities have occurred prior to the expiration of the original individual permit, the Department shall issue a new individual permit only if the project is revised where necessary to comply with the requirements of this chapter in effect when the application for the new individual permit is declared complete for review.
2. If any regulated activities have occurred prior to the expiration of the original individual permit, the Department shall issue a new individual permit only if the project is revised where feasible to comply with the requirements of this chapter in effect when the application for the new individual permit is declared complete for review. In determining the feasibility of compliance with the requirements in effect at the time the application is declared complete, the Department shall consider the amount of construction that has been completed prior to the expiration of the original individual permit, the amount of reasonable financial investment that has been made in the original design consistent with the requirements applicable under the original individual permit, and whether continuing construction as approved under the original individual permit would have an adverse impact on the environment.

7:7-8.3 Conditions applicable to an individual permit

(a) A person conducting regulated activities pursuant to an individual permit shall comply with:

1. The conditions set forth in the individual permit itself; and
2. The conditions that apply to all permits at N.J.A.C. 7:7-27.2.

(b) In addition to the conditions that apply to every individual permits at N.J.A.C. 7:7-27.2, the Department shall establish conditions in a specific individual permit, as required on a case-by-case basis, to ensure the authorized regulated activity meets all applicable requirements of this chapter and its enabling statutes.

SUBCHAPTER 9. SPECIAL AREAS

7:7-9.1 Purpose and scope

(a) Special areas are areas that are so naturally valuable, important for human use, hazardous, sensitive to impact, or particular in their planning requirements, as to merit focused attention and special management rules. This subchapter divides special areas into four categories:

1. Special water areas, N.J.A.C. 7:7-9.2 through 9.15, extend landward to the spring high water line or the level of normal flow in non-tidal waters;
2. Special water's edge areas, N.J.A.C.:7-9.16 through 9.30, are divided into three subcategories depending on their location. Special water's edge areas in (a)2i and ii below are found only next to tidal waters, while coastwide special water's edge areas are found adjacent to tidal as well as non-tidal waters;
   i. Oceanfront, and Raritan and Delaware Bayfronts, N.J.A.C. 7:7-9.16 through 9.19;
   ii. Barrier and bay islands, N.J.A.C. 7:7-9.20 and 9.21; and
   iii. Coastwide special water's edge areas, N.J.A.C. 7:7-9.22 through 9.30;
3. Special land areas, N.J.A.C. 7:7-9.31 through 9.33, generally are landward of the special water's edge areas; and
4. Coastwide special areas, N.J.A.C. 7:7-9.34 through 9.47, may include special water areas, special water's edge areas, or special land areas.

(b) All land or water areas, except certain special water's edge areas, are subject to either the general land area rules at N.J.A.C. 7:7-13 or the general water area rules at N.J.A.C. 7:7-12. In addition, certain land or water areas are subject to one or more special area rules. All special water's edge areas are subject to one or more special area rules. In some cases, a portion of a site is subject to both general area rules and special area rules. Where the applicable general area rules and special area rules conflict, the special area rules shall govern.

7:7-9.2 Shellfish habitat

(a) Shellfish habitat is defined as an estuarine bay or river bottom which currently supports or has a history of production for hard clams (*Mercenaria mercenaria*), soft clams (*Mya arenaria*), eastern oysters (*Crassostrea virginica*), bay scallops (*Argopecten irradians*), or blue mussels (*Mytilus edulis*), or otherwise listed below in this section. A shellfish habitat area is defined as an area which meets one or more of the following criteria:

1. The area has a current shellfish density equal to or greater than 0.20 shellfish per square foot;
2. The area has a history of natural shellfish production according to data available to the New Jersey Bureau of Shellfisheries, or is depicted as having high or moderate commercial value in the Distribution of Shellfish Resources in Relation to the New Jersey Intracoastal Waterway (U.S. Department of the Interior, 1963) and/or "Inventory of New Jersey's Estuarine Shellfish Resources" (Division of Fish, Game and Wildlife, Bureau of Shellfisheries, 1983-present);

3. The area is designated by the State of New Jersey as a shellfish culture area as authorized by N.J.S.A. 50:1 et seq. Shellfish culture areas include estuarine areas presently leased by the State for shellfish aquaculture activities or hard clam relay, transplant and transfer as well as those areas suitable for future shellfish aquaculture development; or
4. The area is designated as productive at N.J.A.C. 7:25-24, Leasing of Atlantic and Delaware Bay Bottom for Aquaculture.

(b) Any area determined by the Department to be contaminated by toxins is excluded from this definition. The List of Water Quality Limited Segments (known as the 303(d) list), prepared by the Department pursuant to the Federal Clean Water Act, 33 U.S.C. § 1313(d), identifies these known contaminated areas. Also excluded from this definition are those sites for which the Department is presented with clear and convincing evidence that the sites lack the physical features necessary for the support of a shellfish population, excluding those waterways listed at N.J.A.C. 7:7-15.3 and (l) below.

(c) The water located under any boat mooring facility (including docks and associated structures) is automatically condemned and reduced to "prohibited" status pursuant to N.J.A.C. 7:12-2.1(a)1ii. Development which would result in the destruction, condemnation (downgrading of the shellfish growing water classification) or contamination of shellfish habitat is prohibited, unless the proposed development is a dock, pier, or boat mooring, expansion of an existing marina or construction of a new marina in limited infill situations, dredging, living shoreline, or a development required for national security constructed in accordance with (d)1, 3, 4, and 5, (e), (f), (g), (h), and (k) below. In addition, the construction of a dock or pier or the one-time replacement or reconstruction of a legally existing functioning bulkhead outshore of the existing bulkhead when located in waters that have been classified as prohibited for the purpose of harvesting shellfish is acceptable in accordance with (d)2 and (i) below.

1. The term "destruction" includes actions of filling to create fast land, overboard dumping or disposal of solids or dredged materials which would smother shellfish populations, or create unsuitable conditions for shellfish colonization or the creation of bottom depressions with anoxic conditions.

(d) Construction of a dock, pier, or boat mooring in shellfish habitat is prohibited, except for the following:

1. Public fishing piers owned and controlled by a public agency for the sole purpose of providing access for fishing;
2. In waters which have been classified as prohibited for the purpose of harvesting shellfish; and
3. A single noncommercial dock, pier, or boat mooring associated with a single family dwelling provided the proposed dock, pier, or boat mooring meets the requirements at (d)3i through v below. If a lot has frontage on both a natural waterway and a man-made lagoon, the dock, pier, or boat mooring shall be located within the lagoon, unless locating the dock, pier, or boat mooring on the lagoon would not otherwise comply with the

recreational docks and piers rule at N.J.A.C. 7:7-12.5 or any other provisions of this chapter.

i. The proposed dock, pier, or boat mooring is:

(1) Constructed of non-polluting materials; and

(2) Designed and constructed in a manner that reduces the size of the structure to limit the area of shellfish habitat condemned and reduces adverse impacts to the marine ecosystem to the extent practicable. Reduction of the area of shellfish habitat condemned and adverse impacts to the marine ecosystem may include, for example, adjustment of the dimensions and location of the proposed dock, pier, or boat mooring to reduce the total area covered by the structure while ensuring that the requirements of this chapter are met.

ii. Unless the Department determines that a different length dock or pier is appropriate in order to ensure that the requirements of this chapter are met, a boat mooring shall not be located beyond, and a dock or pier shall not extend beyond, a straight line drawn between the outside corner of the outermost end of decking of the two nearest adjacent existing legal docks or piers (for a diagram illustrating how the maximum length of a single noncommercial dock or pier or location of a boat mooring is determined in accordance with this paragraph, see chapter Appendix E):

(1) If the dock, pier, or boat mooring is associated with a lot that has frontage on both a man-made lagoon and a natural waterway and the dock, pier, or boat mooring is to be located on the natural waterway as required under (d)3 above, the dock or pier shall not extend beyond, or the boat mooring shall not be located beyond, the outermost end of decking of the nearest adjacent dock or pier on the natural waterway; or

(2) To meet the requirements of the submerged vegetation habitat rule at 7:7-9.6, a dock or pier shall be extended to the minimum length necessary, or the boat mooring shall be located where necessary to ensure that at mean low water a minimum water depth of four feet is present in the designated slips of the dock, pier, or boat mooring;

iii. The dock, pier, or boat mooring shall have no more than two designated slips. Boats shall not be moored at any area other than the two boat slips designated in the Department permit and/or the plan approved under that permit;

iv. Only one dock, pier or boat mooring shall be constructed per buildable lot pursuant to this subsection. Where two or more lots have been assembled for the purpose of building a single family dwelling, only one dock, pier or boat mooring shall be constructed pursuant to this subsection;

v. No dredging shall be performed in conjunction with the construction or use of the dock, pier, or boat mooring; and

vi. Mitigation for the condemnation of shellfish habitat or other impacts to the marine ecosystem shall be provided in accordance with N.J.A.C. 7:7-17;

4. The expansion of a legally existing, operating commercial marina that is open to the general public for the mooring of vessels, including marinas operated by public agencies, commissions, and authorities, provided that the expansion meets the requirements at (d)4i through vi below:
    i. The marina expansion is designed and constructed in a manner that limits the area of shellfish habitat condemned and reduced to prohibited status pursuant to N.J.A.C. 7:12-2.1(a)1ii and reduces adverse impacts to the marine ecosystem to the maximum extent practicable. This shall be achieved by:
        (1) Expanding the marina into areas other than shellfish habitat;
        (2) Reconfiguring slips within the existing marina; and
        (3) Adjusting the dimensions and location of the proposed marina expansion to minimize the total area covered by structures within shellfish habitat;
    ii. The area in which the marina will be expanded has adequate water depths to accommodate vessels to be moored within the expanded marina. In no case shall the water depths be less than two feet at mean low water;
    iii. No dredging shall be performed in conjunction with the construction or use of the marina expansion;
    iv. With the exception of pilings, the portion of the marina expansion located at or waterward of the mean high water line shall be constructed of non-polluting materials;
    v. The marina provides on-site restrooms and a pumpout facility; and
    vi. Mitigation for the condemnation of shellfish habitat or other impacts to the marine ecosystem shall be provided in accordance with N.J.A.C. 7:7-17; and
5. The construction of a new commercial marina that is open to the general public for the mooring of vessels, including marinas operated by public agencies, commissions, and authorities, provided the marina meets the requirements at (d)5i through viii below:
    i. The marina is located between two legally existing, operating commercial marinas where the distance between the two nearest adjacent existing legal docks or piers of each marina is no more than 500 feet as measured from the outside corner of the outermost end of decking of the two nearest adjacent legal docks or piers (for an illustration, see chapter Appendix F);
    ii. The marina does not interfere with access to the existing marinas;
    iii. The marina is designed and constructed in a manner that minimizes the total area covered by structures within shellfish habitat;
    iv. The area in which the marina will be constructed has adequate water depths to accommodate vessels to be moored within the marina. In no case shall the water depths be less than two feet at mean low water;

v. No dredging shall be performed in conjunction with the construction or use of the marina;

vi. With the exception of pilings, the portion of the marina located at or waterward of the mean high water line shall be constructed of non-polluting materials;

vii. The marina provides on-site restrooms and a pumpout facility; and

viii. Mitigation shall be provided for the condemnation of shellfish habitat or other impacts to the marine ecosystem in accordance with N.J.A.C. 7:7-17.

(e) New dredging (defined at N.J.A.C. 7:7-12.7) within shellfish habitat is prohibited, except when it is necessary to maintain the use of public launching facilities (ramps) with 25 or more trailer parking spaces or marina facilities with 25 or more dockage units, consisting of either dry dock storage or wet slips. New dredging for existing marinas or for the expansion of such facilities is conditionally acceptable provided that:

1. The expanded portion of the marina, other than the access channel, will not be located within the shellfish habitat;
2. The marina provides on site restrooms, a marine sanitation disposal device and pumpout station; and
3. The width, depth and length of the to-be-dredged channel and boat basin are limited to the minimum dimensions needed to service the existing or expanded facilities.

(f) Maintenance dredging (defined at N.J.A.C. 7:7-12.6) within shellfish habitat is conditionally acceptable, provided the disturbance to shellfish habitat is minimized to the greatest extent possible.

(g) New dredging adjacent to shellfish habitat is discouraged in general, but may be conditionally acceptable if it can be demonstrated that the proposed dredging activities will not adversely affect shellfish habitat, population, or harvest. If the Department determines dredging to be acceptable, dredging shall be managed pursuant to N.J.A.C. 7:7-12.7 so as not to cause significant mortality of the shellfish due to increased turbidity and sedimentation, resuspension of toxic chemicals, or any other occurrence which will interfere with the natural functioning of the shellfish habitat.

(h) The establishment of a living shoreline in shellfish habitat to address the loss of vegetated shorelines and habitat in the littoral zone is conditionally acceptable provided the living shoreline complies with N.J.A.C. 7:7-12.23.

(i) The one-time replacement or reconstruction of a legally existing functioning bulkhead outshore of the existing bulkhead is conditionally acceptable in waters that are classified as prohibited for the purpose of harvesting shellfish, provided:

1. The replacement or reconstructed bulkhead is made of a non-polluting material;

2. The replacement or reconstructed bulkhead is located within 18 inches outshore of the existing bulkhead, except in accordance with (i)2i below;
    i. Where the replacement bulkhead is constructed of a corrugated material, the replacement bulkhead is located no more than 24 inches outshore of the existing bulkhead, and the replacement bulkhead is located as close as possible to the face of the existing bulkhead; and
3. A conservation restriction is placed on the bulkheaded property requiring that any future replacement bulkhead be located in the same location as the bulkhead replaced or reconstructed under this subsection.

(j) For the purpose of this rule all docks and piers, except public fishing piers defined in (d)1 above, are considered boat mooring facilities.

(k) Development required for national security for which there exists no other prudent and feasible alternative site is acceptable under this rule, provided that the shellfish resource is salvaged and mitigated pursuant to a plan approved in writing by the Department. The applicant is responsible for all the expenses of resource salvaging and mitigation. All such programs shall be coordinated with the appropriate shellfish management agency.

(l) N.J.A.C. 7:7-15.3 shall also apply to development of boat mooring facilities of five or more slips on the Navesink, Shrewsbury, and Manasquan Rivers and St. George's Thorofare.

(m) Rationale: Estuarine shellfish are harvested by both commercial and recreational shellfishermen. Hard clams are the most sought after species harvested as they occur in all estuarine waters. Oysters, bay scallops, and soft clams are predominantly harvested by commercial fishermen. In 2008, the commercial dockside landings for estuarine shellfish in New Jersey were valued at approximately $6.63 million (United States Department of Agriculture). Shellfish are typically worth about six times the dockside value to the State's economy through processing, distribution, and retail.

In addition to being a harvestable resource, shellfish play an important role in the overall ecology of the estuary and are an important forage food source for a variety of finfish species, crabs, and migratory waterfowl. Shellfish themselves are filter feeders and are, therefore, important for maintaining or improving water quality.

There is an inherent conflict between the protection of shellfish habitat and water quality and boating related activities, such as mooring and dredging, though both are important water dependent activities in New Jersey. Boating related activities may affect shellfish habitat and the harvestability of shellfish. Mooring facilities can be a source of pollution with a high potential for improper disposal of human waste. Shellfish that occur in or near marinas and docks are unsafe for human consumption due to the potential health threats associated with the pollution generated by the leaching of toxic chemicals and heavy metals from waterfront construction materials and boat-related pollutants, and human waste disposed in close proximity to these marinas and docks. Bivalve shellfish readily bioaccumulate and concentrate toxic substances and

pathogenic microorganisms within their tissue, which poses a human health risk when contaminated shellfish is consumed. Due to the potential health threats associated with shellfish grown in polluted waters, shellfish are prohibited from being harvested for human consumption near mooring facilities.

Dredging activities have a negative effect on the recruitment of shellfish by changing the composition of the substrate. Dredging disturbs and degrades shellfish habitat by adversely altering the water quality, salinity regime, substrate characteristics, natural water circulation pattern, and natural functioning of the shellfish habitat.

Motor fuels can be released into the aquatic environment via the operation of boat engines, fueling operations, and bilge pumping. The effects of petroleum hydrocarbons on fish and shellfish include direct lethal toxicity, sublethal disruption of physiology and/or behavior, bioaccumulation, and development of an unpleasant taste to edible species. Motor fuels and exhaust can contain lead, cadmium, zinc, and other heavy metals. Heavy metals have been shown to cause suppression of growth or death of eggs, embryos, and larvae of hard clams. In addition, such contaminants are known to cause a variety of sublethal effects, including inhibited feeding behavior, retarded shell growth, and depression of cardiovascular function and respiration in various species of shellfish.

Boat maintenance operations may also have adverse impacts to estuarine organisms. Some detergents used to wash boats can be toxic to fish and invertebrates and may contribute to elevated nutrient levels, particularly of phosphorous. Toxins from various antifouling paints are harmful to shellfish and other invertebrates.

This rule intends to strike a balance between protection of shellfish habitat and recreational boating-related uses by allowing maintenance dredging in shellfish habitats where an area has already been previously dredged and by allowing new dredging at existing public boat launching facilities and major mooring/docking facilities. The dredging of larger marinas and boat launching facilities will allow the greatest number of boaters access to the water areas with the least amount of habitat disturbances and degradation. This is partly because larger marinas are more likely than smaller ones to generate sufficient demand for a full service marina, and are required to provide restrooms, and a pumpout facility, as a condition for the dredging approval if they did not already have them. Dredging is allowed at larger marinas and boat launching facilities because their highly concentrated use pattern minimizes the overall physical space required for dockage/mooring area and channel maintenance. Additionally, direct disposal of human waste into the water is expected to be reduced when these better equipped marina facilities are equipped with pumpout facilities. Therefore, maintenance of these facilities is considered acceptable.

Marinas have infrastructure necessary to support recreational boating including pumpout facilities. The State has seen a decrease in the number of marina facilities through their conversion to other non-water dependent uses. The Marine Trades Association of New Jersey has provided a report based on information provided from marine businesses which indicates that over 500 boat slips and 17 marinas have been lost as of 2011. Not only does this result in a loss of slips available to the public, it results in the loss of jobs, revenue and marina services. To

preserve existing marinas and the necessary services they provide, encourage new marinas and ensure there is a sufficient amount of boat slips available to the public, expansion of existing commercial marinas and construction of new "infill" marinas in limited situations is acceptable where mitigation through the minimization of the area covered by structures, the use of non-polluting materials, the prohibition of dredging and the provision of a monetary contribution to the Department's dedicated account for shellfish habitat mitigation is provided.

In accordance with N.J.A.C. 7:7-17.9, mitigation for impacts to shellfish habitat and the marine ecosystem associated with the construction of a dock, pier, mooring, or marina include the recording of a conservation restriction and a monetary contribution to the Department's dedicated account for shellfish habitat mitigation. The conservation restriction is intended to reduce any future impacts to the marine ecosystem by prohibiting the construction of a shoreline protection structure other than stone rip-rap or other sloped revetments on an unbulkheaded lot, or the replacement, reconstruction, or rehabilitation of an existing bulkhead with anything other than non-polluting materials. In addition, the monetary contribution to the Department's dedicated fund for shellfish habitat mitigation and restoration is based on the area of shellfish habitat covered by planned structures and mooring areas, the documented shellfish density supported by the local habitat, and the commercial value of the resource. This contribution is intended to ensure that adverse impacts to the shellfish resource are minimized and habitat improvements are promoted in areas outside of the impacted area through the use of the mitigation funds. In 2016, the Assistant Commissioners of Land Use Management and Natural and Historic Resources signed a Memorandum of Understanding that establishes a framework for the use and management of funds from the Department's dedicated account for shellfish habitat mitigation.

Living shorelines are a shoreline management practice that addresses the loss of vegetated shorelines by providing protection, restoration, or enhancement of these habitats. The establishment of living shorelines is conditionally acceptable provided the living shoreline activities disturb the minimum amount of special areas necessary to successfully implement the restoration, creation, enhancement, or protection of habitat, water quality functions, and values of wetlands, wetland buffers**,** and open water areas. This may include a decrease in the existing special area or the conversion of one special area to another where it is determined that such changes are environmentally beneficial.

The one-time replacement, reconstruction, or renovation of a legally-existing bulkhead outshore of the existing bulkhead within waters classified as prohibited for harvesting shellfish is conditionally acceptable where the bulkhead is constructed of non-polluting materials and is located within 18 inches of the existing bulkhead, except where the replacement bulkhead is constructed of a corrugated material in which case it shall be located no more than 24 inches from the existing bulkhead. Non-polluting materials are required to minimize impacts to water quality. These requirements minimize impacts to water quality and the amount of substrate impacted by the bulkhead. The replacement or reconstruction of a bulkhead outshore of the existing bulkhead is allowed in waters classified as prohibited for harvesting shellfish in order to encourage the elimination of any polluting material in shellfish habitat and the correction or prevention of erosion, and because, in some cases, replacement in kind (requiring the removal of

the existing bulkhead which in most, if not all, instances will be constructed of a treated material that is not considered to be non-polluting) will have a detrimental impact to water quality through the sloughing of soil that has been in contact with the bulkhead sheathing that is being replaced. The replacement or reconstruction is limited to one time only in order to limit the encroachment into shellfish habitat.

The Navesink River, Shrewsbury River, and Manasquan River (upstream of the Route 35 Bridge), and St. George's Thorofare contain highly productive shellfish habitat. The Navesink and Shrewsbury Rivers are unique in that only three estuaries within the State have commercial soft clam densities. St. George's Thorofare is a commercially and recreationally valuable area that contains a high hard clam density according to the 1985 Shellfish inventory conducted by the Division of Fish, Game and Wildlife. In 1985, this 107-acre area was estimated to contain 6.2 million hard clams. The high abundance of hard clams, together with the fact that this waterbody is poorly flushed makes St. George's Thorofare a critical area that is sensitive to any potential pollution activities. Compliance with specific standards for boat mooring facilities with five or more slips within these watercourses is required so as to not adversely impact this highly productive shellfish habitat.

Federal, State, and local officials have recognized the importance of these rivers as shellfish habitat and the need to protect their water quality. As a result, pollution control programs have been formed to protect these rivers. For example, the Navesink River Shellfish Protection Program represents a multi-agency pollution control program. On August 21, 1986, a Memorandum of Understanding was signed by the New Jersey Departments of Environmental Protection and Agriculture, the United States Department of Agriculture, and the USEPA. The memorandum serves to "...formalize our commitment to the Navesink River Water Control Shellfish Protection Program, its primary goal of improving water quality in the Navesink River watershed to a point at which the river's full shellfishery and recreational potential may be attained." Water quality monitoring during 6 years of implementation of pollution controls (1987-93) has shown significant reductions in bacterial contamination of the Navesink River, to the point where, after 25 years of being closed to shellfish harvest, the shellfish classification of the Lower Navesink River was upgraded to seasonally approved. Other parts of the river are classified as special restricted. The Shrewsbury River is a unique shellfish habitat in that it is only one of the three estuaries in New Jersey to have commercial densities of soft clams. Studies indicate that the Shrewsbury River is hydrologically connected to the Navesink River. As such, the Shrewsbury River was included as part of the "Navesink River Shellfish Protection Program." In addition, the Monmouth/Ocean Alliance to Enhance the Manasquan River was formed by Monmouth and Ocean Counties and the New Jersey Department of Environmental Protection to identify causes of shellfish water degradation and plan solutions for improved water quality and uses in the Manasquan River. The Alliance requested that the Department ask USEPA to designate the Manasquan River Estuary a No Discharge Zone pursuant to the Federal Clean Water Act. The Department sought such a designation from USEPA and the Manasquan River Estuary was officially declared a No Discharge Zone by USEPA in June 1998.

7:7-9.3 Surf clam areas

(a) Surf clam areas are coastal waters which can be demonstrated to support significant commercially harvestable quantities of surf clams (*Spisula solidissima*), or areas important for recruitment of surf clam stocks. This includes areas where fishing is prohibited for research sanctuary or conservation purposes by N.J.A.C. 7:25-12.1(d)4. Surf clams are a marine fish and therefore are also subject to the marine fish and fisheries rule, N.J.A.C. 7:7-16.2.

(b) Development which would result in the destruction, condemnation, or contamination of surf clam areas is prohibited except for the following:

1. Development that is of national interest provided:
   - i. There are no prudent and feasible alternative sites; and
   - ii. Impacts to the surf clam area are minimized.
2. Sand and gravel mining to obtain material for beach nourishment provided:
   - i. The beach nourishment project is in the public interest;
   - ii. There are no prudent and feasible alternative offshore borrow sites that would result in less impact to marine fish and fisheries;
   - iii. The impacts to surf clam areas are minimized through the following:
     - (1) The beach nourishment project is designed to minimize the volume of sand borrowed from the surf clam area;
     - (2) The borrow cut is designed to minimize the area disturbed, for example, by designing a deeper cut;
     - (3) The borrow site is located to avoid those more productive surf clam areas; and
     - (4) When appropriate, notice shall be provided to clammers in advance of the mining operation to allow for surf clam harvest; and
   - iv. The sand mining is not located within a surf clam conservation area as defined at N.J.A.C. 7:25-12.

(c) Rationale: Surf clams are the largest molluscan fishery in New Jersey, accounting for 47 percent (by weight) of the State's total reported molluscan commercial landings in 2011. Surf clam boats operate out of Point Pleasant, Atlantic City, and Cape May, while processing plants are located in Port Norris and Cape May. Historically, New Jersey leads all other states in surf clam landings because New Jersey vessels participate in both State and Federally controlled waters and the majority of the surf clam fleet land their catch in New Jersey ports. In 2011, 1.6 million bushels of surf clams were landed in New Jersey accounting for approximately 63 percent of the total Mid-Atlantic Region and New England Region's surf clam landings with an ex-vessel value of $16.3 million. The Department's Division of Fish and Wildlife conducts annual surf clam stock assessments to determine the productivity of these resources.

The State has an interest in maintaining beaches for public recreational use and shore protection. Beach nourishment is the preferred method for accomplishing these goals. Therefore, this rule allows sand mining in surf clam areas provided use of other offshore borrow areas is not feasible and the impacts are minimized to the greatest extent practicable.

7:7-9.4 Prime fishing areas

(a) Prime fishing areas include tidal water areas and water's edge areas which have a demonstrable history of supporting a significant local intensity of recreational or commercial fishing activity. These areas include all coastal jetties, groins, public fishing piers or docks, and artificial reefs. Prime fishing areas also include features such as rock outcroppings, sand ridges or lumps, rough bottoms, aggregates such as cobblestones, coral, shell and tubeworms, slough areas and offshore canyons. Prime fishing areas also include areas identified in "New Jersey's Recreational and Commercial Fishing Grounds of Raritan Bay, Sandy Hook Bay and Delaware Bay and The Shellfish Resources of Raritan Bay and Sandy Hook Bay" Figley and McCloy (1988) and those areas identified on the map titled, "New Jersey's Specific Sport Ocean Fishing Grounds." This map is available through the Coastal Management Program's website at https://www.nj.gov/dep/cmp.

(b) Standards relevant to prime fishing areas are as follows:

1. Permissible uses of prime fishing areas include recreational and commercial finfishing and shellfishing, as presently regulated by the Department's Division of Fish and Wildlife, scuba diving and other water related recreational activities.
2. Prohibited uses include sand or gravel submarine mining which would alter existing bathymetry to a significant degree so as to reduce the high fishery productivity of these areas. Disposal of domestic or industrial wastes must meet applicable State and Federal effluent limitations and water quality standards.

(c) Rationale: Natural bathymetric features, such as the Shrewsbury Rocks, important sand ridges, and artificial structures act as congregation areas for many species of finfish, shellfish, and diverse invertebrate species that are essential to marine ecosystem functioning. These areas are heavily used by recreational and commercial fishermen. Commercial fishing occurs primarily along the Delaware Bay and in the Atlantic Ocean off the New Jersey coast. Annually, more than 1,120,000 people, of which 690,000 reside in New Jersey, participate in marine sport fishing and shellfishing. In a recent survey conducted by the National Marine Fisheries Service, New Jersey ranked first in the harvest of four of the five most important recreational fish species (summer flounder, bluefish, seabass, and tautog) and ranked second in the harvest of striped bass. The recreational fishery industry is worth $1.5 billion annually to the economy of New Jersey. In 2011, New Jersey's commercial fisheries had a dockside value of more than $220 million and an overall economic impact of $1.3 billion to the State's economy.

7:7-9.5 Finfish migratory pathways

(a) Finfish migratory pathways are waterways (rivers, streams, creeks, bays and inlets) which can be determined to serve as passageways for diadromous fish to or from seasonal spawning areas, including juvenile anadromous fish which migrate in autumn and those listed by H.E. Zich (1977) "New Jersey Anadromous Fish Inventory" NJDEP Miscellaneous Report No. 41, and including those portions of the Hudson and Delaware Rivers within the coastal zone boundary.

1. Species of concern include: alewife or river herring (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), American shad (*Alosa sapidissima*), striped bass (*Morone saxatilis*), Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), Shortnose sturgeon (*Acipenser brevirostrum*) and American eel (*Anguilla rostrata*)

(b) Development, such as dams, dikes, spillways, channelization, tide gates and intake pipes, which creates a physical barrier to the movement of fish along finfish migratory pathways is prohibited, unless acceptable mitigating measures such as fish ladders, erosion control, or oxygenation are used.

(c) Development which lowers water quality to such an extent as to interfere with the movement of fish along finfish migratory pathways or to violate State and Delaware River Basin Commission water quality standards is prohibited.

1. Mitigating measures are required for any development which would result in: lowering dissolved oxygen levels, releasing toxic chemicals, raising ambient water temperature, impinging or suffocating fish, entrainment of fish eggs, larvae or juveniles, causing siltation, or raising turbidity levels during migration periods.

(d) Water's edge development which incorporates migration access structures, such as functioning fish ladders, will be conditionally acceptable, provided that the Department's Division of Fish and Wildlife approves the design of the access structure. As of January, 1994, the Department's Division of Fish and Wildlife is evaluating anadromous fish spawning areas for potential enhancement work. This may include building of fish ladders, removal of obstructions, stocking, and other means. A development proposal shall be consistent with these Department efforts.

(e) Rationale: Striped bass are one of New Jersey's most prized sport fish and are actively sought wherever they occur in New Jersey. This species spawn in Delaware, Hudson and Maurice Rivers. American Shad, once much more numerous and an important commercial species, continue to make an annual spawning run in the Delaware and Hudson Rivers, where there is an active sport fishery. A much reduced commercial fishery exists in the Delaware Bay and River. Herrings are important forage species and spawn annually in many of New Jersey's tidal tributaries including those listed by H.E. Zich (1977) "New Jersey Anadromous Fish Inventory", NJDEP Miscellaneous Report No. 41. Herrings are fished during spring runs, for direct human consumption, garden fertilizer and for use as bait.

7:7-9.6 Submerged vegetation habitat

(a) A submerged vegetation habitat special area consists of water areas supporting or documented as previously supporting rooted, submerged vascular plants such as widgeon grass (*Ruppia maritima*), sago pondweed (*Potamogeton pectinatus*), horned pondweed (*Zannichellia palustris*), and eelgrass (*Zostera marina*). In New Jersey, submerged vegetation is most prevalent in the shallow portions of the Navesink, Shrewsbury, Manasquan, and Metedeconk Rivers, and in Barnegat, Manahawkin, and Little Egg Harbor Bays. Other submerged vegetation species in lesser quantities include, but are not limited to, the following: water weed (*Elodea nuttalli*), *Eriocaulon parkeri*, *Liaeopsis chinesis*, *Naja flexilis*, *Nuphar variegatum*, *Potamogeton crispus*, *Potamogeton epihydrus*, *Potamogeton perfoliatus*, *Potamogeton pusillus*, *Scirpus subterminalis*, and *Vallisneria americana*. Detailed maps of the distribution of the above species for New Jersey, and a method for delineation, are available from the Department in the New Jersey Submerged Aquatic Vegetation Distribution Atlas (Final Report), February, 1980, conducted by Earth Satellite Corporation and also on "Eelgrass Inventory" maps prepared by the Division of Fish and Wildlife, Bureau of Shellfisheries, 1983. If the Department is presented with clear and convincing evidence that a part of its mapped habitat lacks the physical characteristics necessary for supporting or continuing to support the documented submerged vegetation species, such a site would be excluded from the habitat definition.

(b) Development in submerged vegetation habitat is prohibited except for the following:

1. Trenching for utility pipelines and submarine cables in the public interest, provided there is no practicable or feasible alternative alignment, the impact area is minimized and that, following pipeline or cable installation, the disturbed area is restored to its preconstruction contours and conditions. This may include subsequent monitoring and replanting of the disturbed area if these species have not recolonized the disturbed area within three years. The use of directional drilling techniques for utility installations is strongly encouraged, rather than the use of trenching;
2. New dredging, as defined at N.J.A.C. 7:7-12.7, of navigation channels maintained by the State or Federal government provided that there is no practicable or feasible alternative to avoid the vegetation; and that impacts to the habitat area (for example, dredging width, length, and depth) are minimized to the maximum extent practicable. Mitigation will be required for destruction of one acre or more which possesses submerged aquatic vegetation;
3. Maintenance dredging, as defined at N.J.A.C. 7:7-12.6, of previously authorized, existing navigation channels maintained by the State or Federal government provided that there is no practicable or feasible alternative to avoid the vegetation and that impacts to the habitat area are minimized to the maximum extent practicable;
4. New and maintenance dredging, as defined at N.J.A.C. 7:7-12.6 and 12.7, of previously authorized operating marinas and any necessary access channels to the expanded portion of such marinas (this exception does not include the boat basin of the expanded portion of the marina) and existing launching facilities with 25 or more dockage, storage**,** or trailer parking units and their associated access channels, provided the proposed areas to be

dredged (such as channel length, depths**,** and widths) are minimized to the maximum extent practicable;

5. Maintenance dredging, as defined at N.J.A.C. 7:7-12.6, to regain access to existing private docks, piers, boat ramps**,** and mooring piles not associated with marinas that were previously dredged to an authorized channel and/or mooring depth, width**,** and length, provided there is no practicable or feasible alternative on site that would avoid dredging in submerged vegetation habitat;
6. Construction of a single noncommercial dock or pier provided that:
   i. There are no practicable or feasible alternatives to avoid impacts to submerged vegetation habitat at the site;
   ii. The width of the structure will not exceed four feet, except for that portion of the structure adjacent to the mooring area, where the width and length may not exceed six and 20 feet, respectively;
   iii. The pier shall have no more than two designated slips. No boats may be moored at a non-designated pier/dock area;
   iv. No more than one pier shall be placed for every building lot and each building lot shall have a forty foot or greater frontage on the water. Where more than one lot has been assembled for the purpose of building, only one pier will be allowed;
   v. No dredging shall be performed in conjunction with the use of the dock or pier;
   vi. A minimum water depth of four feet at mean low water must be present in the area where the boats will be moored; and
   vii. There is no alternative mooring area at the site that would have less impact on the submerged aquatic vegetation;
7. The extension of existing piers or floating docks through submerged vegetation habitat to water at least four feet deep at mean low water, for the purpose of eliminating dredging or boating through submerged vegetation habitat, provided the width of the extended portion of the pier does not exceed four feet (except for the portion of the pier adjacent to the mooring area where the width shall not exceed six feet), there will be no increase in the number of boat moorings, and no dredging will be performed in conjunction with the use of the structure; and
8. The establishment of a living shoreline in submerged vegetation habitat to address the loss of vegetated shorelines and habitat in the littoral zone is conditionally acceptable provided the living shoreline complies with N.J.A.C. 7:7-12.23.

(c) Development in upland or water areas adjacent to submerged vegetation habitat or in submerged vegetation habitat which results in erosion or turbidity increases in the waters supporting submerged vegetation or prop or hull scour through use of the development is prohibited unless mitigating measures are provided.

(d) Compensation for unavoidable, permanent significant impacts to submerged vegetation habitats shall be conducted in accordance with N.J.A.C. 7:7-17.

(e) Rationale: New Jersey's estuarine waters are relatively shallow, rich in nutrients and highly productive. The submerged vegetation of these shallow habitats serve important functions as suspended sediment traps, important winter forage for migratory waterfowl, nursery areas for juvenile fin fish, bay scallops and blue crabs, and by nourishing fishery resources through primary biological productivity (synthesis of basic organic material) through detrital food webs in a similar manner to salt marsh emergent *Spartina* cord grasses. In addition, seagrasses absorb wave energy and root networks help stabilize silty bay bottoms. The value of seagrasses was dramatically illustrated during the 1930's when a disease epidemic virtually eliminated eelgrass from the eastern U.S. Atlantic ocean coastline. The number of finfish, shellfish, and waterfowl drastically decreased, threatening their survival. The oyster industry of the Atlantic coast was ruined. Bays became choked with silt and new mudflats were formed.

Most of the submerged vegetation species, in particular eelgrass and widgeon grass, grow in patches which often cluster together. This growth pattern forms a vegetative community which migrates from year to year about shoal areas. Disturbances to the substrate such as dredging usually result in permanent habitat destruction and loss. In shallow areas, propeller action may severely damage the roots and churn up the substrate and increase turbidity, damaging or destroying the plants and reducing their productivity. Other activities that can also have a negative impact on the plants and/or habitat include wake actions, upland runoff, and shading from structures.

This rule aims to protect submerged vegetation as a resource. Areas where submerged aquatic vegetation grows or has been known to grow are identified as habitat areas which currently or potentially could support the submerged vegetation plant communities. Dredging of the habitat area is permitted for maintaining the depth of existing State and Federal channels since the navigability of these channels is essential to commerce and navigation. New and maintenance dredging to existing large marinas and public launching facilities provides the greatest number of boaters access to water areas with the least amount of disturbance to the habitat area. Limited boating related uses are also permitted in habitat areas with greater than four feet of water depth, where impacts from boating are not likely to be destructive to the plants or their habitat environment.

New Jersey's coastal environment is dynamic, and shaped by natural forces such as wind, waves, and storms. Shorelines lost due to erosion eliminate intertidal habitat, reduce the amount of sandy beach, and decrease the amount of organic matter necessary to maintain tidal wetlands. This erosion results in the degradation of the coastal environment through impacts to natural habitats, such as tidal wetlands and spawning grounds. Coastal states are seeking natural solutions, such as the creation of living shorelines, to address erosion as an alternative that adds diversity to other shore protection measures. Living shorelines are a shoreline management practice that addresses erosion by providing protection, restoration, or enhancement of vegetated shoreline habitats. The establishment of living shorelines is conditionally acceptable provided the living shoreline activities disturb the minimum amount of special areas necessary to successfully implement the restoration, creation, enhancement, or protection of habitat, water

quality functions, and values of wetlands, wetland buffers, and open water areas. This may include a decrease in the existing special area or the conversion of one special area to another where it is determined that such changes are environmentally beneficial.

7:7-9.7 Navigation channels

(a) Navigation channels are tidal water areas including the Atlantic Ocean, inlets, bays, rivers and tidal guts with sufficient depth to provide safe navigation. Navigation channels include all areas between the top of the channel slopes on either side. These navigation channels are often marked with buoys or stakes. Major navigation channels are shown on NOAA/National Ocean Service Charts.

(b) Standards relevant to navigation channels are as follows:

1. Development which would cause terrestrial soil and shoreline erosion and siltation in navigation channels shall utilize appropriate mitigation measures;
2. Development which would result in loss of navigability is prohibited;
3. Any construction which would extend into a navigation channel is prohibited;
4. The placement of structures within 50 feet of any authorized navigation channel is discouraged, unless it can be demonstrated that the proposed structure will not hinder navigation;
5. Maintenance dredging, as defined in N.J.A.C. 7:7-12.6, of navigation channels to provide for safe navigation is conditionally acceptable, provided the dredging operation and the management of the dredged material meet the requirements of N.J.A.C. 7:7-12.6 and Appendix G; and
6. New dredging, as defined in N.J.A.C. 7:7-12.7, to expand the depth, length, and/or width of a previously authorized navigational channel to provide for safe navigation is conditionally acceptable provided the dredging operation and the management of the dredged material meet the requirements of N.J.A.C. 7:7-12.7 and Appendix G.

(c) Rationale: Navigation channels are essential for commercial and recreational surface water transportation, especially in New Jersey back bays where water depths are very shallow. Channels play an important ecological role in providing estuarine circulation and flushing routes, and migration pathways and wintering and feeding habitat for a wide diversity of finfish, shellfish and waterfowl. Navigation channels, access channels and anchorages form a network of areas that have a depth sufficient to enable marine trade to operate at the limiting depth of the channel. If one part of the system is not maintained, the entire system might be unable to function.

7:7-9.8 Canals

(a) Canals are navigation channels for boat traffic through land areas which are created by cutting and dredging or other human construction technique sometimes enlarging existing natural surface water channels. The Cape May, Point Pleasant, and Delaware and Raritan Canals are the principal examples in the New Jersey coastal zone.

(b) In canals presently used for navigation, any use that would interfere with existing or proposed canal boat traffic is prohibited.

(c) In the Delaware and Raritan Canal, and in the surrounding Review Zone established by the Delaware and Raritan Canal Commission, development must be consistent with the rules and regulations of the Review Zone of the Delaware and Raritan Canal State Park (N.J.A.C. 7:45).

(d) Rationale: Canals represent a large capital investment to create boat traffic routes. Of the coastal canals, the Cape May and Manasquan-Bay Head canals are still used extensively for their original purposes. Maintenance of this original function is encouraged. Abandoned canals offer recreational opportunities. The Delaware and Raritan Canal has been redeveloped as a State park with recreational boating and continued use as a water supply facility. Similar reuses in the coastal zone are encouraged.

7:7-9.9 Inlets

(a) Inlets are natural channels through barrier islands allowing movement of fresh and salt water between the ocean and the back bay system. Inlets naturally have delta fans of sediment seaward and landward, deposited by the ebb and flow of the tide.

1. The seaward limit of an inlet is defined as the seaward extent of the ebb delta fan. The landward limit is defined as the inland extent of the flood delta fan.
2. If there is doubt about the extent of these fans, the applicant shall submit up-to-date bathymetric surveys and Department staff will determine the boundary on a case-by-case basis.

(b) Development in inlets shall comply with the following:

1. Filling is prohibited; and
2. Submerged infrastructure is discouraged.

(c) Rationale: Inlets play a vital role in the estuarine ecosystem. They control patterns of backbay currents, salinity and nutrient distribution and provide migratory pathways between the ocean and the back bays for marine and estuarine species.

Submerged infrastructure is a hazard in inlets since the strong currents may expose and break the pipes or cables. There is also a possibility of anchors snagging and breaking the infrastructure.

7:7-9.10 Marina moorings

(a) Marina moorings are areas of water that provide mooring, docking and boat maneuvering room as well as access to land and navigational channels for five or more recreational boats.

(b) Non-water dependent development in a marina mooring area is prohibited.

(c) Any use that would detract from existing or proposed recreational boating use in marina mooring areas is discouraged.

(d) Rationale: Continued operation of marinas is encouraged since they benefit the State by attracting tourists and associated revenues and by providing recreational opportunities to the estimated 25 percent of residents that go boating in the bays and coastal waters of the State (1977 Eagleton Institute Poll).

7:7-9.11 Ports

(a) Ports are water areas having, or lying immediately adjacent to, concentrations of shoreside marine terminals and transfer facilities for the movement of waterborne cargo (including fluids), and including facilities for loading, unloading, and temporary storage.

1. Port locations in New Jersey include, among others, Newark, Elizabeth, Bayonne, Jersey City, Weehawken, Hoboken, Woodbridge, Perth Amboy, Camden, Gloucester City, Paulsboro and Salem.
2. Standards for a docking facility or concentration of docks for a single industrial or manufacturing facility are found at N.J.A.C. 7:7-12.4, Docks and piers for cargo and commercial fisheries.

(b) Any use which would preempt or interfere with port uses of this water area is prohibited.

(c) Shellfish aquaculture and dumping of solid waste or semi-solid waste is prohibited.

(d) Boat ramps for recreational boating are conditionally acceptable provided the ramp complies with all special area rules at N.J.A.C. 7:7-9 and provided it does not interfere with the port use.

(e) Docks and piers for cargo movements are encouraged.

(f) Rationale: The ports of New Jersey are components of two of the nations three largest port districts--the New York-New Jersey Port District and the Delaware River Port District. The Port of Newark-Elizabeth is the nation's largest container port. Shipping is a major industry in the state as well as an important contributor to the well-being of other state industries. A set of rules aimed at encouraging the use and expansion of existing ports, while discouraging the sprawl of port uses into undeveloped areas, is therefore, an element of coastal rules.

7:7-9.12 Submerged infrastructure routes

(a) A submerged infrastructure route is the corridor in which a pipe or cable runs on or below a submerged land surface.

(b) Any activity which would increase the likelihood of infrastructure damage or breakage, or interfere with maintenance operations is prohibited.

(c) Rationale: Submerged infrastructure routes are a large capital investment and much depends on the safe functioning of the infrastructure. Both human and natural systems suffer from accidental breakage, especially of large oil or gas pipelines. Activities that increase hazard for submerged infrastructure must, therefore, be excluded

7:7-9.13 Shipwreck and artificial reef habitats

(a) The shipwreck and artificial reef habitats special area includes all permanently submerged or abandoned remains of vessels and other structures**,** including**,** but not limited to, artificial reefs, anchors, quarry rocks or lost cargo, which serve as a special marine habitat or are fragile historic and cultural resources. An artificial reef is a man-made imitation of a natural reef created by placing hard structures on the sea floor for the purpose of enhancing fish habitat and fish stock. In time, an artificial reef will attain many of the biological and ecological attributes of a natural reef. Artificial reefs do not include shore protection structures, pipelines and other structures not constructed for the sole purpose of fish habitat.

1. Known sites include those shown either on National Ocean Survey (N.O.S.) charts or listed in the following publications: W. Krotee and R. Krotee, Shipwrecks Off the New Jersey Coast (1966); B.L. Freeman and L.A. Walford, Angler's Guide to the United States Atlantic Coast Fish, Fishing Grounds, and Fishing Facilities (1974); B. Preim, J. Carlson, B. Figley, A Guide to Fishing and Diving New Jersey Reefs, (2000); and the NJDEP Fisherman Magazine and the Artificial Reefs Association publication, Shipwrecks of New Jersey's Reefs (2003). In addition to known sites, unidentified remains of vessels may exist within tidal waters. Shipwrecks may also be considered historic or archaeological resources pursuant to N.J.A.C. 7:7-9.34.
2. Shipwreck and artificial reef habitats may be subject to the marine fish and fisheries rule, N.J.A.C. 7:7-16.2.

(b) Acceptable uses of shipwreck and artificial reef habitats include finfishing, shellfishing, and scuba diving.

(c) Any use, except archeological research, which would significantly adversely affect the usefulness of this special area as a fish habitat is prohibited. Persons conducting archeological research which significantly affects the usefulness of a shipwreck for fisheries purpose shall compensate for this loss by creation of an artificial reef of equal habitat value.

(d) Rationale: Shipwrecks and other natural or artificial materials can serve as critical habitat

for benthic finfish and lobsters, and other invertebrates which prefer shelter in hard substrates otherwise uncommon in New Jersey's marine waters. These areas function as congregation, refuge, feeding, and nursery areas for migratory species and support extensive fisheries. Although artificial reefs have been constructed for angling and diving, their goal is not solely to benefit human-use. A primary goal of an artificial reef is ecosystem and habitat enhancement. Due to the potential of reefs to serve as marine fish congregating areas, commercial and recreational fishing on artificial reefs may be regulated by the Department's Division of Fish and Wildlife, the Atlantic States Marine Fisheries Commission, and/or the Mid Atlantic Fisheries Management Council. As of 2015, New Jersey had 15 reef sites. With the restoration of Federal funding in 2016, as many as 10 additional vessels are planned to be deployed to enhance these existing artificial reef habitats. The sites are strategically located along the State's 120 mile coastline near navigable inlets. Shipwrecks are also fragile historic and cultural resources. Scuba divers from New Jersey and other states visit artificial reefs extensively.

7:7-9.14 Wet borrow pits

(a) Wet borrow pits are scattered artificially created lakes that are the results of surface mining for coastal minerals extending below groundwater level to create a permanently flooded depression. This includes, but is not limited to, flooded sand, gravel, and clay pits, and stone quarries. Where a wet borrow pit is also a wetland and/or wetlands buffer, the wetlands rule, N.J.A.C. 7:7-9.27, and/or wetlands buffers rule, N.J.A.C. 7:7-9.28, shall apply.

(b) All proposed dredging and filling activities shall comply with any applicable Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A. In addition, such activities must receive a water quality certificate.

(c) Proposed uses which would promote the wildlife habitat and scenic amenity values of wet borrow pits are encouraged.

(d) Surface mining is conditionally acceptable provided condition (b) above and the mining rule, N.J.A.C. 7:7-15.8, are met.

(e) Recreational use of wet borrow pits is acceptable provided that wildlife habitat disturbance is minimized.

(f) Filling of wet borrow pits for construction is conditionally acceptable provided (b) above is met and that:

1. The fill, including dredged material, is an appropriate particle size for the site, is clean, and will not degrade groundwater quality or flow. For the purposes of this subsection, dredged material shall comply with the acceptability conditions specified in Appendix G;
2. At least half of the water area in existence at the time of the first coastal permit application for filling of the pit is left as open water;
3. Land-water edges are maximized and vegetated to promote native wildlife;

4. A water quality buffer zone of at least 50 feet is designated in accordance with (i) below around remaining water areas;
5. A program for water quality monitoring and maintenance is included with the application; and
6. Recreational uses in water and water quality buffer areas minimize wildlife disturbance.

(g) Discharge of liquid or solid waste, other than clean dredge fill of acceptable particle size, is prohibited.

(h) All proposed uses directly adjacent to wet borrow pits shall grade all banks at the immediate water's edge, except those in acceptable water access areas, to a slope not greater than 33 percent, and shall stabilize the surface and initiate succession of native vegetation adapted to water's edge conditions.

(i) A water quality buffer area is required around the perimeter of wet borrow pits. The minimum width of this buffer area will be 100 feet where soils are coarse (sands and gravels) and 50 feet elsewhere. Recreational use of the water quality buffer is acceptable provided that the disturbance is limited in extent and wildlife habitat disturbance is minimized. The remainder of the buffer area shall be allowed to succeed naturally to water's edge. Structures and paving, except at limited water access points for recreational use, are prohibited in the water quality buffer.

(j) Rationale: The special area rules for wet borrow pits are less restrictive than the rules for other lakes, ponds, and reservoirs in that they allow sand and gravel extraction, dredge material placement, and filling, under specified conditions. This less restrictive approach is appropriate because they are already disturbed sites, they are of relatively recent origin, and, typically, vegetative succession is not as far advanced as along natural lakes. Wet borrow pits, therefore, tend to be less important as wildlife habitats than natural lakes. Finally, they are not connected to the wider estuarine system by streams.

On the other hand, their separation from streams means that they are most susceptible to water quality impacts caused by runoff. The water is still, and the only water loss is through groundwater seepage and evaporation. Sediment collects quickly, enlarging marsh areas, and the eutrophic conditions that lead to sudden oxygen loss are concentrated by evaporation. Low levels of toxicity are quickly biomagnified to fatal levels. In general, these still water areas are much more sensitive to impacts of all kinds than flowing water.

Undisturbed wet borrow pits can become wildlife habitats for aquatic, amphibian, and terrestrial species by offering productive edges, shallow waters, wetland areas, and important breeding and migratory habitats. Proposals that include wet borrow pits as wildlife preserves are, therefore, encouraged. Low intensity recreation which takes advantage of the scenic amenities of these lakes is also desirable if wildlife disturbance is minimized.

There is a severe shortage of dredged material management areas in New Jersey. The filling of wet borrow pits is essentially a reverse of the mining operation which created them, and has

less negative impact than filling natural depressions, provided that the dredged material is clean and non-toxic and the particle size matches the neighboring natural substrates closely enough so as to not disturb groundwater movement. If the filling of wet borrow pits is designed to retain some surface water area, and to maximize land-water edges, much of the wildlife value can be preserved while providing needed spoil disposal sites.

The value of wet borrow pits as wildlife habitat may be enhanced by limited fingers of fill to enlarge the land-water interface. Filling can also create sites for waterfront housing. Since residential construction sites near surface water are much in demand, it is desirable to allow some residential and related uses, provided that housing is consistent with location and use rules, water quality is maintained, and a water quality buffer is preserved along the water's edge.

The buffer would not block visual or physical access to the water, but would preserve water quality and provide wildlife habitat. Medford Lakes provides an example of an attractive residential community built around wet borrow pits, but siltation and eutrophication provide evidence for the need for a water quality buffer area.

The use of dredged material of appropriate grain size and that is clean as fill in the reclamation of wet borrow pits promotes the State's long-standing policy of treating dredged material as a resource and to beneficially use dredged material in appropriate applications rather than relying on disposal of dredged material in confined disposal facilities.

7:7-9.15 Intertidal and subtidal shallows

(a) Intertidal and subtidal shallows means all permanently or temporarily submerged areas from the spring high water line to a depth of four feet below mean low water.

(b) Development, filling, new dredging, or other disturbance is discouraged but may be permitted in accordance with (c), (d), (e), (f), (g), and (h) below and with N.J.A.C. 7:7-12.2 through 12.24.

(c) Maintenance dredging of intertidal and subtidal shallows is acceptable to maintain adequate water depths in accordance with N.J.A.C. 7:7-12.6.

(d) New dredging, as defined in N.J.A.C. 7:7-12.7, in intertidal and subtidal shallows is discouraged, unless it complies with the following conditions:

1. There is a need for the proposed facility that requires the dredging that cannot be met by other similar facilities in reasonable proximity taking into account scope and purpose of the proposed facility;
2. There is no feasible alternative location for the proposed facility that requires the dredging, which would eliminate or reduce the amount of disturbance to intertidal and subtidal shallows without increasing impacts on other special areas; and
3. The proposed dredging and the facility that requires the dredging have been designed to minimize impacts to intertidal and subtidal shallows.

(e) The installation of submerged infrastructure within intertidal and subtidal shallows is conditionally acceptable, provided:

1. Directional drilling is used unless it can be demonstrated that the use of directional drilling is not feasible;
2. Where directional drilling is not feasible, there is no feasible alternative route that would not disturb intertidal and subtidal shallows;
3. The infrastructure is located deeply enough to avoid exposure or hazard; and
4. All trenches are backfilled to the preconstruction depth with naturally occurring sediment.

(f) The filling of intertidal and subtidal shallows for beach nourishment is conditionally acceptable provided it meets the requirements of the filling rule at N.J.A.C. 7:7-12.11(f) and the coastal engineering rule at N.J.A.C. 7:7-15.11(f).

(g) The establishment of a living shoreline in intertidal and subtidal shallows to address the loss of vegetated shorelines and habitat in the littoral zone is conditionally acceptable provided the living shoreline complies with N.J.A.C. 7:7-12.23.

(h) The construction and/or replacement of a bulkhead within intertidal and subtidal shallows is conditionally acceptable provided the bulkhead meets the requirements of the filling rule at N.J.A.C. 7:7-12.11(f) and the coastal engineering rule at N.J.A.C. 7:7-15.11(d).

(i) Mitigation shall be required for the destruction of intertidal and subtidal shallows in accordance with N.J.A.C. 7:7-17. Mitigation shall not be required for the following:

1. Filling in accordance with N.J.A.C. 7:7-12.11(c) and (f)1, 2, and 3;
2. Maintenance dredging in accordance with N.J.A.C. 7:7-12.6;
3. Beach nourishment in accordance with N.J.A.C. 7:7-15.11(f);
4. New dredging in accordance with N.J.A.C. 7:7-12.7 to a depth not to exceed four feet below mean low water;
5. Construction of a replacement bulkhead in accordance with N.J.A.C. 7:7-15.11(d)2i or ii; and
6. The establishment of a living shoreline to address the loss of vegetated shorelines and habitat in the littoral zone.

(j) Rationale: Intertidal and subtidal shallows play a critical role in estuarine ecosystems. They are a land-water ecotone, or ecological edge where many material and energy exchanges between land and water take place. They are critical habitats for many benthic organisms and are critical forage areas for fishes and many migrant waterfowl. The sediments laid down in intertidal and subtidal flats contain much organic detritus from decaying land and water's edge vegetation, and the food webs in these areas are an important link in the maintenance of estuarine productivity.

Preservation is, therefore, the intent of these rules, with limited exceptions to allow for needed water-dependent uses and submerged infrastructure. In most cases, mitigation is required to offset habitat losses where new disturbance of intertidal and subtidal shallows is permitted.

New Jersey's coastal environment is dynamic and shaped by natural forces such as wind, waves, and storms. Shorelines lost due to erosion eliminate intertidal habitat, reduce the amount of sandy beach, and decrease the amount of organic matter necessary to maintain tidal wetlands. This results in the degradation of the coastal environment through impacts to natural habitats, such as tidal wetlands, intertidal and subtidal shallows, and spawning grounds. Coastal states are seeking natural solutions, such as the creation of living shorelines, to address erosion as an alternative that adds diversity to other shore protection measures. Living shorelines are a shoreline management practice that addresses erosion by providing protection, restoration or enhancement of vegetated shoreline habitats.

7:7-9.16 Dunes

(a) A dune is a wind or wave deposited or man-made formation of sand (mound or ridge), that lies generally parallel to, and landward of, the beach and the foot of the most inland dune slope. "Dune" includes the foredune, secondary or tertiary dune ridges and mounds, and all landward dune ridges and mounds, as well as man-made dunes, where they exist

1. Formation of sand immediately adjacent to beaches that are stabilized by retaining structures, and/or snow fences, planted vegetation, and other measures are considered to be dunes regardless of the degree of modification of the dune by wind or wave action or disturbance by development.
2. A small mound of loose, windblown sand found in a street or on a part of a structure as a result of storm activity is not considered to be a "dune."

(b) Development is prohibited on dunes, except for development that has no practicable or feasible alternative in an area other than a dune, and that will not cause significant adverse long-term impacts on the natural functioning of the beach and dune system, either individually or in combination with other existing or proposed structures, land disturbances, or activities. In addition, the removal of vegetation from any dune, and the excavation, bulldozing, or alteration of dunes is prohibited, unless these activities are a component of a Department-approved beach and dune management plan. Examples of acceptable activities are:

1. Demolition and removal of paving and structures;
2. Limited, designated access ways for pedestrian and authorized motor vehicles between public streets and the beach that provide for minimum feasible interference with the beach and dune system and are oriented so as to provide the minimum feasible threat of breaching or overtopping as a result of a storm surge or wave runup (see N.J.A.C. 7:7-10);

3. Limited stairs, walkways, pathways, and boardwalks to permit access across dunes to beaches, in accordance with N.J.A.C. 7:7-10, provided they cause minimum feasible interference with the beach and dune system;
4. The planting of native vegetation to stabilize dunes in accordance with N.J.A.C. 7:7-10;
5. Sand fencing, either a brush type barricade or picket type, to accumulate sand and aid in dune formation in accordance with N.J.A.C. 7:7-10;
6. Shore protection structures which meet the coastal engineering rule at N.J.A.C. 7:7-15.11; and
7. Linear development which meets the rule on location of linear development (N.J.A.C. 7:7-14.1).

(c) The creation of dunes for the purpose of shore protection is strongly encouraged. According to the National Flood Insurance Program (NFIP) Regulations established by the Federal Emergency Management Agency (FEMA), primary frontal dunes will not be considered as effective barriers to base flood storm surges and associated wave action where the cross-sectional area of the primary frontal dune, as measured perpendicular to the shoreline and above the 100-year stillwater flood elevation and seaward of the dune crest, is equal to or less than 1,100 square feet. This standard represents the minimal dune volume to be considered effective in providing protection from the 100-year storm surge and associated wave action, and should represent a "design dune" goal.

(d) The maintenance of an engineered dune to the dune design template through alteration of the dune is conditionally acceptable provided:

1. It is demonstrated through pre- and post- construction surveys overlaid on the dune design template, that:
   i. The existing dune is not consistent with the design template; and
   ii. The proposed alteration of the dune will not result in the reduction of any portion of the dune below the design template;
2. A New Jersey licensed professional engineer certifies that alteration of the dune will not compromise the beach and dune system;
3. The activity:
   i. Is conducted in accordance with the State Aid Agreement between the Department and municipality or county; and
   ii. Complies with the management plan for the protection of State and Federally listed threatened and endangered species, as approved by the Department's Division of Fish and Wildlife and the USFWS;
4. All existing public accessways are maintained;
5. Any existing vegetation disturbed during the maintenance activities shall, at a minimum, be restored in accordance with the dune construction planting specifications in the

Federal consistency determination or Department permit for the engineered dune, as applicable; and

6. Any sand transferred as part of the maintenance of the dune design template shall be moved only within the shore protection project and shall be placed within the existing dune system, or within the engineered beach berm in accordance with the beach rule, N.J.A.C. 7:7-9.22(b).

(e) Rationale: Ocean and bayfront dunes are an irreplaceable physical feature of the natural environment possessing outstanding geological, recreational, scenic and protective value. Protection and preservation in a natural state is vital to this and succeeding generations of citizens of the State and the Nation. The dunes are a dynamic migrating natural phenomenon that helps protect lives and property in adjacent landward areas, and buffers barrier islands and barrier beach spits from the effects of major natural coastal hazards such as hurricanes, storms, flooding and erosion. Natural dune systems also help promote wide sandy beaches and provide important habitats for wildlife species.

Extensive destruction of dunes has taken place in this century along much of the coast. This disruption of the natural processes of the beach and dune system has led to severe erosion of some beach areas; jeopardized the safety of existing structures on and behind the remaining dunes and upland of the beaches; increased the need to manage development in shorefront areas no longer protected by dunes; interfered with the sand balance that is so essential for recreational beaches and the coastal resort economy; necessitated increased public expenditures by citizens of the entire State for shore protection structures and programs; and increased the likelihood of major losses of life and property from flooding and storm surges.

The rule encourages the natural functioning of the dune system and encourages restoration of destroyed dunes, to protect and enhance the coastal beach dune areas, and to devote these precious areas to only those limited land uses which preserve, protect and enhance the natural environment of the dynamic dune system.

The Department strongly supports the creation, enhancement and maintenance of coastal sand dunes as cost-effective shore protection. The value of dunes in protecting the densely developed oceanfront from coastal storm hazards has been well documented by the Department, the Federal Emergency Management Agency, the Army Corps of Engineers, and others. In fact, the New Jersey Hazard Mitigation Plan (Section 406) specifically identifies dune creation and enhancement as a primary storm hazard mitigation strategy. A study from the Coastal Research Center at the Richard Stockton College of New Jersey (Barone, D.A., McKenna, K. K., and S.C. Farrell, 2014, Hurricane Sandy: Beach-dune performance at New Jersey Beach Profile Network sites) concluded that Federally designed shore protection projects that included engineered dunes provided protection to landward structures during Superstorm Sandy. The communities that suffered the greatest damages from Superstorm Sandy were those where dunes were nonexistent, or where the elevations of dunes and beach berms were low or beach widths were narrow.

In addition to the benefits that dunes provide as a natural form of shore protection, dunes often provide important habitat for numerous species of plants and wildlife. Moreover, dunes are

important aesthetic resources that complement and promote tourism along the New Jersey shore. With large quantities of sand being placed on New Jersey beaches as part of the State-Federal shore protection program, opportunities to restore beach and dune habitats and associated biodiversity have increased tremendously. Beach nourishment provides the basis for restoration of coastal landforms (beaches and dunes) and biota, and rediscovery of lost environmental heritage. A large variety of species inhabit coastal dune environments, including plants (beachgrass, beach plum, beach pea, goldenrod, bayberry, juniper, cedar, virginia creeper) and animals (sparrows, warblers, waxwings, kinglets, tanagers, tiger beetles, burrowing spiders, grasshoppers, butterflies).

The natural and aesthetic values of habitat restoration are an important byproduct of the State's beach and dune restoration efforts. Dunes can evolve as natural dynamic landforms that restore an important component of New Jersey's coastal heritage, while providing significant areas of vegetated habitat for coastal biota. The restoration of the natural and beneficial functions of beaches and dunes has become the cornerstone of New Jersey's shore protection program. These benefits are described in Nordstrom and Mauriello (2001), Restoring and Maintaining Naturally Functioning Landforms and Biota on Intensively Developed Barrier Islands under a No-Retreat Scenario. In addition, dune restoration for the purpose of providing wildlife habitat and scenic amenities is consistent with the goals of CAFRA to preserve and enhance the unique environmental and aesthetic resources of the coastal area.

Typically, beach nourishment projects include the construction of dunes for shore protection and/or storm damage reduction purposes. These engineered dunes are designed to a specific height, width, slope, and length, in accordance with a dune design template. In some instances, the engineered dunes may capture sand and grow beyond their design template. In these cases, maintenance of the dune to its design template may be necessary to minimize the effects that an influx of sand can have on infrastructure, access, and public safety. This excess sand can then be utilized along sections of dune or upper beach berm that are below the design template. Engineered dunes are designed to provide storm damage reduction in addition to the beach berm, and are subject to the influx of windblown sand from the beach berm as well as erosion from wave and tidal current activity. Engineered dunes may be supplemented during periodic renourishment cycles to replenish lost material to maintain the overall design template. Maintenance activities between renourishment cycles can potentially reduce the volume of material needed when accreted sand is transferred from areas that have expanded above the design template to areas that have experienced increased erosion. However, maintenance of the engineered dune must not reduce any part of the dune to less than the dune design template.

7:7-9.17 Overwash areas

(a) An overwash area is an area subject to accumulation of sediment, usually sand, that is deposited landward of the beach or dune by the rush of water over the crest of the beach berm, a dune, or a structure. An overwash area may, through stabilization and vegetation, become a dune.

1. The seaward limit of the overwash area is the seaward toe of the former dune, or the landward limit of the beach, in the absence of a dune.

2. The landward limit of the overwash area is the inland limit of sediment transport.
3. Verifiable aerial photography and other appropriate sources may be used to identify the extent of overwash.

(b) Development is prohibited on overwash areas, except for development that has no prudent or feasible alternative in an area other than an overwash area, and that will not cause significant adverse long-term impacts on the natural functioning of the beach and dune system, either individually or in combination with other existing or proposed structures, land disturbances or activities. Examples of acceptable activities are:

1. Creation of dunes or expansion of existing dunes in accordance with N.J.A.C. 7:7-10;
2. Demolition and removal of paving and structures;
3. Limited, designated access ways for pedestrians and authorized motor vehicles between public streets and the beach that provide for the minimum feasible interference with the beach and dune system and are so oriented as to provide the minimum feasible threat of breaching or overtopping as a result of storm surge or wave runup;
4. Shore protection structures which meet the coastal engineering rule at N.J.A.C. 7:7-15.11(g);
5. Linear development which meets the rule on location of linear development (N.J.A.C. 7:7-14.1);
6. Removal of newly deposited overwash fans from public roads and or developed lots; and
7. Construction of street-end beach accessways along the oceanfront, provided they are oriented at an angle against the predominant northeast storm approach, are limited in width to no more than ten feet, and are defined/stabilized with sand fencing. These standards should be included in all beach and dune management plans for oceanfront locations.

(c) A development may be permitted if, by creating a dune with buffer zone or expanding an existing dune landward, the classification of the site is changed so as to significantly diminish the possibility of future overwash. In determining overwash potential, the protective capacity of newly created dunes will be evaluated in terms of the "design dune" goal discussed in N.J.A.C. 7:7-9.16(c).

(d) A single story, beach/tourism oriented commercial development located within a commercial boardwalk area existing on July 19, 1993, is conditionally acceptable provided that it meets the following conditions:

1. The site is located within an area currently used and zoned for beach related commercial use, and is landward of the boardwalk;
2. The height of the building does not exceed 15 feet measured from either the elevation of the existing ground or the boardwalk (depending on the specific site conditions) to the top of a flat roof or the mid-point of a sloped roof;

3. The facility is open to the general public and supports beach/tourism related activities, that is, retail, amusement and food services. Lodging facilities are excluded; and
4. The facility meets all the requirements of the flood hazard area rule, N.J.A.C. 7:7-9.25.

(e) Any development determined to be acceptable at (b) through (d) above shall comply with the requirements for impervious cover and vegetative cover that apply to the site under N.J.A.C. 7:7-13.

(f) Rationale: Overwash areas indicate weakness in natural and man-made shore protection. Hazard has been demonstrated, often with extensive property damage. Overwash areas are, therefore, unsuitable locations for further development, and public funds should not be used to rebuild damaged shore protection structures. However, in certain oceanfront communities where an existing municipal boardwalk (including all adjacent resort-oriented commercial establishments) is already densely developed and is the dominant tourism attraction of the community, low intensity, infill development may be permitted. At these specific locations, the gain in public use and enjoyment of the beach, ocean and boardwalk facilities outweighs the limited additional loss in property damages. Elsewhere the return of these areas to a natural state and the formation of dunes is desirable.

Overwash is a natural shoreline movement process associated with storm and rising sea level and is one of the processes by which barrier islands migrate inland under natural conditions. In New Jersey, migration caused by overwash is usually prevented due to shore protection structures, the highly developed nature of barrier islands and post-storm clean-up practices.

A development proposed in an overwash area may, by incorporating a "design dune" and buffer area, whose dimensions of which would be determined on a case-by-case basis, migrate the hazard and change the classification of the site so that it is no longer an overwash area.

7:7-9.18 Coastal high hazard areas

(a) Coastal high hazard areas are flood prone areas subject to high velocity waters (V zones) as delineated on FEMA flood mapping, and areas within 25 feet of oceanfront shore protection structures, which are subject to wave run-up and overtopping. The coastal high hazard area extends from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. The inland limit of the V zone is defined as the V zone boundary line as designated on FEMA flood mapping or the inland limit of the primary frontal dune, whichever is most landward.

(b) Except as provided at (c), (d), (e), and (f) below, residential and commercial development is prohibited in coastal high hazard areas.

(c) Residential development landward of the mean high water line in coastal high hazard areas is conditionally acceptable provided the development is:

1. A single-family home or duplex infill development that meets the standards of N.J.A.C. 7:7-15.2(e) or (f) and complies with Federal flood reduction standards at 44 CFR Part 60 and the UCC; or
2. Located in Atlantic City or in a special urban area within the Hudson River Waterfront Area as described at N.J.A.C. 7:7-9.46(a)2, complies with the special urban area rule and Hudson River Waterfront rules, N.J.A.C. 7:7-9.41 and 9.46, as applicable, the Federal flood reduction standards at 44 CFR Part 60, and the UCC.

(d) Hotel and commercial development in Atlantic City or in a special urban area within the Hudson River Waterfront Area described at N.J.A.C. 7:7-9.46(a) are acceptable in coastal high hazard areas provided such development complies with the Atlantic City rule, N.J.A.C. 7:7-9.47 or special urban area and Hudson River Waterfront rules, N.J.A.C. 7:7-9.41 and 9.46, as applicable, the Federal flood reduction standards at 44 CFR Part 60, and the UCC.

(e) Water dependent development and amusements are conditionally acceptable within coastal high hazard areas provided the development complies with the Federal flood reduction standards at 44 CFR Part 60 and the UCC.

(f) Beach use related commercial development in coastal high hazard areas is conditionally acceptable within areas that are already densely developed, provided that:

1. The site is landward of the boardwalk;
2. The height of the building does not exceed 15 feet measured from either the elevation of the existing ground or the boardwalk (depending on the specific site conditions) to the top of a flat roof or the mid-point of a sloped roof;
3. The facility is open to the general public and supports beach/tourism related activities, that is, retail, amusement and food services. Lodging facilities are excluded; and
4. The facility complies with all the requirements at N.J.A.C. 7:7-9.25, Flood hazard areas.

(g) Any development determined to be acceptable at (c)2, (d), and (f) above shall comply with the requirements for impervious cover and vegetative cover that apply to the site under N.J.A.C. 7:7-13.

(h) All permanent structures shall be set back a minimum of 25 feet from oceanfront shore protection structures, typically including bulkheads, revetments and seawalls and occasionally jetties and groins if constructed at inlets. This condition is applicable only to shore protection structures that are of sufficient height and strength to provide resistance to storm waves. This condition does not apply to development in Atlantic City in accordance with (c) and (d) above.

(i) Rationale: V zones are areas subject to high velocity waters and are further defined as areas capable of supporting a three foot high breaking wave. These areas are designated on FEMA flood maps as zone V or VE. On many FEMA flood maps, oceanfront bulkheads, revetments or seawalls have been used to delineate the landward limit of the coastal high hazard area.

However, wave run-up, which is the rush of water up a structure or beach that occurs on the breaking of a wave, and overtopping may also cause considerable damage behind bulkheads, revetments and seawalls inshore of the V zone limit. Both V zone and wave run-up zone are high hazard areas where structures are vulnerable to severe storm damage. Most developments allowed under this rule are those which comply with other State regulations (that is, the Uniform Construction Code (UCC) promulgated by the Department of Community Affairs) and Federal standards (that is, the flood reduction standards at 44 CFR Part 60). Beach use and tourism oriented developments and water dependent developments are not subject to the UCC or 44 CFR Part 60, but are subject to storm damage. However, they enhance the public use and enjoyment of the beach and ocean and accordingly are conditionally acceptable.

Residential development (other than limited infill development) and commercial development in coastal high hazard areas is limited to the Hudson River Waterfront area and Atlantic City allowing reasonable development in already densely-developed areas while protecting people and property from the negative impacts of flooding and coastal storms.

The Uniform Construction Code and Federal flood reduction standards establish specifications for construction that reduce risk to people and property in the event of a flood. The Department has, therefore, determined that certain development in coastal high hazard areas that meets these standards is appropriate.

7:7-9.19 Erosion hazard areas

(a) Erosion hazard areas are shoreline areas that are eroding and/or have a history of erosion, causing them to be highly susceptible to further erosion, and damage from storms.

1. Erosion hazard areas may be identified by any one of the following characteristics:
    i. Lack of beaches;
    ii. Lack of beaches at high tide;
    iii. Narrow beaches;
    iv. High beach mobility;
    v. Foreshore extended under boardwalk;
    vi. Low dunes or no dunes;
    vii. Escarped foredune;
    viii. Steep beach slopes;
    ix. Cliffed bluffs as adjacent to beach;
    x. Exposed, damaged or breached jetties, groins, bulkheads or seawalls;
    xi. High long-term erosion rates; or
    xii. Pronounced downdrift effects of groins (jetties).

2. Erosion hazard areas extend inland from the edge of a stabilized upland area to the limit of the area likely to be eroded in 30 years for one to four unit dwelling structures, and 60 years for all other structures, including developed and undeveloped areas. This distance is measured from the crest of a bluff for coastal bluff areas, the most seaward established dune crest for unvegetated dune areas, the first vegetation line from the water for established vegetated dune areas, and the landward edge of a beach or the eight foot North American Datum (NAD), 1983, contour line, whichever is farther inland, for non-dune areas.
   i. An established, unvegetated dune is a dune that has been in place for at least two winter seasons, or has been constructed with the approval of the Department.
   ii. An established vegetated dune is a dune with an existing vegetative cover which has been growing on site for at least two growing seasons.
3. The extent of an erosion hazard area is calculated by multiplying the projected annual erosion rate at a site by 30 for the development of one to four unit dwelling structures and by 60 for all other developments.

(b) Development is prohibited in erosion hazard areas, except for:

1. Linear development which meets the on location of linear development, N.J.A.C. 7:7-14.1;
2. Shore protection activities which meet the appropriate coastal engineering rule, N.J.A.C. 7:7-15.11;
3. Single story, beach/tourism oriented commercial development located within a commercial boardwalk area existing on July 19, 1993**,** is conditionally acceptable provided that it meets the following conditions:
   i. The site is located within an area currently used and zoned for beach related commercial use, and is landward of and adjacent to the boardwalk;
   ii. The height of the building does not exceed 15 feet measured from either the elevation of the existing ground or the boardwalk (depending on the specific site conditions) to the top of a flat roof or the mid-point of a sloped roof;
   iii. The facility is open to the general public and supports beach/tourism related recreational activities, that is, retail, amusement and food services. Lodging facilities are excluded;
   iv. The facility meets all the requirements of the flood hazard area rule, N.J.A.C. 7:7-9.25; and
   v. The development complies with the requirements for impervious cover and vegetative cover that apply to the site under N.J.A.C. 7:7-13;
4. Single-family and duplex developments that meet the standards of N.J.A.C. 7:7-15.2(e) or (f);

5. The construction of dune walkover structures and at-grade walkover pathways, in accordance with Department standards found at N.J.A.C. 7:7-10;
6. Dune creation and beach maintenance activities in accordance with Department standards found at N.J.A.C. 7:7-10; and
7. The following development in Atlantic City provided it meets the standards of N.J.A.C. 7:7-9.47:

   i. Development on or over existing ocean piers;

   ii. Pilings necessary to support development proposed on or over existing ocean piers; and

   iii. Development on or over the Boardwalk.

(c) Rationale: As a result of continuing rising sea levels, active storm induced sand movements, and offshore currents (littoral drift), most of the Atlantic coastline of New Jersey is retreating. Coastal erosion also affects the bayshores of New Jersey. The rate of retreat, or erosion, is not uniform, and varies locally depending upon the nature and magnitude of coastal processes operating within individual parts of the shoreline. Certain parts of the shoreline have a higher risk for future erosion.

Development other than shore protection measures and linear development is prohibited in these areas in order to protect public safety and prevent loss of life and property. However, in certain oceanfront communities where an existing municipal boardwalk (including all adjacent resort-oriented commercial establishments) has long been featured as the main attraction of that resort community and is already densely aligned with buildings, low intensity infill may be permitted. At these specific locations, the gain in public use and enjoyment of the beach, ocean and boardwalk facilities outweighs the limited, potential additional loss in property damages.

The annual rate of erosion shall be calculated on a case-by-case basis by using the best available data and scientific methodology. Historical erosion rates of areas need to be analyzed to determine the particular past trend that best reflects the current shoreline processes affecting that area. The appropriate long or short term historical erosion rate of an area is then combined with other information, which may help to explain the erosion rate of an area, to determine a projected erosion rate for the next thirty to sixty years. These factors include, but are not limited to: past or on-going shore protection activities, e.g., beachfills, or groin, revetment, or bulkhead constructions, and past or on-going navigation channel dredging projects and past storm events.

The Department will use a computer program, entitled "Digital Shoreline Analysis System," developed by USGS, to produce historical shoreline change maps for specific sites along the oceanfront. These maps will be used to establish the appropriate long or short term trend in shoreline changes that will most likely continue in the future for a specific site.

The projected annual erosion rate or historical shoreline change data for a specific site, excluding the Raritan Bay area, may be obtained from the Department by written request accompanied by a site plan which identifies the site by either the "state plane" coordinate system or latitude -longitude coordinates. For sites located along the Raritan Bay, the annual erosion

rate can be found in Paul A. Gares, Karl F. Nordstorm and Norbert P. Psuty, Coastal Dunes: Their Function, Delineation and Management, Center for Coastal and Environmental Studies, Rutgers University for NJDEP, 1979. Other appropriate sources including verifiable aerial photography, may also be consulted.

7:7-9.20 Barrier island corridor

(a) Barrier island corridors are the interior portions of oceanfront barrier islands, spits and peninsulas. Along the New Jersey Coast, headlands are located between Monmouth Beach, Monmouth County and Pt. Pleasant Beach, Ocean County.

1. The oceanfront barrier island corridor encompasses that portion of barrier islands, spits and peninsulas (narrow land areas surrounded by both bay and ocean waters and connected to the mainland) that are upland of wetlands, beach and dune systems, filled water's edges, and existing lagoon edges. Barrier island corridor does not include the headlands of northern Ocean County, Monmouth County, and the southern tip of Cape May County, which are part of the mainland.

(b) New or expanded development within the oceanfront barrier island corridor is conditionally acceptable provided that the development complies with the requirements for impervious cover and vegetative cover that apply to the site under N.J.A.C. 7:7-13.

(c) Rationale: All of New Jersey's barrier islands and spits, except for Pullen Island in the Brigantine National Wildlife Refuge, are developed to varying degree, largely as a result of incremental decisions made beginning more than 100 years ago. Because the public facilities (roads and utilities) necessary to support urban and resort development already exist, and should be protected on New Jersey's barrier islands, and because development pressure is intense on barrier islands, infill projects are conditionally acceptable. Extensions of development on barrier islands and spits are discouraged.

The rule recognizes the diversity of New Jersey's barrier islands, from Absecon Island with the resort city and urban center of Atlantic City to Long Beach Island with largely single-family seasonal homes. Implementation of the policy is expected to reinforce the existing character of New Jersey's developed barrier islands and not add appreciably to the public service costs and emergency evacuation (in times of hurricanes) problems of these islands.

7:7-9.21 Bay islands

(a) Bay islands are islands or filled areas surrounded by tidal waters, wetlands, beaches, or dunes, lying between the mainland and barrier island. Such islands may be connected to the mainland or barrier island by elevated or fill supported roads. Existing lagoon edges (N.J.A.C. 7:7-9.24) are not bay islands.

1. In cases where a bay island is also a filled water's edge (N.J.A.C. 7:7-9.23), the more restrictive provisions of the two rules shall apply.

2. For the purposes of this chapter, the areas listed below are not considered bay islands. The impervious cover limits for these areas are determined under the special area rules at N.J.A.C. 7:7-9 where applicable, and/or under N.J.A.C. 7:7-13.

   OCEAN COUNTY

   Bonnett Island, Stafford Township

   Chadwick Island, Dover Township

   Channel Island, Mantoloking Borough

   Osborne Island, Little Egg Harbor Township

   Pelican Island, Dover/Berkeley Townships

   West Point Island, Lavallette Borough

   ATLANTIC COUNTY

   Bader Field, Atlantic City

   Chelsea Heights, Atlantic City

   Venice Heights, Atlantic City

   Ventnor Heights, Ventnor City

   CAPE MAY COUNTY

   Princeton Harbor, Avalon Borough

   Shawcrest/Hildreth Island, Lower and Middle Townships. The areas mapped as Shawcrest/Hildreth Island are identified in the Department's Geographic Information System(GIS) coverage, titled "Shawcrest/Hildreth Island." This coverage is available as a download at the CAFRA layers webpage: https://www.nj.gov/dep/gis/listall.html

   West Wildwood, Wildwood City

   West 17th Street, Ocean City

(b) On bay islands which abut either a paved public road or a conveyance component of an offsite treatment, conveyance and disposal system with adequate capacity to convey, treat, and dispose of the sewage generated from the proposed development, or which abut neither a paved public road nor such a conveyance, non-water dependent development is prohibited unless it meets the standards of (d) below and water dependent development is discouraged. Water dependent development is conditionally acceptable provided that:

1. Impervious cover does not exceed three percent of the bay island portion of the site (except pursuant to (d) below);

2. For a bay island portion of a site that is forested as determined at N.J.A.C. 7:7-13.5, at least 30 percent of the existing forest shall be preserved in accordance with N.J.A.C. 7:7-13.4(d), and the remainder shall be planted with herb/shrub vegetation that is adapted to the substrate and other environmental conditions of the site; and
3. For a bay island portion of a site that is unforested as determined at N.J.A.C. 7:7-13.5, at least five percent of the bay island portion shall be planted with trees in accordance with N.J.A.C. 7:7-13.4(d) and (e), and the remainder shall be planted with herb/shrub vegetation that is adapted to the substrate and other environmental conditions of the site.

(c) On bay islands which abut a paved public road and abut the conveyance component of an offsite treatment, conveyance, and disposal system with adequate capacity to convey, treat, and dispose of the sewage generated from the proposed development, development is conditionally acceptable as follows:

1. Water dependent development is conditionally acceptable, provided that:
   i. Impervious cover does not exceed 30 percent of the bay island portion of the site (except pursuant to (d) below);
   ii. For a bay island portion of a site that is forested as determined at N.J.A.C. 7:7-13.5, at least 30 percent of the existing forest shall be preserved in accordance with N.J.A.C. 7:7-13.4(d), and the remainder shall be planted with herb/shrub vegetation that is adapted to the substrate and other environmental conditions of the site; and
   iii. For a bay island portion of a site that is unforested as determined at N.J.A.C. 7:7-13.5, at least five percent of the bay island portion shall be planted with trees in accordance with N.J.A.C. 7:7-13.4(d) and (e), and the remainder shall be planted with herb/shrub vegetation that is adapted to the substrate and other environmental conditions of the site; and
2. Non-water dependent development is conditionally acceptable provided that:
   i. Impervious cover does not exceed three percent of the bay island portion of the site (except pursuant to (d) below);
   ii. For a bay island portion of a site that is forested as determined at N.J.A.C 7:7-13.5, at least 30 percent of the existing forest shall be preserved in accordance with N.J.A.C. 7:7-13.4(d), and the remainder shall be planted with herb/shrub vegetation that is adapted to the substrate and other environmental conditions of the site; and
   iii. For a bay island portion of a site that is unforested as determined at N.J.A.C. 7:7-13.5, at least five percent of the bay island portion shall be planted with trees in accordance with N.J.A.C. 7:7-13.4(d) and (e), and the remainder shall be planted with herb/shrub vegetation that is adapted to the substrate and other environmental conditions of the site.
3. Impervious cover shall not exceed three percent of the bay island portion of the site unless the development is entirely water dependent and meets (c)1 above, in which case the impervious cover limit shall not exceed 30 percent.

(d) Redevelopment or modification within an existing development on a bay island is conditionally acceptable provided that:

1. The construction of buildings and/or concrete asphalt pavement is located on the area covered by buildings and/or asphalt or concrete pavement legally existing on the site at the time the application is submitted to the Department and does not exceed the existing development as to any one of the following:
   i. Number of units; or
   ii. Square footage of interior floor space; and
2. Trees shall be planted and/or preserved on at least five percent of the bay island portion of the site in accordance with N.J.A.C. 7:7-13.4(d) and (e).

(e) Rationale: New Jersey's bay islands are former wetlands where upland areas have been created by past filling, particularly with dredged material. Many are suitable for future dredged material placement. They are adjacent to areas with high environmental sensitivity, particularly wetlands, intertidal flats, tidal waterways, shellfish beds, and endangered and threatened wildlife habitats. Development of the islands would pose a great threat to these natural resources and habitat. The majority of, if not all, bay islands are valuable wildlife habitats or have the potential to become habitat through the implementation of management techniques. Their value, in part, stems from their isolation from human activity as compared to the intense development and beach usage of oceanfront barrier islands. For example, sandy areas are used by beach nesting birds such as least tern, black skimmer, and piping plover, and vegetated areas are used by colonial nesting birds such as heron and non-colonial birds such as marsh hawk. Bay islands are also subject to flooding and by virtue of their location function as bridges between the mainland and barrier islands. If developed, these islands would pose added storm evacuation problems. They are usually distant from public services, and therefore unsuitable for development.

The above list of bay islands which are exempted from the requirements of this rule was established based on a review of the physical conditions of these islands, including environmental sensitivity, accessibility, and level of existing development and infrastructure. Future development on the islands listed above does not pose a significant threat to environmental resources, nor would it adversely affect storm evacuation from the oceanfront barrier islands.

7:7-9.22 Beaches

(a) Beaches are gently sloping areas of sand or other unconsolidated material, found on all tidal shorelines, including ocean, bay**,** and river shorelines that extend landward from the mean high water line to either:

1. A man-made feature generally parallel to the ocean, inlet, or bay waters such as a retaining structure, seawall, bulkhead, road or boardwalk, except the sandy areas that extend fully under and landward of an elevated boardwalk are considered beach areas; or

2. The seaward or bayward foot of dunes, whichever is closest to the bay, inlet or ocean waters.

(b) Development is prohibited on beaches, except for development that has no prudent or feasible alternative in an area other than a beach, and that will not cause significant adverse long-term impacts to the natural functioning of the beach and dune system, either individually or in combination with other existing or proposed structures, land disturbances**,** or activities. Examples of acceptable activities are:

1. Demolition and removal of paving and structures
2. Dune creation and related sand fencing and planting of vegetation for dune stabilization, in accordance with N.J.A.C. 7:7-10;
3. The reconstruction of existing amusement and fishing piers and boardwalks;
4. Temporary recreation structures for public safety such as first aid and lifeguard stations;
5. Shore protection structures which meet the use conditions of N.J.A.C. 7:7-15.11(g);
6. Linear development which meets the rule on location of linear development, N.J.A.C. 7:7-14.1;
7. Beach maintenance activities which do not adversely affect the natural functioning of the beach and dune system, and which do not preclude the development of a stable dune along the back beach area. These activities, which include routine cleaning, debris removal, mechanical sifting, maintenance of access ways, and Department approved dune creation and maintenance activities, must be carried out in accordance with the standards found at N.J.A.C. 7:7-10;
8. Post-storm beach restoration activities involving the placement of clean fill material on beaches, and the mechanical redistribution of sand along the beach profile from the lower to the upper beach. These post-storm activities, which are different than routine beach maintenance activities, must be carried out in accordance with the standards found at N.J.A.C. 7:7-10;
9. The following development in Atlantic City provided it meets the standards of N.J.A.C. 7:7-9.47:
    i. Development on or over existing ocean piers;
    ii. Pilings necessary to support development proposed on or over existing ocean piers; and
    iii. Development on or over the Boardwalk; and
10. The maintenance of an engineered beach to the beach berm design template through the transfer of sand from the upper beach berm to the lower beach berm, from the lower beach berm to the upper beach berm, and/or alongshore provided:
    i. It is demonstrated through pre- and post- construction surveys overlaid on the beach berm design template, that:

(1) The existing beach berm is not consistent with the beach berm design template; and

(2) The proposed transfer of sand will not result in the grading any portion of the beach below the beach berm design template;

ii. A New Jersey licensed professional engineer certifies that sand transfer will not compromise the beach system;

iii. The sand transfer:

(1) Is conducted in accordance with the State Aid Agreement between the Department and a municipality or county; and

(2) Complies with the management plan for the protection of State and Federally listed threatened and endangered species, as approved by the Department's Division of Fish and Wildlife and the USFWS;

iv. The sand transfer does not impact any existing dunes, unless the transfer complies with the dune rule, N.J.A.C. 7:7-9.16; and

v. Any sand transferred as part of the maintenance of the beach berm design template shall be moved only within the shore protection project and shall be placed within the existing engineered dune in accordance with N.J.A.C. 7:7-9.16(d).

(c) Public access shall be provided in accordance with the lands and waters subject to public trust rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

(d) Rationale: Undeveloped beaches are vital to the New Jersey resort economy. Unrestricted access for recreational purposes is desirable so that the beaches can be enjoyed by all residents and visitors of the State. Public access will be required for any beaches obtaining State funds for shore protection purposes. Beaches are subject to coastal storms and erosion from wave action and offshore currents. Public health and safety considerations require that structures be excluded from beaches to prevent or minimize loss of life or property from storms and floods, except for some shore protection structures and linear facilities, such as pipelines, when non-beach locations are not prudent or feasible.

Many of New Jersey's beaches, especially those along the Atlantic Ocean, have been nourished through the State's Shore Protection Program. These engineered beaches are designed to a specific height, width, slope, and length, in accordance with a beach berm design template. Engineered beaches are subject to erosive forces of waves, winds, and tidal currents; in many instances, eroded material is moved and deposited in areas within the project area in such a way that the beach grows beyond the design template and thus the beach no longer conforms to the shore protection project design. For engineered beaches to provide the storm damage reduction and shore protection for which they were designed, the beach berm design template must be maintained throughout the entire project area. Municipalities are encouraged to maintain the project design to the maximum extent feasible between project renourishment cycles. However, maintenance of the engineered beach must not reduce any portion of the beach to less than the beach berm design template.

7:7-9.23 Filled water's edge

(a) Filled water's edge areas are existing filled water, wetland, or upland areas lying between wetlands or water areas, and either (a)1 or 2 below, whichever is closer to the water:

1. The upland limit of fill; or
2. The first paved public road or railroad landward of the adjacent water area.

(b) Filled water's edge areas shall be determined through analysis of historic data including United States Department of Agriculture soil surveys, Tidelands maps, or aerial photography. Some existing or former dredged material disposal sites and excavation fill areas are filled water's edge.

(c) The "waterfront portion" is defined as a contiguous area at least equal in size to the area within 100 feet of navigable water, measured from the mean high water line. This contiguous area must be accessible to a public road and occupy at least 30 percent of its perimeter along the navigable water's edge.

(d) On filled water's edge sites with direct water access (that is, those sites without extensive intertidal shallows or wetlands between the upland and navigable water), development shall comply with (d)1 through 3 below unless it is demonstrated that a water dependent use is not feasible on the site in accordance with (e) below. Where it is determined that a water dependent use is not feasible, the site may be developed with a non-water dependent use.

1. Except as provided below, the waterfront portion of the site shall be:
   i. Developed with a water dependent use;
   ii. Developed with an at-grade deck provided:
      (1) The deck is open to the general public;
      (2) The use of the deck is water oriented;
      (3) The deck is not enclosed; and
      (4) A public walkway is provided around the deck landward of the mean high water line at the water's edge; or
   iii. Left undeveloped for future water dependent uses;
2. On the remaining non-waterfront portion of the site, provision of additional area devoted to water dependent or water-oriented uses may be required as a special case at locations which offer a particularly appropriate combination of natural features and opportunity for waterborne commerce and recreational boating; and
3. On filled water's edge sites where water dependent and water-oriented uses can coexist with other types of development, a greater mix of land uses may be acceptable or even desirable. In these cases, a reduced waterfront portion, that is, less than that provided by a

100-foot setback, may be acceptable provided that non-water related uses do not adversely affect either access to or use of the waterfront portion of the site.

(e) The Department shall consider the following factors when determining whether a water dependent development is feasible on a filled water's edge site:

1. Length of water frontage on the site and the corresponding area of upland to support a water dependent use on the site;
2. Presence of special areas, such as shellfish habitat, submerged vegetation habitat, intertidal and subtidal shallows, or wetlands between the upland and navigable water that would preclude approval of a water dependent development;
3. Incompatibility of a water dependent development with the surrounding development;
4. Land or water contamination such that construction of a water dependent use will pose an ecological risk or endanger public health; and
5. Conditions uniquely affecting the particular property that result in peculiar and exceptional practical difficulties in the development of a water dependent development, such as the depth of water adjacent to the site, unusual current or other natural conditions, or the ability to obtain authority from the State to use tidelands necessary to support a water dependent use on the site.

(f) On filled water's edge sites without direct access to navigable water, the area to be devoted to water related uses will be determined on a case-by-case basis.

(g) On filled water's edge sites with an existing or pre-existing water dependent use, that is, one existing at any time since July of 1977, development must comply with the following additional conditions:

1. For sites with an existing or pre-existing marina, development that would reduce the area currently or recently devoted to the marina is acceptable if:
   i. For every two housing units proposed on the filled water's edge the existing number of boat slips in the marina mooring area, as defined at N.J.A.C. 7:7-9.10, is increased by one**,** and at least 75 percent of the total number of slips (existing and new) remain open to the general public. Removal of upland to create slips is acceptable;
   ii. Marina services are expanded in capacity and upgraded (that is, modernized) to the maximum extent practicable; and
   iii. In-water or off site boat storage capability is demonstrated or upland storage is provided to accommodate at least 75 percent of the marina's boats, as determined by maximum slip capacity, 26 feet in length and longer, and 25 percent of the marina's boats less than 26 feet in length.
2. For sites with an existing or pre-existing water dependent use other than a marina, development that would reduce or adversely affect the area currently or recently devoted to the water dependent use is discouraged.

(h) In waterfront areas located outside of the CAFRA area, the water dependent use may be a public walkway, provided the upland walkway right-of-way is at least 30 feet wide, unless there are existing onsite physical constraints which cannot be removed or altered to meet this requirement.

(i) In the area known as Bader Field, a filled water's edge area located in the City of Atlantic City and described on the 2008 Atlantic City tax duplicate as Block 794, Lot 1, the water dependent use shall be provided in accordance with (d) above or an upland public walkway along the water's edge, no less than 20 feet wide, with a 40-foot-wide right-of-way shall be provided.

(j) The development shall comply with the requirements for impervious cover and vegetative cover that apply to the site under N.J.A.C. 7:7-13.

(k) Along the Hudson River and in other portions of the Northern Waterfront and Delaware River Region, where water dependent uses are deemed infeasible, some part of the waterfront portion of the site may be acceptable for non-water dependent development under the following conditions:

1. The development proposal addresses, as a minimum, past use of the site as well as potential for future water dependent, commercial, transportation, recreation, and compatible maritime support services uses;
2. The developed land uses closest to the water's edge are water oriented;
3. Currently active maritime port and industrial land uses are preserved;
4. Adverse impacts on local residents and neighborhoods are mitigated to the maximum extent practicable; and
5. All other coastal rules are met.

(l) On all filled water's edge sites, development must comply with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

(m) The construction of a restaurant at a marina facility is acceptable within the filled water's edge portion of a site provided it meets the standards of N.J.A.C. 7:7-15.3(d)8.

(n) Rationale: The water's edge along New Jersey's shore, bays and rivers is a highly valued, yet limited, resource. Waterfront locations offer a rare combination of natural features and opportunities for waterborne commerce and recreational boating. Though an estimated 37 percent of the State's 753 miles of shoreline along navigable waterways is filled water's edge, two-thirds of these locations are already developed. The particular requirements for an average sized marina or port facility further narrow the filled water's edge potentially suitable for such development to approximately 3 percent, or 19 miles, of the State's entire water's edge (NJDEP, Policy Assessment 1983).

Filled water's edge areas, though relatively scarce, are less environmentally sensitive than undisturbed water's edge areas. The buffering functions of the water's edge have already been lost through excavation, filling, and the construction of retaining structures. The filled water's edge, therefore, provides the best opportunity for intense use of the waterfront. Accordingly, certain kinds of development are allowed up to the limit of fill.

The rule seeks to promote both the marine trades as an important sector of the State's economy and uses that enhance public access to, and use of, the water's edge. Uses that require a waterfront location in order to function (that is, water dependent uses) and uses that serve the general public and derive economic benefits from a waterfront location (that is, water-oriented uses) are favored over non-water related uses such as housing and offices. These non-water related uses can be situated away from the water. The rule permits the construction of decks for a water oriented use such as a restaurant, with appropriate awnings, seating, food and beverage areas because they serve the general public yet are not such substantial structures that would preclude their removal for a water dependent use.

However, there are situations where the development of a filled water's edge site with a water dependent use is not feasible due to proportion of waterfront to non-waterfront portions of the site, the presence of special areas that would preclude approval of a water dependent development, incompatibility of a water dependent use on the site with the surrounding uses, land or water contamination such that the construction of a water dependent use would pose an ecological risk or endanger public health, and/or other site-specific conditions that result in peculiar and exceptional practical difficulties in the development of a water dependent development. In such cases, development of the site with a non-water dependent use is acceptable.

Since many existing water dependent uses are being lost, or more often, constricted by housing and other non-water related uses, and since few excellent sites remain for recreational and commercial boating, it is desirable to restrict redevelopment of sites currently or recently occupied by a water dependent use. Further, preserving slips open to the general public is necessary to protect the public's common law right to use tidal waters for navigation. Although housing at the water's edge can in some situations ensure the long term viability of a marina, it generates additional boating demand, which further aggravates limited marina space. Accordingly, in defining "Slip open to the general public," slips leased only to owners of associated housing or only to residents of a certain municipality would be excluded, unless any member of the general public could join by paying a reasonable fee. Marinas warrant special attention for several reasons. They benefit the State by attracting tourists and associated revenues and by serving the residents who go boating in New Jersey's coastal waters. Where consolidation of a marina's land based facilities is justified, the existing marinas services and boat slips must be maintained or, where possible, expanded. Upland boat storage is an exception. Upland storage for most (75 percent) of a marina's large boats, which cannot be easily trailered off-site, must be accommodated. However, space for only a small portion (25 percent) of boats that can be trailered off-site for winter storage must be retained.

Along the Hudson River**,** Delaware River, Raritan River**,** and Passaic River, and in other portions of the developed urban waterfront, potential for future water dependent and maritime

support services is also of concern. On these sites, economic revitalization must be balanced against the need to preserve and provide for water dependent and water-oriented uses.

7:7-9.24 Existing lagoon edges

(a) Existing lagoon edges are defined as existing manmade land areas resulting from the dredging and filling of wetlands, bay bottom and other estuarine water areas for the purpose of creating waterfront lots along lagoons for residential and commercial development.

1. Existing Lagoon Edges extend upland to the limit of fill, or the first paved public road or railroad generally parallel to the water area, whichever is less.

(b) Development of existing lagoon edges is acceptable provided:

1. The proposed development is compatible with existing adjacent land and water uses;
2. Existing retaining structures are adequate to protect the proposed development
3. New or reconstructed retaining structures are consistent with the filling rule at N.J.A.C. 7:7-12.11 and structural shore protection rule N.J.A.C. 7:7-15.11(g); and
4. The development complies with the requirements for impervious cover and vegetative cover that apply to the site under N.J.A.C. 7:7-13.

(c) Rationale: Filled lands adjacent to water areas, especially existing, undeveloped lagoons, represent potential problems for water quality if not stabilized. The slope must be stabilized in order to Prevent erosion and turbidity. These problems have been well documented in Rutgers University Center for Coastal and Environmental Studies and NJDEP, Division of Fish, Game and Wildlife, "Comparison of Natural and Altered Estuarine Systems", 1979. Thousands of undeveloped building lots exist along stabilized and unstabilized lagoons created by destroying wetlands in the 1950's and 1960's. State coastal policy now precludes the development of new lagoons in wetlands for residential development.

7:7-9.25 Flood hazard areas

(a) Flood hazard areas are areas subject to flooding from the flood hazard area design flood, as defined by the Department under the Flood Hazard Area Control Act rules at N.J.A.C. 7:13. Flood hazard areas include those areas mapped as such by the Department, areas defined or delineated as an A or a V zone by FEMA, and any unmapped areas subject to flooding by the flood hazard area design flood. Flood hazard areas are subject to either tidal or fluvial flooding and the extent of flood hazard areas shall be determined or calculated in accordance with the procedures at N.J.A.C. 7:13-3.

(b) In a tidal flood hazard area below the mean high water line, this section shall apply only to the following activities:

1. Development of habitable buildings; and

2. Construction of railroads, roadways, bridges and/or culverts.

(c) Dedication of flood hazard areas for purposes of public open space is encouraged.

(d) In an undeveloped portion of a flood hazard area that is within 100 feet of a navigable water body other than the Atlantic Ocean, development is prohibited unless the development is one or two single-family homes or duplexes in accordance with N.J.A.C. 7:7-15.2(e) or is for a water dependent use. For the purposes of this subsection and (e) below, an "undeveloped" area is an area that has no impervious cover.

(e) In a portion of an undeveloped flood hazard area that is 100 feet or farther from a navigable waterway, development is conditionally acceptable provided the development would not prevent potential water-dependent use in any portion of the flood hazard area within 100 feet of a navigable water body.

(f) Development in flood hazard areas shall conform with the applicable design and construction standards of the following:

1. The Flood Hazard Area Control Act, N.J.S.A. 58:16A-50 et seq., and implementing rules at N.J.A.C. 7:13, except in lands regulated under the Wetlands Act of 1970, N.J.S.A. 13:9A-1 et seq., pursuant to N.J.S.A. 58:16A-60;
2. The Uniform Construction Code, N.J.A.C. 5:23; and
3. The Federal flood reduction standards, 44 C.F.R. Part 60.

(g) Development in a flood hazard area shall comply with the requirements for impervious cover and vegetative cover under N.J.A.C. 7:7-13.

(h) If endangered and/or threatened wildlife or species habitat is present in the flood hazard area such that the area is also an endangered or threatened wildlife or plant species habitat special area in accordance with N.J.A.C. 7:7-9.36, then the requirements of N.J.A.C. 7:7-9.36, Endangered or threatened wildlife or plant species habitats, shall apply.
(i) For the purposes of this section, if a term is defined in this chapter and in the Flood Hazard Area Control Act rules at N.J.A.C. 7:13, the definition in N.J.A.C. 7:13 shall govern. For any term used in this section that is not defined or otherwise described in this chapter but that is defined or described in the Flood Hazard Area Control Act rules at N.J.A.C. 7:13, the definition or description in N.J.A.C. 7:13 shall apply.

(j) Rationale: The goal of this rule is to reduce losses of life and property resulting from unwise development of flood hazard areas, and allow uses compatible with periodic flooding, agriculture and forestry, recreation, and fish and wildlife habitat and uses which require a water's edge location. This rule is consistent with the State Waterfront Development Law's objective of safeguarding port facilities and waterfront resources for the public's overall economic advantage. The rule will ensure that the State's waterfront is not pre-empted by uses which could function equally well at inland locations.

Flood hazard areas adjacent to rivers are subject to flooding in severe fluvial storms. They are also critical elements of the coastal ecosystems, providing flood storage capacity, physical and biochemical water filtration, primary productivity**,** and wildlife habitats.

For these reasons, the preferred rule is to preserve those flood hazard corridors that are in an undeveloped state with native or adapted forest vegetation for conservation purposes and to allow limited exceptions for water dependent uses, infill**,** and uses for which there is no feasible alternative location.

The location acceptability for a site under this rule applies only to flood hazard areas which have not been disturbed by filling. Sites subject to this rule, therefore, tend to be in a more natural state than sites subject to the filled water's edge rule. Accordingly this rule is more restrictive, discouraging development which would unnecessarily disturb vegetation, and requiring water dependency within 100 feet of a navigable water body.

The development of one or two single-family homes or duplexes within an undeveloped portion of a flood hazard area that is within 100 feet of a navigable water body is conditionally acceptable provided specific design and construction standards are met to ensure that the building does not exacerbate flooding or put the inhabitants at risk.

7:7-9.26 Riparian zones

(a) A riparian zone is the land and vegetation within and adjacent to a regulated water. A riparian zone exists along both sides of every regulated water and includes the regulated water itself, except as provided in (b) below. The extent of a riparian zone is determined in accordance with (c), (d), and (e) below.

(b) There is no riparian zone within or along the following:

1. The Atlantic Ocean;
2. The barrier island complex;
3. Any lawfully existing manmade lagoon;
4. Any lawfully existing stormwater management basin or wastewater treatment pond;
5. Any segment of a regulated water enclosed within a lawfully existing pipe, culvert or bridge; and
6. Any lawfully existing, manmade open channel that was created to convey stormwater, provided the channel is fully lined with manmade impervious material, such as a concrete low-flow channel within a stormwater basin or a ditch completely lined with concrete or asphalt.

(c) The portion of the riparian zone located outside of a regulated water is measured landward from the top of bank. For the purposes of this section, the top of bank means the upper limit of the bank of a regulated water, which is typically characterized by an observable change or break in the slope of the land.

(d) Where the top of bank as defined in (c) above is not discernible along the regulated water, the top of bank shall be considered:

1. The centerline of the regulated water, for a linear regulated water that has a drainage area of less than 150 acres;
2. The limits of the two-year flood, for a linear regulated water that has a drainage area of 150 acres or more, except as provided in (d)3 below;
3. The normal water surface limit, for:
   i. A linear fluvial regulated water that contains water at all times and has a drainage area of 10 square miles or more; or
   ii. A non-linear fluvial regulated water, such as a lake or pond;
4. The mean high water line, for a non-linear tidal regulated water, such as a bay or inlet; and
5. The feature's centerline, for an amorphous or irregularly-shaped feature, such as a wetland complex through which a regulated water flows but lacks a discernible or coherent channel.

(e) The width of the riparian zone is as follows:

1. The width of the riparian zone along any regulated water designated as a Category One water, and all upstream tributaries situated within the same HUC-14 watershed, is 300 feet;
2. Except for the regulated waters listed at (e)1 above, the width of the riparian zone along the following regulated waters is 150 feet:
   i. Any trout production water and all upstream waters (including tributaries);
   ii. Any trout maintenance water and all upstream waters (including tributaries) located within one mile of a trout maintenance water (measured along the length of the regulated water); and
   iii. Any segment of a regulated water flowing through an area that contains endangered or threatened wildlife or plant species habitat, which is critically dependent on the regulated water for survival, and all upstream waters (including tributaries) located within one mile of such habitat (measured along the length of the regulated water). A list of critically dependent species is available from the Department at the website set forth at N.J.A.C. 7:7-1.6; and
3. For all other regulated waters not identified in (e)1 or 2 above, the width of the riparian zone is 50 feet.

(f) The extent of the riparian zone shall be determined in accordance with the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13-4.1(d) through (h), where:

1. A regulated water:
   i. Naturally forms, begins, or ends within a site;
   ii. Lies in proximity to a railroad or roadway; or
   iii. Enters or exits a pipe, culvert, or bridge;
2. An impoundment has been constructed along a regulated water; or
3. Coastal wetlands are located along or adjacent to a regulated water.

(g) The riparian zones established under this chapter are separate from, and in addition to, any other similar zones or buffers established to protect surface waters. For example, the Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A, establish a 50-foot and 150-foot transition area along freshwater wetlands and other features that are also regulated under this chapter. Compliance with the riparian zone requirements of this chapter does not constitute compliance with the requirements of any other Federal, State, or local statute, regulation, or ordinance.

(h) Development in riparian zones shall conform with the requirements of the Flood Hazard Area Control Act Rules for a permit-by-rule at N.J.A.C. 7:13-6 and 7, a general permit-by-certification at N.J.A.C. 7:13-6 and 8, a general permit at N.J.A.C. 7:13-6 and 9, or an individual permit at N.J.A.C. 7:13-10, 11, and 12, as applicable.

(i) If endangered and/or threatened wildlife or species habitat is present within a riparian zone the requirements of N.J.A.C. 7:7-9.36, Endangered or threatened wildlife or plant species habitats, shall apply.

(j) For the purposes of this section, if a term is defined in this chapter and in the Flood Hazard Area Control Act Rules, N.J.A.C. 7:13, the definition in N.J.A.C. 7:13 shall govern. For any term used in this section that is not defined or otherwise described in this chapter but that is defined or described in the Flood Hazard Area Control Act Rules, the definition or description in N.J.A.C. 7:13 shall apply.

(k) Rationale: Healthy riparian systems are essential to the natural environment. Loss of soil and plant life that occurs adjacent to regulated waters not only threatens public and private property, but directly impacts water quality and the health of fish and wildlife. The extreme importance of preserving and restoring adequate stream corridor buffers has been well documented in recent decades. Riparian zone functions include stream bank stabilization, removal of sediment, nutrients and contaminants, flood storage, wildlife habitat, aesthetics, and recreation and education.

7:7-9.27 Wetlands

(a) Wetlands or wetland means an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal

circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.

1. Wetlands areas are identified and mapped on the following:
   i. National Wetlands Inventory Maps produced by the U.S. Fish and Wildlife Service at a scale of 1:24,000 (generalized locations only);
   ii. Coastal wetland maps, pursuant to the Wetlands Act of 1970 (N.J.S.A. 13:9A-1 et seq.) prepared by the DEP at a scale of 1:2,400; and
   iii. Freshwater wetland maps prepared by DEP at a scale of 1:12,000 (generalized locations only).

   Note: Maps referenced in (a)1ii above are available from the Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6, and those referenced in (a)1iii above are available through NJ-GeoWeb (see https://www.nj.gov/dep/gis/geowebsplash.htm).
2. Generalized locations of some wetland types can be found in county soil surveys prepared by the U.S. Department of Agriculture, Soil Conservation Service.
3. The maps referenced under (a)1i, iii, and 2 above shall be useful as an indicator to assist in the preliminary determination of the presence or absence of wetlands only. They have been determined to be unreliable for the purposes of locating the actual wetlands boundary on a specific site.
4. All tidal and inland wetlands, excluding the delineated tidal wetlands defined pursuant to N.J.A.C. 7:7-2.3, shall be identified and delineated in accordance with the USEPA three-parameter approach (that is, hydrology, soils and vegetation) specified under N.J.A.C. 7:7A-1.3 of the Freshwater Wetlands Protection Act Rules.

(b) Development in wetlands defined under the Freshwater Wetlands Protection Act is prohibited unless the development is found to be acceptable under the Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A, except as provided at (b)1 below. Pursuant to the Freshwater Wetlands Protection Act, N.J.S.A. 13:9B-6, coastal activities under the jurisdiction of the New Jersey Meadowlands Commission shall not require a Freshwater Wetlands permit, or be subject to transition area requirements of the Freshwater Wetlands Protection Act, except that discharge of dredged or fill materials may require a permit issued under the provisions of Section 404 of the Federal Water Pollution Control Act of 1972 as amended by the Federal Clean Water Act of 1977, or under an individual or general permit program administered by the State under the provisions of the Federal Act and applicable State laws. Accordingly, under this rule the Department does not exert jurisdiction under the Freshwater Wetlands Protection Act, N.J.S.A. 13:9B-1 et seq., in the Hackensack Meadowlands District. However, the Department shall, in accordance with N.J.S.A. 13:9B-6 and applicable law, review any such coastal activity or development as follows:

1. For the purposes of reviewing a coastal activity or development that proposes the placement of dredged or fill materials in wetlands located waterward of the mean high

water line in the Hackensack Meadowlands District under the Waterfront Development Law, N.J.S.A. 12:5-3, Federal Consistency provisions of the Federal Coastal Zone Management Act, 16 U.S.C. §§1451 et seq., or water quality certification under Section 401 of the Federal Clean Water Act, 33 U.S.C. §§1251 et seq., the Department shall use the conditions, limits, and requirements governing activities or developments in wetlands set forth in the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A-5, 7, 9, and 10. For the purposes of reviewing a coastal activity or development that proposes the placement of dredged or fill materials in wetlands landward of the mean high water line that does not require a zoning certificate, resolution**,** or statement of consistency from the New Jersey Meadowlands Commission pursuant to N.J.A.C. 7:7-9.43(c) in the Hackensack Meadowlands District under the Federal Consistency provisions of the Federal Coastal Zone Management Act, 16 U.S.C. §§1451 et seq., or water quality certification under Section 401 of the Federal Clean Water Act, 33 U.S.C. §§1251 et seq., the Department shall use the conditions, limits, and requirements governing activities or developments in wetlands set forth in the Freshwater Wetlands Protection Act Rules at 7:7A-5, 7, 9, and 10.

i. The mitigation requirements at (i) below shall apply to any coastal activity or development reviewed under this subsection, unless, where the coastal activity or development is reviewed under the conditions, limits, and requirements of the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A-4 and 5, those conditions, limits, and requirements do not require mitigation.

(c) Except as provided at (d) below, development of all kinds in all other wetlands not defined in (b) above is prohibited unless the Department can find that the proposed development meets the following four conditions:

1. Requires water access or is water oriented as a central purpose of the basic function of the activity (this rule applies only to development proposed on or adjacent to waterways). This means that the use must be water dependent;
2. Has no prudent or feasible alternative on a non-wetland site;
3. Will result in minimum feasible alteration or impairment of natural tidal circulation (or natural circulation in the case of non-tidal wetlands); and
4. Will result in minimum feasible alteration or impairment of natural contour or the natural vegetation of the wetlands.

(d) The establishment of a living shoreline in wetlands to address the loss of vegetated shorelines and habitat in the littoral zone is conditionally acceptable provided the living shoreline complies with N.J.A.C. 7:7-12.23. Where the Department finds the establishment of a living shoreline acceptable, mitigation shall not be required.

(e) Dumping solid or liquid wastes and applying or storing certain pesticides on wetlands are prohibited.

(f) No action by the Commissioner shall prohibit, restrict or impair the exercise or performance of the powers and duties conferred or imposed by law on the Department of Environmental Protection, the Natural Resource Council and the State Mosquito Control Commission in said Department, the Department of Health, or any mosquito control or other project or activity operating under or authorized by the provisions of chapter 9 of Title 26 of Revised Statutes. This rule does not supersede the authority of the State Mosquito Commission to undertake mosquito control projects authorized by chapter 9 of Title 26 of the Revised Statutes.

(g) Development that adversely affects white cedar stands such as water table drawdown, surface and groundwater quality changes and the introduction of non-native plant species is prohibited.

(h) For projects which require a waterfront development permit, the use of former dredged material management areas for continued placement of dredged material is conditionally acceptable provided:

1. The site has existing dikes or berms in sound condition, and/or has sufficient volume of previously placed dredged material with suitable geotechnical and engineering properties within the dredged material management area to allow for the construction or reconstruction of structurally sound dikes or berms. Where the construction or reconstruction of structurally sound dikes and berms is required:
   - i. These structures shall be designed:
     - (1) By a New Jersey licensed professional engineer; and
     - (2) In accordance with the requirements of Appendix G; and
   - ii. Any material placed on the exposed surfaces of the dikes and berms shall comply with the appropriate Soil Remediation Standards (N.J.A.C. 7:26D Appendix 1);
2. There are no anticipated adverse effects on threatened or endangered species;
3. There are no colonial nesting birds present on site which would be adversely affected (seasonal restrictions may be required);
4. No wetlands regulated pursuant to the Wetlands Act of 1970 would be adversely affected;
5. The former dredged material management area is not subject to daily tidal inundation, and the vegetation community is limited primarily to scrub/shrub or phragmites; and
6. The required waterfront development permit and water quality certificate are obtained.

(i) If an application to disturb or destroy wetlands meets the standards for permit approval, the Department will require the applicant to mitigate for the loss or degradation of the wetlands in accordance with N.J.A.C. 7:7-17.

(j) Rationale: The environmental values and fragility of wetlands have been officially recognized in New Jersey since the passage of the Wetlands Act of 1970 (N.J.S.A. 13:9A-1 et seq.) and the passage of the Freshwater Wetlands Protection Act of 1987 (N.J.S.A. 13:9B-1 et

seq.). Tidal and freshwater wetlands are the most environmentally valuable land areas within the coastal zone.

Wetlands contribute to the physical stability of the coastal zone by serving as (i) a transitional area between forces of the open sea and upland areas that absorb and dissipate wind-driven storm waves and storm surges, (ii) a flood water storage area, and (iii) a sediment and pollution trap.

Also, wetlands naturally perform the wastewater treatment process of removing phosphorous, nitrogenous and other water pollutants, unless the wetlands are stressed.

The biological productivity of New Jersey's wetlands is enormous and critical to the functioning of estuarine and marine ecosystems. The emergent cord grasses and associated algal mats convert inorganic nutrients into organic plant material through the process of photosynthesis. In this way, the primary base for estuarine and marine food webs is provided. The principal direct dietary beneficiaries of organic wetland detritus are bacteria and protozoan, which are in turn fed upon by larger invertebrates. Important finfish, shellfish, and other resources feed upon these invertebrates. New Jersey's wetlands are prime wintering habitat annually for hundreds of thousands of migratory waterfowl. Approximately two-thirds of marine finfish and shellfish are known to be estuarine, and, therefore, wetlands dependent.

Inland herbaceous wetlands, such as bogs and marshes, play an important role in regulating the quality of the water in streams that flow to the estuaries. They retard runoff and store storm waters. They are important areas for primary productivity for estuarine systems. They are critical habitats and movement corridors for several species of plants and animals that are endangered or threatened.

They are productive habitats for other game and non-game animals, such as fur bearers and song birds. These wetlands also serve as fire breaks and may limit the spread of forest, brush, or grass fires. They are inappropriate development sites due to poor drainage and load bearing capacity of the underlying soils.

Forested wetlands play a critical role in coastal and other ecosystems. Roots and trunks stabilize shorelines and trap sediment. They are physical and biochemical water filter areas maintaining stream water quality. High productivity, high water availability and high edge to area ratio make these areas especially productive wildlife areas.

White cedar stands, as well as other lowland swamp forests, play an important role in purifying water in coastal streams, retarding runoff, providing scenic value, and serving as a rich habitat for many endangered plant and animal species, as well as game species, such as deer. White cedars also act as forest fire breaks. White cedar stands most commonly occur in flood plains and in the fringe areas of drainage ways and bogs, which are frequently underlain with saturated organic peat deposits. This material is particularly unsuited for development.

White cedar is New Jersey's most valuable timber species and grows in discrete stands. The wood has a long tradition of maritime and local craft uses. Unfortunately, white cedars have been eliminated from much of their previous range in New Jersey.

New Jersey's coastal environment is dynamic, and shaped by natural forces such as wind, waves, and storms. To protect development from these forces, shorelines are typically armored with hard structures such as bulkheads, gabions or revetments. Shorelines lost due to erosion eliminate intertidal habitat, reduce the amount of sandy beach, and decrease the amount of organic matter necessary to maintain tidal wetlands. This erosion results in the degradation of the coastal environment through impacts to natural habitats, such as tidal wetlands, intertidal and subtidal shallows and spawning grounds. Coastal states are seeking natural solutions, such as the creation of living shorelines, to address erosion as an alternative that adds diversity to other shore protection measures. Living shorelines are a shoreline management practice that addresses erosion by providing protection, restoration or enhancement of vegetated shoreline habitats.

7:7-9.28 Wetlands buffers

(a) Wetlands buffer or transition area means an area of land adjacent to a wetland which minimizes adverse impacts on the wetlands or serves as an integral component of the wetlands ecosystem. Wider buffers than those noted below may be required to establish conformance with this chapter, including, but not limited to, N.J.A.C. 7:7-9.36 and 9.37.

1. A wetlands buffer or transition area of up to 150 feet in width shall be established adjacent to all wetlands defined and regulated under the Freshwater Wetlands Protection Act. (Refer to the Freshwater Wetland Protection Act Rules, N.J.A.C. 7:7A, for further guidance).
2. For all other wetlands, including wetlands regulated under the Wetlands Act of 1970, a wetland buffer of up to 300 feet shall be established.

(b) Subject to (a) above, all wetlands buffers (that is, transition area) associated with wetlands subject to the Freshwater Wetlands Protection Act shall be regulated in accordance with the Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A.

(c) Development is prohibited in a wetlands buffer around all other wetlands, unless it can be demonstrated that the proposed development will not have a significant adverse impact and will cause minimum feasible adverse impact, through the use of mitigation where appropriate on the wetlands, and on the natural ecotone between the wetlands and surrounding upland. The precise geographic extent of the actual wetlands buffer required on a specific site shall be determined on a case-by-case basis using these standards.

(d) In areas of the coastal zone which are within the Hackensack Meadowlands District, the appropriate buffer width shall be determined in accordance with the requirements set forth in the Hackensack Meadowlands District Zoning Regulations.

(e) Rationale: Development adjacent to wetlands can adversely affect the wetlands through increased runoff, sedimentation, and introduction of pollutants.

The coastal zone includes a diversity of types of wetlands, of varying widths, quality and importance to the ecosystem, from large forested freshwater wetlands, to narrow strips of coastal wetlands. For this reason, the appropriate buffer necessary to protect the wetlands adjacent to proposed land disturbance must be determined on a case-by-case basis, but using a standard that requires no significant impact on, and minimum feasible disturbance to, the wetlands.

The preservation of a transitional area of native vegetation in the portion of the wetlands buffer adjacent to the wetlands and the construction of detention basins or berms if necessary to control runoff, could mitigate impacts and make development permissible in the remainder of the wetlands buffer.

Buffers that support strands of native vegetation perform the following ecological and physical functions:

1. Stabilization of soil and prevention of erosion;
2. Filtration of suspended solids (silt) to prevent their deposition on wetlands. Siltation onto wetlands can lead to undesirable changes in vegetation, e.g. from cord grass (*Spartina*) to reeds (*Phragmites*), which contribute less to the estuarine and marine food chain;
3. Water turbidity control;
4. Inhibition of pollutant introduction into wetlands soil, water and food chains. Without wetlands buffers, "urban" runoff from adjacent housing will almost always cause an increase in contaminants, such as coliform, following rain;
5. Storm water storage;
6. Formation of a barrier to floating debris; and
7. Contribution to estuarine productivity, especially if the buffer is a forested floodplain.

As transition areas between differing vegetation communities (habitat areas), appropriately vegetated wetlands buffers function as ecotones, supporting a diversity of species and uses, and serving as wildlife movement corridors.

Wetlands buffers are used as lookout perches for raptors; nesting sites for marsh hawks, black crowned night herons, and ospreys; fall migration foraging stopovers for birds, including woodcock; nesting sites for wood ducks, black ducks, and mallards; and forage routes into and out of wetlands for raccoons, minks, muskrats, foxes, deer, and others. Grassy wetlands edges serve as feeding sites for Wilson's snipe, ruffed grouse, quail and song birds. Wetland buffer requirements may be less restrictive in areas where proposed development is considered infill, and where a majority of the area adjacent to the wetlands is developed. In these areas, the potential adverse impacts to the wetlands from additional development are generally minor. The Department will establish the required wetland buffers for these areas on a case-by-case basis, based on the existing site conditions, including but not limited to elevation, topography and vegetation.

7:7-9.29 Coastal bluffs

(a) A coastal bluff is a steep slope (greater than 15 percent) of consolidated (rock) or unconsolidated (sand, gravel) sediment which is adjacent to the shoreline or which is demonstrably associated with shoreline processes.

1. The waterward limit of a coastal bluff is a point 25 feet waterward of the toe of the bluff face, or the mean high water line, whichever is nearest the toe of the bluff.
2. The landward limit of a coastal bluff is the landward limit of the area likely to be eroded within 50 years, or a point 25 feet landward of the crest of the bluff, whichever is farthest inland.
3. Steep slopes, as defined at N.J.A.C. 7:7-9.32, are isolated inland areas with slopes greater than 15 percent. All steep slopes associated with shoreline processes or adjacent to the shoreline and associated wetlands, or contributing sediment to the system, will be considered coastal bluffs.

(b) Development is prohibited on coastal bluffs, except for linear development which meets the rule on the location of linear development, N.J.A.C. 7:7-14.1, shore protection activities which meet the appropriate coastal engineering rule, N.J.A.C. 7:7-15.11, and single-family homes and duplexes which are not located along the shorelines of the Atlantic Ocean, Delaware Bay, Raritan Bay, or Sandy Hook Bay and comply with N.J.A.C. 7:7-15.2(e) or (f).

(c) The stabilization of coastal bluffs with vegetation is encouraged.

(d) Rationale: Coastal bluffs are most prominent in New Jersey along the Delaware River at Roebling and Florence and along the Raritan Bay at Aberdeen Township and Atlantic Highlands. They have a significant function in storm damage prevention and flood control, by eroding in response to wave action and resisting erosion caused by wind and rain runoff. Bluff erosion is also an important source of beach nourishment where the coastal bluff faces an open water body. Disturbance of coastal bluffs which undermines their natural resistance to wind and rain erosion increases the risk of their collapse and causes cuts in the bluffs. This increases danger to structures at the top of the bluff and reduces the bluff's ability to buffer upland area from coastal storms. Vegetation helps stabilize bluffs and can reduce the rate of erosion caused by wind and rain runoff. A minimum construction setback on the stable land is required to protect life and property, and reaffirms the setback requirement of the erosion hazard area rule, N.J.A.C. 7:7-9.19.

7:7-9.30 Intermittent stream corridors

(a) Intermittent stream corridors are areas including and surrounding surface water drainage channels in which there is not a permanent flow of water and which contain an area or areas with a seasonal high water table equal to or less than one foot. The inland extent of these corridors is either the inland limit of soils with a seasonal high water table depth equal to, or less than one

foot, or a disturbance of 25 feet measured from the top of the channel banks, whichever is greater.

1. Where an intermittent stream corridor is also a wetland, the wetlands rule, N.J.A.C. 7:7-9.27, shall apply.

(b) Uses that promote undisturbed growth of native vegetation and wildlife habitat value are encouraged.

(c) If the intermittent stream is a regulated area under the Flood Hazard Area Control Act Rules, then all uses shall comply with N.J.A.C. 7:13.

(d) Intermittent streams not subject to the ebb and flow of the tide shall also comply with the Freshwater Wetlands Protection Act Rules**,** N.J.A.C. 7:7A.

(e) Rationale: Intermittent stream corridors are the spring areas for coastal streams. They are very susceptible to surface and subsurface disturbance. The water quality of coastal streams and estuaries depends in part on undisturbed spring areas. They are productive areas since water is at or near the surface, and are important wildlife habitats. For these reasons the intention of the rules is preservation.

7:7-9.31 Farmland conservation areas

(a) Farmland conservation areas are defined as any contiguous area of 20 acres or more (in single or multiple tracts of single or multiple ownership) with soils in the Capability Classes I, II and III or special soils for blueberries and cranberries as mapped by the United States Department of Agriculture, Soil Conservation Service, in National Cooperative Soil Surveys, which are actively farmed, or suitable for farming, unless it can be demonstrated by the applicant that new or continued use of the site for farming or farm dependent purposes is not economically feasible. Farming or farm-dependent purposes include nurseries, orchards, vegetable and fruit farming, raising grains and seed crops, silviculture (such as Christmas tree farming), floriculture (including greenhouses), dairying, grazing, livestock raising, and wholesale and retail marketing of crops, plants, animals and other related commodities.

(b) Farmland conservation areas shall be maintained and protected for open space or farming purposes. Farming or farm-dependent uses are permitted uses in farmland conservation areas. Housing is permitted only if it is an accessory use to farming. Mining is permitted only in accordance with a reclamation plan which meets the requirements of the mining use rule, N.J.A.C. 7:7-15.8.

(c) Continued, renewed, or new farming is encouraged in farmland conservation areas.

(d) Rationale: Farmland conservation areas are an irreplaceable natural resource essential to the production of food and fiber, particularly in the "Garden State". Conservation of large,

contiguous areas of these lands for farming serves both private and public interests, particularly in terms of ready access to locally-grown food, jobs and open space preservation.

In the coastal zone, some of the irreplaceable soil resources have already been converted to urban uses. Other areas which are of a sufficiently large scale to make farming feasible should be reserved for farming purposes, provided that farming is economically feasible.

7:7-9.32 Steep slopes

(a) Steep slopes are land areas with slopes greater than 15 percent, which are not adjacent to the shoreline and therefore not coastal bluffs (see N.J.A.C. 7:7-9.29). Steep slopes include natural swales and ravines, as well as man-made areas, such as those created through mining for sand, gravel, or fill, or road grading. Slopes of less than 15 percent are not considered to be steep slopes.

(b) Development on steep slopes is discouraged where wetlands, wetland buffers, intermittent stream corridors, threatened and endangered species habitats, riparian zones, or water areas are located adjacent to or at the base of the slope and on steep slopes which are forested as defined at N.J.A.C. 7:7-13.5(c).

(c) Development on steep slopes other than those listed in (b) above is conditionally acceptable provided:

1. The steep slope is vegetated with native woody vegetation to the maximum extent practicable; and
2. Stabilization measures are used, if necessary, such as terracing and paving, that are consistent with the natural or predevelopment character of the entire site, to the maximum extent practicable.

(d) Rationale: Preservation of steep slopes controls soil erosion, protects up-slope lands, minimizes pollution of surface waters, reduces flooding, preserves the banks of streams and intermittent streams, and maintains water flow in headwaters. When vegetation is disturbed, rainfall strikes surface soils causing soil particle movement through surface water flow and gravity, which results in increased surface runoff and downstream flooding. When this silty water enters a surface water body, increased turbidity and sedimentation usually follow, which can cause reduction of productivity and flood water storage capacity. Aesthetics are also affected when erosion occurs and topsoil is lost.

In addition to naturally-occurring steep slopes, there are also man-made steep slopes left after such activities as mining and road grading. Development of both natural and man-made steep slopes can have significant detrimental impacts on water quality, species habitat, and flooding, as discussed above.

7:7-9.33 Dry borrow pits

(a) Dry borrow pits are excavations for the purpose of extracting coastal minerals which have not extended below the groundwater level. This includes, but is not limited to, dry sand, gravel and clay pits, and stone quarries.

(b) Surface mining is conditionally acceptable, provided the mining use rule at N.J.A.C. 7:7-15.8 is satisfied.

(c) Channeling clean surface runoff into dry sand and gravel pits for the purposes of aquifer recharge is encouraged. Pavement runoff may be channeled into dry borrow pits provided that it is adequately filtered to remove pavement contaminants.

(d) Discharge of clean effluent from liquid waste treatment facilities for aquifer recharge is encouraged (e.g., tertiary sewage effluent), provided groundwater quality is monitored and maintained.

(e) Storing water in impermeable dry borrow pits is conditionally acceptable.

(f) Dredged material disposal is conditionally acceptable provided that:

1. The dredged material will not degrade groundwater quality;
2. The dredged material is of a particle size that will not disturb groundwater hydrology; and
3. Dredged material disposal is compatible with neighboring uses.

(g) Solid waste disposal is conditionally acceptable on a case-by-case basis provided that:

1. Waste disposal is compatible with neighboring uses;
2. Elevations of the landfill do not exceed original surface elevations before mining; and
3. The waste disposal complies with the solid and hazardous waste rule at N.J.A.C. 7:7-16.14.

(h) Filling or grading for construction is conditionally acceptable provided the fill, including dredged material, is clean and of a texture that will not disturb local groundwater flow. For the purposes of this subsection, dredged material shall comply with Appendix G.

(i) All proposed uses must reduce all banks to a slope of less than one in three, stabilize them, and prepare them for planting, and initiate native successions.

(j) Rationale: Dry borrow pits have been used successfully on Long Island to recharge depleted aquifers by channeling surface runoff and tertiary sewage effluent into them. These uses are encouraged in New Jersey's coastal areas, especially where there is a history of saline intrusion. There is a critical shortage in coastal areas of placement and disposal sites for dredged material

and solid waste. Dry borrow pits offer opportunities of low-impact disposal if they are compatible with existing uses, the leachate is carefully controlled and the site reclaimed on conclusion. Dry borrow pits have comparatively low environmental value and so are acceptable sites for development if all other policies are satisfied. The use of dredged material of appropriate grain size and that is clean as fill in the reclamation of dry borrow pits promotes the State's longstanding policy of treating dredged material as a resource and to beneficially use dredged material in appropriate applications rather than relying on disposal of dredged material in dredged material management areas.

7:7-9.34 Historic and archaeological resources

(a) Historic and archaeological resources include objects, structures, shipwrecks, buildings, neighborhoods, districts, and man-made or man-modified features of the landscape and seascape, including historic and prehistoric archaeological sites, which either are on or are eligible for inclusion on the New Jersey or National Register of Historic Places.

(b) Development that detracts from, encroaches upon, damages, or destroys the value of historic and archaeological resources is discouraged.

(c) Development that incorporates historic and archaeological resources in sensitive adaptive reuse is encouraged.

(d) Scientific recording and/or removal of the historic and archaeological resources or other mitigation measures must take place if the proposed development would irreversibly and/or adversely affect historic and archaeological resources. Surveys and reports to identify and evaluate historic and archaeological resources potentially eligible for the New Jersey or National Registers shall be performed by professionals who meet the National Park Service's Professional Qualifications Standards in the applicable discipline. Professional procedures and reports shall meet the applicable Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation and the New Jersey Historic Preservation Office's professional reporting and surveying guidelines, once these guidelines are promulgated as rules, in accordance with the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq. A description of the qualifications and performance standards is available at the Historic Preservation Office.

(e) New development in undeveloped areas near historic and archaeological resources is conditionally acceptable, provided that the design of the proposed development is compatible with the appearance of the historic and archaeological resource. For archaeological resources within the area of the undertaking, avoidance and protection is appropriate. When this is not feasible and prudent, and these resources are of value solely for the information which they contain, archaeological data recovery to mitigate the project impact will be required.

(f) Recovery of shipwrecks consistent with the protection of historic values and environmental integrity of shipwrecks and their sites may be permitted subject to the conditions listed at (f)1 through 7 below. The recovery of shipwrecks must also be consistent with the shipwrecks and

artificial reefs rule at N.J.A.C. 7:7-9.13.

1. The proposed project is in the public interest;
2. The archaeological knowledge gained will outweigh the loss to future archaeological research and to the public of the preserved shipwreck;
3. The applicant has expertise in underwater archaeology as outlined by the Federal Requirements 36 CFR 66, pursuant to the Archaeological and Historic Preservation Act of 1974 (P.L. 93-291), and through the National Environmental Policy Act, the National Historic Preservation Act of 1966, (as amended), the Abandoned Shipwreck Act of 1987, and their respective implementing regulations and guidelines;
4. Artifacts will be recovered in an archaeologically appropriate manner;
5. Recovered artifacts will be analyzed and inventoried, and as appropriate, preserved, restored, and/or made accessible to future researchers;
6. Two copies of a professional archaeological report will be prepared for the Department giving the following information about the shipwreck and its excavation: Historic background, description of environment, salvage methodology, artifact analysis, description of techniques used in preservation of artifacts, base map, narrative and grid map on artifacts recovered, bibliography, photographs, National Register documentation and conclusions; and
7. The entire exploration and salvage effort will be in accordance with the Secretary of the Interior's 1983 Standards and Guidelines for Archaeology and Historic Preservation, and the Department of the Interior's 1990 Abandoned Shipwreck Act Final Guidelines which are available from the Historic Preservation Office.

(g) The Department may require the submission of a cultural resource survey report if it is determined that there is a known historic or prehistoric resource in the project area, or a reasonable potential for the presence of such a resource, which may be affected by a proposed development. However, in general, such surveys will not be required for the developments and/or sites listed below:

1. Single family and duplex developments which are not part of a larger development;
2. Sites which can be documented as being previously disturbed to the extent that any archaeological resources present would have been completely destroyed;
3. Sites which are located on lands containing fill material, including Psamments soils (PN, PO, PW) or Urban Land Soils (UL, UP), as defined in the appropriate County Soil Survey; and
4. The replacement of structures and utilities, in-place and in-kind, provided that the area of previous disturbance does not increase.

(h) The ultimate decision on the requirement for a cultural resource survey will be made by the Department's Division of Land Use Regulation, based on information received in response to

public comments or information provided by the New Jersey Historic Preservation Office regarding the presence of known historic and prehistoric resources or the potential for their presence.

(i) Rationale: The range of historic and archaeological resources along the coast is diverse, consisting of oceanfront Victorian era architecture, examples of New Jersey's maritime heritage, colonial homes, and Native American sites. The public interest requires the preservation of both representative and unique examples of historic and archaeological (cultural) resources of the coast, in order to provide present and future generations with a sense of the people who lived, worked, and visited the coast in the past. New Jersey's cultural heritage has become an important component of the coastal tourism economy, as more and more people visit these historic sites. Public interest in these historic and archaeological resources translates to significant commercial and economic contributions throughout the coastal zone, as manifested in hotel stays, sightseeing, food service patronage, historical tours, museum visits, recreational diving, and other historic/archaeological tourism related activities.

The Department's Historic Preservation Office maintains an up-to-date list of properties on the New Jersey Register of Historic Places. As the State Historic Preservation Officer, the Commissioner of the Department of Environmental Protection and the staff of the Department's Historic Preservation Office advise the Department's Division of Land Use Regulation on the historic resources aspects of coastal decisions.

For shipwrecks and shipwreck sites, the ability of the archaeologists to appropriately retrieve and preserve artifacts is gradually improving, but remains limited. Generally, the best way to preserve historic shipwrecks is to leave them in place until retrieval and preservation techniques improve. However, when the shipwreck is threatened by destruction or when the research and/or public benefits of immediate retrieval outweigh the impacts, salvage may be approved subject to conditions developed in consultation with the Historic Preservation Office, the State Museum, and other interested parties, including research and educational institutions. The decision to allow a project to proceed which could affect a shipwreck or shipwreck site will include consideration of a number of issues, including the recreational and educational opportunities provided by wrecks and wreck sites, their historic significance, and their habitat value. The preservation and salvage of New Jersey's historic shipwrecks and shipwrecks sites will be consistent with the Federal Abandoned Shipwreck Act Guidelines, issued under the authority of the Abandoned Shipwreck Act, 43 U.S.C. §§ 2101-06.

The requirement for historic and prehistoric resource surveys varies from site to site, and project to project. Therefore, the Department has established several categories of sites and projects which generally will not require such surveys. However, in an effort to ensure adequate protection of historic and of prehistoric resources, the Department may require such surveys, on a case-by-case basis. This requirement will be based on the determination that there is a known historic or prehistoric resource, or a reasonable potential for the presence of such a resource, which may be affected by the proposed development. Such a determination will be based on such factors as the presence of known cultural sites, the presence of known sites nearby, and the known presence of sites in a similar topographic setting.

7:7-9.35 Specimen trees

(a) Specimen trees are the largest known individual trees of each species in New Jersey. The Department's Division of Parks and Forestry maintains a list of these trees (see "New Jersey's Biggest Trees," published by the Department's Division of Parks and Forestry, Summer 1991 for a listing of specimen trees). In addition, large trees approaching the diameter of the known largest tree shall be considered specimen trees. Individual trees with a circumference equal to or greater than 85 percent of the circumference of the record tree, as measured 4.5 feet above the ground surface, for a particular species shall be considered a specimen tree.

(b) Development is prohibited that would significantly reduce the amount of light reaching the crown, alter drainage patterns within the site, adversely affect the quality of water reaching the site, cause erosion or deposition of material in or directly adjacent to the site, or otherwise injure the tree. The site of the tree extends to the outer limit of the buffer area necessary to avoid adverse impacts, or 50 feet from the tree, whichever is greater.

(c) Rationale: Many interested citizens have assisted DEP, over decades, in locating specimen trees. This process includes reporting large trees that can be considered specimens even though they may not be the largest in New Jersey of a species. Specimen trees are an irreplaceable scientific and scenic resource. Often these trees have also been associated with historical events.

7:7-9.36 Endangered or threatened wildlife or plant species habitats

(a) Endangered or threatened wildlife or plant species habitats are terrestrial and aquatic (marine, estuarine, or freshwater) areas known to be inhabited on a seasonal or permanent basis by or to be critical at any stage in the life cycle of any wildlife or plant identified as "endangered" or "threatened" species on official Federal or State lists of endangered or threatened species, or under active consideration for State or Federal listing. The definition of endangered or threatened wildlife or plant species habitats includes a sufficient buffer area to ensure continued survival of the population of the species as well as areas that serve an essential role as corridors for movement of endangered or threatened wildlife. Absence of such a buffer area does not preclude an area from being endangered or threatened wildlife or plant species habitat.

1. Areas mapped as endangered or threatened wildlife species habitat on the Department's Landscape Maps of Habitat for Endangered, Threatened and Other Priority Wildlife (known hereafter as Landscape Maps) are subject to the requirements of this section unless excluded in accordance with (c)2 below. Buffer areas, which are part of the endangered or threatened wildlife species habitat, may extend beyond the mapped areas. The Department's Landscape Maps, with a listing of the endangered and threatened species within a specific area, are available from the Department's Division of Fish and Wildlife, Endangered and Nongame Species Program at the Division's web address, https://www.nj.gov/dep/fgw/ensp/landscape/index.htm.
2. Information on the areas mapped as endangered or threatened plant species habitat on the Department's Landscape Maps and the occurrence of endangered or threatened plant species habitat is available from the Department's New Jersey Natural Heritage Program,

Office of Natural Lands Management, Natural Heritage Data Request Form at Mail Code 501-04, PO Box 420, Trenton, New Jersey 08625-0420.

3. The required endangered or threatened wildlife or plant species habitat buffer area shall be based upon the home range and habitat requirements of the species and the development's anticipated impacts on the species habitat.

(b) Development of endangered or threatened wildlife or plant species habitat is prohibited unless it can be demonstrated, through an endangered or threatened wildlife or plant species impact assessment as described at N.J.A.C. 7:7-11, that endangered or threatened wildlife or plant species habitat would not directly or through secondary impacts on the relevant site or in the surrounding area be adversely affected.

(c) Applicants for development of sites that contain or abut areas mapped as endangered or threatened wildlife species habitat on the Landscape Maps shall either:

1. Demonstrate compliance with this rule by conducting an endangered or threatened wildlife species impact assessment in accordance with N.J.A.C. 7:7-11.2; or
2. Demonstrate that the proposed site is not endangered or threatened wildlife species habitat and this rule does not apply by conducting an endangered or threatened wildlife species habitat evaluation in accordance with N.J.A.C. 7:7-11.3.

(d) If the Department becomes aware of an occurrence of an endangered or threatened wildlife species on a site that is not mapped as endangered or threatened wildlife species habitat on the Department's Landscape Maps, and the Department determines that the habitat may be suitable for that species, the Department shall notify the applicant and the applicant shall demonstrate compliance with or inapplicability of this rule in accordance with (c) above.

(e) If the Department becomes aware of an occurrence of an endangered or threatened plant species on a site that is not in the Natural Heritage Database, the Department will notify the applicant and the applicant shall demonstrate compliance with this rule in accordance with (b) above.

(f) The Department is responsible for the promulgation of the official Endangered and Threatened Wildlife lists pursuant to the Endangered and Nongame Species Conservation Act, N.J.S.A. 23:2A-1 et seq. These lists include wildlife species that are endangered and threatened in New Jersey as well as wildlife species officially listed as endangered or threatened pursuant to the Endangered Species Act of 1973, 16 U.S.C. §§ 1531 et seq. Because the lists are periodically revised by the Department in accordance with N.J.S.A. 23:2A-1 et seq., the lists are not published as part of this rule. The lists are found at N.J.A.C. 7:25-4.13 and 4.17, the rules adopted pursuant to the Endangered and Nongame Species Conservation Act. To obtain a copy of the most current Endangered and Threatened Wildlife lists, please contact the Department, Division of Fish and Wildlife, Endangered and Nongame Species Program at the Division's web address, https://www.nj.gov/dep/fgw/ensp/landscape/index.htm, or by writing to the Division at Mail Code 501-03, PO Box 420, Trenton, New Jersey 08625-0420.

(g) The Department is responsible for promulgation of the official Endangered Plant Species List pursuant to N.J.S.A. 13:1B-154. The Endangered Plant Species List, N.J.A.C. 7:5C-5.1, includes plant species determined by the Department to be endangered in the State as well as plant species officially listed as endangered or threatened or under active consideration for Federal listing as endangered or threatened. Because the Endangered Plant Species List is periodically revised based on new information documented by the Department, it is not published as part of this rule. To obtain the most current Endangered Plant Species List, please contact the Department, Division of Parks and Forestry, Office of Natural Land Management, Mail Code 501-04, PO Box 420, Trenton, NJ 08625-0420.

(h) For sites located within the Pinelands National Reserve and the Pinelands Protection Area, the plant species listed in the Pinelands Comprehensive Management Plan (N.J.A.C. 7:50-6.24) are also considered endangered or threatened plant species.

(i) Rationale: Endangered and threatened species are organisms which are facing possible extinction in the State in the immediate future due to loss of suitable habitat, and past overexploitation through human activities or natural causes. Extinction represents a loss of biodiversity, which would adversely affect education, research and the interrelationship of all living creatures within the coastal ecosystem.

7:7-9.37 Critical wildlife habitat

(a) Critical wildlife habitats are specific areas known to serve an essential role in maintaining wildlife, particularly in wintering, breeding, and migrating.

1. Rookeries for colonial nesting birds, such as herons, egrets, ibis, terns, gulls, and skimmers; stopovers for migratory birds, such as the Cape May Point region; and natural corridors for wildlife movement merit a special management approach through designation as a Special Area.
2. Ecotones, or edges between two types of habitats, are a particularly valuable critical wildlife habitat. Many critical wildlife habitats, such as salt marsh water fowl wintering areas, and muskrat habitats, are singled out as water or water's edge areas.
3. Definitions and maps of critical wildlife habitats are currently available only for colonial waterbird habitat in the 1979 Aerial Colony Nesting Waterbird Survey for New Jersey (NJDEP, Division of Fish and Wildlife). Until additional maps are available, sites will be considered on a case-by-case basis by the Division of Fish and Wildlife.

(b) Development that would directly or through secondary impacts on the relevant site or in the surrounding region adversely affect critical wildlife habitats is discouraged, unless:

1. Minimal feasible interference with the habitat can be demonstrated;
2. There is no prudent or feasible alternative location for the development; and
3. The proposal includes appropriate mitigation measures.

(c) The Department will review proposals on a case-by-case basis.

(d) Rationale: The State of New Jersey, as custodian of a particular portion of the national wildlife heritage, has the obligation of stewardship on behalf of the people of the state and nation to perpetuate wildlife species within its borders for the use, education, research, and enjoyment by future generations.

7:7-9.38 Public open space

(a) Public open space constitutes land areas owned or maintained by State, Federal, county and municipal agencies or private groups (such as conservation organizations and homeowner's associations) and used for or dedicated to conservation of natural resources, public recreation, visual or physical public access or, wildlife protection or management. Public open space also includes, but is not limited to, State Forests, State Parks, and State Fish and Wildlife Management Areas, lands held by the New Jersey Natural Lands Trust (N.J.S.A. 13:1B-15.119 et seq.), lands held by the New Jersey Water Supply Authority (N.J.S.A. 58:1B-1 et seq.) and designated Natural Areas (N.J.S.A. 13:1B-15.12a et seq.) within DEP-owned and managed lands.

(b) New or expanded public or private open space development is encouraged at locations compatible or supportive of adjacent and surrounding land uses.

(c) Development that adversely affects existing public open space is discouraged.

(d) Development within existing public open space is conditionally acceptable, provided that the development is consistent with the character and purpose of public open space, as described by the park master plan when such a plan exists.

(e) Development in Atlantic City is acceptable within existing public open space provided the public open space is a street right-of-way or the Boardwalk and the development meets the standards of N.J.A.C. 7:7-9.47(e) through (j).

(f) Provision of barrier free access to public open space is encouraged.

(g) All new development adjacent to public open space will be required to provide an adequate buffer area and to comply with the buffers and compatibility of uses rule, N.J.A.C. 7:7-16.11. The buffer required will be dependent upon adjacent land uses and potential conflicts between users of public open space and the proposed adjacent land use.

(h) Rationale: As the urbanization of New Jersey continues and leisure time increases, open space will play an increasingly important role in maintaining a desirable living environment for the residents of New Jersey. While the supply of open space has decreased under the growing pressure for development, the State's expanding population will require more public open space to satisfy its needs.

Not only is open space the basic resource for recreation facility development, it also performs other worthwhile functions. Open space can create public spaces in densely settled areas, shape urban growth, provide buffers between incompatible uses, retain contiguous farmland, insure the preservation of wildlife corridors, increase the economic value of adjacent land, and preserve distinct architectural, historic, and geologic sites. In addition, undeveloped and minimally developed open space can positively affect water quality by, for example, absorbing stormwater runoff.

7:7-9.39 Special hazard areas

(a) Special hazard areas include areas with a known actual or potential hazard to public health, safety, and welfare, or to public or private property, such as the navigable air space around airports and seaplane landing areas, potential evacuation zones, and areas where hazardous substances as defined at N.J.S.A. 58:10-23.11b are used or disposed, including adjacent areas and areas of hazardous material contamination.

(b) Coastal development, especially residential and labor-intensive economic development, within special hazard areas is discouraged. All development within special hazard areas must include appropriate mitigating measures to protect the public health and safety.

(c) Approvals from the Department's Solid and Hazardous Waste Program shall be obtained prior to the commencement of any hazardous substance investigations or cleanup activities at contaminated sites.

(d) Rationale: Management of the coastal zone requires a concern for development that would directly or indirectly increase potential danger to life and property. Mitigating measures such as height limits near airports, evacuation plans for industrial and energy facilities and monitoring and/or clean-up programs for materials in soil and water near hazardous waste facilities may adequately address the concern in this area.

7:7-9.40 Excluded Federal lands

(a) Excluded Federal lands are those lands, the use of which is, by law, subject solely to the discretion of or held in trust by the Federal Government, its officers or agents. These lands are excluded from the coastal zone as required by Section 304 of the Federal Coastal Zone Management Act.

1. The list of excluded Federal lands is found in the New Jersey Coastal Management Program, Final Environmental Impact Statement, August 1980, page 370.

(b) Federal actions on excluded Federal lands that affect any land or water use, or natural resource of the coastal zone shall be consistent with the Coastal Zone Management rules to the maximum extent practicable. The effects on the land or water use or natural resource maybe direct, indirect, cumulative, secondary or reasonably foreseeable effects.

(c) Rationale: Although the Federal Coastal Zone Management Act excludes from the coastal zone those lands, the use of which is solely subject to the discretion of or held in trust by the Federal Government, the Federal Coastal Zone Management Act requires that actions of Federal agencies within or outside of the coastal zone that affect any land or water use or natural resource of the coastal zone be carried out in a manner that is consistent to the maximum extent with the state's approved coastal management program. Federal consistency is a method of ensuring protection of coastal resources through the coastal management policies of states and by assisting states in managing coastal uses and resources. Federal consistency can help protect entire ecosystems as well as individual resources and uses.

7:7-9.41 Special urban areas

(a) Special urban areas are those municipalities defined in urban aid legislation (N.J.S.A. 52:27D-178) qualified to receive State aid to enable them to maintain and upgrade municipal services and offset local property taxes. Under N.J.S.A. 52:27D-178 et seq., the Department of Community Affairs (DCA) establishes a list of qualifying municipalities each fiscal year. DCA's list of qualifying municipalities may be obtained on request from the Department's Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6.

(b) Development that will help to restore the economic and social viability of special urban areas is encouraged. Development that would adversely affect the economic well being of these areas is discouraged, when an alternative which is more beneficial to the special urban areas is feasible. Development that would be of economic and social benefit and that serves the needs of local residents and neighborhoods is encouraged.

(c) Housing, hotels, motels, and mixed use development, which is consistent with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, the public access rule, N.J.A.C. 7:7-16.9, and the Hudson River waterfront area rule, N.J.A.C. 7:7-9.46, where applicable, are acceptable only over large rivers where water dependent uses are demonstrated to be infeasible. These uses are conditionally acceptable on structurally sound existing pilings, or where at least one of the following criteria is met:

1. Where piers have been removed as part of the harbor clean up program, the equivalent pier area may be replaced in either the same or other nearby location;
2. Where structurally sound existing pilings have been reconfigured, provided that the total area of water coverage is not increased and that fisheries resources are not adversely impacted; or
3. Where expansion of the existing total area water coverage has occurred, provided that it can be shown that extensions are functionally necessary for water dependent uses. For example, additional piers and pilings would be conditionally acceptable for a marina which is a water dependent use.

(d) Housing, hotels, motels, and mixed use development are acceptable in filled water's edge areas, provided that development is consistent with the filled water's edge rule at N.J.A.C. 7:7-9.23 and public access is provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

(e) Rationale: This rule helps link New Jersey's Coastal Management Program with other State efforts to focus on and restore New Jersey's urban areas. The rule would be applied to State actions on major proposals, such as shopping centers, outside urban areas which could drain resources from nearby urban areas, as well as to projects both in and out of urban areas which could help stimulate social and economic activity in urban areas.

The filled water's edge rule which reserves the waterfront for water dependent uses should not be strictly applied in special urban areas in all cases. Housing, hotels, motels, and other commercial developments, which benefit from a waterfront location and stimulate the revitalization of a special urban area, would be consistent with State coastal objectives, and urban policy. This would also be true for such development over water areas. However, new development over water areas must be limited to Large Rivers (the Delaware, Hudson, and Raritan) where the existing development density is high and where danger from storm surge is minimal, must not increase the total water area covered by piers or pilings to prevent the extension of non-water dependent uses into previously undeveloped water areas and must not unreasonably restrict public access between the development and the waterbody. In addition, development on piers must not be detrimental to fishery resources. Public access must be allowed since the water area over which the structure is to be built is an area impressed with the public trust doctrine. To forbid access along the water's edge on decks built in conjunction with the development would be an unreasonable restraint on public access. However, it would not be unreasonable to limit night access by the general public in residential areas over the water.

7:7-9.42 Pinelands National Reserve and Pinelands Protection Area

(a) The Pinelands National Reserve includes those lands and water areas defined in the National Parks and Recreation Act of 1978, Section 502 (P.L. 95-625), an approximately 1,000,000 acre area ranging from Monmouth County in the north, south to Cape May County and from Gloucester and Camden County on the west to the barrier islands of Island Beach State Park and Brigantine Island along the Atlantic Ocean on the east (see Appendix, Figure 10, incorporated herein by reference). The "Pinelands Area" is a slightly smaller area within the Pinelands National Reserve. It was designated for State regulation by the Pinelands Protection Act of 1979 (N.J.S.A. 13:18-1 et seq.). The Pinelands Commission adopted a Comprehensive Management Plan in November, 1980. Within the Pinelands Area, the law delineates a Preservation Area, where the plan shall "preserve an extensive and contiguous area of land in its natural state, thereby insuring the continuation of a Pinelands environment...." (Section 8c).

1. Under the authority of the Department's Surface Water Quality Standards (N.J.A.C. 7:9B), all surface waters within the boundaries of the Pinelands Area, except those waters designated as FWI, are designated "Pinelands Waters" which have special antidegradation policies, designated uses and water quality criteria (see N.J.A.C. 7:9B1-

4, 1.5(d)6ii, 1.12(b), and 1.14(b)). The Department's present Groundwater Quality Standards (N.J.A.C. 7:9C), which were adopted on March 3, 1981, and revised on February 1, 1993, identify the "Central Pine Barrens Area" as the only part of the Pinelands distinguished from the rest of the State (N.J.A.C. 7:9-6.7(c)).

2. The coastal municipalities wholly or partly within the Pinelands National Reserve Area include:

Atlantic County

Brigantine City	Hamilton Township
Corbin City	Mullica Township
Egg Harbor City	Port Republic
Egg Harbor Township	Somers Point City
Estell Manor Township	Weymouth Township
Galloway Township	

Burlington County

Bass River Township	Washington Township

Cape May County

Dennis Township	Upper Township
Middle Township	Woodbine Borough

Cumberland County

Maurice River Township

Ocean County

Barnegat Township	Lakehurst Borough
Beachwood Borough	Little Egg Harbor Township
Berkeley Township	Manchester Township
Dover Township	Ocean Township
Eagleswood Township	South Toms River Borough

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Lacey Township

Stafford Township

Tuckerton Borough

(b) Coastal development shall be consistent with the intent, policies and objectives of the National Parks and Recreation Act of 1978, P.L. 95-625, Section 502, creating the Pinelands National Reserve, and the State Pinelands Protection Act of 1979 (N.J.S.A. 13:18A-1 et seq.).

1. Within the Pinelands National Reserve, the Pinelands Commission will serve as a reviewing agency for coastal construction permit applications.
2. The Department's Division of Land Use Regulation and the Pinelands Commission will coordinate the permit review process through the procedure outlined in the February 8, 1988, Memorandum of Agreement between the two agencies and any subsequent amendments to that agreement. Copies are available from the Department's Division of Land Use Regulation at the address and telephone number set forth at N.J.A.C. 7:7-1.6.

(c) Coastal activities in areas under the jurisdiction of the Pinelands Commission shall not require a freshwater wetlands permit, or be subject to transition area requirements of the Freshwater Wetlands Protection Act, except that discharge of dredged or fill materials in freshwater wetlands and/or State open waters shall require a State permit issued under the provisions of Section 404 of the Federal Water Pollution Control Act of 1972 as amended by the Clean Water Act of 1977, or under an individual or statewide general permit program administered by the State under the provisions of 33 USC 1344 and N.J.S.A. 13:9B-6(b).

(d) Rationale: The New Jersey Pinelands contain approximately 1,000,000 acres of high quality surface and groundwater resources. In response to the need to protect, preserve and enhance the unique features of the Pinelands and the significant ecological, natural, cultural, recreational, educational, agricultural and public health resources of the pinelands area, the federal government passed the National Parks and Recreation Act of 1978 (P.L. 95-625), the Governor issued Executive Order No. 71 in February 1979, and the Legislature passed the Pinelands Protection Act in June of 1979.

Prior to these actions, under Executive Order No. 56, issued on May 28, 1977, the Governor created the Pinelands Review Committee to delineate a pinelands region and develop a plan to guide State actions affecting that Region. The report of the Pinelands Review Committee, completed in February 1979, stressed the need to take strong action to manage development in the pinelands.

Because the living marine resources in the bays and estuaries of the coastal zone depend on the flow of freshwater from the pinelands, changes to the quality and quantity of the pinelands water resource caused by pollution and contamination would have a significant impact on coastal resources.

The Pinelands Protection Act (Section 22) recognized the overlap between pinelands and coastal management interests and mandated the DEP, in consultation with the Pinelands Commission, review the environmental design for the coastal area prepared as required by

CAFRA (see N.J.S.A. 13:19-10) which is also within the boundaries of the Pinelands National Reserve. This overlap extends from Pleasant Mills to the Garden State Parkway on both sides of the Mullica River.

7:7-9.43 Meadowlands District

(a) The Hackensack Meadowlands District is a 19,485-acre area of water, coastal wetlands and associated uplands within the boundaries described in the Hackensack Meadowlands Reclamation and Development Act (N.J.S.A. 13:17-1 et seq.).

(b) A coastal activity or development for which the New Jersey Sports and Exposition Authority requires a zoning certificate shall be consistent with the New Jersey Meadowlands Master Plan, as evidenced by receipt of a zoning certificate from the New Jersey Sports and Exposition Authority.

(c) In addition to (b) above, a coastal activity or development identified at (c)1 through 3 below shall be consistent with the New Jersey Meadowlands Master Plan as evidenced by receipt of a resolution or statement of consistency from the New Jersey Sports and Exposition Authority.

1. Municipal or county projects necessitating the expenditure of any public funds and requiring review and approval through a resolution from the New Jersey Sports and Exposition Authority in accordance with the Hackensack Meadowlands Reclamation and Development Act, N.J.S.A. 13:17-12(b);
2. Municipal projects, located on land owned by a municipality, provided that the following conditions as outlined in the New Jersey Meadowlands Commission District Zoning Regulations, at N.J.A.C. 19:4-3.2(a)5, are met:
    i. The governing body and planning board of the municipality have entered into a memorandum of understanding with the New Jersey Sports and Exposition Authority (formerly the New Jersey Meadowlands Commission), and remain in compliance with the memorandum of understanding, agreeing that municipal projects shall comply with applicable New Jersey Meadowlands Commission District Zoning Regulations and that review of the project by the municipality shall utilize New Jersey Sports and Exposition Authority standards;
    ii. The municipal project has been reviewed by the planning board of the municipality, which has certified to the New Jersey Sports and Exposition Authority, or its predecessor, the New Jersey Meadowlands Commission that the project is in compliance with all applicable New Jersey Meadowlands Commission District Zoning Regulations; and
    iii. A complete copy of the plans for the municipal project, and a certification of the planning board, have been sent to the New Jersey Sports and Exposition Authority, or its predecessor, the New Jersey Meadowlands Commission, for review, and the New Jersey Sports and Exposition Authority, or its predecessor, the New Jersey

Meadowlands Commission, has not notified the municipality within 45 days of the receipt thereof of any objection to the project; and

3. Developments and improvements proposed or sponsored by the New Jersey Sports and Exposition Authority, in accordance with New Jersey Meadowlands Commission District Zoning Regulations at N.J.A.C. 19:4-3.2(a)3.

(d) If a coastal activity or development, including any coastal activity or development identified at (b) or (c) above, is located in a tidal waterway or in any lands lying thereunder, up to and including the mean high water line, the coastal activity or development shall comply with all applicable rules in this chapter.

(e) Any coastal activity or development not identified at (b) or (c) above shall comply with all applicable rules in this chapter.

(f) Coastal activities under the jurisdiction of the New Jersey Sports and Exposition Authority shall not require a Freshwater Wetlands permit, or be subject to transition area requirements of the Freshwater Wetlands Protection Act, except that discharge of dredged or fill materials may require a permit issued under the provisions of Section 404 of the Federal Water Pollution Control Act of 1972 as amended by the Federal Clean Water Act of 1977, or under an individual or general permit program administered by the State under the provisions of the Federal Act and applicable State laws.

(g) The Department's Division of Land Use Regulation and New Jersey Sports and Exposition Authority (formerly the New Jersey Meadowlands Commission) will coordinate the review of proposed developments and activities within the Meadowlands District through the process outlined in the November 9, 2005, Memorandum of Agreement between the two agencies and any subsequent amendments to that agreement. A copy of the Memorandum of Agreement may be obtained from the Department's Division of Land Use Regulation at the address or telephone number set forth at N.J.A.C. 7:7-1.6.

(h) Rationale: The New Jersey Sports and Exposition Authority is the lead planning and management agency within this special area. Under the Federal Coastal Zone Management Act (16 U.S.C. 1450), the New Jersey Meadowlands Commission Master Plan is adopted as part of New Jersey's Coastal Management Program. The Meadowlands District is identified by New Jersey's Coastal Management Program as a Geographic Area of Particular Concern pursuant to 16 U.S.C. 1455 (see "New Jersey Coastal Management Program and Final Environmental Impact Statement," August 1980, page 263).

In 2004, the New Jersey Meadowlands Commission (now part of the New Jersey Sports and Exposition Authority) adopted a revised Master Plan for the District. The Master Plan is the primary planning document for the New Jersey Meadowlands Commission. It presents a cohesive set of planning principles and standards adopted by the New Jersey Meadowlands Commission to guide future development while protecting the resources of the District. The

policies and principles of the Master Plan are effectuated through the New Jersey Meadowlands Commission District Zoning Regulations, N.J.A.C. 19:4.

7:7-9.44 Wild and scenic river corridors

(a) Wild and scenic river corridors are all rivers designated into the National Wild and Scenic Rivers System and any rivers or segments thereof being studied for possible designation into that system pursuant to the National Wild and Scenic Rivers Act (16 U.S.C. §§ 1271-1278). For rivers designated into the national system, the wild and scenic river corridor shall include the river and adjacent areas located within one-quarter mile from the mean high water line on each side of the river until a Federal River Management Plan has been adopted, after which time the wild and scenic corridor shall be the area defined in the adopted plan. For rivers under study for possible designation into the national system, the wild and scenic river corridor shall include the river and adjacent areas extending one-quarter mile from the mean high water line on each side of the river.

(b) Development in wild and scenic river corridors shall comply with (b)1 and 2 below, and the standards for the specific type of development at (c), (d), (f), (g) and (h) below. The standards for linear development are found at (e) below.

1. Development that would have a direct and adverse effect on any "outstandingly remarkable resource value" for which the river was designated or is being studied for possible designation into the National Wild and Scenic Rivers System is prohibited. For the purposes of this rule, "outstandingly remarkable resource values" means any of those extraordinary scenic, recreational, cultural, historical, or fish and wildlife attributes of a river corridor which, under the National Wild and Scenic Rivers Act, are required to be preserved and protected for the benefit and enjoyment of future generations.
2. The development shall comply with the standards set forth in the Federal River Management Plan adopted pursuant to the National Wild and Scenic Rivers Act for the wild and scenic river corridor if a plan exists.

(c) Development of docks, piers, and moorings on the Great Egg Harbor River and Maurice River and their tributaries shall comply with the following:

1. A dock, pier or mooring shall not extend to a depth greater than two feet at mean high water or further than 20 percent of the river width, as measured from mean high water line on one side of the river to the mean high water line on the opposite side of the river, whichever is less.
2. On the Great Egg Harbor River and Maurice River, development of a dock, pier**,** or mooring within 75 feet of the edge of a navigation channel is prohibited.
3. On the tributaries to the Great Egg Harbor River and Maurice River, development of a dock, pier**,** or mooring within 25 feet of the edge of a navigation channel, is prohibited.

(d) Where the need for shoreline stabilization has been demonstrated, biostabilization of eroding shorelines shall be used where feasible. These systems include live branch cuttings, live facings, live stakes, vegetative cuttings, vegetated earth buttresses, coir fiber products, fiber plugs, plants, fiber pallets, fiber carpet, and wood stake anchor systems. These materials shall be installed in accordance with the construction guidelines of Chapter 16**,** "Streambank and Shoreline Stabilization Protection," of the National Resources Conservation Service Engineering Handbook, National Engineering Handbook (NEH), Part 650, 1996, published by the United States Department of Agriculture, herein incorporated by reference as amended and supplemented. This document is available on the web at https://www.ntis.gov to download for free with the creation of a public access account (order number PB98114358). Standards for structural shore protection are found at N.J.A.C. 7:7-15.11.

(e) Linear development shall be located within the right of way of an existing linear development route or outside of the wild and scenic river corridor where feasible. Where an analysis of alternatives demonstrates that proposed development which is in the public interest cannot be so located, the linear development shall be located and designed to minimize adverse effect on outstandingly remarkable resource values and the width of the clearing for the linear development shall be minimized.

(f) Communication and cellular towers are prohibited in a wild and scenic river corridor.

(g) Development of bridges is conditionally acceptable provided it complies with the following:

1. The structure spans the entire width of the water body, and has no associated structures located below the mean high water line, unless it is demonstrated that such a structure is not feasible;
2. The bridge is non-obtrusive, including siting, design and materials, all of which are in character with the surrounding development;
3. A vertical clearance of five feet is maintained between the elevation of the water body at mean high water and the lowest structural member of the bridge where the water depth is greater than two feet at mean high water;
4. A single crossing is used where feasible;
5. There is no reduction of the total width and volume of the water body passing under the bridge;
6. The water body is crossed by a method which minimizes disruption to the bottom of the water body; and
7. The crossing is designed to minimize impacts to the fishery resources, and is generally at a 90 degree angle to the shoreline.

(h) Development of culverts is conditionally acceptable provided it complies with the following:

1. A natural streambed is provided through either the use of a bottomless structure or by recessing the culvert bottom a minimum of 12 inches below the bottom of the water body;
2. There is no reduction of the total pre-construction width and volume of the water body passing through the culvert; and
3. The crossing is designed to minimize impacts to the fishery resources, and is generally at a 90 degree angle to the shoreline.

(i) Rationale: This rule reflects and incorporates the goals of the National Wild and Scenic Rivers Act, which recognizes outstandingly remarkable scenic, recreational, fish and wildlife, historic, cultural**,** and similar values of certain rivers of the State, in addition to the goals of reducing loss of life and property resulting from the over development of floodplains. The primary purpose of the National Wild and Scenic Rivers Act is to protect the free-flowing character and the outstandingly remarkable resource values of designated rivers. Construction within the established boundary that may adversely affect the reasons why a river was designated into the national system is prohibited, except for linear development in the public interest where no alternative is feasible. Such development must minimize impacts and provide mitigation.

The limits on the length of a dock on the Great Egg Harbor River or Maurice River help assure that docks will not adversely affect the outstandingly remarkable scenic and recreational resources in the future, including when the navigational channel changes. It will ensure continued use of the rivers for kayaking and canoeing without encumbrance by lengthy docks. Seine fisheries, including fisheries for alewife herring, have operated on these rivers for years. The marine fish and fisheries rule, N.J.A.C. 7:7-16.2, will ensure protection of the fisheries on these rivers. Hard engineering structures cause the velocity of the river to increase and thus increase the potential for scouring. In an effort to maintain these river corridors in a natural state to the maximum extent practicable, natural embankment stabilization techniques such as live cuttings and earth buttresses are encouraged.

7:7-9.45 Geodetic control reference marks

(a) Geodetic control reference marks are traverse stations and benchmarks established or used by the New Jersey Geodetic Control Survey pursuant to P.L. 1934, c.116. They include the following types:

1. Monument-(Mon), Disk-(DK): A standard United States Coast and Geodetic Survey or New Jersey Geodetic Control Survey disk set in a concrete post, pavement, curb, ledge rock, etc., stamped with a reference number, and used for both horizontal and vertical control.
2. Point (Pt.): A State highway, tidelands (riparian), city, etc. survey marker represented by a chiseled cross, punch hole, brass plug, etc. used for horizontal and vertical control. These stations are not marked, but if there should be an enclosing box, the rim is stamped with a number.
3. Rivet-(Rv.): A standard metal rivet set by the New Jersey Geodetic Control Survey, used

for vertical control.

4. Mark-(Mk.): Same as point, but used only for vertical control. In the description of such marks there should appear a mark number followed by an equality sign and then the original name or elevation of the bench mark, and in parentheses the name of the organization which established the mark.

(b) The disturbance of a geodetic control reference mark is discouraged. When a geodetic control reference mark must be moved, raised or lowered to accommodate construction, the New Jersey Geodetic Control Survey shall be contacted at least 60 days prior to disturbance, and arrangements shall be made to protect the position. If the position can not be protected, it may be altered in position after approval by the New Jersey Geodetic Control Survey and under the supervision of a licensed professional engineer or land surveyor using standard methods. Copies of field notes and instruments, tape, and rod specifications including calibration data, shall be submitted to the New Jersey Geodetic Control Survey.

(c) Rationale: Geodetic control reference marks provide the horizontal and vertical references used by land surveyors and engineers to determine most accurately location and elevations on the earth's surface. The rapid disappearance of survey marks and monuments necessitates the implementation of notification procedures prior to the removal, alteration, or destruction of such marks or monuments. This policy was instituted because of the monuments' relative geographic scarcity, their importance to the surveying and engineering community, and the high cost of relocation or referencing a removed, altered, or destroyed mark or monument.

7:7-9.46 Hudson River waterfront area

(a) The following terms, when used in this section, shall have the following meanings:

1. "Average building height" is defined as the mean height of the roof line of a building on a pier measured from the pier deck level to the top of the parapet or the midpoint of a sloped roof above pier deck level.
2. "The Hudson River Waterfront Area" extends from the George Washington Bridge in Fort Lee, Bergen County to the Bayonne Bridge in Bayonne, Hudson County, inclusive of all land within the municipalities of Bayonne, Jersey City, Hoboken, Weehawken, West New York, Guttenberg, North Bergen, Edgewater and Fort Lee subject to the Waterfront Development Law.
3. "Landward end of pier" means the end of the pier at its point of attachment to the upland.
4. "Pier" means a pile supported, decked structure extending from upland over water. The longest axis of a pier is generally perpendicular to the shoreline. See "platform" below.
5. "Pier deck level" means the lowest deck surface that is at or above the flood hazard area design flood elevation as defined at and determined in accordance with N.J.A.C. 7:13.
6. "Platform" means a pile supported, decked structure extending from upland over water. The longest axis of a platform is generally parallel to the shoreline. See "pier" above.

7. "Walkway" means areas along the waterfront, including areas on piers, that are devoted to activities by the public such as but not limited to walking, jogging and bicycle riding.
8. "Waterward end of pier" means the end of a pier most distant from its point of attachment to the upland.

(b) Non-industrial development within the Hudson River waterfront area shall conform with the criteria as set forth in (d) below, which govern allowable building height, massing, and public access. Industrial development, including water dependent transportation (passenger and vehicular) and cargo handling facilities, shall conform with the criteria to the extent practical consistent with public safety and the operational requirements of such facilities.

(c) Hudson River waterfront area development shall be consistent with all other applicable rules with particular attention given to N.J.A.C. 7:7-9.38, Public open space; N.J.A.C. 7:7-9.39, Special hazard areas; N.J.A.C. 7:7-9.41, Special urban areas; N.J.A.C. 7:7-9.48, Lands and waters subject to public trust rights; N.J.A.C. 7:7-15.14, High rise structures; N.J.A.C. 7:7-16.9, Public access rule; N.J.A.C 7:7-16.10, Scenic resources and design; and N.J.A.C. 7:7-16.3, Water quality.

(d) The following standards apply to all developments proposed on piers and will be used by the Department as a guide for developments proposed on platforms. In some cases, a platform may, in effect, function as upland and, thus, be more appropriately reviewed under rules that regulate upland development.

1. Non-industrial development upon piers is conditionally acceptable provided that specific amounts of usable landscaped public open space are incorporated into the project, as provided below:
   i. The minimum length of public open space at the landward end of a pier required for any building less than or equal to 40 feet in average height shall be 20 feet;
   ii. The minimum length of public open space at the landward end of a pier required for any building above 40 feet in average height shall be computed as follows:

$$\text{Minimun length of landward open space} = \frac{(ABH)^{2}}{40 \text{ feet}} - (2\ ABH) + 60 \text{ feet}$$

Example:	Average Height	Minimum Landward Open Space Length
	80 feet	60 feet

70 feet	42.5 feet
60 feet	30 feet
50 feet	22.5 feet
40 feet	20 feet;

iii. The minimum length of distal public open space at the waterward end of a pier required for any building less than or equal to 40 feet in average height shall be 20 feet;

iv. The minimum length of public open space at the waterward end of a pier required for any building above 40 feet in average height shall be computed as follows:

$$\text{Minimun length of waterward open space} = \frac{(ABH)^2}{16 \text{ feet}} - (5\ ABH) + 120 \text{ feet}$$

Example:

Average Height	Minimum Waterward Open Space Length
80 feet	120 feet
70 feet	76 feet
60 feet	45 feet
50 feet	26 feet
40 feet	20 feet;

v. The area of public open space at the ends of piers required by this section shall be the minimum length times the width of the pier. The public open space areas do not have to occupy the entire width of the pier for the full minimum length required, and do not have to be entirely at pier deck level, provided the following criteria are satisfied:

(1) Public open space at each pier end, that covers the full width of the pier, shall be at least 20 feet in length or 70 percent of the minimum length, as determined above at (d)1i through iv above, whichever is greater;

(2) The remaining area of public open space (up to 30 percent of the minimum length times the average width of the pier) must be contiguous with the public open space at the end of the pier; and

(3) Up to 50 percent of the public open space at pier ends may be elevated up to 12 feet above pier deck level provided that easy access is provided between elevated and pier deck level public open space areas, for able bodied and disabled people;

vi. At least one public access walkway of at least 16 feet in width shall be provided along the entire length of a pier, from the waterward end to the landward end at the point at which it abuts the Hudson River Waterfront Walkway. All such walkways shall be at pier deck level or ramped so that disabled access is provided between the public open space areas at both ends of a pier;

vii. Where piers are less than 400 feet apart, the heights, as allowed by this section, shall be further reduced by 20 percent for each pier. No reduction of open space will be allowed as a result of this height reduction; and

viii. Development that reuses existing structures on piers shall comply with the above criteria to the maximum practical extent; and

ix. All pier structures shall meet the requirements of the flood hazard areas rule at N.J.A.C. 7:7-9.25.

(e) All waterfront development along the Hudson River shall develop, maintain**,** and manage a section of the Hudson Waterfront Walkway coincident with the shoreline of the development property. The developer shall, by appropriate instrument of conveyance, create a conservation restriction in favor of the Department. In addition to complying with N.J.A.C. 7:7-18, the conservation restriction shall define the physical parameters of the walkway and the allowable uses, address the maintenance and management duties**,** and identify the responsible party. Development of each project's public access system shall conform to this special area policy and to the Hudson Waterfront Walkway Planning and Design Guidelines (1984) and the Hudson Waterfront Walkway Design Standards (1989), subject to the following clarification:

1. Public access to and along the main route of the Hudson Waterfront Walkway and on the adjacent piers shall be on a 24-hour unless it can be demonstrated to the Department that strict compliance with this provision is not practicable based on the risk of injury from substantial permanent obstructions or proposed hazardous operations, or upon documentation of a threat to public safety due to unique circumstances concerning the subject property that would make 24-hour access not feasible.

2. Within all public access corridors and public open space areas on piers, pedestrians shall have a declared right of way over vehicles. Public access corridors may be used for emergency vehicular access, but shall not serve as service or general vehicular roadways. All instances of vehicular/pedestrian crossing shall be designated to assure motorists are aware they are crossing a pedestrian right of way. Stop signs, speed bumps and similar design techniques shall be used as necessary.

(f) Applications which vary in detail from the standards of this rule are discouraged, but will be considered for approval if they would provide greater public access and/or protection of natural or scenic resources than would be afforded by strict compliance with this rule and the development, as proposed, would remain in compliance with N.J.A.C. 7:7-9.48. Applicants proposing a development which varies in detail from the standards of this rule are encouraged to contact the Department for guidance when conceptual plans have been prepared.

(g) Rationale: The Hudson River waterfront area has historically been, and is currently, heavily populated and extensively developed. Development pressures are intense in this area. Given its preexisting density of development, this rule seeks to encourage further development if constructed to ensure the safety of people and property in order to steer development towards actively disturbed areas and away from undisturbed areas of the coast. Further, this rule serves to encourage redevelopment efforts in several cities in the Hudson River waterfront area to increase the economic and social vitality of these areas while making wise use of existing footprints of development and infrastructure. Building height requirements are different for buildings in this special area than for other areas of the coast in order to facilitate this redevelopment and are balanced by requiring public open space and visual access to the water through other means.

The public access requirements for development in the Hudson River waterfront area are intended to balance the public trust rights of people to access the water with site-specific safety needs. The rule facilitates the completion of the Hudson River Waterfront Walkway, which is intended to provide contiguous access to the waterfront for the public in accordance with the Public Trust Doctrine. However, it is not unreasonable to limit night access or to limit access in cases where there is a documented threat to public safety due to unique circumstances on the property, such as hazardous operations.

7:7-9.47 Atlantic City

(a) Atlantic City is those lands within the municipal boundary of the City of Atlantic City.

(b) "Casino hotels" are hotels with casinos as provided for in the Casino Control Act (P.L. 1977, c.100, as amended).

1. Casino hotel development in Atlantic City shall be located in the city's traditional resort area (along the Boardwalk), and in the State Marina area to the maximum extent practicable. For the purpose of this section, the State Marina area is the area bounded by Clam Creek, Absecon Inlet, Clam Thorofare, Penrose Canal, Absecon Boulevard, Huron Avenue, and Maryland Avenue to Magellan Avenue, across Delta Basin.
    i. Casino hotel development is discouraged in existing residential areas and in areas where access by public transportation between the proposed hotel-casino and the Boardwalk is limited.
    ii. Casino hotel development is discouraged along the access highways to Atlantic City that is, along the entire Atlantic City Expressway, Route 40 north and west of Beach Thorofare and Route 30 northwest of Penrose Canal.

iii. Casino development is encouraged in Atlantic City to ensure that the objectives of the 1976 constitutional referendum on casino gambling, including the stimulation of new construction and the revitalization of Atlantic City and its region, are achieved.

(c) The following standards apply to all development proposed on or over the existing ocean piers listed at (c)1 below.

1. Existing ocean piers (piers) are limited to the footprint of the following five piers, as depicted on the Department's 1995-1997 National Aerial Photographic Program imagery (GIS):
   i. Garden Pier;
   ii. Steel Pier;
   iii. Steeplechase Pier, except that Steeplechase Pier may be connected to the Boardwalk provided the connecting portion of the pier does not exceed the width of the existing Steeplechase Pier;
   iv. Central Pier; and
   v. Million Dollar Pier (Ocean One).
2. Residential development is prohibited on the existing ocean piers except where a waiver of strict compliance with the municipal flood damage prevention ordinance has been granted by the Federal Emergency Management Agency for a hotel to be located over the water.
3. The development proposed on the pier must have an evacuation plan approved by the Atlantic City Office of Emergency Management.
4. A minimum of 50 percent of the total floor area of any building constructed on the pier shall be devoted to publicly accessible, non-casino entertainment and recreation.
5. The height of structures on the pier shall not exceed 100 feet above the deck surface of the Boardwalk, except for decorative architectural elements, amusement rides, and wind turbines, which shall not exceed 200 feet. The height of the wind turbine shall be measured from the decking of the pier to the tip of the blade at its highest position. There shall be no occupancy above the 100-foot elevation.
6. The height of the structures on the pier shall not exceed 50 feet above the deck surface of the Boardwalk within 100 feet of the property line in common with the Boardwalk.
7. A building setback of 50 feet shall be maintained from the seaward end of the pier. If a building is 50 feet or more in height, an additional 20 feet setback from the seaward end of the pier is required.
8. Public access shall be provided in accordance with all of the following:
   i. The development shall provide a means for pedestrians to walk along the dry beach under the pier from one side to the other, except where the beach is so narrow as to preclude such passage;

ii. A stairway shall be provided from the pier to the beach and from the Boardwalk to the beach on the southwesterly side of the pier, where the pier intersects the Boardwalk and, on the northeasterly side of the pier, either where the pier intersects the Boardwalk or on the Boardwalk within 50 feet of the point at which the pier intersects the Boardwalk;

iii. Publicly accessible open space, including lighted public seating and viewing and, where appropriate, fishing areas, shall be provided at the seaward end of the pier at the level of the deck surface of the Boardwalk. The publicly accessible open space shall occupy the entire width of the pier (parallel to the ocean shoreline in a northeast-southwest direction) for a distance of 50 feet landward from the end of the pier. The area between 30 and 50 feet inland from the end of the pier may be occupied by outdoor dining and food concessions and be partially enclosed, through the use of awnings, canopies, and windbreaks. No other structures shall be placed in this area;

iv. The public open space shall have unrestricted access, at no cost, and shall not be limited to patrons of the commercial or hotel facilities;

v. An open-air public access walkway of at least 18 feet in width shall be provided perpendicular to the Boardwalk, along the entire southwestern side of the pier at the level of the deck surface of the Boardwalk, with amenities such as seating and lighting. Servicing of buildings and storage of materials, refuse or any other obstructions are prohibited within this walkway;

vi. An open-air public access walkway of at least 12 feet in width shall be provided perpendicular to the Boardwalk, along the entire northeastern side of the pier at the level of the deck surface of the Boardwalk, with amenities such as seating and lighting. Servicing of buildings and storage of materials, refuse or any other obstructions are prohibited within this walkway;

vii. Public restrooms, showers and changing areas shall be provided on the pier, immediately adjacent to the Boardwalk and the stairs from the beach on either side of the pier. Alternatively, the public restrooms, showers and changing areas may be located immediately adjacent to the Boardwalk provided these facilities are:

(1) Owned and maintained by the pier owner; and

(2) Located no further than 200 linear feet from the pier; and

viii. Signage shall be provided along the Boardwalk at the entrance to the piers indicating the location and availability of the public access features listed in (c)8i through vii above.

9. Service corridors to the piers shall be located beneath the Boardwalk, or if service to the piers is to be provided over the Boardwalk, it shall be restricted to the period between 12 o'clock midnight and 8:00 A.M.

10. The size and spacing of the pilings necessary to support the proposed development on the piers shall comply with the following conditions:

i. The pilings shall not cause significant adverse long-term impact to natural functioning of the beach and dune system, either individually or in combination with other existing or proposed structures, land disturbances or activities;

ii. The pilings shall not cause significant adverse impacts to the local sediment supply;

iii. The pilings shall not create net adverse shoreline sand movement downdrift, including erosion or shoaling; and

iv. Pilings shall be spaced so as to provide linear access along the dry beach as required by (c)8i above.

11. Parking is prohibited on the piers.

(d) The construction of new commercial piers or expansion of existing commercial piers is prohibited, unless the pier is associated with a marina which meets the resort recreational use rule, N.J.A.C. 7:7-15.3or meets the standards at (c) above.

(e) The following standards apply to all development proposed in the Boardwalk right-of-way as defined at (e)1 below:

1. For the purposes of this subsection, Boardwalk right-of-way means the shore-parallel promenade located immediately adjacent to the ocean and inlet beach occupying a 20 foot right-of-way from Jackson Avenue to Roosevelt Place, a 40 foot right-of-way from Roosevelt Place to Bellevue Avenue, a 60 foot right-of-way from Bellevue Avenue to Rhode Island Avenue, a 40 foot right-of-way from Rhode Island Avenue to Atlantic Avenue, and a 20 foot right-of-way from Atlantic Avenue to Caspian Avenue as shown on the 1999 Atlantic City tax duplicate.

2. Elevated pedestrian bridges are acceptable provided they meet the criteria of (e)2i through v below:

   i. The elevated pedestrian bridge shall be designed and used only for pedestrian movement and shall not provide for or be used for vehicular traffic, commercial space, storage or advertisement, either attached to or positioned within the elevated pedestrian bridge;

   ii. The lowest portion of the elevated pedestrian bridge shall be elevated a minimum of 14 feet six inches above the deck surface of the Boardwalk;

   iii. The elevated pedestrian bridge shall be a maximum of 20 feet wide and 15 feet high;

   iv. The elevated pedestrian bridge shall be transparent with the exception of the support structure; and

   v. There shall be no more than one pedestrian bridge per casino-hotel.

3. Awnings, canopies, marquees, and other roof extensions are acceptable provided they meet the criteria of (e)3i through iii below:

   i. The structure is not enclosed;

ii. The structure extends no more than 12 feet into the Boardwalk right-of-way; and

iii. There is an eight-foot clearance between the structure and the deck surface of the Boardwalk.

4. Signs which are not awnings, canopies, marquees or other roof extensions are acceptable provided they meet the criteria of (e)4i through iii below:

   i. The structure is not enclosed;

   ii. The structure extends no more than 12 feet into the Boardwalk right-of-way; and

   iii. There is a 14 foot six inch clearance between the structure and the deck surface of the Boardwalk.

5. Any development that does not meet the standards in (e)2, 3 or 4 above is prohibited.

(f) Development is discouraged in the street rights-of-way listed in (f)1 and 2 below as shown on the 2008 Atlantic City tax duplicate, and in the street right-of-way listed in (f)3 below, except in accordance with the provisions in (f)4 below.

1. That portion of the following streets located southeast of Pacific Avenue:

   i. Lincoln Place (50 foot right-of-way);

   ii. Montpelier Avenue (60 foot right-of-way);

   iii. Texas Avenue (50 foot right-of-way);

   iv. Indiana Avenue (60 foot right-of-way);

   v. New York Avenue (50 foot right-of-way);

   vi. Tennessee Avenue (60 foot right-of-way); and

   vii. Rhode Island Avenue (50 foot right-of-way);

2. That portion of the following streets located northeast of Rhode Island Avenue:

   i. Atlantic Avenue (100 foot right-of-way);

   ii. Pacific Avenue (60 foot right-of-way); and

   iii. Grammercy Place (60 foot right-of-way);

3. That portion of Albany Avenue (60 foot right-of-way) located southeast of Pacific Avenue as shown on the 2008 Atlantic City tax duplicate or an alternative alignment with a minimum 60 foot right-of-way approved by the Department which provides a comparable view corridor to the ocean and horizon.

4. The following development is conditionally acceptable provided that mitigation is performed pursuant to (j) below:

   i. Signage, extending no more than four feet into the street right-of-way and located a minimum of 14 feet six inches above the surface of the sidewalk; and

ii. Below-grade utilities, roads, sidewalks, public stairs and ramps that provide access to the Boardwalk.

(g) Development is acceptable southeast of Pacific Avenue in or over the right-of-way of a street listed in (g)1 through 5 below as shown on the 2008 Atlantic City tax duplicate provided that it either meets the standards of (g)6 and 7 below or of (i) below.

1. Iowa Avenue (72 foot right-of-way);
2. Christopher Columbus Boulevard (50 foot right-of-way);
3. Park Place (50 foot right-of-way);
4. Pennsylvania Avenue (72 foot right-of-way); and
5. New Jersey Avenue (50 foot right-of-way).
6. With the exception of any existing pedestrian bridges on the 2008 Atlantic City tax duplicate, a corridor equal to the right-of-way width and 50 feet in height shall be maintained at street level within the street right of way between Pacific Avenue and the Boardwalk. The entire corridor shall be unenclosed, entirely devoid of structures, maintain views to the Boardwalk and allow unrestricted physical access to the public.
7. Mitigation is provided in accordance with (j) below.

(h) Development is acceptable in or over the right-of-way of any street located perpendicular to the Atlantic Ocean and southeast of Pacific Avenue and not listed in (f) or (g) above provided that it meets the standards of (i) below or mitigation is provided in accordance with (j) below.

(i) The following may be constructed without mitigation in or over the right-of-way of an existing street located perpendicular to the Atlantic Ocean and southeast of Pacific Avenue and not listed in (f) above:

1. Elevated pedestrian bridges are acceptable provided they meet the criteria of (i)1i and ii below:
   i. The elevated pedestrian bridge meets the standards at (e)2i through iv above; and
   ii. The elevated pedestrian bridges shall be no closer to one another than 1,000 feet, as measured along the street right-of-way;
2. Awnings, canopies, marquees, and other roof extensions are acceptable provided they meet the criteria of (i)2i through iii below:
   i. The structure is not enclosed;
   ii. The structure extends no more than 8 feet into the street right-of-way; and
   iii. There is an eight-foot clearance between the structure and the surface of the sidewalk;

3. Signs which are not awnings, canopies, marquees, or other roof extensions are acceptable provided they meet the criteria of (i)3i through iii below:
   i. The structure is not enclosed;
   ii. The structure extends no more than eight feet into the street right-of-way; and
   iii. There is a 14 foot six inch clearance between the structure and surface of the sidewalk; and
4. Below-grade utilities, roads, sidewalks, and public stairs and ramps providing access to the Boardwalk approved as mitigation under (j) below.

(j) Mitigation shall be provided for development within the right-of-way of a street located perpendicular to the Atlantic Ocean and southeast of Pacific Avenue, except for those developments listed in (i) above, in accordance with the following:

1. The amount to be paid in mitigation shall be calculated as follows:
   i. For development within a street right-of-way at grade, or below a height of 14 feet six inches above grade, the amount of mitigation is five times the property tax on the assessed value of the right-of-way area to be developed. The assessed value is an average of the value of the land on both sides of the area to be developed; and
   ii. For development within a street right-of-way at a height of 14 feet six inches or greater above grade, the amount of mitigation is three times the Atlantic City tax on the assessed value of the right-of-way area to be covered by development. The assessed value is an average of the value of the land on both sides of the right-of-way area to be covered by development;
2. Mitigation monies shall be paid in full to the Casino Reinvestment and Development Authority prior to the commencement of construction; and
3. Mitigation monies paid to the Casino Reinvestment and Development Authority in accordance with (j)1 and 2 above, shall be designated only for acquisition and/or improvement of lands for public access and public parks along the oceanfront and inlet. If the money is used for these improvements within a street-end, the money shall be used only in a street-end listed in (f) above.

(k) Standards relevant to intercept parking are as follows:

1. Each hotel-casino facility located in Atlantic City shall provide one of every five non-Absecon Island and non-Brigantine Island resident hotel-casino employees commuting during the daily peak hour with an intercept space. Absecon Island residents are residents of Atlantic City, Margate, Ventnor and Longport. Brigantine Island residents are residents of the City of Brigantine. Nobsecon Island and non-Brigantine Island resident employees commuting during the daily peak hour is the sum of the number of non-Absecon Island and non-Brigantine Island resident employees of the shift with the largest number of employees plus the number of non-Absecon Island and non-Brigantine Island resident employees of the next largest adjoining shift. This intercept parking space shall

be located off Absecon and Brigantine Islands, specifically outside of the municipal boundary of the five municipalities identified above. If off-island sites are not available, temporary use of other sites is conditionally acceptable if an applicant can demonstrate that it will be moved to an off-island site within one year.

2. Alternatives that would reduce vehicle miles traveled and peak hour employee travel demand may be substituted for the employee intercept parking space requirements for casino facilities. The Department will review proposed alternatives in consultation with the Department of Transportation. The Department will approve alternatives, which it determines will reduce vehicle miles traveled and peak-hour employee travel by at least as much as would result from furnishing intercept parking as described above. Acceptable alternatives include, but are not limited to, employee subsidies for bus, rail transit, van pools, and/or bicycle programs.
3. Alternative scheme proposals must include documentation indicating the existing travel pattern and mode of travel characteristics of non-Absecon and non-Brigantine Island resident employees. This information shall be provided to the Department along with the necessary data used to establish the vehicle miles traveled and peak hour employee travel demand with and without the proposed peak hour traffic reduction program. All proposals shall include a monitoring program to be submitted to the Department to verify the success of the proposed traffic reduction program, update the employee travel characteristics pattern, and serve as a basis for future adjustments if necessary.

(l) Development in Atlantic City shall be constructed in conformance with this section and with all other applicable provisions in this chapter.

(m) Rationale: The Department first established the Atlantic City special area on February 7, 2000, to encourage redevelopment of Atlantic City and its beach and oceanfront facilities in recognition of Atlantic City's unique situation based on the 1976 referendum approving casino gambling in the city. The rule was developed with extensive cooperation between the Department and the Atlantic City Mayor's office and Planning Department.

The goals of this rule are to: (1) provide a predictable permitting process for proposed developments in Atlantic City; (2) promote tourism; (3) maintain, enhance, and promote continued public access to the Atlantic Ocean and Absecon Inlet waterfront and adjacent beach areas; (4) allow Atlantic City to compete in the future with other gaming resorts throughout the nation; and (5) enable the city to reach its stated goals of becoming a world-class resort. The rule reflects the existing intensity of development in Atlantic City and the importance of the gaming industry to the continued enhancement of the tourist-oriented resort economy, and recognizes the need to promote continued public-use and tourism-related development. This is consistent with the goals of the Coastal Area Facility Review Act to promote multiple uses that support diversity and are in the best long-term, social, economic, aesthetic, and recreational interests of all the people of the State.

7:7-9.48 Lands and waters subject to public trust rights

(a) Lands and waters subject to public trust rights are tidal waterways and their shores, including both lands now or formerly below the mean high water line, and shores above the mean high water line. Tidal waterways and their shores are subject to the Public Trust Doctrine and are held in trust by the State for the benefit of all the people, allowing the public to fully enjoy these lands and waters for a variety of public uses. Public trust rights include public access which is the ability of the public to pass physically and visually to, from and along the ocean shore and other waterfronts subject to public trust rights and to use these lands and waters for activities such as navigation, fishing and recreational activities including, but not limited to, swimming, sunbathing, surfing, sport diving, bird watching, walking, and boating. Public trust rights also include the right to perpendicular and linear access.

(b) Public access to lands and waters subject to public trust rights shall be provided in accordance with the public access rule, N.J.A.C. 7:7-16.9. Development that does not comply with N.J.A.C. 7:7-16.9, Public access, is discouraged in lands and waters subject to public trust rights.

(c) Rationale: The public's rights of access to and use of tidal waterways and their shores, including the ocean, bays, and tidal rivers, in the United States predate the founding of this country. These rights are based in the common law rule of the Public Trust Doctrine. First codified by the Roman Emperor Justinian around 500 AD as part of Roman civil law, the Public Trust Doctrine establishes the public's right to full use of the seashore as declared in the following quotation from Book II of the Institutes of Justinian:

"By the law of nature these things are common to all mankind-the air, running water, the sea, and consequently the shores of the sea. No one, therefore, is forbidden to approach the seashore, provided that he respects habitations, monuments, and the buildings, which are not, like the sea, subject only to the law of nations."

Influenced by Roman civil law, the tenets of public trust were maintained through English Common Law and adopted by the original 13 colonies, each in their own form. The grants that form the basis of the titles to private property in New Jersey never conveyed those public trust rights, which were reserved to the Crown. Following the American Revolution, the royal rights to tidal waterways and their shores were vested in the 13 new states, then each subsequent state, and have remained a part of law and public policy into the present time. Tidal waterways and their shores always were, and remain, subject to and impressed with these public trust rights. See *Arnold v. Mundy*, 6 *N.J.L.* 1 (1821); *Borough of Neptune v. Borough of Avon-by-the-Sea*, 61 *N.J.* 296 (1972); *Hyland v. Borough of Allenhurst*, 78 *N.J.* 190 (1978); *Matthews v. Bay Head Improvement Association*, 95 *N.J.* 306 (1984); *Slocum v. Borough of Belmar*, 238 *N.J.Super.* 179 (Law Div. 1989); *National Ass'n of Homebuilders v. State, Dept. of Envt'l Protect.*, 64 *F.Supp.2d* 354 (D.N.J. 1999); *Raleigh Ave. Beach Ass'n v. Atlantis Beach Club, Inc.*, 185 *N.J.* 40 (2005). See also *Illinois Central R.R. v. Illinois*, 146 *U.S.* 387 (1892); *Karam v. NJDEP*, 308 *N.J. Super.* 225, 240 (App. Div. 1998), *aff'd*, 157 *N.J.* 187 (1999), *cert. denied*, 528 *U.S.* 814 (1999).

The Public Trust Doctrine serves as an extremely important legal principle that helps to

maintain public access to and use of tidal waterways and their shores in New Jersey for the benefit of all the people. Further, it establishes the right of the public to fully utilize these lands and waters for a variety of public uses. While the original purpose of the Public Trust Doctrine was to assure public access for navigation, commerce and fishing, in the past two centuries, State and Federal courts recognized that modern uses of tidal waterways and their shores are also protected by the Public Trust Doctrine. See, for example, *Phillips Petroleum Co. v. Mississippi*, 484 *U.S.* 469 (1988). In New Jersey, the Public Trust Doctrine expressly recognizes and protects natural resources as well as public recreational uses such as swimming, sunbathing, fishing, surfing, sport diving, bird watching, walking and boating along the various tidal waterways and their shores.

The Public Trust Doctrine is an example of common law authority that is continually developing through individual court cases. The first published court case in New Jersey to discuss the Public Trust Doctrine was in 1821. See *Arnold v. Mundy*, 6 *N.J.L.* 1 (1821). Within the past three decades, several New Jersey court decisions have clarified the public rights of access to and use of areas above the mean high water line as needed for access to and use of tidal waterways and their shores, under the Public Trust Doctrine. See, for example, *Arnold v. Mundy*, 6 *N.J.L.* 1 (1821); *Borough of Neptune v. Borough of Avon-by-the-Sea*, 61 *N.J.* 296 (1972); *Hyland v. Borough of Allenhurst*, 78 *N.J.* 190 (1978); *Matthews v. Bay Head Improvement Association*, 95 *N.J.* 306 (1984); *Slocum v. Borough of Belmar*, 238 *N.J. Super.* 179 (Law Div. 1989); *National Ass'n of Homebuilders v. State, Dept. of Envt'l Protect.*, 64 *F.Supp.2d* 354 (D.N.J. 1999); R*aleigh Ave. Beach Ass'n v. Atlantis Beach Club, Inc.*, 185 *N.J.* 40 (2005).

As the trustee of the public rights to natural resources, including tidal waterways and their shores, it is the duty of the State not only to allow and protect the public's right to use them, but also to ensure that there is adequate access to these natural resources. As the State entity managing public access along the shore, the Department has an obligation to ensure that this occurs.

Development and other measures can adversely affect tidal waterways and their shores as well as access to and use of those lands. One example of adversely affecting tidal waterways and their shores would be the development of a building that "shadows" a public beach. The proximity of the building serves to diminish the quality of the experience of the beachgoer, encouraging them to go elsewhere. Development that adversely affects or limits public access to tidal waterways and their shores includes building over traditional accessways, putting up threatening signs, eliminating public parking, and physically blocking access with fences or equipment.

In addition to cases involving physical barriers to access, there have been instances where municipalities and local property owner associations have attempted to limit use of recreational beaches to their residents and members through methods designed to exclude outsiders. In the majority of these cases, New Jersey courts have ruled that these actions violate the Public Trust Doctrine because lands that should be available for the general public's recreational use were being appropriated for the benefit of a select few. The decision in *Matthews v. Bay Head Improvement Association*, 95 *N.J.* 306 (1984) recognized that, under the Public Trust Doctrine, not only does the public have the right to use the land below the mean high water mark, but also

they have a right to use a portion of the upland dry sand area on quasi-public beaches. *Id.* at 325. "(. . . where use of dry sand is essential or reasonably necessary for enjoyment of the ocean, the doctrine warrants the public's use of the upland dry sand area subject to an accommodation of the interests of the owner.") The New Jersey Supreme Court recognized that this principle also applies to exclusively private beaches, in *Raleigh Avenue Beach Association v. Atlantis Beach Club, Inc. et al*, 185 *N.J.* 40 (2005).

7:7-9.49 Dredged material management areas

(a) A dredged material management area is an area documented through historical data, including, but not limited to, aerial photography, historic surveys, and/or previously issued permits, as having been previously used for the placement of sediment associated with the dredging of State and/or Federal navigation channels and marinas.

(b) Development that changes the land use of a dredged material management area owned by a State or Federal agency is discouraged.

(c) Development that changes the land use of a dredged material management area owned by a person, entity, or local governmental entity is conditionally acceptable provided the Department determines that:

1. The previous use of the area was for the one-time placement of dredged material or the dredged material management area is not located within hydraulic pumping distance of a State or Federal navigation channel; and
2. The purchase of the property by the State for use as a dredged material management area is not feasible.

(d) The beneficial use of dredged material from the dredged material management area in a lawfully permitted manner is encouraged, provided environmental impacts associated with the removal of the dredged material are minimized to the maximum extent practicable.

(e) Rationale: The primary purpose of a dredged material management area is to facilitate maintenance and safe navigation of State and Federal navigation channels and marinas. Dredged material management areas dewater and retain dredged materials until such time as the material can be excavated for beneficial use. Beneficial use of dredged material provides long term capacity within the dredged material management area. The continued use of these areas for the management of sediments removed from State and Federal navigation channels and marinas to maintain navigation is critical to the State's recreational and commercial boating industry and marine commerce.

SUBCHAPTER 10. STANDARDS FOR BEACH AND DUNE ACTIVITIES

7:7-10.1 Purpose and scope

(a) This subchapter sets forth the standards applicable to routine beach maintenance, emergency post-storm restoration, dune creation and maintenance, and construction of boardwalks. These standards are referenced at N.J.A.C. 7:7-9.16, Dunes; N.J.A.C. 7:7-9.17, Overwash areas; N.J.A.C. 7:7-9.19, Erosion hazard areas; N.J.A.C. 7:7-9.22, Beaches; and N.J.A.C. 7:7-15.11, Coastal engineering. In addition, N.J.A.C. 7:7-10.2, 10.3, and 10.4 are the standards for the general permit for beach and dune maintenance activities, N.J.A.C. 7:7-6.2. The standards in this subchapter are organized as follows:

1. The standards applicable to routine beach maintenance, including debris removal and clean-up; mechanical sifting and raking; maintenance of access ways; removal of sand from street ends, boardwalk promenades and residential properties; repairs or reconstruction of existing gazebos and dune walkover structures; and limited sand transfers from the lower beach to the upper beach or alongshore**,** are found at N.J.A.C. 7:7-10.2;
2. The standards that apply to the restoration of all beaches that are impacted by coastal storms with a recurrence interval to or exceeding a five-year storm event are found at N.J.A.C. 7:7-10.3;
3. The standards for dune creation and maintenance, including the placement and/or repair of sand fencing, the planting and fertilization of appropriate dune vegetation, the maintenance and clearing of beach access pathways less than eight feet in width, and the construction or repair of approved dune walkover structures are found at N.J.A.C. 7:7-10.4; and
4. The standards for construction of boardwalks along tidal shorelines are found at N.J.A.C. 7:7-10.5.

(b) Beach and dune maintenance activities subject to this subchapter shall comply with any applicable management plan for protection of State and Federally listed threatened and endangered species, as approved by the Department and the USFWS.

7:7-10.2 Standards applicable to routine beach maintenance

(a) Routine beach maintenance includes debris removal and clean-up; mechanical sifting and raking; maintenance of accessways; removal of sand accumulated beneath a boardwalk; removal of sand from street ends, boardwalks/promenades, and residential properties; the repair or reconstruction of existing boardwalks, gazebos, and dune walkover structures; and limited sand transfers from the lower beach to the upper beach or alongshore (shore parallel). Sand transfers from the lower beach profile to the upper beach profile are specifically designed to restore berm width and elevation, to establish/enhance dunes, and to repair dune scarps. Activities which preclude the development of a stable dune along the back beach are not considered to be routine beach maintenance activities, pursuant to this section. Specifically, the bulldozing of sand from the upper beach (berm) to the lower beach (beach face), for the purpose of increasing the berm

width or flattening the beach profile, is not considered to be routine maintenance**,** except as provided at (a)9 below.

1. All routine beach maintenance activities shall be conducted in a manner that does not destroy, jeopardize, or adversely modify endangered or threatened wildlife or plant species habitat; and shall not jeopardize the continued existence of any local population of an endangered or threatened wildlife or plant species.
2. If the activities in (a) above are proposed to be conducted by a municipal or county agency on property owned by that governing body, then the municipal or county engineer must certify that the activities will be conducted in accordance with these standards. The appropriate municipal or county engineer is responsible for ensuring compliance with these requirements. If these activities are proposed to be conducted on privately owned property, then the property owner is responsible for ensuring that the activities will be conducted in accordance with these standards. If these activities are proposed to be conducted on State owned properties, then the DEP, Bureau of Construction and Engineering must certify that the activities will be conducted in accordance with these standards.
3. All guidelines and specifications of this section must be incorporated into any contract documents or work orders related to proposed beach and dune activities, as described in this section. The Division of Land Use Regulation is available to assist in the development of specific maintenance plans for oceanfront locations, upon request.
4. In areas documented by the Department as habitat for threatened or endangered beach nesting shorebirds such as Piping Plovers (*Charadrius melodus*), Least Terns (*Sternula antillarum*), and Black Skimmers (*Rynchops niger*), no beach raking, other mechanical manipulation of the beach, or use of non-emergency vehicles, shall take place between March 15 and August 31.
    i. The Department's Division of Fish and Wildlife shall develop a list of specific areas where this restriction shall apply, based on documented habitat during the most recent nesting seasons. The list of restricted areas shall be updated annually by the Division of Fish and Wildlife, at the end of each nesting season and will be available from the Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6. The updated list shall be provided by the Department to each permittee prior to March 1 of each year.
    ii. If a particular beach area is identified on the updated list as described in (a)4i above as habitat for threatened or endangered beach nesting shorebirds, regardless of the habitat classification of the previous nesting season, no beach raking, other mechanical manipulation of the beach, or the use of non-emergency vehicles shall take place between March 15 and August 31 in those areas.
    iii. If a particular beach area is not identified on the updated list as described in (a)4i above, but is subsequently found to contain a nest or unflighted chick of a threatened or endangered beach nesting shorebird, the Department shall notify the permittee and

no beach raking other mechanical manipulation of the beach, or use of non-emergency vehicles shall take place between March 15 and August 31 in those areas.

iv. The restrictions contained in (a)4 above may be waived if the Department's Division of Fish and Wildlife determines that the identified areas do not represent suitable threatened or endangered beach nesting shorebird habitat, due to beach erosion or other causes**.** Requests for such a waiver shall be made in writing to the Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6.

5. In areas documented by the Department as supporting known occurrences of Federally listed endangered or threatened plant species such as seabeach amaranth (*Amaranthus pumilus*), or known occurrences of State listed endangered plant species, such as sea-beach knotweed (*Polygonum glaucum*), no beach raking, other mechanical manipulation of the beach, or use of non-emergency vehicles, shall take place between May 15 and November 30.

   i. The Department, in cooperation with the USFWS, shall develop a list of present and documented habitat areas where this restriction shall apply based on occurrence locations during the previous seasons. The list of restricted areas shall be updated annually and will be available from the Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6. The updated list shall be provided by the Department to each permittee prior to May 1 of each year.

   ii. If a particular beach area is not identified on the updated list as described (a)5 above, but is subsequently found to contain an occurrence of a Federally listed endangered or threatened plant species, or a State listed endangered plant species, the Department shall notify the permittee and no beach raking, other mechanical manipulation of the beach, or use of non-emergency vehicles, shall take place between May 15 and November 30 in those areas.

   iii. The restrictions contained in (a)5 above may be waived if the Department determines that the identified areas do not support occurrences of Federally listed endangered or threatened plant species, or occurrences of State listed endangered plant species. Requests for such a waiver shall be made in writing to the Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6.

6. Mechanical sifting and beach raking shall be limited to recreational beach areas only. For the purposes of this subsection, "recreational beach area" means all areas within 100 yards of a staffed lifeguard stand.

7. The excavation of sand accumulated beneath a boardwalk is conditionally acceptable provided:

   i. The elevation of the area after the excavation is completed is not lower than either the upper beach berm design template for an engineered beach, or, for a non-engineered beach, the elevation of the existing beach berm;

   ii. The excavated sand is relocated to the seaward toe of the existing dune, if present, or on the upper beach berm;

iii. Where breaching of an existing dune is necessary to allow for sand excavation, the following apply:

(1) The area of the dune breached shall be minimized; and

(2) The dune shall be restored to pre-existing conditions immediately upon excavation of the sand;

iv. Where sand is removed from the landward dune slope, the slope must be:

(1) Restored to the preexisting conditions and in no case be steeper than three horizontal to one vertical; and

(2) Revegetated in accordance with N.J.A.C. 7:7-10.4(b) and (c).

8. Any sand excavated from boardwalks, street ends, and single family lots shall be placed on the seaward toe of the existing dune, if present, or on the upper beach berm.

9. Placement of temporary sand fencing during the winter months, which results in the accumulation of sand that is later redistributed on the beach berm, is conditionally acceptable, provided:

i. The sand fencing is:

(1) Placed a minimum of 15 feet waterward of the seaward toe of any existing dune or, if no dune is present, from the waterward side of any structure;

(2) Installed no earlier than October 15 and removed prior to the Memorial Day weekend, unless threatened and endangered species timing restrictions apply;

(3) Installed in a manner that does not prevent public access along the tidal water and does not restrict public access to the beach from existing public access points; and

ii. The accumulated sand that is redistributed:

(1) Is placed on the beach;

(2) Does not result in the grading of the beach below the beach berm design template for an engineered beach or, for a non-engineered beach, below the elevation of the beach berm elevation existing prior to the redistribution; and

(3) Where feasible, does not result in the grading of the beach face to a slope steeper than 10 horizontal to one vertical.

(b) Projects involving the transfer of sand from the lower beach profile to the upper beach profile, or alongshore, are acceptable, in accordance with the following standards:

1. All sand transfer activities shall be conducted in a manner that does not destroy, jeopardize, or adversely modify endangered or threatened wildlife or plant species habitat; and shall not jeopardize the continued existence of any local population of an endangered or threatened wildlife or plant species.

2. The amount of sand transferred at any one time shall be limited to one foot scraping depth at the borrow zone. This borrow zone may not be rescraped until the sand volume from the previous scraping activities has been fully restored.
3. The borrow zone shall be limited to the area between the low water line and the inland limit of the berm. It is strongly recommended that a program of beach profiling be utilized to monitor the condition of the beaches and to ensure compliance with the standards of this section.
4. If the purpose of the sand transfers is to repair eroded dunes (dune scarps), all filled areas shall be stabilized with sand fencing and planted with beach grass in accordance with Department or Soil Conservation Service standards. Fencing shall be in place within 30 calendar days of the transfer operation, while the vegetative plantings may be installed during the appropriate seasonal planting period (October 15 through March 31, anytime the sand is not frozen).
5. There shall be no disturbance to existing dune areas.
6. In areas of documented habitat for threatened or endangered beach nesting shorebirds such as Piping Plovers (*Charadrius melodus*), Least Terns (*Sternula antillarum*), and Black Skimmers (*Rynchops niger*), no sand transfers shall take place between March 15 and August 31.
   i. The Department's Division of Fish and Wildlife shall develop a list of specific areas where this restriction shall apply, based on documented habitat during the most recent nesting seasons. The list of restricted areas shall be updated annually by the Division of Fish and Wildlife, at the end of each nesting season and will be available from the Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6. The updated list shall be provided by the Department to each permittee prior to March 1 of each year.
   ii. If a particular beach area is identified on the updated list as described in (b)6i above as habitat for threatened or endangered beach nesting shorebirds, regardless of the habitat classification of the previous nesting season, no sand transfers shall take place between March 15 and August 31 in those areas.
   iii. If a particular beach area is not identified on the updated list as described in (b)6i above, but is subsequently found to contain a nest or unflighted chick of a threatened or endangered beach nesting shorebird, the Department shall notify the permittee and no sand transfers shall take place between March 15 and August 31 in those areas.
   iv. The restrictions contained in (b)6 above may be waived if the Department's Division of Fish and Wildlife determines that the identified areas do not represent suitable threatened or endangered beach nesting shorebird habitat due to beach erosion or other causes. Requests for such a waiver shall be made in writing to the Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6.
7. In areas documented by the Department as supporting known occurrences of Federally-listed endangered or threatened plant species, or known occurrences of State-listed

endangered plant species, no sand transfers shall take place between May 15 and November 30.

i. The Department, in cooperation with the USFWS, shall develop a list of present and documented habitat areas where this restriction shall apply, based on occurrence locations during the previous seasons. The list of restricted areas shall be updated annually and will be available from the Department's Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6. The updated list shall be provided by the Department to each permittee prior to May 1 of each year.

ii. If a particular beach area is not identified on the updated list as described at (b)7i above but is subsequently found to contain an occurrence of a Federally listed endangered or threatened plant species, or an occurrence of a State listed endangered plant species, the Department shall notify the permittee and no sand transfer on the beach shall take place between May 15 and November 30 in those areas.

iii. The restrictions contained in (b)7 above may be waived if the Department determines that the identified areas do not support occurrences of a Federally listed endangered or threatened plant species, or occurrences of State listed endangered plant species. Requests for such a waiver shall be made in writing to the Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6.

8. Sand transfers to or from wetland areas that may exist on a beach are not authorized by this permit.

9. Records of all sand transfer activities shall be maintained by the property owner, beach association, governmental agency or other authority conducting the activities, and shall be available for inspection by the Department, upon request. These records shall include, but not be limited to, dates of transfer, borrow area limits, fill area limits, estimates of the amount of sand transferred, the name of the person(s) supervising the transfer activities, and the engineering certification required (if appropriate) for all sand transfer activities.

(c) Rationale: Beach maintenance activities are sometimes necessary to reestablish the width and contours of the beach and dune system, and to repair structures that facilitate public access to and enjoyment of the shore. Maintenance of beaches is essential to New Jersey's shore tourism and to protecting people and property from storms and wave action. These rules address actions by municipal or county agencies on property owned by that governing body, as well as actions on privately owned property and State owned property. While these actions are necessary, they must minimize impacts to threatened and endangered wildlife and plant species that rely on beaches for habitat, and must not undermine the protective qualities of the beach and dune system.

The Department's Division of Fish and Wildlife, the United States Fish and Wildlife Service, the National Marine Fisheries Service, and the Army Corps of Engineers have determined that beach raking and other mechanical manipulation of beaches has the potential to adversely affect threatened or endangered beach nesting shorebirds and their habitat. These adverse impacts can occur in several ways. First, mechanical vehicles (such as beach rakes and tractors) crush the eggs, as well as chicks and adult birds. Second, these vehicles create ruts in the beach/berm,

which restrict the ability of juvenile birds to move between the upper berm nest areas to the feeding habitats along the wrack line. Third, the mechanical sifting of beach sand removes the birds' natural wrack line feeding habitat, which is the primary food source for these beach nesters. Requiring activities to only take place within certain timeframes in areas documented as habitat for threatened or endangered nesting shorebirds or areas documented as habitat for endangered or threatened plant species will minimize impacts to such species by restricting beach maintenance activities to times of year where the species are not likely to be utilizing the beach area. These timeframes are consistent with USFWS recommendations and accommodate piping plovers, least terns, black skimmers, and other migrating shorebirds. The Division of Fish and Wildlife publishes an annually updated list of areas in which these timing restrictions apply. If a particular area is not listed but is subsequently found to contain such a species, the activities must halt until the restricted time period has passed. Restricting beach raking and sand transfers to active recreation beach areas in locations not documented as threatened or endangered species habitat enables permittees to mechanically clean heavily used recreational beach areas while preserving shorebird feeding habitat.

In the wake of Superstorm Sandy, the Department determined that provisions to allow for the maintenance of engineered beaches and dunes to the design template, allow for the removal of sand from beneath a boardwalk, and allow for the placement of temporary sand fencing during winter months are necessary to facilitate the maintenance of engineered beach and dune systems. Barone, McKenna, and Farrell in their paper "Hurricane Sandy: Beach-dune performance at New Jersey Beach Profile Network Sites" (2014) concluded that Federally designed shore protection projects that included engineered dunes protected landward structures. In the face of future storms, these provisions will allow communities to maintain protective beach and dune systems.

7:7-10.3 Standards applicable to emergency post-storm beach restoration

(a) This section on emergency post-storm beach restoration will apply to all beaches which are impacted by coastal storms with a recurrence interval equal to or exceeding a five-year storm event. Emergency post-storm beach restoration projects not specifically identified in this section may be authorized by the Department through an emergency authorization pursuant to N.J.A.C. 7:7-21 if the Department determines that there is an imminent threat to lives or property.

(b) Beach restoration activities, as part of an emergency post-storm recovery, include: the placement of clean fill material with grain size compatible with (or larger than) the existing beach material; the bulldozing of sand from the lower beach profile to the upper beach profile; the alongshore transfer of sand on a beach; the placement of concrete, rubble or rock; and the placement of sand filled geotextile bags or tubes.

(c) The emergency post-storm beach restoration activities in (b) above should be designed and implemented as a means to restore the beaches to the pre-storm condition, or to restore the beaches to a level sufficient to provide protection from a storm event with a minimum recurrence interval of five years (five-year storm protection). For the purpose of this section, five-year storm protection equates to a minimum 30-foot wide berm at elevation +8 Mean Sea Level (NAD,

1983). Restoration beyond the pre-storm beach condition is encouraged by the Department, but will not be considered "emergency post-storm beach restoration," pursuant to this section.

(d) The bulldozing of sand from the lower beach profile to the upper beach profile, as part of an emergency post-storm beach restoration plan, is acceptable, in accordance with the following standards:

1. Bulldozing is limited to the beach area landward of the low water line. Removal of material from below the low water line is considered dredging, and is not authorized pursuant to this section; and
2. The beach face cannot be graded to a slope steeper than one vertical to three horizontal.

(e) The alongshore transfer of sand from one beach area to another, as part of an emergency post-storm beach restoration plan, is acceptable, in accordance with the following standards:

1. No disturbance to existing dune areas is permitted;
2. Sand borrow areas shall not be bulldozed to a depth which exceeds one foot;
3. The borrow areas may not be rescarped until full sand volume recovery has occurred; and
4. An adequate supply of sand is available at the borrow area site, so that the relocation of this material will not decrease the level of protection adjacent to the borrow area.

(f) The placement of sand filled geotextile bags or geotubes, as part of an emergency post-storm beach restoration plan, is acceptable, in accordance with the following standards:

1. In areas where dunes are present, the geotextile bags or geotubes shall be placed along the toe of any scarped dune, or seaward of the dune toe, and not on the dune itself;
2. In areas where dunes are not present, the geotextile bags or geotubes shall be placed at the landward limit of the beach and in no case be placed below the mean high water line;
3. The geotextile bags or geotubes shall be tapered at the end of the project area, to minimize the impact to adjacent areas which are not protected by the geotextile bags or geotubes;
4. The crest and seaward side of the geotubes shall be buried to achieve a gradual, uniform slope from the upper beach to the crest of the geotextile bag or geotube;
5. The length of shoreline along which the geotextile bags or geotubes are installed shall not exceed a cumulative length of 500 feet;
6. Fill material for the geotextile bags or geotubes shall be from an upland source excluding the beach and dune or from suitable dredged material;
7. The geotextile bag or geotube shall be installed parallel to the shoreline; and
8. The geotextile bag or geotube shall be installed with the manufacturer's recommended scour apron.

(g) The placement of sand, gravel, rubble, concrete, rock or other inert material, as part of an emergency post-storm beach restoration plan, is acceptable, in accordance with the following standards:

1. All material shall be non-toxic sand, gravel, concrete, rubble, rock, or other inert material;
2. The placement of concrete, rubble, or rock shall be temporary in nature, and is not to be used as permanent protection, unless it is part of a Department-approved, engineered design for permanent shore protection;
3. All concrete, rubble, or rock placed on the beach shall be removed within 90 calendar days, unless an application is filed within 90 calendar days of the placement of the material for Department approval of an engineered design for permanent shore protection. If a permit application is filed within this period, the material may remain on the beach until a determination is made on the application; and
4. The use of automobiles, tires, wood debris, asphalt, appliances or other solid waste is prohibited.

(h) Rationale: Damage to beach and dune systems during storm events has the potential to leave communities vulnerable to subsequent storms. The above standards are intended to facilitate emergency beach restoration activities to stabilize beaches eroded by storm damage. The best method depends upon the extent of damage, the urgency of the situation, and the likely permanent solution. Different materials are appropriate for different locations. This rule promotes the Department's longstanding policy of the beneficial reuse of dredged material by allowing dredged material to be used as fill material in appropriate circumstances.

7:7-10.4 Standards applicable to dune creation and maintenance

(a) Dune creation and maintenance includes the placement and/or repair of sand fencing (including wooden support posts), the planting and fertilization of appropriate dune vegetation, the maintenance and clearing of beach access pathways less than eight feet in width, and the construction or repair of approved dune walkover structures. Bulldozing, excavation, grading, vegetation removal or clearing, and relocation of existing dunes are not authorized pursuant to this section.

(b) All dune creation and maintenance activities should be conducted in accordance with the specifications found in Guidelines and Recommendations for Coastal Dune Restoration and Creation Projects (DEP, 1985), and/or Restoration of Sand Dunes Along the Mid-Atlantic Coast (Soil Conservation Service, 1992). The Department will provide site specific technical assistance for dune creation and maintenance projects, upon request.

(c) All proposed dune vegetation shall be native to New Jersey and should be limited to the following coastal species, to the maximum extent practicable: American Beachgrass (*Ammophila breviligulata*), Coastal Panicgrass (*Panicum amarulum*), Bayberry (*Myrica pensylvanica*), Beach

Plum (*Prunus maritima*), Seaside Goldenrod (*Solidago sempervirens*), Beach Pea (*Lathyrus japonicus*), Bitter Panicgrass (*Panicum amarum*), Switchgrass (*Panicum virgatum*), Partridge Pea (*Chamaecrista fasiculata*), Eastern red cedar (*Juniperus virginiana*), Groundsel tree (*Baccharis halimifolia*), and Saltmeadow cordgrass (*Spartina patens*).

1. American beachgrass is the preferred species for the stabilization of newly established dunes, and for stabilization of the primary frontal dune. Woody plant species are suitable for back dune and secondary dune environments. Herbaceous plant species are preferred as supplemental plantings for all dune areas.
2. Dune vegetation should be diversified to the maximum extent practicable, in an effort to provide continuous stabilization in the event that pathogens reduce or eliminate the effectiveness of one species. A complex of associated grasses, herbaceous species and woody species is preferred to the planting of one species.
3. A landscape plan is required as part of any dune creation activity. The landscape plan shall depict the proposed vegetative community on the dune and include:
   i. Species and quantity to be planted;
   ii. Spacing of all plantings;
   iii. Stock type (plugs, potted, seed); and
   iv. Source of the plant material.

(d) The construction of elevated timber dune walkover structures shall be in accordance with the standards and specifications (or similar specifications) described in Beach Dune Walkover Structures (Florida Sea Grant, 1981). The construction of elevated dune walkover structures, particularly at municipal street-ends and other heavily used beach access points is preferred to the construction of pathways or walkways through the dunes.

1. Copies of the DEP and Florida Sea Grant reports are available from the Department at the address set forth at N.J.A.C. 7:7-1.6.

(e) The construction of at-grade dune walkovers at single family homes and duplexes shall comply with the following:

1. Only one walkover per site is allowed;
2. The width of the walkover does not exceed four feet;
3. The walkover is fenced on both sides through the use of sand fencing, split rail fencing, or open handrails, unless prohibited by the municipality; and
4. Any grading or excavation associated with the installation of the walkover does not result in the lowering of the beach or dune below design specifications.

(f) The construction of at-grade dune walkovers at developments other than a single-family home and duplex shall comply with the following:

1. Only one walkover per site, unless:
   - i The New Jersey 2012 High Resolution Orthophotography available for download https://njgin.state.nj.us/NJ_NJGINExplorer/DataDownloads.jsp, reflects that more than one walkover was present on the site on the date depicted in the image. In such case, the maximum number of walkovers that may be installed shall be equal to the number of walkovers reflected on the 2012 photo-imagery; or
   - ii. It is demonstrated that more than one walkover is necessary to adequately provide access from the development. In determining whether more than one walkover is necessary, factors considered by the Department will include the following:
     - (1) The number of persons to be served by the development during normal and peak usage times;
     - (2) The length of the dune/beach frontage on the site;
     - (3) The distribution of the development on the site (for example, for a site with 1,000 feet of dune/beach frontage, is there one centrally located structure with a central entrance from which residents/patrons will be accessing the walkover, or are there several buildings spread along the beach frontage with multiple entrances on the beach side of the structures); and
     - (4) The proximity of the nearest alternative public access to the beach;
2. For non-commercial properties, the width of the at-grade walkover structure does not exceed six feet and the total width of the at-grade walkover, fencing, and/or edging not to exceed eight feet;
3. For commercial properties, the width of the at-grade walkover structure does not exceed 10 feet and the total width of the at-grade walkover, fencing, and/or edging not to exceed 12 feet;
4. Any grading or excavation associated with the installation of the walkover does not result in the lowering of the beach or dune below design specifications; and
5. The walkover is fenced on both sides through the use of sand fencing, split rail fencing, or open handrails, unless prohibited by the municipality.

(g) The controlled use of discarded natural Christmas trees for the purpose of dune stabilization is generally discouraged, but may be acceptable, in accordance with the standards set forth below. Discarded Christmas trees serve the same function as sand fencing, by trapping wind blown sand and facilitating sand deposition and dune formation. However, uncontrolled or inappropriate placement of trees will hinder the development of dunes and may present a fire hazard.

1. Only natural, coniferous trees are suitable for use in dune stabilization. The use of tree limbs, clippings, artificial trees, and other dead vegetation is prohibited;
2. Trees should be placed at least 100 feet landward of the high water line, in areas which are generally not subject to spring tidal inundation and wave swash action;

3. The placement of trees should be oriented against the prevailing winds, in either a straight line or zig-zag formation;
4. The trees should be installed by overlapping the stump end of one tree with the pointed end of another, and then anchoring the connection point with a sufficient amount of sand to hold the trees in place;
5. Newly placed trees should be monitored to ensure that the trees remain anchored and do not become dislodged. Additional quantities of sand or wooden anchor stakes may be used to hold the trees in place until they become stabilized; and
6. All newly deposited sand should be stabilized through the planting of beachgrass, during the appropriate planting season.

(h) Rationale: Barone, McKenna, and Farrell in their paper Hurricane Sandy: Beach-dune performance at New Jersey Beach Profile Network sites (2014) concluded that the presence of maintained Federally designed beach nourishment projects including engineered dunes played a significant role in protecting landward structures and infrastructure as the projects absorbed the impacts of the storm waters. This rule is intended to facilitate the creation and maintenance of dunes for shore protection and ecological benefit. This rule is intended to facilitate the creation and maintenance of dunes for shore protection and ecological benefit, while continuing to allow and encourage appropriate public access to the State's beaches. To achieve these goals, the rule provides predictable, science-based standards for dune creation and maintenance, as well as dune walkover design. The rule also identifies appropriate dune vegetation; planting dunes with a diversity of native vegetation increases stability, reduces dune erosion, and provides high-quality habitat for wildlife. While the use of natural Christmas trees for dune stabilization is discouraged, in order to provide appropriate flexibility in dune creation and maintenance activities, the rule allows their use in certain circumstances provided stringent standards are met.

Dune walkovers create designated areas for people to cross over dunes to reach the beach and ocean. Their presence helps prevent degradation of dunes that could otherwise occur if people routinely walked across the dunes at random locations and also promotes public access to the shore. However, these walkovers must be properly designed and constructed to minimize any impact to the dunes themselves. The number of walkovers in any given area must also be limited to preserve the integrity of the vegetated dune system.

7:7-10.5 Standards applicable to the construction of boardwalks

(a) The construction of oceanfront or bayfront boardwalks should address a number of engineering concerns related to structural support, resistance to vertical and horizontal water and wind loads, and scouring. The construction of boardwalks along tidal shoreline is acceptable, in accordance with the following standards:

1. All timber support piles shall be a minimum of eight inches in diameter;
2. Support piles should be driven to a depth of at least 10 feet (mean sea level), for all V zone locations. In A zones, the depth of penetration should be at least five feet (mean sea level);

3. The method for insertion of piles should be a pile driver or drop hammer;
4. All support joists and timber connections should be anchored through the use of hurricane clips or metal plates; and
5. All metal fasteners, including but not limited to bolts, screws, plates, clips, anchors and connectors, shall be hot dipped galvanized.

(b) Rationale: Boardwalks are an important feature of New Jersey's coastal landscape and provide the public with opportunities to visually access the waterfront. The rule conditionally allows boardwalks to be constructed if such construction meets specific requirements to ensure the structure can withstand the conditions of the site on which it is constructed.

SUBCHAPTER 11. STANDARDS FOR CONDUCTING AND REPORTING THE RESULTS OF AN ENDANGERED OR THREATENED WILDLIFE OR PLANT SPECIES HABITAT IMPACT ASSESSMENT AND/OR ENDANGERED OR THREATENED WILDLIFE SPECIES HABITAT EVALUATION

7:7-11.1 Purpose and scope

(a) This subchapter sets forth the standards for conducting an endangered or threatened wildlife or plant species habitat impact assessment and for conducting an endangered or threatened wildlife species habitat evaluation. One or both must be employed by an applicant seeking to demonstrate compliance with or inapplicability of N.J.A.C. 7:7-9.36 when the site contains or abuts areas mapped as endangered or threatened wildlife species habitat on the Landscape Maps. This subchapter also sets forth the standards for reporting the results of an endangered or threatened wildlife or plant species habitat impact assessment and an endangered or threatened wildlife species habitat evaluation.

(b) An endangered or threatened wildlife or plant species habitat impact assessment is required to demonstrate that endangered or threatened wildlife or plant species habitat as defined at N.J.A.C. 7:7-9.36(a) would not, directly or through secondary impacts on the relevant site or in the surrounding area, be adversely affected by the proposed development. The standards for conducting an impact assessment pursuant to N.J.A.C. 7:7-9.36(b), (d), and (e) are found at N.J.A.C. 7:7-11.2.

(c) Pursuant to N.J.A.C. 7:7-9.36(c), an endangered or threatened wildlife species habitat evaluation is required to demonstrate that a site does not contain suitable endangered or threatened wildlife or plant species habitat, as defined at N.J.A.C. 7:7-9.36(a). The standards for conducting an evaluation are found at N.J.A.C. 7:7-11.3.

(d) The reporting requirements for habitat evaluations and impact assessments are found at N.J.A.C.7:7-11.4.

(e) Rationale: Endangered and threatened wildlife and plant species habitat is considered a special area under N.J.A.C. 7:7-9.36. Applicants, therefore, must demonstrate compliance with the standards in N.J.A.C. 7:7-9.36 through the preparation of an impact assessment and/or a habitat evaluation to ensure essential habitat for endangered and threatened wildlife and plant species is not negatively impacted by a proposed regulated activity.

7:7-11.2 Standards for conducting endangered or threatened wildlife or plant species habitat impact assessment

(a) Applicants who choose not to dispute the Department designation of the site as endangered or threatened wildlife species habitat-shall demonstrate compliance with N.J.A.C. 7:7-9.36(b) by providing information required at this section and N.J.A.C. 7:7-11.4. The required information shall demonstrate that the proposed development will not negatively affect the population(s) or habitat of endangered or threatened wildlife species that resulted in identification of the site, or an area abutting the site, as endangered or threatened wildlife species habitat in accordance with N.J.A.C. 7:7-9.36(a) and/or (d).

(b) If an endangered or threatened plant species has been documented to be on the site or a portion of the site or an area abutting the site, applicants shall demonstrate compliance with N.J.A.C. 7:7-9.36(b) by providing information required at this section and N.J.A.C. 7:7-11.4. The required information shall demonstrate that the proposed development will not negatively affect the population(s) or habitat of endangered or threatened plant species documented to be on the site or a portion of the site or on an area abutting the site.

(c) Impact assessments shall be conducted for each endangered or threatened wildlife or plant species described in (a) and/or (b) above. The impact assessment shall consider the likely effects of the proposed development on the local populations of the particular species on or abutting the site. The impacts shall be assessed using accepted ecological principles and scientific literature on each species and both direct and indirect impacts of the proposed development shall be considered. This assessment shall be based on habitat requirements and life history of each species, and the manner in which the proposed development may alter habitat, including, but not limited to, vegetation, soils, substrate, bathymetry, salinity, hydrology, wildlife movement corridors, human disturbance, and effects on competitor, parasite, or predator species.

(d) Rationale: When an applicant proposes a regulated activity on a site that contains or abuts areas mapped as endangered or threatened wildlife species habitat on the Landscape Maps, or in an area that otherwise meets the definition of endangered or threatened wildlife or plant species habitat as set forth in N.J.A.C. 7:7-9.26(a), the applicant must demonstrate that the proposed activity will comply with N.J.AC. 7:7-9.36, Endangered or threatened wildlife or plant species habitat. An impact assessment is prepared in cases where the applicant does not dispute the Department's designation of the site as endangered or threatened wildlife or plant species habitat. Scientific evidence must be provided to demonstrate that the proposed development would not negatively impact the population(s) of each endangered or threatened wildlife and/or plant

species documented on the site. Direct and indirect impacts must be considered in order to ensure compliance with N.J.A.C. 7:7-9.36.

7:7-11.3 Standards for conducting endangered or threatened wildlife species habitat evaluation

(a) Applicants who dispute the Department designation of the site as endangered or threatened wildlife species habitat, or dispute the boundary of that habitat-shall provide information that demonstrates that the habitat is not suitable for each of the endangered or threatened wildlife species that resulted in identification of the site, a portion of the site, or an area abutting the site, as endangered or threatened wildlife species habitat in accordance with N.J.A.C. 7:7-9.36(a) and/or (d).

(b) Habitat evaluations for endangered or threatened wildlife species pursuant to N.J.A.C. 7:7-9.36(c) shall be conducted for each wildlife species described in (a) above. This habitat evaluation shall:

1. Use scientific methodology appropriate for each species or species group;
2. Examine specific attributes and characteristics of the site that limit or eliminate its suitability as habitat, including, but not limited to, an examination of vegetative cover, soils, hydrology, existing land use and any other factors that are used to determine suitability of a site for the species. The site's vegetative analysis shall include an on-site investigation and evaluation; and
3. Include an examination of the area surrounding the site using aerial photographs and/or appropriate cover maps.

(c) A survey for the endangered or threatened wildlife species that resulted in identification of the site, a portion of the site, or an area abutting the site, as endangered or threatened wildlife species habitat in accordance with N.J.A.C. 7:7-9.36(a) and/or (d), will only be considered in the context of supplementing information on habitat suitability. If such a survey is conducted, it shall be conducted consistent with techniques established in the scientific literature.

(d) Rationale: While the Landscape Maps and other Department tools used to designate endangered or threatened wildlife or plant species habitat are backed by sound science, in certain cases the Department's designation of an area as habitat for an endangered or threatened wildlife or plant species is erroneous. For example, site conditions may have changed in a way that can no longer support the species in question. Thus, the Department permits applicants who dispute the Department's designation of a site as threatened or endangered species habitat to submit a habitat evaluation supporting that assertion. Requiring a rigorous habitat evaluation allows the Department to reconsider its designation of the site using the most up-to-date information.

7:7-11.4 Standards for reporting the results of impact assessments and habitat evaluations

(a) All habitat evaluations and impact assessments submitted to the Department shall include:

1. An introduction describing the goals of the habitat evaluation and/or impact assessment;
2. A copy of the USGS quad map(s) showing the location of the site, with the State plane coordinates of the site. The accuracy of these coordinates shall be within 50 feet of the actual center point of the site. For linear sites, 2,000 feet in length and longer, additional coordinates shall be provided at each 1,000 foot interval;
3. The lot, block, municipality and county in which the site is located;
4. For wildlife habitat evaluations and impacts assessments only, a map identifying the site, and the areas mapped as endangered or threatened wildlife species habitat on the Landscape Maps onsite and abutting the site, along with a list of the endangered or threatened species that resulted in the mapping of endangered or threatened species habitat;
5. For impact assessments for plant species only, a map identifying the location of the species habitat on the site or abutting the site along with a list of the potential plant species from the Department's Natural Heritage Database;
6. A description of the habitat requirements for each of these species identified at (a)4 and/or 5 above, including appropriate literature citations; and
7. The names and qualifications of all investigators who performed habitat evaluations, species surveys, and/or impact assessments.

(b) Wildlife habitat evaluations shall include a narrative with supporting documentation, including maps, photographs, and field logs, which contains the following:

1. A description, for each species, of the findings of the habitat evaluation performed in accordance with N.J.A.C. 7:7-11.3;
2. If a survey was conducted in accordance with N.J.A.C. 7:7-11.3(c), literature citations for the methodology used and a description of how the methodology was applied to the survey, giving the following information: surveyor's name(s), dates and times surveys were performed, number of samples, and number of replications. This information shall be provided for each species surveyed; and
3. A comparison of the findings of the habitat evaluation with the known habitat requirements for each species, as provided at (a)6 above, and a description of the specific attributes and characteristics of the site that limit or eliminate the site's suitability as habitat.

(c) Impact assessments shall include a narrative-with supporting documentation, such as maps and photographs, which contains the following:

1. A description for each species, of how the proposed development will alter habitat, including vegetation, soils, hydrology, human disturbance, and effects on competitor, parasite, or predator species. The impact assessment shall describe the likely effects of the proposed development on the local populations of the particular species on or

abutting the site and why the development would not directly or through secondary impacts adversely affect each endangered or threatened species habitat; and

2. Literature citations used to reach the conclusions in (c)1 above.

(d) Rationale: Standard reporting requirements ensure that the Department can accurately determine whether a proposed activity would impact threatened or endangered wildlife or plant species and allow the Department to determine if an area regulated as threatened or endangered wildlife or plant species habitat should continue to be regulated as such. Certain specific requirements apply depending on whether the species in question is an animal or plant species because endangered and threatened wildlife species habitat is identified on Landscape Maps while endangered or threatened plant species habitat is identified using the Natural Heritage Database. Requiring the names and qualifications of all investigators involved ensures that only information from qualified professionals will be considered by the Department.

SUBCHAPTER 12. GENERAL WATER AREAS

7:7-12.1 Purpose and scope

(a) General water areas are all water areas which are located below either the spring high water line or the normal water level of non-tidal waters. General water areas are subject to this subchapter and to special area rules.

(b) General water areas are divided by volume and flushing rate into eight categories as described below:

1. "Atlantic Ocean" includes the area of the Atlantic Ocean that extends out to the three geographical mile limit of the New Jersey territorial sea and is bounded by the boundaries of New York and Delaware~~.~~
2. "Lakes, ponds and reservoirs" are relatively small water bodies with no tidal influence or salinity. Many are groundwater fed, while others serve as surface aquifer recharge areas. Lakes that are the result of former mining operations are not included in this definition, but are defined at N.J.A.C. 7:7-9.14, Wet borrow pits.
3. "Large rivers" are waterways with watersheds greater than 1,000 square miles. Large Rivers are limited to the Delaware, Hudson and Raritan Rivers.
    i. The Delaware River is a tidal river from the Bridge Street Bridge in Trenton to its mouth at Delaware Bay, defined as a line between Alder Cover, Lower Alloways Creek Township and the Delaware River Basin Commission River and Bay Memorial at Liston Point, Delaware.
    ii. The Hudson River is a tidal river from the New York State Line to its mouth at Upper New York Bay at the Morris Canal, Jersey City.

iii. The Raritan River is a tidal river from a point approximately 1.1 miles upstream from the Landing Lane Bridge between Piscataway and Franklin Townships to its mouth at Raritan Bay and the Arthur Kill.

4. "Man-made harbors" are semi-enclosed or protected water areas which have been developed for boat mooring or docking.
5. "Medium rivers, creeks, and streams" are rivers, streams, and creeks with a watershed of less than 1,000 square miles. This definition includes waterways such as the Hackensack, Passaic, Oldmans, Big Timber, Pennsauken, Navesink, Manasquan, Toms, Wading, Mullica, Great Egg, Maurice, Cohansey, Salem, and Rancocas.
6. "Open bays" are large, semi-confined estuaries with a wide unrestricted inlet to the ocean and with a major river mouth discharging directly into the upper portion. Open bays are limited to the Delaware Bay, Raritan Bay, Sandy Hook Bay, and Upper New York Bay.
7. "Semi-enclosed and back bays" are a partially confined estuary with direct inlet connection and some inflow of freshwater. Semi-enclosed bays differ from back bays in depth, degree of restriction of inlet and level of freshwater flow.
8. "Tidal guts" are the waterway connections between two estuarine bodies of water. Also known as thorofares or canals, tidal guts control the mix of salt and freshwater. Examples include the Arthur Kill and Kill Van Kull.

(c) N.J.A.C. 7:7-12.2 through 12.24 set forth the requirements for specific types of development within general water areas as defined at (a) above. In many cases an area already identified as a special area will also fall within the definition of a general area. In these cases, both general and special area rules apply. In case of conflict between general and special area rules, the more specific special area rules shall apply.

7:7-12.2 Shellfish aquaculture

(a) Shellfish aquaculture means the propagation, rearing, and subsequent harvesting of shellfish in controlled or selected environments, and the processing, packaging and marketing of the harvested shellfish. Shellfish aquaculture includes activities that intervene in the rearing process to increase production such as stocking, feeding, transplanting, and providing for protection from predators. For the purposes of this section, shellfish means any species of benthic mollusks including hard clams (*Mercenaria mercenaria*), soft clams (*Mya arenaria*), surf clams (*Spisula solidissma*), bay scallops (*Aequipectin irradians*), and oysters (*Crassostrea virginica*). Shellfish shall not include conch, specifically, knobbed whelks (*Busycon carica*), lightning whelks (*Busycon contrarium*), and channeled whelks (*Busycotypus canaliculatus*).

(b) Shellfish aquaculture is encouraged in all general water areas as defined at N.J.A.C. 7:7-12.1, provided the activity:

1. Does not unreasonably conflict with other marine uses;
2. Does not cause adverse environmental impacts; and

3. Does not present a hazard to navigation. A hazard to navigation includes all potential impediments to navigation, including access to adjacent moorings, water areas and docks and piers;
4. Does not prevent the catching and taking of free swimming fish from the tidal waters of the State in any lawful manner, in accordance with N.J.S.A. 50:1-33; and
5. Is located in an area for which the person conducting the activity holds a valid shellfish lease pursuant to N.J.S.A. 50:1-23.

(c) Upon expiration or termination of a shellfish lease, or the cessation of aquaculture activities, whichever occurs first, the permittee shall within five days remove all structures relating to the aquaculture activity placed within the lease area.

(d) Rationale: Aquaculture is a means of food production which can be at least as efficient as land-based agriculture. It is, therefore, encouraged provided that it does not unreasonably affect the coastal recreational economy, the coastal ecosystem or navigation. Aquaculture is considered one the fastest growing food-producing sectors and in 2011, it accounted for nearly 50 percent of the worldwide production of aquatic food products. In 2011, there were 189 shellfish leaseholders who held 775 individual leases which occupied 2,154 acres and 30,137 linear feet of bottom in New Jersey's Atlantic coastal bays and rivers. Additionally, there were 86 leaseholders who held 920 shellfish leases occupying 32,124 acres in Delaware Bay. The predominant species of shellfish produced are hard clams and oysters. Shellfish aquaculture is vital to the economy in the coastal communities of New Jersey as it was worth $4.50 million dockside in 2007 (USDA 2008) for hard clams and oysters. In addition, New Jersey shellfish are shipped throughout the United States and sold at retail locally.

7:7-12.3 Boat ramps

(a) Boat ramps are inclined planes, extending from the land into a water body for the purpose of launching a boat into the water until the water depth is sufficient to allow the boat to float. Boat ramps are most frequently constructed of asphalt, concrete or crushed shell.

(b) Boat ramps are conditionally acceptable provided:

1. There is a demonstrated need that cannot be met by existing facilities;
2. They cause minimal practicable disturbance to intertidal flats or subaqueous vegetation;
3. Boat ramps shall be constructed of environmentally acceptable material, such as concrete or oyster shells; and
4. Garbage cans are provided near the boat ramp.

(c) Public use ramps shall have priority over restricted use and private ramps.

(d) Rationale: Boat ramps serve owners of small boats, and are important to the coastal recreational economy. Therefore, they are permitted provided that they are constructed in an environmentally sensitive manner.

7:7-12.4 Docks and piers for cargo and commercial fisheries

(a) Docks and piers for cargo and passenger movement and commercial fisheries are structures supported on pilings driven into the bottom substrate or floating on the water surface, used for loading and unloading passengers or cargo, including fluids, connected to or associated with, a single industrial or manufacturing facility or to commercial fishing facilities.

(b) Docks and piers for cargo and passenger movement and commercial fisheries are conditionally acceptable provided:

1. The width and length of the dock or pier is limited to only what is necessary for the proposed use;
2. The dock or pier will not pose a hazard to navigation. A hazard to navigation includes all potential impediments to navigation, including access to adjacent moorings, water areas and docks and piers; and
3. The associated use of the adjacent land meets all applicable rules of this chapter.

(c) The standards for port uses are found at N.J.A.C. 7:7-15.9. The standards for the construction of a dock or pier composed of fill and retaining structures are found at N.J.A.C. 7:7-12.11.

(d) Rationale: Water dependent industry and commercial fishing are important components of New Jersey's economy. Docks and piers for these purposes are conditionally acceptable provided they will not interfere with navigation, and that the associated facility is consistent with this chapter.

7:7-12.5 Recreational docks and piers

(a) Recreational and fishing docks and piers are structures supported on pilings driven into the bottom substrate, or floating on the water surface or cantilevered over the water, which are used for recreational fishing or for the mooring of boats or jet skis used for recreation or fishing, except for commercial fishing, and house boats.

(b) Recreational docks and piers, including jet ski ramps**,** and mooring piles, are conditionally acceptable provided:

1. There is a demonstrated need that cannot be satisfied by existing facilities;
2. The construction minimizes adverse environmental impact to the maximum extent feasible;

3. The docks and piers and their associated mooring piles are located so as to not conflict with overhead transmission lines;
4. There is minimum feasible interruption of natural water flow patterns;
5. If the dock, pier, or boat mooring is associated with a lot that has frontage on both a man-made lagoon and a natural waterway, the dock, pier, or boat mooring shall be located on the man-made lagoon, unless locating the dock, pier, or boat mooring on the lagoon would not otherwise comply with this section or any other provisions of this chapter;
6. Space between horizontal planking is maximized and width of horizontal planking is minimized to the maximum extent practicable. Under normal circumstances, a minimum of 3/8 inch, 1/2 inch, 3/4 inch, or one inch space is to be provided for four inch, six inch, eight to 10 inch, or 12 inch plus wide planks, respectively. The Department may consider an alternative dock design that allows sunlight penetration equal or greater than that allowed by the spacing of planking described in this paragraph. Alternative designs include, for example, grate decking that is constructed of metal, wood, aluminum, or other similar materials that allow sunlight penetration through the grates within the dock or pier;
7. The width of the structure shall not exceed twice the clearance between the structure and the surface of the ground below or the water surface at mean high tide (measured from the bottom of the stringers), except for floating docks whose width shall not exceed eight feet. Under typical circumstances**,** the maximum width of the structure shall be eight feet over water and six feet over wetlands and intertidal flats, except as noted at (b)7iii below. For the purposes of this section, an intertidal flat is a low lying strip of land along a shoreline located between spring high and spring low tides. The height of the structure over wetlands shall be a minimum of four feet regardless of width;
    i. A minimum of eight feet of open water shall be provided between any docks if the combined width of the docks over the water exceeds eight feet;
    ii. Construction and placement of the dock shall be a minimum of four feet from all property lines, for docks which are perpendicular to the adjacent bulkhead or shoreline; and
    iii. In man-made lagoons only, the maximum width of the structure shall be eight feet over water and six feet over wetlands; The height of the structure over wetlands shall be a minimum of four feet;
8. In man-made lagoons only, the structure extends no more than 20 percent of the width of the lagoon from bank to bank; and
9. The proposed structure and associated mooring piles do not hinder navigation or access to adjacent water areas. A hazard to navigation will apply to all potential impediments to navigation, including access to adjacent moorings, water areas and docks and piers; and
10. Photocell lights and reflectors shall be placed along the dock and on mooring piles starting from a point that is 50 feet outshore of the mean high water line to the end of the

dock at 10-foot intervals. The lights shall be installed and operational within 72 hours of completion of construction.

(c) The construction of recreational docks and piers within areas designated by the Department as shellfish habitat shall comply with the standards specified under the shellfish habitat rule, N.J.A.C. 7:7-9.2.

(d) The construction of recreational docks and piers within submerged vegetation areas shall comply with the standards specified under the submerged vegetation rule, N.J.A.C. 7:7-9.6.

(e) For sites which have existing dock or pier structures exceeding eight feet in width over water areas and/or wetlands, which were constructed prior to September 1978 and for which the applicant proposes to increase the coverage over the water area or wetland by relocating or increasing the number or size of docks or piers, the existing oversized structures must be reduced to a maximum of eight feet in width over water areas and six feet in width over wetlands and intertidal flats. All structures proposed as part of an expansion must comply with all of the applicable rules of this chapter.

(f) The construction of covered or enclosed structures such as gazebos or sheds located on or above the decking of recreational docks and piers is prohibited except on public piers owned and controlled by a public agency.

(g) Rationale: Docks and piers constructed through filling would permanently destroy most ecological value of the area filled and are consequently discouraged. Docks and piers constructed in water with insufficient water depth causes increased turbidity resulting in an adverse impact to special areas and water quality. Docks and piers that maximize sunlight penetration into the water and onto the bottom allow the continuation of photosynthesis by plants underneath the structure. Spaced planking helps protect loosening of boards during high water levels and wave slap from underneath. In cases where it is demonstrated that the width of the dock must exceed eight feet (for example, fishing piers), the dock or pier shall be sized so as to accommodate anticipated use, while minimizing impacts to special areas by reducing the width of the structure over intertidal and subtidal shallows and wetlands, and by increasing the height of the structure over these special areas consistent with the requirements for public safety.

Docks and piers built on pilings will undergo ice heaving, frequently leading to structural damage, during thick ice conditions in areas with significant tidal action. Normal length pilings need to be resunk annually due to ice raising unless some type of water circulation system is installed or ice is broken up daily. Floating docks need to be removed before winter and bottom floatation needs to be serviced annually. Cantilevered docks at a height above winter ice and tidal action levels do not have these problems but have limits in load bearing capacity and must be fastened to a bulkhead.

Jet skis have been gaining popularity among New Jersey's boating public. Jet ski ramps which can accommodate the "dry" docking of these vehicles can be designed to satisfy the needs of the public while minimizing adverse impacts to the environment.

7:7-12.6 Maintenance dredging

(a) Maintenance dredging is the periodic removal of accumulated sediment from previously legally dredged navigation and access channels, marinas, lagoons, canals, or boat moorings for the purpose of safe navigation.

1. For a project to be considered maintenance dredging, the applicant shall demonstrate through historical data, including, but not limited to, previously issued dredging permits, previous dredging contracts, historic bathymetric surveys, and/or aerial photography that:
   i. The proposed dredge area is limited to the same length and width as a previous dredging operation;
   ii. The proposed water depth is the same as a previous dredging operation or as historical water depths within the proposed dredge area; and
   iii. The proposed dredge area has historically been used for navigation or mooring of vessels requiring the proposed water depth

(b) Maintenance dredging and the management of the dredged material shall be conducted in accordance with Appendix G.

(c) Maintenance dredging is conditionally acceptable to the authorized depth, length, and width within all general water areas to ensure that adequate water depth is available for safe navigation, provided:

1. An acceptable dredged material placement site, with sufficient capacity will be used (see N.J.A.C. 7:7-12.9, Dredged material disposal in water areas, N.J.A.C. 7:7-15.12, Dredged material placement on land, and Appendix G). The Department will make an acceptable use determination for the beneficial use of dredged material in accordance with Appendix G;
2. Pre-dredging chemical and physical analysis of the dredged material, including water quality predictive analyses for surface water and ground water may be required where the Department suspects contamination of sediments. Additional testing, such as bioaccumulation and bioassay testing of sediments, may also be required as needed to determine the acceptability of the proposed placement site for the dredged material. The results of these tests will be used to determine if contaminants may be resuspended at the dredging site and what methods may be needed to control their escape. The results will also be used to determine acceptability of the proposed dredged material placement method and site;
3. Turbidity concentrations (that is, suspended sediments) and other water quality parameters at, downstream, and upstream of the dredging site, and discharges from dredged material management areas (see N.J.A.C. 7:7-9.49) shall meet applicable Surface Water Quality Standards at N.J.A.C. 7:9B. The Department may require the permittee to conduct biological, physical**,** and chemical water quality monitoring before, during, and after dredging and disposal operations to ensure that water quality standards are not exceeded;

4. If predicted water quality parameters are likely to exceed Surface Water Quality Standards at N.J.A.C. 7:9B, or Ground Water Quality Standards at N.J.A.C. 7:9C, or if pre-dredging chemical analysis of dredged material, including surface or ground water quality predictive analyses, reveals significant contamination, the Department will work cooperatively with the applicant to fashion acceptable control measures and will impose seasonal restrictions under specific circumstances identified at (c)7 below;
5. For mechanical dredges, deploying silt curtains at the dredging site may be required, if feasible based on site conditions as provided in Appendix G. Where the use of silt curtains is infeasible, dredging using closed watertight buckets or lateral digging buckets may be required. The Department may also require the use of additional best management practices when highly contaminated sediments are to be dredged in accordance with Appendix G;
6. For hydraulic dredges**,** specific operational procedures designed to minimize water quality impacts, such as removal of the cutter head, flushing of pipeline sections prior to disconnection, or limitations on depth of successive cuts**,** may be required;
7. The Department may authorize dredging on a seasonally restricted basis only, in waterways characterized by the following:
   i. Known spawning, wintering or nursery areas of shortnose sturgeon, winter flounder, Atlantic sturgeon, alewife, blueback herring, striped bass, white perch or blue crab;
   ii. Water bodies downstream of known anadromous fish spawning sites under N.J.A.C. 7:7-9.5, Finfish migratory pathways, where the predicted turbidity plume will encompass the entire cross-sectional area of the water body, thus forming a potential blockage to upstream migration;
   iii. Areas of contaminated sediments with high levels of fecal coliform and/or streptococcus bacteria, and/or hazardous substances adjacent to (upstream or downstream) State approved shellfishing waters and public or private bathing beaches; or
   iv. Areas within 1,000 meters or less of oyster beds as defined in N.J.A.C. 7:7-9.2; and
8. Maintenance dredging side slopes shall not be steeper than three vertical to one horizontal adjacent to wetlands to prevent undermining and/or sloughing of the wetlands.

(d) Reprofiling consists of the movement of sediments from a specific area of a berth or channel to a specific adjacent and deeper location, without removing the sediments from the water body. Reprofiling is prohibited in all water areas, except the New York-New Jersey Harbor Area of Region 1, as described in Appendix G, excluding the Raritan Bay and its tributaries east of the Cheesequake Creek, provided:

1. The applicant has demonstrated that there is no other available dredged material management alternative;
2. The project involves the movement of less than 5,000 cubic yards of material;

3. The depth of the sediments to be moved by the reprofiling operation is limited to three feet;
4. The adjacent deep water area into which the sediments will be moved has sufficient capacity to accommodate the relocated sediments in a stable manner, without interfering with the use of adjacent navigation channels or berths; and
5. The reprofiling is performed by dragging a steel beam or pipe across the berth and/or channel bottom, thereby leveling accumulated sediment to a uniform, specified depth. Alternative procedures will be considered only under special instances where the use of a drag bar is impractical due to limited space in the project area.

(e) Propwash dredging, which is the movement of sediment by resuspending accumulated material by scouring the bottom with boat propellers or specially designed equipment with propellers, is prohibited.

(f) Rationale: Maintenance dredging is necessary to provide for the safe navigation of State and Federal navigation channels and to provide access to marinas, docks, ports, and other appropriate water dependent development. Safe navigation is critical to the State's recreational and commercial boating industry and marine commerce. However, maintenance dredging must be carried out in such a way that special areas and other identified environmentally sensitive areas are not unnecessarily disturbed.

Potential water column impacts vary with each type of dredging method employed, that is, mechanical or hydraulic. Mechanical methods have been documented to release more suspended sediments at the dredging site than hydraulic methods. Hydraulic dredging causes greater mixing of sediments with water which is an important consideration when dredging contaminated sites, since slurry water is usually released into the water body.

Previously dredged areas typically accumulate black muds high in clay and silt, detritus, and other organics and, if sources are present, toxic heavy metals, petroleum, and chlorinated hydrocarbons. The majority of potentially toxic contaminants are closely bound to fine grained sediment particles and may or may not be available for uptake by aquatic organisms. Bioaccumulation testing is necessary to determine if there is contaminant uptake.

Presently available equipment and operational practices can contain or reduce off site movement of suspended particles. Efficiency and applicability of control equipment depends on hydrologic conditions at the site.

The information available on aquatic species responses and/or mortality due to dredge-induced water quality changes is incomplete. It is known however that egg and larval forms of aquatic biota are more sensitive than adult stages. American oyster eggs and larvae are known to be sensitive to turbidity levels and durations that typically occur at mechanical dredging sites. Turbidity is known to block upstream migration of striped bass. Turbidity may, therefore, block other anadromous species during spring upstream migration.

Little information exists on the resuspension of fecal bacteria in contaminated sediments. The potential exists that a dredging turbidity plume could carry fecal bacteria into harvestable shellfish beds or human bathing beaches. This may result in unacceptable human health hazards.

Aquatic finfish and blue crabs which winter in New Jersey's estuarine and tidal waters are lethargic at cold water temperatures. Large scale mechanical or hydraulic dredging could entrain and kill significant numbers, since they would not be able to evacuate a dredging area.

Reprofiling is generally prohibited under this chapter because it merely moves dredged material rather than removing it from the system. Ultimately, this material is likely to have to be removed, resulting in handling the material twice and increasing the impacts associated with the movement of the accumulated sediment. Reprofiling is acceptable under limited circumstances as an interim measure in the New York-New Jersey Harbor Area when other management techniques are unavailable, as it will allow existing maritime uses to continue operation while a more permanent solution is sought.

Propwash dredging is indiscriminate, releasing sediment into the water column with no control to minimize impacts on water quality, or control of the fate of the resuspended sediment. Sediment resuspended in this manner could smother shellfish beds, submerged vegetation habitats, and result in the loss of navigability in adjacent berths and channels. Thus propwash dredging is prohibited under these rules.

7:7-12.7 New dredging

(a) New dredging is the removal of sediment that does not meet the definition of maintenance dredging at N.J.A.C. 7:7-12.6 or the definition of environmental dredging at N.J.A.C. 7:7-12.8. The temporary or permanent displacement or removal of sediment for the purpose of installing submerged pipelines and cables is considered new dredging.

(b) New dredging and the management of the dredged material shall be conducted in accordance with Appendix G.

(c) New dredging is conditionally acceptable in all general water areas for boat moorings, navigation channels, anchorages, or submerged cable or pipelines provided:

1. There is a demonstrated need that cannot be satisfied by existing facilities;
2. The facilities served by the new dredging satisfy the location requirements for special water's edge areas;
3. The adjacent water areas are currently used for recreational boating, commercial fishing or marine commerce;
4. The dredge area causes no significant disturbance to special water or water's edge areas;
5. The adverse environmental impacts are minimized to the maximum extent feasible;
6. The dredge area is reduced to the minimum practical;

7. The maximum depth of the newly dredged area shall not exceed that of the connecting access or navigation channel necessary for vessel passage to the bay or ocean;
8. The new dredging will have no adverse impacts on groundwater resources;
9. No dredging shall occur within 10 feet of any wetlands. The proposed slope from this 10 foot buffer to the nearest edge of the dredged area shall not exceed three vertical to one horizontal; and
10. The new dredging shall be accomplished consistent with all of the following conditions, as appropriate to the dredging method:
    i. An acceptable dredged material placement site with sufficient capacity will be used. (See N.J.A.C. 7:7-12.9, Dredged material disposal in water areas, and N.J.A.C. 7:7-15.12, Dredged material placement on land.). The Department will make an acceptable use determination for the beneficial use of dredged material in accordance with Appendix G;
    ii. Pre-dredging chemical and physical analysis of the dredged material, including water quality predictive analyses for surface water and ground water may be required where the Department suspects contamination of sediments. Additional testing, such as bioaccumulation and bioassay testing of sediments, may also be required as needed to determine the acceptability of the proposed placement site for the dredged material. The results of these tests will be used to determine if contaminants may be resuspended at the dredging site and what methods may be needed to control their escape. The results will also be used to determine acceptability of the proposed dredged material placement method and site;
    iii. Turbidity concentrations (that is, suspended sediments) and other water quality parameters at, downstream, and upstream of the dredging site, and discharges from dredged material management areas (see N.J.A.C. 7:7-9.49) shall meet applicable Surface Water Quality Standards at N.J.A.C. 7:9B. The Department may require the permittee to conduct biological, physical**,** and chemical water quality monitoring before, during, and after dredging and disposal operations to ensure that water quality standards are not exceeded;
    iv. If predicted water quality parameters are likely to exceed Surface Water Quality Standards at N.J.A.C. 7:9B, or Ground Water Quality Standards at N.J.A.C. 7:9C, or if pre-dredging chemical analysis of dredged material, including surface water and ground water quality predictive analyses, reveals significant contamination, then the Department will work cooperatively with the applicant to fashion acceptable control measures and will impose seasonal restrictions under the specific circumstances identified at (b)10vii below;
    v. For new dredging using mechanical dredges deploying silt curtains at the dredging site may be required, if feasible based on site conditions as provided in Appendix G. Where the use of silt curtains is infeasible, dredging using closed watertight buckets or lateral digging buckets may be required. The Department may also require the

use of additional best management practices when highly contaminated sediments are to be dredged;

vi. For hydraulic dredges, specific operational procedures designed to minimize water quality impacts, such as removal of the cutter head, flushing of pipeline sections prior to disconnection, or limitations on depth of successive cuts, may be required;

vii. The Department may authorize dredging on a seasonally restricted basis only, in waterways characterized by the following:

(1) Known spawning, wintering or nursery areas of shortnose sturgeon, winter flounder, Atlantic sturgeon, alewife, blueback herring, striped bass or blue crab;

(2) Water bodies downstream of known anadromous fish spawning sites under N.J.A.C. 7:7-9.5, Finfish migratory pathways, where the predicted turbidity plume will encompass the entire cross-sectional area of the water body, thus forming a potential blockage to upstream migration;

(3) Areas of contaminated sediments with high levels of fecal coliform and/or streptococcus bacteria, and/or hazardous substances adjacent to (upstream or downstream) State approved shellfishing waters and public or private bathing beaches; or

(4) Areas within 1,000 meters or less of oyster beds as defined in N.J.A.C. 7:7-9.2; and

viii. Side slopes shall not be steeper than three vertical to one horizontal adjacent to wetlands to prevent undermining and/or sloughing of the wetlands.

(d) Propwash dredging, which is the movement of sediment by resuspending accumulated material by scouring the bottom with boat propellers or specially designed equipment with propellers, is prohibited.

(e) New dredging or excavation to create new lagoons for residential development is prohibited in wetlands, N.J.A.C. 7:7-9.27, wetlands buffers, N.J.A.C. 7:7-9.28, and endangered or threatened wildlife or plant species habitats, N.J.A.C. 7:7-9.36, and discouraged elsewhere.

(f) New dredging is conditionally acceptable to control siltation in lakes, ponds and reservoirs, provided that an acceptable sedimentation control plan is developed to address re-sedimentation of these water bodies.

(g) With the exception of (c), (e), and (f) above, new dredging is discouraged.

(h) Rationale: New dredging is performed to create new or expand existing navigation or access channels, marinas, lagoons, canals, or boat moorings, or to make these areas accessible to ships of deeper draft. New dredging is also performed as part of the installation of some submerged pipelines and cables.

New dredging is sometimes necessary if water dependent elements of New Jersey's economy are to expand, but as with maintenance dredging, special areas and other environmentally sensitive areas must not be unnecessarily disturbed.

New and maintenance dredging are similar in their potential water quality and biological impacts. The additional impacts associated with new dredging are permanent physical changes in water depth, circulation, and sediment types. Dredged areas which are deeper than surrounding waters or deeper than connecting channels are known to have seasonally anoxic (devoid of oxygen) bottom waters. This results from poor vertical mixing and/or lateral circulation, formation of a thermocline (static cool bottoms waters unable to mix vertically) and biochemical exhaustion of dissolved oxygen. Benthic organisms and finfish cannot survive in anoxic waters.

Propwash dredging is indiscriminate, releasing sediment into the water column with no control to minimize impacts on water quality, or control the fate of the resuspended sediment. Sediment resuspended in this manner could smother shellfish beds, submerged vegetation habitats, and result in the loss of navigability in adjacent berths and channels. Therefore propwash dredging is prohibited under these rules.

The ecological values of intertidal and subtidal shallows are summarized in N.J.A.C. 7:7-9.15. These ecological values will be weighed against loss of this habitat in comparison to the public value to be served by the new dredging.

New dredging for the installation of submerged pipelines or cables is conditionally acceptable provided the dredging complies with the conditions of this section, the general water area rule specific to the project and the energy facility use rule, where applicable.

7:7-12.8 Environmental dredging

(a) Environmental dredging means new dredging performed in a special hazard area designated as such pursuant to N.J.A.C. 7:7-9.39 specifically to remove contaminated sediments for the purpose of remediating to an environmental standard as specified in the Department's Technical Requirements for Site Remediation, N.J.A.C. 7:26E.

(b) Environmental dredging and the management of the dredged material shall be:

1. Conducted in accordance with either:

   i. A Remedial Action Work Plan that has either been approved by the Department or a licensed site remediation professional pursuant to the Administrative Requirements for the Remediation of Contaminated Sites (ARRCS) Rules, N.J.A.C. 7:26C, and the Technical Requirements for Site Remediation, N.J.A.C. 7:26E; or

   ii. The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Sections 104, 106, 120, 121, or 122 (42 U.S.C. §§ 9604, 9606, 9620, 9621, and 9622, respectively); and

2. Comply with:

i. The applicable conditions set forth in the new dredging rule at N.J.A.C. 7:7-12.7(c)10; and

ii. Appendix G.

(c) Rationale: Environmental dredging is intended to remove sediments for the purpose of remediating to an environmental standard as specified in the Department's Technical Requirements for Site Remediation, N.J.A.C. 7:26E, while minimizing the spread of contaminants to the surrounding environment during dredging operations.

7:7-12.9 Dredged material disposal

(a) Dredged material disposal is the discharge of sediments removed during dredging operations in water areas. Dredged material disposal does not include the beneficial use of dredged material for the purposes of habitat creation, restoration, or enhancement, artificial reef construction, or the establishment of living shorelines.

(b) The standards relevant to dredged material disposal in water areas are as follows:

1. Dredged material disposal is prohibited in tidal guts, man-made harbors, medium rivers, as described at N.J.A.C. 7:7-12.1(b)5, creeks and streams, and lakes, ponds**,** and reservoirs. Dredged material disposal is discouraged in open bays, and semi-enclosed and backbays, where the water depth is less than six feet;

2. Disposal of dredged materials in the ocean and bays deeper than six feet is conditionally acceptable provided that there is no feasible beneficial use or upland placement site available and the disposal complies with the following, incorporated herein by reference, as appropriate to the proposed disposal site:

   i. The USEPA and U.S. Army Corps of Engineers Guidelines (40 CFR parts 220-228 and 230-232 and 33 CFR parts 320-330 and 335-338) established under Section 404(b) of the Clean Water Act. These documents are available on the web at https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr136_main_02.tpl and https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title33/33tab_02.tpl;

   ii. The U.S. Environmental Protection Agency and Department of the Army - U.S. Army Corps of Engineers, 1998. Evaluation of Dredged Material Proposed for discharge in Waters of the U.S.-Testing Manual (Inland Testing Manual). EPA 823-B-98-004, February 1998. This document is available on the web at https://www.epa.gov/sites/production/files/2015-08/documents/inland_testing_manual_0.pdf;

   iii. The U.S. Environmental Protection Agency and Department of the Army - U.S. Army Corps of Engineers, 1991. Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual, EPA-503/8-91/0001, February 1991. This document is available on the web at https://www.epa.gov/sites/production/files/2015-10/documents/green_book.pdf;

iv. The U.S. Army Corps of Engineers-New York District and U.S. Environmental Protection Agency, Region II, 1992. Guidance for Performing Tests on Dredged Material Proposed for Ocean Disposal, Draft 18 December 1992. This document is available on the web at www.epa.gov/region02/water/dredge/testing.htm; and

v. Appendix G;

3. Dredged material disposal in water areas shall conform with applicable State Surface Water Quality Standards at N.J.A.C. 7:9B;

4. Overboard disposal (also known as aquatic, open water, side casting, subaqueous, or wet) of uncontaminated sediments into unconfined disposal sites in existing anoxic dredge holes shall comply with the following:

   i. Data on water quality, benthic productivity and seasonal finfish use demonstrate that the unconfined disposal site has limited biological value;

   ii. All subaqueous dredged material disposal shall utilize best management techniques such as submerged elbows or underwater diffusers and may be limited to a particular tidal cycle to further minimize impacts; and

   iii. The hole shall not be filled higher than the depth of the surrounding waters.

5. Overboard disposal of sediments consisting of less than 90 percent sand shall be conditionally acceptable in unconfined disposal sites when shallow waters preclude removal to a dredged material management area**.** Such disposal shall comply with the following:

   i. Shellfish habitats**,** as defined in N.J.A.C. 7:7-9.2, are not within 1,000 meters;

   ii. Disposal will not smother or cause condemnation or contamination of harvestable shellfish resources**,** as in N.J.A.C. 7:7-9.2;

   iii. Sediment characteristics of the dredged material and disposal site are similar; and

6. Uncontaminated dredged sediments with 75 percent sand or greater are generally encouraged for beach nourishment.

(c) The standards for dredged material placement on land are found at N.J.A.C. 7:7-15.12.

(d) Rationale: Dredged material disposal can have significant adverse effects, such as introduction of heavy metals, burial of benthic flora and fauna and increased turbidity. Therefore, dredged material disposal is prohibited or discouraged in smaller water bodies which have lesser assimilative capacities and is conditionally acceptable in larger water bodies if in conformance with the USEPA Guidelines and applicable State Surface Water Quality Standards at N.J.A.C. 7:9B. Unconfined overboard (or open water) disposal, particularly of hydraulically dredged fine grain sediments, frequently forms a "fluid mud" layer along the water body bottom. Fluid muds have been documented to cause acute mortality of aquatic benthic organisms due to low oxygen levels and slow rate of consolidation. Movement of fluid muds away from an

unconfined dredged material disposal site can not be controlled with silt curtains. Due to these impacts, upland placement and beneficial uses of dredged material are preferred methods of dredged material management.

7:7-12.10 Solid waste or sludge dumping

(a) The dumping of solid waste or sludge is the discharge of solid or semi-solid waste material from industrial or domestic sources or sewage treatment operations into a water area.

(b) The dumping of solid or semi-solid waste of any type in any general water area is prohibited.

(c) Rationale: Dumping of solid and semi-solid waste in coastal waters would have significant adverse environmental and aesthetic effects and would be harmful to the coastal recreational economy. The existence of land sites makes coastal dumping unnecessary.

7:7-12.11 Filling

(a) Filling is the deposition of material including, but not limited to, sand, soil, earth, and dredged material, into water areas for the purpose of raising water bottom elevations to create land areas.

(b) Filling is prohibited in lakes, ponds, reservoirs, and open bay areas at greater than 18 feet as defined at N.J.A.C. 7:7-12.1, unless the filling is consistent with the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.) and Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A.

(c) Filling in a man-made lagoon-is discouraged unless:

1. The filling complies with (e) below; or
2. In those areas where two existing lawful bulkheads are not more than 75 feet apart and no limit of fill line has been promulgated by the Department, the connecting bulkhead may not extend seaward of a straight line connecting the ends of the existing bulkheads. Compliance with the mitigation rules at N.J.A.C. 7:7-17 shall not be required in such cases.

(d) Filling to establish a living shoreline to protect, restore or enhance a habitat area is conditionally acceptable provided the living shoreline complies with N.J.A.C. 7:7-12.23.

(e) Except as provided in (b) through (d) above, filling is discouraged in all other water areas. In cases where there is no alternative to filling, filling is conditionally acceptable provided:

1. The use that requires the fill is water dependent;
2. There is a demonstrated need that cannot be satisfied by existing facilities;

3. There is no feasible or practicable alternative site on an existing water's edge;
4. The minimum practicable area is filled;
5. The adverse environmental impacts are minimized, for example, by compensating for the loss of aquatic habitat by creation of an area of equivalent or greater environmental value elsewhere in the same estuary;
6. Minimal feasible interference is caused to special areas, as defined at N.J.A.C. 7:7-9; and
7. Pilings and columnar support or floating structures are unsuitable for engineering or environmental reasons.

(f) Mitigation shall be required for the filling of tidal water areas in accordance with N.J.A.C. 7:7-17. Mitigation shall not be required for the following:

1. Filling in accordance with N.J.A.C. 7:7-12.11(c);
2. Beach nourishment in accordance with N.J.A.C. 7:7-15.11(f);
3. Construction of a replacement bulkhead in accordance with N.J.A.C. 7:7-15.11(d)2i or ii;
4. Establishment of living shorelines in accordance with N.J.A.C. 7:7-12.23; and
5. Construction of a boat ramp in accordance with N.J.A.C. 7:7-12.3.

(g) Filling of wetlands must comply with the wetlands rule, N.J.A.C. 7:7-9.27.

(h) Filling using clean sediment of suitable particle size and composition, or dredged material for which the Department has issued an acceptable use determination in accordance with Appendix G, is acceptable for beach nourishment and living shoreline projects provided it meets the standards of the coastal engineering rule, N.J.A.C. 7:7-15.11(f) or the living shoreline rule, N.J.A.C. 7:7-12.23, respectively.

(i) Standards for the removal of unauthorized fill are as follows:

1. For filling which took place prior to September 26, 1980 (the effective date of the Coastal Zone Management rules Statewide, or prior to September 28, 1978 for areas within the CAFRA area, removal shall be required only if the fill has resulted in ongoing significant adverse environmental impacts, such as the blocking of an otherwise viable tidal wetland or water body, and its removal will alleviate the adverse impact.
2. For filling which took place subsequent to September 26, 1980 (or subsequent to September 28, 1978 for areas within the CAFRA area removal shall be required if the fill does not comply with the standards of (b), (c), (d), or (e) above.

(j) Rationale: In general, filling is discouraged because it results in: loss of aquatic habitat including nursery areas for commercially or recreationally important species; loss of estuarine productivity since shallow estuarine water frequently has a higher biological value and is more important than deeper water; loss of habitat important for certain wading birds and waterfowl;

and loss of dissolved oxygen in the water body since the shallows facilitate oxygen transfer from air to water.

Lagoons, as a result of limited freshwater inflow, multiple dead-end branches, and deeper bottoms than adjacent bay waters, have poor circulation which causes anoxic (devoid of oxygen) and stagnant bottoms. However, the shallow water edges of lagoons have been shown by the Department (1984) to support a wide variety of finfishes and shrimp. The above rules are intended to conserve this aquatic productivity found along shallow lagoon edges, while allowing use by the property owners.

New Jersey's coastal environment is dynamic, and shaped by natural forces such as wind, waves, and storms. Shorelines lost due to erosion eliminate intertidal habitat, reduce the amount of sandy beach, and decrease the amount of organic matter necessary to maintain tidal wetlands. This erosion results in the degradation of the coastal environment through impacts to natural habitats, such as tidal wetlands, intertidal and subtidal shallows and spawning grounds. Coastal states are seeking natural solutions, such as the creation of living shorelines, to address erosion as an alternative that adds diversity to other shore protection measures. Living shorelines are a shoreline management practice that addresses erosion by providing protection, restoration or enhancement of vegetated shoreline habitats.

The use of dredged material of appropriate grain size and chemical composition in beach nourishment and living shoreline projects promotes the State's long-standing policy of treating dredged material as a resource.

7:7-12.12 Mooring

(a) A boat mooring is a temporary or permanently fixed or floating anchored facility in a water body for the purpose of attaching a boat.

(b) Temporary or permanent boat mooring areas are conditionally acceptable provided:

1. There is a demonstrated need that cannot be satisfied by existing facilities;
2. Adverse environmental impacts are minimized to the maximum extent practicable; and
3. The mooring area is adequately marked and is located so as not to hinder navigation. A hazard to navigation will apply to all potential impediments to navigation, including access to adjacent moorings, water areas, docks and piers.

(c) Rationale: Moorings are conditionally acceptable in all General Water Areas provided impacts to Special Water Areas are minimized and they are not a hazard to navigation.

7:7-12.13 Sand and gravel mining

(a) Sand and gravel mining is the removal of sand or gravel from the water bottom substrate, usually by suction dredge, for the purpose of using the sand or gravel at another location.

(b) Sand and gravel mining is discouraged in all water body types except as provided at (b)1 below.

1. Sand and gravel mining is prohibited in lakes, ponds and reservoirs, man-made harbors and tidal guts as defined at N.J.A.C. 7:7-12.1, unless the water body was created by the mining process, in which case the use is conditionally acceptable provided:
    i. Direct and indirect impacts to special areas are minimized;
    ii. Turbidity and resuspension of toxic materials is controlled throughout the mining operation consistent with the State's Surface Water Quality Standards (N.J.A.C. 7:9B-4);
    iii. There is an acceptable disposal site for the waste from washing operations;
    iv. In rivers, creeks, and streams, the depth of water at the mining site is at least six feet below mean low water;
    v. The mining will not increase shoreline erosion; and
    vi. The mining will not create anoxic water conditions.

(c) Sand and gravel mining for the purposes of beach nourishment is conditionally acceptable provided:

1. Direct and indirect impacts to special areas and marine fish and fisheries are minimized;
2. In rivers, creeks, and streams, the depth of water at the mining site is at least six feet below mean low water;
3. The mining will not increase shoreline erosion;
4. The mining will not create anoxic water conditions; and
5. The beach nourishment project complies with the coastal engineering rule, N.J.A.C. 7:7-15.11(f).

(d) Rationale: The long-term demand for sand resources is not known, and may exceed the supply. Given the need for sand for beach nourishment projects, care must be taken to assure the mining is properly managed and will not adversely affect special areas or water quality.

7:7-12.14 Bridges

(a) A bridge is any continuous structure spanning a water body, except for an overhead transmission line.

(b) Bridges are conditionally acceptable provided:

1. There is a demonstrated need that cannot be satisfied by existing facilities;
2. Pedestrian and bicycle use is provided for unless it is demonstrated to be inappropriate; and

3. Fishing catwalks and platforms are provided to the maximum extent practicable. This shall be taken into consideration during the design phase of all proposed bridge projects.

(c) Rationale: Bridge crossings over bays, rivers, streams and other water areas are often necessary to provide continuity in the transportation system and, in the case of barrier islands, to link otherwise isolated land areas. The need to replace or upgrade bridges to safely maintain a transportation system is well recognized. However, the need for new bridges to accommodate additional traffic must be clearly demonstrated to justify potential adverse environmental effects on shellfish habitat, fish spawning grounds and migratory pathways, destruction of wetlands as well as aesthetic and air quality impacts. Bridges to barrier islands, in particular, must be reviewed in accordance with the General Location rule on Secondary Impacts.

7:7-12.15 Submerged pipelines

(a) Submerged pipelines (pipelines) are underwater pipelines which transmit liquids or gas, including crude oil, natural gas, water petroleum products or sewerage.

(b) Submerged pipelines are conditionally acceptable provided:

1. The pipelines are not sited within special areas, as defined at N.J.A.C. 7:7-9, unless no prudent and feasible alternate route exists;
2. Directional drilling is used unless it is demonstrated that the use of directional drilling is not feasible;
3. The pipeline is buried to a sufficient depth to avoid exposure or hazard;
4. All trenches are backfilled to preconstruction depth with naturally occurring sediment; and
5. The proposed development has been designed to minimize impacts to the water area.

(c) Rationale: The installation of submerged pipelines has the potential to disrupt the ecosystem in which they are placed and so is discouraged in environmentally sensitive areas. Due to the potential for disrupting the ecosystem, directional drilling is the preferred method for installing submerged pipelines.

Burial and backfilling must be sufficient to minimize damage to pipelines by currents, storm waves, sea clam dredges, anchors and other marine equipment. If a pipeline is not buried deep enough to avoid uncovering by erosion, it will be susceptible to breakage when left uncovered. Pipeline damage or breakage may result in the release of the transport substances into the ocean water with potentially adverse effects to the marine environment. Bottom contours must be reestablished following trenching and backfilling to maintain a stable bottom for the marine life found there.

7:7-12.16 Overhead transmission lines

(a) Overhead transmission lines are wires hung between supporting pylons for transmission from the site of origin to the site of consumption. Overhead transmission lines include electrical, telecommunication and cable television lines.

(b) Overhead transmission lines are prohibited over open bays, semi-enclosed and back bays, lakes, ponds, and reservoirs as defined at N.J.A.C. 7:7-12.1. Overhead transmission lines are discouraged over large rivers as defined at N.J.A.C. 7:7-12.1.

(c) Overhead transmission lines are conditionally acceptable over rivers, streams, creeks, and tidal guts as defined at N.J.A.C. 7:7-12.1, provided:

1. There is a demonstrated need that cannot be satisfied by existing facilities;
2. There is no feasible alternative route that avoids crossing water bodies;
3. The transmission line provides adequate vertical clearance for masts; and
4. Visual impacts are minimized to the maximum extent practicable.

(d) Rationale: Overhead transmission lines produce a negative environmental impact because they are aesthetically unattractive. They are prohibited or discouraged because the visual impact is so great that it counters the scenic resources and design rule at N.J.A.C. 7:7-16.10. The use of underground transmission lines, however, minimizes the visual impacts. Siting overhead transmission lines over such narrow water bodies as rivers, streams, creeks, and tidal guts is conditionally acceptable where there is no alternative to crossing the water body because the aesthetic impacts would not be as severe as the impacts of siting transmission lines over wider water bodies.

7:7-12.17 Dams and impoundments

(a) Dams and impoundments are structures that obstruct natural water flow patterns for the purpose of forming a contained volume of water. Impoundments include dikes with sluice gates and other structures to control the flow of water.

(b) Except for medium rivers, creeks**,** and stream**s** as defined at N.J.A.C.7:7-12.1, the construction of dams and impoundments is prohibited. The construction of these structures is conditionally acceptable in medium rivers, creeks**,** and streams as defined at N.J.A.C. 7:7-12.1, provided:

1. The structures are essential for water supply purposes or for the creation of special wildlife habitats;
2. Adverse impacts are minimized; and
3. The structures will not adversely affect navigation routes.

(c) Rationale: Dams can have an adverse environmental impact by reducing the amount of downstream flow and raising salinity levels. Impoundments can reduce the flow of water reaching wetlands or intertidal and subtidal shallows. Therefore, dams and impoundments are prohibited unless essential for water supply or wildlife habitat purposes.

7:7-12.18 Outfalls and intakes

(a) Outfalls and intakes are pipe openings that are located in water areas for the purpose of intake of water or discharge of effluent including sewage, stormwater and industrial effluents.

(b) Outfalls and intakes are conditionally acceptable provided that the use associated with the intake or outfall meets applicable rules of this chapter.

(c) Rationale: Outfalls can introduce contaminated runoff into a water body unless adequate measures are taken to encourage filtration and minimize discharge of pollutants.

7:7-12.19 Realignment of water areas

(a) Realignment of water areas means the physical alteration or relocation of the surface configuration of any water area. This does not include the rebulkheading of a previously bulkheaded water area or the bulkheading at or above the spring high water line.

(b) Realignment of naturally occurring water areas is discouraged. Discouraged uses can only be approved if it can be demonstrated that the proposed development is in the public interest and mitigation for the impact is provided.

(c) Realignment of previously realigned water areas is conditionally acceptable, provided:

1. It is demonstrated that no adverse environmental impacts (that is, water quality, flood hazard, species diversity reduction/alteration) will result; and
2. A net recreational/ecological benefit will demonstrably accrue.

(d) Rationale: Realignment of water areas normally reduces shallow water habitat, decreases water's edge vegetation, and can increase water flow with consequent increases in flooding and erosion. However, a previously realigned water area can be further realigned to enhance its environmental productivity and flood carrying capacity.

7:7-12.20 Vertical wake or wave attenuation structures

(a) Vertical wake or wave attenuation structures are structures designed to protect boat moorings**,** including those at marinas, by intercepting wakes or waves and reducing the wake or wave energy which would normally impact the adjacent boat mooring areas. Typically, timber, metal, or vinyl wake or wave attenuation structures are designed and utilized to protect boat

moorings. For the purposes of this section, a vertical wake or wave attenuation structure does not include a breakwater constructed of concrete or rubble mound. Breakwaters designed to protect shoreline areas shall comply with the filling rule, N.J.A.C. 7:7-12.11, and the coastal engineering rule at N.J.A.C. 7:7-15.11.

(b) Construction of a vertical wake or wave attenuation structure is conditionally acceptable. The porosity of a wake or wave attenuation structure, including spacing of planking and the distance between the structure and the bottom of the water body, shall be determined on a case-by-case basis, taking into consideration vessel traffic, water depth, and tidal flow.

(c) A vertical wake or wave attenuation structure may be designed as follows.

1. High wake or wave energy areas: Boat mooring areas in or near deep water that are exposed to port, harbor, and/or ferry traffic, such as the Hudson River between New Jersey and New York, are subject to high wake or wave energy. In this case, the structure may be designed to have no spacing between planking and extend to a depth of between 30 and 40 feet, or to the bottom of the water body, whichever is less, to intercept almost all wave energy. The distance between the structure and the bottom of the waterbody will be dependent upon the water depth of the area in which the structure will be located.
2. Medium wake or wave energy areas: Boat mooring areas adjacent to or near navigation channels, such as boat moorings located in Cape May Harbor, are subject to medium wake or wave energy. In this case, the structure may be designed to provide approximately one inch spacing between planking, and extend to the bottom of the water body.
3. Minor wake or wave energy areas: Boat mooring areas that do not meet the criteria of (b)1 or 2 above, such as boat moorings located in the Upper Manasquan River, are subject to minor wake or wave energy. In this case, the structure may be designed to provide approximately three inch spacing between planks to ensure flushing, and the distance between the structure and bottom of the water body shall be determined on a case-by-case basis taking into account the potential wake or wave energy at that mooring location. In areas of low tidal flow, that is, where the tidal range is less than two feet, the distance between the structure and the bottom of the water body shall be at least 18 inches.

(d) Detached vertical wake or wave attenuation structures which are not fixed directly to a dock or pier structure shall be marked with photocell lights and/or reflectors.

(e) Rationale: Vertical wake or wave attenuation structures are designed to protect boat moorings, including those at marinas. These structures may be fixed or floating, attached or detached, depending on the water depth, tidal range and wave climate. The design of a vertical wake or wave attenuation structure must consider location, height, and porosity in order for the structure to function without adversely affecting the movement of sediment and marine organisms and water circulation patterns.

7:7-12.21 Submerged cables

(a) Submerged cables (cables) are underwater telecommunication cables, and shall include all associated structures in the water such as repeaters.

(b) Submerged cables, or portions thereof, which are not located in the Atlantic Ocean shall meet the following conditions:

1. The cable shall not be sited within special areas, unless no prudent and feasible alternate route exists;
2. Directional drilling for the installation of cables is encouraged over the use of trenching;
3. The cable route minimizes areas where anchors are likely to foul the cable; and
4. The alignment of the cable route is marked at the landfall. This provision does not apply to cables that are directionally drilled.

(c) Submerged cables, or portions thereof, which are sited in the Atlantic Ocean shall meet the following conditions:

1. Siting a cable in the Atlantic Ocean is discouraged unless the cable complies with the following:
   i. If the cable is either sited within surf clam areas, N.J.A.C. 7:7-9.3, or sited within areas where marine fish, as defined at N.J.A.C. 7:7-16.2, are commercially harvested using mobile bottom-tending gear, no prudent and feasible land-based alternate route exists and the cable follows the shortest route to waters beyond the surf clam areas and areas where marine fish are commercially harvested using mobile bottom-tending gear; and
   ii. If the cable is sited within prime fishing areas, N.J.A.C. 7:7-9.4, shipwreck and artificial reef habitats, N.J.A.C. 7:7-9.13, or historic and archaeological resources, N.J.A.C. 7:7-9.34, no prudent and feasible alternate route exists outside of these special areas and the cable follows the route with the least disturbance to these special areas;
2. The submerged cable, shall be buried to a depth of at least 1.2 meters both in surf clam areas, N.J.A.C. 7:7-9.3, and in areas where marine fish, as defined at N.J.A.C. 7:7-16.2, are commercially harvested using mobile bottom-tending gear except where it is demonstrated that it is not practicable to bury the cable to 1.2 meters due to geologic or topographic features or crossing of existing in-service cables. Where it is demonstrated that achieving the depth of 1.2 meters is not practicable, the cable shall be buried as close as practicable to the above standard;
3. Where a submerged cable will cross an existing in-service cable either within surf clam areas, N.J.A.C. 7:7-9.3, or within areas where marine fish, as defined at N.J.A.C. 7:7-16.2, are commercially harvested using mobile bottom-tending gear, the cable company shall minimize the impact of cable crossings on commercial fishing and minimize the risks to the proposed and existing cables, as follows:

i. The cable shall be buried to the depth of the existing cable or as close thereto as practicable at the crossing;

ii. The number of cable crossings shall be minimized;

iii. The location of the cable route shall be adjusted after consultation with the fishing interest groups identified in N.J.A.C. 7:7-24.3(f) in order to reduce the impact of cable crossings on commercial fishing, to the maximum extent practicable; and

iv. The permittee shall, to the maximum extent practicable, share information and otherwise cooperate with those responsible for any cables being crossed and with installers of subsequent cables crossing the subject cable so as to reduce the impacts of cable crossings on commercial fishing.

4. Where a submerged cable will cross an existing out-of service cable either within surf clam areas, N.J.A.C. 7:7-9.3, or within areas where marine fish, as defined at N.J.A.C. 7:7-16.2, are commercially harvested using mobile bottom-tending gear, the cable company shall minimize the impact of cable crossings on commercial fishing and minimize the risks to the proposed and existing cables, as follows:

   i. Where the out-of-service cable is buried less than 0.6 meter, the out-of-service cable shall be cut, and recovered for proper disposal for a distance of at least 500 meters on each side of the selected cable crossing. For surface laid out-of-service cables, the ends of the remaining out-of-service cable shall be re-laid flat on the seabed to minimize problems for other seabed users. For buried out-of-service cables, the ends of the remaining out-of-service cable shall be re-buried to the original depth;

   ii. Where the out-of-service cable is buried between 0.6 and 1.2 meters, the out-of-service cable shall, if practicable, be cut and recovered for proper disposal for a distance of at least 500 meters on each side of the selected cable crossing. The ends of the remaining out-of-service cable shall be re-buried as close as practicable to the original depth, and in no case to a depth of less that 0.6 meters. If the out-of-service cable cannot be cut and recovered, the cable crossing shall comply with (c)3 above; and

   iii. Where the out-of-service cable is buried more than 1.2 meters, the cable shall be laid over the out-of-service cable at the depth prescribed in (c)2 above;

5. Directional drilling for the submerged cable landing is encouraged over the use of trenching to minimize impacts to beaches, dunes, and shallow water areas;

6. The submerged cable route minimizes areas where anchors are likely to foul the submerged cable;

7. Prior to installation of the cable, the permittee shall obtain a financial assurance from a lender or insurer regulated and authorized by the New Jersey Department of Banking and Insurance to transact business in New Jersey. The financial assurance shall be in an amount sufficient for the Department to hire an independent contractor to remove the inactive cable should the permittee fail to do so. Letters of credit, surety bonds and insurance assuring that the Department could hire an independent contractor to remove an

inactive cable shall be acceptable to satisfy the financial assurance requirement. The financial assurance shall be released upon the permittee's removal of the cable or upon the Department's determination that the cable may remain in place in accordance with (c)11 below;

8. After the submerged cable has been installed, a long-term inspection and maintenance plan, approved by the Department, shall be implemented both within surf clam areas, N.J.A.C. 7:7-9.3, and within areas where marine fish, as defined at N.J.A.C. 7:7-16.2, are commercially harvested using mobile bottom tending gear, to ensure that the cable remains at the authorized depth and location. The plan shall provide for the following:

   i. An inspection immediately following cable installation;

   ii. An inspection two years after cable installation;

   iii. An inspection every five years after the inspection required at (c)8ii above;

   iv. An investigation within six months after the Department reports to the permittee that it has received information suggesting that the cable has been uncovered. If appropriate, such investigation shall include an inspection of the cable. The Department may require an inspection after reviewing the report submitted pursuant to (c)9 below; and

   v. Reburial of the cable within 90 days, if practicable, and in no case later than six months after the permittee discovers that the cable has been uncovered. Reburial shall be to the depth prescribed in (c)2 above to the maximum extent practicable;

9. A report containing the results of the initial inspection required in (c)8i above shall be submitted by the permittee to the Department within six months following the inspection. The report shall identify all areas where inactive cable has been cut and all areas where the cable is not buried to a depth of 1.2 meters, and indicate the actual depth in those areas. The report shall also provide the installed route of the cable. All locations shall be reported using latitude and longitude coordinate pairs, in the WGS 84 (World Geodetic System 1984) datum, that were arrived at using the global positioning system (GPS). To reduce the impacts of fishing on cables by notifying the commercial fishing industry of the locations of areas where the cable is buried less than 1.2 meters deep, a copy of the report shall be submitted to the fishing interest groups identified in N.J.A.C. 7:7-24.3(f);

10. A report containing the results of inspection and maintenance of the submerged cable required in (c)8 above, if applicable in the reporting year, a discussion of storm events which could have affected the cable, and reported hits of the cable for the previous year shall be submitted by the permittee to the Department in January of each year. The report shall also indicate if and when the cable becomes out-of-service;

11. Within two years of taking the cable out of service pursuant to Federal Communications Commission regulations, the submerged cable shall be removed both from surf clam areas, N.J.A.C. 7:7-9.3, and from areas where marine fish, as defined at N.J.A.C. 7:7-16.2, are commercially harvested using mobile bottom-tending gear. The Department may allow all or portions of the cable to remain in place if leaving the cable in place

would not result in a long term adverse impact to the ocean and/or ocean resources, and the cable would not unreasonably interfere with fishing or other uses of the seabed. A permittee who seeks to leave an inactive cable in place shall submit a request, including the reasons and justification for leaving the cable in place. The Department shall solicit public input on the request, including input from the fishing interest groups identified in N.J.A.C. 7:7-24.3(f); and

12. If portions of the cable located either within surf clam areas, N.J.A.C. 7:7-9.3, or within areas where marine fish, as defined at N.J.A.C. 7:7-16.2, are commercially harvested using mobile bottom-tending gear, are not buried to a depth of 0.6 meters, the permittee shall provide a one-time monetary contribution to the Department's dedicated account for shellfish habitat mitigation. The amount of each mitigation contribution provided under this section shall be based on the length of cable that is not buried to a depth of 0.6 meters, based on the inspection required in (c)8i above. The contribution will be calculated at the rate of $100.00 per meter of cable which is buried to a depth of less than 0.6 meters. Monies in the Department's dedicated account for shellfish habitat mitigation are to be administered by the Department's Bureau of Shellfisheries and utilized for shellfish habitat restoration, enhancement**,** and related research projects.

(d) Rationale: Historically, the installation of surface laid submerged cables in the ocean has made certain areas effectively off limits to certain elements of the fishing industry, due to the possibility of snagging a cable. In estuarine areas, the installation of submerged cables may disrupt the ecosystem in which a submerged cable is placed. Therefore, the installation of submerged cables is discouraged in estuarine special areas unless no prudent and feasible alternate route exists. In the ocean, cable routes may encounter the surf clam and historic and archaeological resources special areas, as well as areas where marine fish are commercially harvested using mobile bottom-tending gear. Trans-Atlantic submerged cables have no alternative to crossing the ocean, but cables extending from one United States landing to another United States landing may have alternatives available. Therefore, the installation of such cables is discouraged in areas where marine fish, as defined at N.J.A.C. 7:7-16.2, are commercially harvested using mobile bottom-tending gear and in surf clam areas, unless no prudent and feasible alternate land-based route exists. To minimize conflict between cables and marine fisheries, including surf clamming, a cable for which there is no alternative location must take the shortest route to waters beyond Surf clam areas and areas where which marine fish are harvested using mobile bottom-tending gear. These standards governing installation and long-term maintenance of ocean cables have been developed taking into account current fishing technology, fishing practices**,** and burial technology in order to minimize the conflict between the cable and fishing industries.

7:7-12.22 Artificial reefs

(a) Artificial reefs are man-made structures intended to simulate the characteristics and functions of natural reefs created by placing hard structures on the sea-floor for the purpose of enhancing fish habitat and/or fisheries. In time, an artificial reef will attain many of the biological and ecological attributes of a natural reef. Artificial reefs do not include shore protection structures,

pipelines, fish aggregating devices, and other structures not constructed for the sole purpose of fish habitat.

(b) New reefs shall be sited in accordance with the following:

1. The reef site shall not be located in the following special areas: surf clam areas (N.J.A.C. 7:7-9.3), prime fishing areas (N.J.A.C. 7:7-9.4), navigation channels (N.J.A.C. 7:7-9.7), inlets (N.J.A.C. 7:7-9.9), submerged infrastructure routes (N.J.A.C. 7:7-9.12) and historic and archaeological resources (N.J.A.C. 7:7-9.34);
2. The reef site shall be located in the Atlantic Ocean, except for one estuarine reef that shall be allowed in the Lower Delaware Bay to be constructed by the Department;
3. The reef site shall be located in a manner that minimizes impacts on commercial fishing operations;
4. The reef site shall not be located within shipping lanes, and/or anchorages;
5. The natural seafloor at the reef site shall have a firm substrate to minimize sinking of reef materials;
6. The reef site shall not be located within an area environmentally influenced by dredge disposal sites, sewage outfalls, or other areas known to experience hypoxic events, contaminated waters or sediment that may impair the quality of fish habitat; and
7. The reef site shall not be located in an area with currents that have the potential to cause material instability, scouring, or sanding over.

(c) Construction of new or expanded artificial reefs is conditionally acceptable provided that at the time of deployment, and at all times after creation, the following conditions are met:

1. The reef materials are of sufficient density so that it will not move outside of the approved reef boundary;
2. The reef materials shall not float;
3. The reef materials shall not pose a hazard to navigation;
4. The reef materials shall not pose a threat to the marine environment;
5. The reef materials shall not be toxic;
6. The reef materials shall not be hazardous;
7. The reef materials shall not be explosive;
8. The reef materials shall not be radioactive;
9. The following reef materials are acceptable for deployment, provided that (c)1 through 8 above are met:
    i. Ships;
    ii. Armored military vehicles;

iii. Manufactured reef habitats;

iv. Dredge rock;

v. Concrete and steel rubble;

vi. Demolition material free of floating debris;

vii. Obsolete submarine telephone cable; and

viii. Miscellaneous reef materials that meet the conditions in (c)1 through 8 above;

10. The reef material shall be deployed in the following manner:

i. No materials shall be deposited until notification has been provided to the Department at least 72 hours in advance;

ii. Inspection by the Department prior to deployment, to ensure materials are not harmful to the marine environment, and will not pose a threat to human safety, and comply with the reef material conditions (c)1 through 8 above;

iii. Department personnel shall directly observe and oversee the deployment of any reef materials;

iv. To the extent practicable, deployment of reef materials shall not adversely impact the marine environment; and

v. The locations of artificial reef sites shall be recorded using a Global Positioning Satellite (GPS) system.

(d) An Artificial Reef Management Plan shall be submitted for each individual reef permit application and shall include the following:

1. A description of the proposed site;
2. A mechanism for recording materials used in constructing the reef; and
3. A monitoring schedule to measure the stability, durability and biological attributes of reef materials and impacts to the marine environment. The schedule shall include submission of monitoring reports, including a listing of materials deployed in the previous year, to the Department every year during reef construction, and every five years thereafter.

(e) It shall be the responsibility of the reef-builder to provide the location of the artificial reef to the US Department of Commerce, NOAA, National Ocean Survey, 1315 East West Highway, Silver Spring, MD 20910-3282, for inclusion on nautical charts.

(f) Rationale: The construction of artificial reefs allows for both an increase in the marine resource biomass and the congregation of marine fish. Reefs in marine waters are public resources that are beneficial to the State's fishing industries, the sport diving community and to the marine ecosystem as a whole.

Proper siting of reef structures and use of appropriate construction materials is important to the success of the reef, while ensuring stability, safety and preventing degradation of the marine environment. In addition, proper siting of artificial reefs may reduce conflicts among competing users of ocean resources. For example, artificial reefs that are sited away from traditional commercial fish and shellfish areas may reduce conflicts between recreational and commercial fishers. Likewise, artificial reefs located outside of navigation areas and submerged infrastructure routes have a high potential to reduce ocean resource user conflicts.

Reef management plans will allow for uniform evaluation of reef structures during the permitting process and ensure the reef performs as designed.

Coordination of the Artificial Reef Program is the responsibility of the Department's Division of Fish and Wildlife. Functions include review and approval of individual reef management plans, coordination and oversight of reef material preparation and placement, and coordination of Federal, State, regional, local and private activities associated with artificial reefs in New Jersey.

The Department may adopt management measures to address reef size limitations and cumulative impacts of reef structures, as needed.

7:7-12.23 Living shorelines

(a) Living shorelines are a shoreline management practice that addresses the loss of vegetated shorelines and habitat in the littoral zone by providing for the protection, restoration or enhancement of these habitats. This is accomplished through the strategic placement of vegetation, sand or other structural and organic materials.

(b) The establishment of a living shoreline to protect, restore, or enhance a habitat area is conditionally acceptable provided:

1. It is demonstrated that the project:
    i. Is part of a plan for the restoration, creation or enhancement of the habitat and water quality functions and values of wetlands, wetland buffers, and open water areas;
    ii. Is consistent with the requirements of the Wetlands Act of 1970, the Waterfront Development Law, Coastal Area Facility Review Act, and this chapter;
    iii. Will improve or maintain the values and functions of the ecosystem; and
    iv. Will have a reasonable likelihood of success, or, if performed by a college or university, will advance the level of knowledge regarding living shorelines in the State; and
2. The living shoreline complies with the following:
    i. It disturbs the minimum amount of special areas, as defined at N.J.A.C. 7:7-9, necessary to successfully implement the project plan. The Department may approve a reduction in the size of a particular special area in order to allow an increase in a different special area if the Department determines that the activities causing the

reduction are sufficiently environmentally beneficial to outweigh the negative environmental effects of the reduction; and

ii. It does not include placement of fill beyond the footprint of the shoreline as it appeared on the applicable Tidelands Map, except for a structural component of the project intended to reduce wave energy.

(c) The beneficial use of dredged material is acceptable in the establishment of a living shoreline provided the material complies with Appendix G.

(d) Rationale: New Jersey's coastal environment is dynamic, and shaped by natural forces such as wind, waves, and storms. Shorelines lost due to erosion eliminate intertidal habitat, reduce the amount of sandy beach, and decrease the amount of organic matter necessary to maintain tidal wetlands. This erosion results in the degradation of the coastal environment through impacts to natural habitats, such as tidal wetlands and spawning grounds. Coastal states are seeking natural solutions, such as the creation of living shorelines, to address the loss of vegetated shoreline habitat as an alternative that adds diversity to other shore protection measures. The establishment of living shorelines is conditionally acceptable provided the living shoreline activities disturb the minimum amount of special areas necessary to successfully implement the restoration, creation, enhancement, or protection of habitat, water quality functions and values of waters of the State and waters of the United States. This may include a reduction in the size of a particular special area in order to allow an increase in a different special area where the Department determines that the activities causing the reduction are sufficiently environmentally beneficial to outweigh the negative environmental effects of the reduction.

The use of dredged material of appropriate grain size and chemical composition in the establishment of a living shoreline promotes the State's long-standing policy of treating dredged material as a resource.

7:7-12.24 Miscellaneous uses

(a) Miscellaneous uses are uses of water areas not specifically defined in this section or addressed in the use rules, N.J.A.C. 7:7-15.

(b) Water dependent uses of water areas not identified in the use rules will be analyzed on a case-by-case basis to ensure that adverse impacts are minimized. Non-water dependent uses are discouraged in all water areas.

(c) Rationale: Uses which are not water dependent are discouraged in general water areas. Discouraged uses can only be approved if it can be demonstrated that the proposed development is in the public interest and mitigation for the impact is provided. Water areas are ecologically sensitive areas that provide habitat for a variety of species and therefore the impacts to these areas need to be minimized.

SUBCHAPTER 13. REQUIREMENTS FOR IMPERVIOUS COVER AND VEGETATIVE COVER FOR GENERAL LAND AREAS AND CERTAIN SPECIAL AREAS

7:7-13.1 Purpose and scope

(a) This subchapter sets forth requirements applicable in general land areas and certain special areas for impervious cover and vegetative cover on sites in the upland waterfront development area and in the CAFRA area. These requirements are set forth as follows:

1. For a site in the upland waterfront development area, the applicable impervious cover limits and vegetative cover percentages are determined under N.J.A.C. 7:7-13.6 through 13.14, based on the site's growth rating, development potential, and environmental sensitivity; and
2. For a site in the CAFRA area, the applicable impervious cover limits and vegetative cover percentages are determined under N.J.A.C. 7:7-13.15 through 13.19, based on the site's location in a coastal center; in a Coastal Planning Area; in a CAFRA center, CAFRA core, or CAFRA node; or on a military installation.

(b) General land areas are all land areas that are subject to this chapter and that are located outside of special water's edge areas. Special water's edge areas are identified at N.J.A.C. 7:7-9.16 through 9.30.

(c) This subchapter applies to development in general land areas, special land areas as defined at N.J.A.C. 7:7-9.1(a)3, and the following seven special water's edge areas:

1. Overwash areas (N.J.A.C. 7:7-9.17);
2. Coastal high hazard areas (N.J.A.C. 7:7-9.18);
3. Erosion hazard areas (N.J.A.C. 7:7-9.19);
4. Barrier island corridor (N.J.A.C. 7:7-9.20);
5. Filled water's edge (N.J.A.C. 7:7-9.23);
6. Existing lagoon edges (N.J.A.C. 7:7-9.24); and
7. Flood hazard areas (N.J.A.C. 7:7-9.25).

(d) This subchapter does not apply to:

1. The development of one or two single-family homes or duplex dwellings unless such development results in development of more than two single-family homes or duplex dwellings either solely or in conjunction with a previous development as defined at N.J.A.C. 7:7-2.2(b)8;
2. A linear development, except that this subchapter shall apply if the linear development is wholly within a development and/or serves the development;

3. A mining operation, under N.J.A.C. 7:7-15.8;
4. A public park which is publicly owned, or publicly controlled for the purposes of public access;
5. Aquaculture, as defined at N.J.S.A. 58:1A-3;
6. Sanitary landfills;
7. Wastewater treatment plants;
8. Water treatment plants;
9. Electrical substations; or
10. Wind turbines.

(e) If a site is located in the Hackensack Meadowlands District, as defined under N.J.S.A. 13:17-1 et seq., the Department shall not apply the requirements at N.J.A.C. 7:7-13.1 through 13.14, but shall apply the requirements for that area set forth at N.J.A.C. 7:7-9.43.

(f) A site may include land both within the upland waterfront development area and within the CAFRA area. Where this occurs each portion of the site is treated separately and the impervious cover limits and vegetative cover percentages for the different portions of the site are determined under N.J.A.C. 7:7-13.6 through 13.14 or 13.15 through 13.19 as appropriate.

(g) The rules in this subchapter do not preempt the application of any municipal ordinance that would result in more restrictive impervious cover requirements or more extensive vegetative cover requirements than would otherwise be applicable to a development site under this subchapter.

(h) Within the CAFRA area, except as may be required by law, it is not the intent of this subchapter that the extent to which a municipality has or has not conformed its ordinances or development master plan to this subchapter be considered by any department, agency, or instrumentality of State government in:

1. Administering any State grant, loan, or any financial assistance program involving the expenditure of State funds;
2. Making any permitting decision involving infrastructure that is deemed necessary by the permitting authority to alleviate significant and imminent threats to public health and safety; or
3. Making any permitting decision involving transportation infrastructure deemed necessary by the permitting authority solely to meet the needs of existing populations or anticipated populations based on valid development approvals by all relevant entities at the time of permit application, provided the permit application meets all of the substantive requirements of this chapter.

(i) Subsection (h) above shall not be construed to:

1. Prevent the awarding of any financial assistance, grant, or loan for planning purposes;
2. Contravene the legislative intent concerning capital projects pursuant to N.J.S.A. 52:9S-2 et seq.;
3. Contravene the legislative intent concerning coastal planning policies pursuant to N.J.S.A. 52:18A-206; or
4. Prevent the Department from considering secondary impacts in accordance with N.J.A.C. 7:7-14.3.

(j) Compliance with the impervious cover limits and vegetative cover percentages of this subchapter shall not exempt any development from the special areas rules at N.J.A.C. 7:7-9, the resource rules at N.J.A.C. 7:7-16, or any other provision of this chapter.

(k) Rationale: Impervious cover limits and vegetation requirements are important to reduce the negative impacts of development in coastal areas. Land without impervious cover and with healthy vegetative communities allows rainfall infiltration and natural groundwater recharge. Placement of impervious cover effectively seals the ground, preventing the absorption of water, which increases the amount of stormwater runoff that can enter waterways. Conversely, healthy vegetative communities absorb and slow runoff from storm events, which maintains water quality. Impervious surface also raises air temperatures and reduces oxygen uptake by tree roots beneath. (See Schueler, Thomas R. "The Importance of Imperviousness." Reprinted in The Practice of Watershed Protection. 2000. Center for Watershed Protection. Ellicott City, MD.)

Impervious cover percentages and vegetative cover requirements are not applicable to all activities. Many of the types of development to which impervious cover percentages and vegetative cover requirements do not apply are compact, and most serve a public need. For example, linear development that is not wholly within or solely serving a development need not comply with impervious cover limits because doing so would reduce the public benefit provided by the project.

The development of one or two single-family homes or duplexes is exempt from the requirements of this subchapter because most development that falls into this category takes place on small bulkheaded infill lots on back bays within existing residential areas and on sites that have been disturbed and have existing impervious cover present. The amount of impervious cover on such sites is limited by lot size, presence of special areas, and local zoning requirements. The general permit for the construction of one or two single-family homes or duplexes at N.J.A.C. 7:7-6.4 and the housing use rule at N.J.A.C. 7:7-15.2(e) contain standards to address stormwater runoff associated with dwellings. Wind energy is a renewable energy source that does not result in greenhouse gas emissions. Wind turbines are therefore exempt from the impervious cover and vegetative cover requirements in order to facilitate the construction of these renewable energy facilities. Mining operations, sanitary landfills, wastewater treatment plants, and water treatment plants serve a public need and are therefore exempt from the requirements of N.J.A.C. 7:7-13. The impacts associated with public parks are minimal and are offset by the public benefit of improved outdoor recreational opportunities. While aquaculture is

undertaken outside of areas of concentrated development, it is not associated with the adverse environmental impacts that result from residential, commercial, or industrial development.

Within the CAFRA area, it is not the intent of this subchapter that the extent to which a municipality has or has not conformed its ordinances or development master plan to this subchapter be considered by any department, agency, or instrumentality of State government in certain actions. The applicable provisions in this rule are intended to clearly differentiate CAFRA regulations used in the review of individual permit applications from the State Development and Redevelopment Plan, which is intended to provide a vision for accommodating future growth of the State.

Compliance with impervious cover and vegetative requirements does not exempt any development from compliance with special area or resource rules or with any provision of this chapter. Impervious cover and vegetation are just two factors considered in reviewing applications to perform regulated activities under this chapter and do not supersede other provisions.

7:7-13.2 Definitions

In addition to the terms defined at N.J.A.C. 7:7-1.5, the following terms are defined for purposes of this subchapter:

"CAFRA center" means a center with a boundary incorporated by reference or revised in accordance with N.J.A.C. 7:7-13.16.

"CAFRA core" means a core with a boundary incorporated by reference or revised in accordance with N.J.A.C. 7:7-13.16.

"CAFRA node" means a node with a boundary incorporated by reference or revised in accordance with N.J.A.C. 7:7-13.16.

"CAFRA Planning Map" means the map used by the Department to identify the location of Coastal Planning Areas, CAFRA centers, CAFRA cores and CAFRA nodes. The CAFRA Planning Map is available on the Department's Geographic Information System (GIS).

"Center" means a compact form of development which may have one or more cores and residential neighborhoods. A center may be an urban center, regional center, town, village, or hamlet, based on factors such as comparative size, population density, total population, transportation access, infrastructure, and employment base.

"Coastal center" means a center in the CAFRA area with a boundary delineated by the Department for the purpose of applying the requirements for impervious cover and vegetative cover at N.J.A.C. 7:7-13.1 through 13.5 and 13.15 through 13.19 until such time as, in accordance with N.J.A.C. 7:7-13.19, the coastal center expires or in accordance with N.J.A.C. 7:7-13.16, the coastal center is superseded by the CAFRA center. There are two categories of coastal centers, mainland coastal centers and non-mainland coastal centers. Each of these

centers may be further categorized as a coastal regional center, coastal town, coastal village or coastal hamlet.

"Coastal Critical Environmental Site" means a Critical Environmental Site in the CAFRA area with a boundary incorporated by reference in accordance with N.J.A.C. 7:7-13.19(f).

"Coastal Planning Area" means a planning area in the CAFRA area with a boundary incorporated by reference in accordance with N.J.A.C. 7:7-13.16.

"Community development boundary" means the line delineating a center from the environs of the center. The boundary is defined by physical features such as rivers, roads, or changes in the pattern of development, or by open space or farmland.

"Core" means a pedestrian-oriented area of commercial and civic uses serving the surrounding municipality or center, generally including some housing and access to public transportation.

"Critical Environmental Site" means an area generally less than a square mile which includes one or more environmentally sensitive features located either outside of a planning area classified as environmentally sensitive or within centers located within such planning areas

"95-97 imagery" means the 1995-1997 National Aerial Photographic Program, New Jersey color infra-red imagery.

"Node" means a concentration of facilities and activities which are not organized in a compact form.

"Planning area" means an area of greater than one square mile that shares a common set of conditions such as population density, infrastructure systems, level of development, or environmental sensitivity. The five types of planning areas are Metropolitan Planning Area, Suburban Planning Area, Fringe Planning Area, Rural Planning Area, and Environmentally Sensitive Planning Area.

7:7-13.3 Impervious cover requirements that apply to sites in the upland waterfront development and CAFRA areas

(a) This section sets forth impervious cover requirements that apply to sites in the upland waterfront development and CAFRA areas. Impervious cover limits, specific to each of these areas, are found at N.J.A.C. 7:7-13.13 and 13.17.

(b) A stormwater management facility is not counted toward the impervious cover limit for a site.

(c) A solar panel is not counted toward the impervious cover limit for a site. However, the base or foundation of the solar panel, plate, canopy, or array shall be counted toward the impervious cover on the site.

(d) The impervious cover allowed on a site shall be placed on the net land area on the site, as determined at (e) below, and in addition, for an unforested site under N.J.A.C. 7:7-13.13(b)3 or 13.17(e)2, the impervious cover shall be placed on the area covered by buildings and/or asphalt or pavement legally existing on the site at the time the application is submitted to the Department. If the amount of impervious cover calculated is greater than the net land area of the site, the acreage of the impervious cover allowed on the site shall be the acreage of the net land area. The placement of impervious cover may be further restricted by other provisions in this chapter. For example, placement of impervious cover would be discouraged in critical wildlife habitat under N.J.A.C. 7:7-9.37.

(e) To determine the acreage of the net land area on a site:

1. Determine the acreage of the total land area on the site;
2. Identify all areas on the site that are classified as one of the following special water's edge areas:
   i. Dunes (N.J.A.C. 7:7-9.16);
   ii. Bay islands (N.J.A.C. 7:7-9.21);
   iii. Beaches (N.J.A.C. 7:7-9.22);
   iv. Wetlands (N.J.A.C. 7:7-9.27);
   v. Wetland buffers (N.J.A.C. 7:7-9.28);
   vi. Coastal bluffs (N.J.A.C. 7:7-9.29); and
   vii. Intermittent stream corridors (N.J.A.C. 7:7-9.30);
3. Sum the acreage of the land areas identified in (e)2 above;
4. Subtract (e)3 above from (e)1 above; and
5. The result is the net land area to be used in calculating the impervious cover limits under N.J.A.C. 7:7-13.13 and 13.17.

(f) If a site or a portion of a site is a contaminated site, as defined at N.J.A.C. 7:26E-1.8 in the Department's Technical Requirements for Site Remediation, the impervious cover limit for the site may be increased if required under the Technical Requirements for Site Remediation at N.J.A.C. 7:26E in order to properly remediate the contaminated portion of the site.

g) Rationale: Limiting impervious cover is necessary in the CAFRA area and upland waterfront development area to prevent adverse impacts caused by polluted runoff and other negative effects. Stormwater management facilities area not counted towards the impervious cover limit because they are specifically designed to collect and manage runoff. Many stormwater

management basins contain herb/shrub vegetation and are thus not impervious cover. As specified in N.J.S.A. 13:19-5.4, the Department cannot include solar panels in any calculation of impervious surface or impervious cover as part of the analysis of an application for development. However, the amendments to the Waterfront Development Law and CAFRA specifically exclude the base or foundation of a solar panel, canopy, or array from the definition of solar panel. These base structures are therefore included in calculations of impervious cover, while the rest of the solar panel, canopy, or array is not.

Special water's edge areas are subtracted from the total land area on a site because impervious cover cannot be placed in these areas. Subtracting these areas from the total land area results in determination of the usable area of the site with which an applicant will calculate the allowed amount of impervious cover. For unforested sites, impervious cover must be placed on the area of the site that is currently covered by legally existing buildings or pavement, rather than removing the existing impervious surface and placing the new impervious surface in a different location.

In some cases, more impervious cover is needed to properly remediate a contaminated site than would be allowed under this section. In such cases, the impervious cover limit for the site may be increased as the environmental benefit of remediating a contaminated site supersedes the potential adverse impacts of placing a larger amount of impervious cover on the site.

7:7-13.4 Vegetative cover requirements that apply to sites in the upland waterfront development and CAFRA areas

(a) This section sets forth vegetative cover requirements that apply to sites in the upland waterfront development and CAFRA areas. Vegetative cover percentages, specific to each of these areas, are found at N.J.A.C. 7:7-13.14 and 13.18. More trees may be planted or preserved than required, and if so, the herb/shrub area shall be reduced proportionately.

(b) If a site is located in the urban area region or northern waterfront region as defined at N.J.A.C. 7:7-13.6(d)1 and 2, respectively, in the upland waterfront development area; or if a site is located in a CAFRA center, CAFRA core, or CAFRA node; or if the area of trees on a site required to be planted and/or preserved as calculated under (b)1 below is smaller than one acre, the vegetative requirements with respect to trees are as follows:

1. The area (in acres) of the site that shall be planted in trees and/or preserved in trees is calculated under N.J.A.C. 7:7-13.14 or 13.18; and
2. The area (in acres) of the site that would have been required under N.J.A.C. 7:7-13.14 or 13.18 to be planted and/or preserved in trees is not subject to (d) or (e) below but shall instead be planted and/or preserved in a mix of trees and herb/shrub vegetation adapted to the substrate and other environmental conditions of the site.

(c) If a residential development of 24 units or fewer that is not part of a larger development is proposed on a site in the upland waterfront development area or in the CAFRA area and does not meet the criteria at (b) above, the vegetative requirements with respect to trees are as follows:

1. The area (in acres) of the site that shall be planted in trees and/or preserved in trees is calculated under N.J.A.C. 7:7-13.14 or 13.18.
2. The area (in acres) of a forested site or portion to be preserved in trees is not subject to (d) below. However, the trees preserved shall be protected from any future development by a conservation restriction that complies with N.J.A.C. 7:7-18, which restriction:
   i. Requires that the area of trees be preserved in its natural state;
   ii. Prohibits removal or clearing of dead trees greater than five inches in diameter at four and one-half feet above ground except to prevent a safety hazard; and
   iii. Prohibits removal, clearing or mowing of live vegetation, including trees, unless it is demonstrated to the Department that such removal will result in habitat enhancement; and
3. The area of an unforested site or portion to be planted in trees is not subject to (d) or (e) below but shall instead be planted and/or preserved in a mix of trees and/or herb/shrub vegetation adapted to the substrate and other environmental conditions of the site.

(d) For sites other than those that meet (b) or (c) above, when trees are required to be planted or preserved under N.J.A.C. 7:7-13.14 or 13.18, the trees shall be planted and/or preserved in a tree cluster as follows:

1. Trees preserved and/or planted shall be located in a cluster within the boundaries of one lot that shall not be further subdivided. However, on a site with existing non-contiguous forested areas larger than five acres each, the Department may require that a tree cluster be preserved on a lot located in each of the forested areas. The tree cluster should, to the maximum extent practicable, be adjacent to existing on-site or off-site forests or other natural resources, such as critical wildlife habitat areas as defined at N.J.A.C. 7:7-9.37, or water bodies;
2. The boundaries of the tree cluster shall be clearly marked with permanent, visible markers such as concrete blocks or posts, metal stakes, or other easily seen, permanent, immovable markers;
3. The tree cluster shall be protected from any future development by a conservation restriction that complies with N.J.A.C. 7:7-18. In addition, the conservation restriction shall require that the tree cluster be preserved in its natural state, and prohibits removal or clearing of dead trees greater than five inches in diameter at four and one-half feet above ground except to prevent a safety hazard; and which prohibits removal, clearing, or mowing of live vegetation, including trees, unless it is demonstrated to the Department that such removal will result in habitat enhancement;
4. For a residential development of 25 units or more, the recorded conservation restriction required under (d)3 above shall be enforceable by the Department and:
   i. A local public entity;
   ii. A private nonprofit organization whose trustees have no other interest in the land; or

iii. A homeowner's association; and

5. For a non-residential development, the recorded conservation restriction required under (d)3 above shall be enforceable by the Department and a local public entity or a private nonprofit organization whose trustees have no other interest in the land, unless no such entity or organization will agree to enforce the conservation restriction.

(e) Trees planted to meet the tree cluster requirement of (d) above shall be planted in accordance with the following:

1. The trees shall be spaced approximately 10 feet apart and shall be planted in a staggered, non-linear pattern;
2. If a tree has lost more than 50 percent of its canopy within a full growing season after it is planted, it shall be immediately replaced with another tree as large as the first tree was when planted;
3. All trees shall be native or adapted to the substrate and other environmental conditions of the site. For example, many species common in inland areas are not well adapted to the acid sandy soils common along the coast;
4. The entire area of tree plantings shall be covered with a mulch of hardwood chips at least three inches deep;
5. Two-thirds of the trees planted shall be:
   i. Canopy or dominant tree species which typically grow taller than 50 feet at maturity;
   ii. A minimum of one and one half inches in diameter at the base; and
   iii. Balled, burlapped and supported by staking with guy wires, which shall be removed after one year; and
6. The remaining one-third of the trees planted shall be:
   i. Understory or subcanopy tree species which typically grow to a height of less than 50 feet at maturity;
   ii. A minimum of four to five feet in height; and
   iii. Balled and burlapped, or container-grown.

(f) Herb/shrub vegetation required under N.J.A.C. 7:7-13.14 or 13.18 shall be adapted to the substrate and other environmental conditions of the site. For example, many species common in inland areas are not well adapted to the acid sandy soils common along the coast.

(g) The vegetative cover required on a site shall be planted or preserved only on the net land area determined under N.J.A.C. 7:7-13.3(e).

(h) Rationale: Vegetation stabilizes soil, slows erosion and runoff, promotes infiltration of surface water, reduces the force of wind, provides food, shelter, and breeding sites for wildlife,

and adds to aesthetic values for recreation and domestic life. Trees release oxygen, sequester carbon dioxide, filter particulate pollutants, and provide habitat and food for a variety of wildlife, among other benefits. The rules provide for the planting and/or preservation of trees depending upon the location and type of development in order to recognize existing patterns of development and maximize the benefits of tree planting. Sites located in the urban area region or northern waterfront region of the upland waterfront development area, or located in a CAFRA center, CAFRA core, or CAFRA node, or sites on which the area of trees required to be planted or preserved is less than one acre, have flexibility which allows a mix of tress and herb/shrub vegetation to be planted and/or preserved that is adapted to the substrate and other conditions of the site. It is appropriate to modify the tree planting requirements for these sites because they are located in densely developed areas. The flexible requirements allow for landscaping that is appropriate to an urban setting.

Planting trees in clusters provides a greater environmental benefit than spreading trees throughout an area by creating quality habitat for forest species. For residential developments of 24 units or fewer, however, protecting a forest-like cluster of trees may not be feasible. In such cases, trees need not be clustered, as long as the total acreage of trees required is provided. On an unforested small residential development site, a mix of trees and/or herb/shrub vegetation may be planted and/or preserved that is adapted to the substrate and other environmental conditions of the site to allow for landscaping that is appropriate for the size of the site and existing development pattern of the area.

All other developments require trees to be planted in a cluster that, where possible, is adjacent to existing on- or off-site forests or other resources and clearly marked. Tree planting requirements preserve or create a block of forest that will provide better and more varied wildlife habitat than the same number of trees in a long, narrow band or spaced far apart. Conservation restrictions required for the areas on which trees are planted or preserved ensure the trees planted or preserved are not destroyed by future development.

Care must be taken in choosing what herb/shrub vegetation should be planted, as many common inland plants are not suited to coastal soils.

7:7-13.5 Determining if a site is forested or unforested

(a) The vegetative cover percentage that applies to a site in the upland waterfront development area or CAFRA area varies depending on whether the site is forested. If only a portion of a site is forested, separate vegetative cover percentages shall be calculated for the forested and unforested portions of the site.

(b) The following will be considered to be unforested for the purposes of determining vegetative cover percentages:

1. A site that is smaller than one acre; and
2. An area of trees, smaller than one acre, that is surrounded on all sides by areas with fewer than one tree per 100 square feet.

(c) To determine if a site or portion of a site is forested:

1. The limit of the forest shall be identified using aerial photographs obtained from the Department at https://www.nj.gov/dep/gis; and
2. If the aerial photograph contains areas of sporadic coverage that have not been identified as forest by the applicant, the applicant shall lay a one-half acre grid system provided by the Department. Any grid block containing 33 percent or greater forest cover, shall be considered as forest for the purposes of this chapter, unless the applicant demonstrates in accordance with (d) below that the size and density of the trees in the area are not sufficient for the area to be considered forest.

(d) If the Department identifies forest areas on a lot that have not been so identified by the applicant, the Department shall require the applicant to measure the trees and determine the density of the trees on the lot using the following method:

1. Select two 25-foot by 25-foot plots in each acre of the site as follows:
   i. The plots shall be located in the portion of each acre with the highest density of trees based on a visual inspection;
   ii. If the tree size and density are very uniform over some or all of the site, one plot may be selected in the area of uniformity. Where only one plot is measured, the point total from the one plot shall be doubled to determine the total point value for the sampled acre under (d)5 below;
2. In each plot, measure the diameter of each tree at four and one-half feet above ground;
3. Score each tree as follows:

Diameter of tree	Points
One to three inches	2
>Three to seven inches	4
Seven to 12 inches	6
>12 inches	8

4. Add together the scores for all of the trees in each of the plots;
5. If the total score for both plots is equal to or greater than 16, the sampled acre is forested. For example, if the two 25-foot by 25-foot plots contain a total of three trees which are two inches in diameter, two trees which are six inches in diameter, and one tree which is 15 inches in diameter, the score for the sampled acre would be: (3x2)+(2x4)+(1x8)= 22, and the sampled acre is considered forested;
6. If a sampled acre is forested, the Department shall assume that the half-acre surrounding all sides of the sampled acre is also forested, except for the surrounding areas that are sampled by the applicant and score under 16 utilizing the analysis specified in (d)1

through 5 above. In that case, a sufficient number of plots shall be sampled to delineate the forested portion of the surrounding area; and

7. If a plot is unforested, the Department shall assume that the half-acre of the site surrounding the plot is also unforested, unless a site visit, photographs, or other information indicates that it contains forested areas.

(e) The limit of the forest shall be the outermost edge of the canopy of the forest area identified in (c) and (d) above.

(f) Rationale: The Department has previously field tested three methods of forest identification to determine the most accurate method of determining if a site is considered forested or unforested. This designation affects the percentage vegetative cover and tree planting requirements that apply to the site. The Department determined that the Highlands method (see N.J.A.C. 7:38-3.9) was the most consistent in identifying a forest. The procedures set forth above are thus consistent with the Highlands method.

Aerial photography is an appropriate first step in identifying a forest since it is easier and less costly than doing extensive sampling. If an area includes areas of sporadic coverage that an applicant believes do not constitute forest area, the applicant must overlay a grid system (available from the Department's website) on the photographs to determine whether areas with sporadic coverage contain sufficient coverage to be identified as forest. The use of the grid to identify forest cover is consistent with the New Jersey No Net Loss Reforestation Act, N.J.S.A 13:1L-14.1 et seq.

The on-the-ground methodology for determining a forest on a site by measuring the trees and their density on the ground reflects the Highlands methodology. Onsite sampling is only necessary if the Department identifies additional areas of potential forest that were not identified by the applicant using aerial photography. Diameters and corresponding point values are based on data from the U.S. Forest Inventory Field Procedures Manual (U.S. Forest Service), Forest Statistics for New Jersey 1987 and 1999 (Griffith and Widmann, 2001), and Forests of the Garden State Resource Bulletin NE163 (Widmann, 2005) and are consistent with the Highlands method.

7:7-13.6 Upland waterfront development area regions and growth ratings

(a) The growth rating for a site in the upland waterfront development area is determined by the region in which it is located, and the growth rating assigned to that region.

(b) The growth ratings are as follows:

1. A development growth rating is assigned to regions of the upland waterfront development area that are already largely developed. Development in regions with this growth rating is preferred over development in regions with limited growth and extension growth ratings;
2. An extension growth rating is assigned to regions of the upland waterfront development area that qualify for neither a development growth rating nor a limited growth rating; and

3. A limited growth rating is assigned to regions of the upland waterfront development area that contain large environmentally sensitive areas.

(c) The eight different regions and their growth ratings are based on their respective patterns of development and cultural and natural resources.

(d) The regions are as follows:

1. The urban area region, which is the land within the upland waterfront development area that is within a special urban area, as described at N.J.A.C. 7:7-9.41;
2. The northern waterfront region, which is the land within the upland waterfront development area within Monmouth County, and extending north from Monmouth County to the New York State boundary;
3. The western ocean region, which is the land within the upland waterfront development area that is within Ocean County, west of the Garden State Parkway and south of State Route 37;
4. The southern region, which is the land within the upland waterfront development area that is in Cape May County (but not located in the Great Egg Harbor River region);
5. The Mullica-southern ocean region, which is:
   i. The land in Ocean County within the upland waterfront development area that is south of Cedar Run Creek and west of U.S. Route 9;
   ii. The land within the upland waterfront development area in Bass River Township, Burlington County; and
   iii. The land within the upland waterfront development area in Atlantic County that is north of County Route 561 (Jimmy Leeds Road);
6. The Great Egg Harbor River region, which is:
   i. The land within the upland waterfront development area in Atlantic County that is southwest of County Alternate Route 559; and
   ii. The land within the upland waterfront development area in Cape May County that is east of State Highway 50, north of County Route 585, and west of U.S. Route 9;
7. The Delaware River region, which is:
   i. The land within the upland waterfront development area in the municipalities of Bridgeton and Millville in Cumberland County and Salem in Salem County; and
   ii. The land within the upland waterfront development area in Salem County (but not located in the Delaware estuary region), and extending north from Salem County through Gloucester County, Camden County, Burlington County (but not located in Bass River Township), and Mercer County; and
8. The Delaware estuary region, which is:

i. The land within the upland waterfront development area in Cumberland County (but not located in the municipalities of Bridgeton and Millville); and

ii. The land within the upland waterfront development area in Salem County that is south and east of a boundary formed by Interstate 295 from its intersection with the New Jersey Turnpike to County Route 641; County Route 641 from its intersection with the New Jersey Turnpike to U.S. Route 130; U.S. Route 130 from its intersection with County Route 641 to its intersection with Oldmans Creek (but not located within the municipality of Salem).

(e) The growth ratings assigned to the regions described in (d) above are as follows:

1. The following regions are assigned a development growth rating:
   i. Urban area region;
   ii. Northern waterfront region; and
   iii. Delaware River region;
2. The following regions are assigned an extension growth rating:
   i. Western ocean region; and
   ii. Southern region; and
3. The following regions are assigned a limited growth rating:
   i. Mullica-southern ocean region;
   ii. Great Egg Harbor River region; and
   iii. Delaware estuary region.

(f) Rationale: By assigning growth ratings to different upland waterfront development area regions, the Department intends to concentrate development in areas that are already developed and, thus, would have minimal environmental impact. Development should be steered away from regions with large environmentally sensitive areas to preserve groundwater quality.

7:7-13.7 Determining the environmental sensitivity of a site in the upland waterfront development area

(a) The environmental sensitivity of a site in the upland waterfront development area is based on the soil type and the depth to seasonal high water table or the presence of paving or structures. Different portions of a site may have different environmental sensitivities.

(b) A site or portion of a site has a high environmental sensitivity if it has wet or high permeability moist soils.

1. Wet or high permeability moist soils are soils with a depth to seasonal high water table of three feet or less, unless the soils are loamy sand or coarser as defined by the United

States Department of Agriculture's Soil Texture Triangle, in which case they are soils with a depth to seasonal high water table of four feet or less.

(c) A site or portion of a site has a medium environmental sensitivity if it has neither a high environmental sensitivity nor a low environmental sensitivity.

(d) A site or portion of a site has a low environmental sensitivity if the depth to seasonal high water table is greater than five feet, or the site or portion of the site has paving or structures at the time the application is submitted.

(e) Rationale: Environmental sensitivity is based on soil type and the depth to seasonal high water table, which are two characteristics that affect a site's vulnerability to adverse impacts associated with development. A site may be assigned on environmental sensitivity distinction, or portions of the same site may have different environmental sensitivities, in which case the portions of the site may ultimately have different impervious cover limits. High, medium, and low environmental sensitivity are described below.

1. High environmental sensitivity

This ranking is given to land areas where they are particularly sensitive to impacts. These areas are valuable as open space, for screening, for ground and surface water purification, and as wildlife habitats. Areas of high soil percolation and shallow depth to water table are especially sensitive to ground water impacts because the rapid percolation offers little pollutant filtration and the distance to groundwater is small. The degradation of groundwater that occurs when these areas are developed increases the importance of protecting these areas from overdevelopment. Therefore, these areas should be left undeveloped or developed at a lower density than lands that are not of high environmental sensitivity.

2. Medium environmental sensitivity

These are land areas that are neither especially sensitive nor insensitive to development.

3. Low environmental sensitivity

This ranking is given to areas where there is a relatively large distance to groundwater and, therefore, little potential for transferring adverse impacts from the surface to groundwater. Paved areas and structures are included because most of the adverse impacts associated with development have already occurred as a result of the original paving or construction. Further development will have a minimal impact.

7:7-13.8 Determining the development potential of a site in the upland waterfront development area

(a) Development potential is determined by the type of development proposed and the presence or absence of certain development-oriented elements at or near the site of the proposed development, including roads; wastewater conveyance, treatment and disposal system; and existing development. Development potential may be high, medium or low, as determined under N.J.A.C. 7:7-13.9 through 13.11. A single development potential applies to an entire site.

(b) If a development proposed on a site is inconsistent with the applicable Areawide Water Quality Management Plan adopted under N.J.A.C. 7:15, the development potential cannot be determined for the site. Any development that is inconsistent with the applicable Areawide Water Quality Management Plan is prohibited under N.J.A.C. 7:7-16.3(b).

(c) The types of development are:

1. Residential or minor commercial development, which includes housing, hotels, motels, minor commercial facilities of a neighborhood or community scale with 700 or fewer parking spaces and less than 100,000 square feet of enclosed building area, and mixed use developments that are predominantly residential. For the purposes of this section and N.J.A.C. 7:7-13.9, residential or minor commercial development also includes libraries, daycare centers, municipal or other government administrative, public works, or emergency service buildings, and churches, synagogues, or other houses of worship;
2. Major commercial or industrial development, which includes all industrial development, warehouses, offices, manufacturing plants, energy facilities, wholesale and major shopping centers with more than 100,000 square feet of enclosed building area, and major parking facilities with more than 700 parking spaces. For the purposes of this section and N.J.A.C. 7:7-13.10, major commercial or industrial development also includes solid waste facilities and wastewater treatment plants; and
3. Campground development, which provides facilities for visitors to enjoy the natural resources of the State. Typically, this type of development is suited to sites somewhat isolated from other development and with access to water, beach, forest and other natural amenities.

(d) The development potential for a site shall be determined as follows:

1. If a proposed development is a residential or minor commercial development as described at (c)1 above, the development potential for the site is determined under N.J.A.C. 7:7-13.9;
2. If a proposed development is a major commercial or industrial development as described at (c)2 above, the development potential for the site is determined under N.J.A.C. 7:7-13.10; and
3. If a proposed development is a campground development as described at (c)3 above, the development potential for the site is determined under N.J.A.C. 7:7-13.11.

(e) If a proposed development is not a residential development, a minor commercial development, a major commercial development, an industrial development, or a campground development, the development potential for the site shall be that for the most similar type of development described at (c) above.

(f) Rationale: The development potential of a site is a ranking that reflects whether there is infrastructure necessary to support a development, and whether there is other development nearby. The Department intends to steer development to areas with existing development-oriented elements to support that development, including roads for access and wastewater treatment and disposal, and areas with existing development. Siting development near existing development and infrastructure is more efficient and results in decreased impacts to the environment as compared to locating development in such a way that new development-oriented elements need to be constructed to access or use the development. If a development is proposed that is inconsistent with the applicable Areawide Water Quality Management Plan, adopted in accordance with N.J.A.C. 7:15, it is prohibited and the site will not be assigned a development potential.

Sites have different development potentials depending upon the type of development proposed. Areas suitable for campgrounds, for example, are more isolated from existing development and provide access to water, beaches, forests, or other natural features. Such an area would not likely be suitable for a major commercial or industrial development, which would be more suited towards an area in proximity to existing development and separated from beaches, forests, and other natural areas.

7:7-13.9 Determining the development potential for a residential or minor commercial development site in the upland waterfront development area

(a) Subject to the limitation at N.J.A.C. 7:7-13.8(c)1, the development potential for a residential development site or a minor commercial development site in the upland waterfront development area is determined using (b) through (d) below.

(b) A site upon which a residential or minor commercial development is proposed is a high development potential site if it meets all of the requirements at (b)1 through 4 below:

1. An existing paved public road abuts the site;
2. If an offsite wastewater conveyance, treatment and disposal system is to be used:
   i. The existing conveyance component of the system abuts the site; and
   ii. The existing wastewater conveyance, treatment and disposal system has adequate capacity to convey, treat, and dispose of the sewage from the proposed development, or the applicant has an agreement with the sewage authority to modify the system to provide adequate capacity; and
3. A majority of the perimeter of the site, excluding wetlands or surface water areas or land areas abutting limited access transportation corridors, is adjacent to or across a public

road or railroad from land that is developed, or a majority of the area, excluding wetlands or surface water areas, within 1,000 feet of the site is developed. For the purposes of this paragraph, developed land consists of that part of a property where one of the developments listed below is located and does not include any undeveloped portions of the property that surround the developed portion:

i. Residential development at densities of at least one dwelling unit per acre;

ii. Commercial development;

iii. Industrial development, including warehouses;

iv. Schools and other public institutions;

v. Ball fields;

vi. Those areas of public parks developed for active recreational use; or

vii. Transportation facilities including train stations and airfields; and

4. If the site is located in a region with a limited growth or extension growth rating, the site shall, in addition to meeting the requirements at (b)1 through 3 above, be located one-half mile or less from the nearest existing commercial or industrial development that has more than 20,000 square feet of enclosed building area within a single facility.

(c) A site upon which a residential development or a minor commercial development is proposed is a medium development potential site if it is not a high development potential site under (b) above but does meet the requirements of either (c)1 or 2 below:

1. The site is located in a region with a development growth rating and the site is located:

   i. One thousand feet or less from the nearest existing paved public road, or 1,000 feet or less from the nearest public road that is approved and will be constructed before or concurrently with the development; and

   ii. If an offsite wastewater conveyance, treatment and disposal system is to be used, 1,000 feet or less from the conveyance component of that system, or 1,000 feet or less from the conveyance component of a system that is approved and shall be constructed before or concurrently with the development, provided:

      (1) The wastewater conveyance, treatment and disposal system has adequate capacity to convey, treat, and dispose of the sewage from the proposed development, or the applicant has an agreement with the sewage authority to modify the system to provide adequate capacity; or

2. The site is located in a region with a limited growth or extension growth rating and the site is located:

   i. One thousand feet or less from the nearest existing paved public road;

   ii. If an offsite wastewater conveyance, treatment and disposal system is to be used, 1,000 feet or less from the existing conveyance component of the system, provided:

(1) The existing wastewater conveyance, treatment and disposal system has adequate capacity to convey, treat, and dispose of the sewage from the proposed development, or the applicant has an agreement with the sewage authority to modify the system to provide adequate capacity;

iii. If a commercial development is proposed, one-half mile or less from the nearest existing commercial or industrial development that has more than 20,000 square feet of enclosed building area within a single facility; and

iv. If a residential development is proposed, one-half mile or less from developed land, as described at (b)3 above.

(d) A site upon which a residential or minor commercial development is proposed is a low development potential site if it is neither a high development potential site under (b) above nor a medium development potential site under (c) above.

(e) Rationale: Residential and minor commercial developments require a method of access and a method of wastewater treatment. Sites that are located in close proximity to public roadways are easily accessed and allow residents of the proposed development to enter and exit the property without the impacts associated with construction of a new roadway. A site that abuts the conveyance component of an existing offsite wastewater conveyance, treatment, and disposal system that has the capacity to manage the sewage from the proposed development ensures that wastewater will be properly managed and not cause adverse impacts to the environment or public health. Sites that are surrounded by existing development constitute an "infill" situation and, thus, have a high development potential. Different requirements for a site to have a medium development potential for residential or minor commercial development depend upon the growth rating of the region in which the site is located. These requirements recognize the comparatively lower impact in regions with a development growth rating as compared to regions with a limited or extension growth rating and intend to steer new residential or minor commercial development to regions that are already extensively developed and away from relatively undeveloped areas.

7:7-13.10 Determining the development potential for a major commercial or industrial development site in the upland waterfront development area

(a) Subject to the limitations at N.J.A.C. 7:7-13.8(c)2, the development potential for a major commercial or industrial development site in the upland waterfront development area is determined under (b) through (d) below.

(b) A site upon which a major commercial or industrial development is proposed is a development potential site if it meets all of the requirements at (b)1 through 4 below:

1. An existing paved public road abuts the site;
2. If an offsite wastewater conveyance, treatment and disposal system is to be used:
   i. The existing conveyance component of the system abuts the site; and

ii. The existing wastewater conveyance, treatment and disposal system has adequate capacity to convey, treat, and dispose of the sewage from the proposed development, or the applicant has an agreement with the sewage authority to modify the system to provide adequate capacity;

3. A part of the perimeter of the site is adjacent to, or immediately across a paved road from, existing major commercial or industrial development, or, in a region with a development growth rating, the site is adjacent to or immediately across a paved road from any existing commercial development; and

4. In a region with a limited growth or extension growth rating, the site is located either:

   i. For a major commercial development, within two miles of an existing intersection with a limited access highway; or

   ii. For an industrial development, either within:

      (1) Two miles of an existing intersection with a limited access highway; or

      (2) One-half mile of a freight rail line that shall be used, or the applicant has a written agreement with the owner of a freight rail line to obtain freight rail service directly to the site.

(c) A site upon which a major commercial or industrial development is proposed is a medium development potential site if it is not a high development potential site under (b) above but does meet the requirements at either (c)1 or 2 below:

1. The site is located in a region with a development growth rating and the site is located:

   i. One thousand feet or less from the nearest existing paved public road, or 1,000 feet or less from the nearest public road that is approved and shall be constructed before or concurrently with the development;

   ii. If an offsite wastewater conveyance, treatment and disposal system is to be used, 1,000 feet or less from the conveyance component of that system, or 1,000 feet or less from the conveyance component of a system that is approved and shall be constructed before or concurrently with the development, provided:

      (1) The wastewater conveyance, treatment and disposal system has adequate capacity to convey, treat, and dispose of the sewage from the proposed development, or the applicant has an agreement with the sewage authority to modify the system to provide adequate capacity; and

   iii. For an industrial development, one-half mile or less from the nearest existing commercial or industrial development that has more than 50,000 square feet of enclosed building area within a single facility; or

2. The site is located in a region with a limited growth or extension growth rating and the site is located:

i. Either 1,000 feet or less from the nearest existing paved public road, or five miles or less from the nearest intersection with a limited access highway;

ii. If an offsite wastewater conveyance, treatment and disposal system is to be used, 1,000 feet or less from the existing conveyance component of the system, provided:

(1) The existing wastewater conveyance, treatment and disposal system has adequate capacity to convey, treat, and dispose of the sewage from the proposed development, or the applicant has an agreement with the sewage authority to modify the system to provide adequate capacity; and

iii. One-half mile or less from the nearest commercial or industrial development that has more than 50,000 square feet of enclosed building area within a single facility.

(d) A site upon which a major commercial or industrial development is proposed is a low development potential site if it is neither a high development potential site under (b) above nor a medium development potential site under (c) above.

(e) Rationale: Major commercial and industrial developments require access and wastewater management. The criteria for high development potential in this category is intended to steer major commercial and industrial developments, which have greater potential adverse environmental impacts than other types of development, to areas abutted by existing major commercial and industrial development in order to concentrate intense development in certain areas. In regions with a development growth rating, a site has a high development potential for major commercial or industrial development if the site is in close proximity to any type of commercial development, which recognizes the extensively developed character of these regions.

Different requirements for a site to have a medium development potential for major commercial or industrial development depend upon the growth rating of the region in which the site is located. These requirements recognize the comparatively lower impact in regions with a development growth rating as compared to regions with a limited or extension growth rating and intend to steer new major commercial or industrial development to regions that are already extensively developed in a similar fashion and away from relatively undeveloped areas and areas without existing industrial development.

7:7-13.11 Determining the development potential for a campground development site in the upland waterfront development area

(a) Subject to the limitations at N.J.A.C. 7:7-13.8(c)3, the development potential for a campground development site in the upland waterfront development area is determined using (b) through (d) below.

(b) A site upon which a campground development site is proposed is a high development potential site if it meets all of the requirements at (b)1 through 3 below:

1. An existing paved public or private road abuts the site;
2. If an offsite wastewater conveyance, treatment and disposal system is to be used:

i. The existing conveyance component of the system abuts the site; and

ii. The existing wastewater conveyance, treatment and disposal system has adequate capacity to convey, treat, and dispose of the sewage from the proposed development, or the applicant has an agreement with the sewage authority to modify the system to provide adequate capacity; and

3. The land surrounding the site is natural; undeveloped; contains beaches, streams, or forests; and is readily accessible by foot to campground users.

(c) A site upon which a campground development is proposed is a medium development potential site if it is not a high development site under (b) above but does meet the requirements of (c)1 and 2 below:

1. The site is one-half mile or less from the nearest existing paved public road; and
2. If an offsite wastewater conveyance, treatment, and disposal system is to be used, the site is 1,000 feet or less from the existing conveyance component of that system, provided:

   i. The existing wastewater conveyance, treatment and disposal system has adequate capacity to convey, treat, and dispose of the sewage from the proposed development, or the applicant has an agreement with the sewage authority to modify the system to provide adequate capacity.

(d) A site upon which a campground development is proposed is a low development potential site if it is neither a high development potential site under (b) above nor a medium development potential site under (c) above.

(e) Rationale: Sites most suitable for campground development are in close proximity to existing public roadways and existing wastewater management infrastructure to reduce the environmental impact of constructing new roadways and waste management conveyance, treatment, and disposal systems. In contrast to residential, commercial, and industrial development, sites surrounded by undeveloped natural areas have the highest campground development potential. Sites abutted by other types of development are generally not suitable for campground development.

7:7-13.12 Determining the development intensity of a site in the upland waterfront development area

(a) The development intensity for a site in the upland waterfront development area is based on growth rating, environmental sensitivity, and development potential. Tables A through C below are used to determine the development intensity of a site or portion of a site. Because environmental sensitivity may be different for different portions of a site, development intensity can also be different for different portions of a site.

(b) To determine the development intensity for a site:

1. Determine the growth rating for the site under N.J.A.C. 7:7-13.6;

2. Determine the environmental sensitivity for each portion of the site under N.J.A.C. 7:7-13.7;
3. Determine the development potential for the site based on the site and the type of development under N.J.A.C. 7:7-13.8 through 13.11;
4. Consult Table A, B, or C below as follows:
   i. For a site with a development growth rating, consult Table A;
   ii. For a site with an extension growth rating, consult Table B; and
   iii. For a site with a limited growth rating, consult Table C.

TABLE A

Development Intensity for a Site with a Development Growth Rating

	Low Environmental Sensitivity	Medium Environmental Sensitivity	High Environmental Sensitivity
High Development Potential	High development intensity	High development intensity	Medium development intensity
Medium Development Potential	High development intensity	High development intensity	Low development intensity
Low Development Potential	Low development intensity	Low development Intensity	Low development intensity

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

TABLE B

Development Intensity for a Site with an Extension Growth Rating

	Low Environmental Sensitivity	Medium Environmental Sensitivity	High Environmental Sensitivity
High Development Potential	High development intensity	High development intensity	Medium development intensity
Medium Development Potential	Medium development intensity	Medium development intensity	Low development intensity
Low Development Potential	Low development intensity	Low development Intensity	Low development intensity

TABLE C

Development Intensity for a Site with a Limited Growth Rating

	Low Environmental Sensitivity	Medium Environmental Sensitivity	High Environmental Sensitivity
High Development Potential	Medium development intensity	Medium development intensity	Low development intensity
Medium Development Potential	Medium development intensity	Low development intensity	Low development intensity
Low Development Potential	Low development intensity	Low development Intensity	Low development intensity

(c) Rationale: Development intensity considers the growth rating of the region in which a site is located, environmental sensitivity of the site, and the development potential. These three factors determine the development intensity which in turn decides the impervious cover and vegetation requirements for the site.

7:7-13.13 Impervious cover limits for a site in the upland waterfront development area

(a) If a site or portion of a site is forested, as determined under N.J.A.C. 7:7-13.5, the impervious cover limit is the acreage of the net land area on the site or portion as determined under N.J.A.C. 7:7-13.3(e), multiplied by the impervious cover percentage in Table D below for the development intensity that applies to the site or portion, as determined under N.J.A.C. 7:7-13.12.

(b) If a site or portion of a site is unforested, as determined under N.J.A.C. 7:7-13.5, the impervious cover limit is the limit at (b)1, 2, or 3 below, whichever is higher:

1. The acreage of the net land area on the site or portion, as determined under N.J.A.C. 7:7-13.3(e), multiplied by the impervious cover percentage in Table E below for the

development intensity that applies to the site or portion, as determined under N.J.A.C. 7:7-13.12;

2. For a site located in the northern waterfront region or urban area region, as determined under N.J.A.C. 7:7-13.6(d), the amount of existing impervious cover located on a site as determined under (c) below; or
3. For a site located in a region other than those identified at (b)2 above, the acreage covered by buildings and/or asphalt or concrete pavement legally existing on the site at the time the application is submitted to the Department.

(c) For the purposes of determining impervious cover limits under (b) above, the amount of existing impervious cover is the highest of the following, provided the impervious cover was legally placed on the site:

1. The amount of impervious cover located on the site at the time the application is submitted to the Department;
2. The amount of impervious cover that appears on the applicable Tidelands Map; or
3. The amount of impervious cover that was placed on the site under the authority of a coastal permit and after the date the photography was performed for the Tidelands Map identified under (c)2 above.

TABLE D

Percentages for Calculating Impervious Cover Limit

for a Forested Site under N.J.A.C. 7:7-13.13

Development Intensity	Impervious Cover Percentage
High development intensity	70 percent
Medium development intensity	40 percent
Low development intensity	5 percent

TABLE E

Percentages for Calculating the Impervious Cover Limit

For an Unforested Site under N.J.A.C. 7:7-13.13

Development Intensity	Impervious Cover Percentage
High development intensity in the urban area region	90 percent
High development intensity not in the urban area region	80 percent
Medium development intensity	40 percent
Low development intensity	5 percent

(d) Rationale: The amount of impervious cover permitted is based upon the development intensity calculated under N.J.A.C. 7:7-13.12 considering growth rating, environmental sensitivity, and development potential, or on the amount of existing impervious cover on the site (for unforested sites only).

The amount of impervious cover allowed for a forested site or the forested portions of a site is calculated by multiplying the net land area on the site or portion by the impervious cover percentage that corresponds to the development intensity that applies to the site or portion. While the method for calculating the impervious cover limit for an unforested site varies based upon factors discussed below, no alternative method of calculating impervious cover for forested sites is allowed as it is the Department's intention to preserve valuable forest habitats equally in all parts of the State.

To achieve differing goals, the amount of impervious cover limit for an unforested site is calculated in two ways, with the calculation resulting in the greatest area providing the impervious cover limit for the unforested site or portion of a site. First, the net acreage is multiplied by the impervious cover limit specified in Table E. The amount of impervious cover allowed for unforested sites in the northern waterfront region or urban area region can alternatively be the amount of existing impervious cover on the site in order to encourage redevelopment in these regions. In other regions, the amount of impervious cover allowed on an unforested site may alternatively be the acreage covered by building and/or asphalt or concrete pavement legally existing on the site at the time the application is submitted.

Sites in the urban area region are afforded more impervious cover because these regions are already intensively developed. These impervious cover amounts serve to protect undeveloped land, prevent inappropriate development, and concentrate development in areas that are already developed and have the infrastructure to support additional development. Limiting impervious

cover minimizes the negative impacts associated with impervious cover, such as an increase in polluted runoff.

7:7-13.14 Vegetative cover percentages for a site in the upland waterfront development area

(a) The area (in acres) on a site in the upland waterfront development area in which trees and/or herb/shrub vegetation shall be planted or preserved is calculated as follows:

1. To determine the area (in acres) of tree preservation and/or tree planting on the site:
   i. Identify the forested and/or unforested portions of the site, as determined under N.J.A.C. 7:7-13.5;
   ii. If a site or portion of a site identified at (a)1i has more than one development intensity, further divide that site or portion into smaller portions based on their respective development intensities;
   iii. For each forested site or portion identified at (a)1ii above, multiply the acreage of the net land area on the site or portion, as determined under N.J.A.C. 7:7-13.3(e), by the tree preservation and tree planting percentages in Table F below for the development intensity that applies to the site or portion, as determined under N.J.A.C. 7:7-13.12; and
   iv. For each unforested site or portion identified at (a)1ii above, multiply the acreage of the net land area on the site or portion, as determined under N.J.A.C. 7:7-13.3(e), by the tree planting percentage in Table G below for the development intensity that applies to the site or portion, as determined under N.J.A.C. 7:7-13.12; and
2. To determine the area (in acres) of herb/shrub vegetation preservation and/or herb/shrub vegetation planting on the site:
   i. For each portion of the site identified at (a)1ii above, subtract both the acreage of impervious cover allowed under N.J.A.C. 7:7-13.13 and the acreage of tree planting and/or preservation required under (a)1 above from the acreage of the net land area on the site or portion, as determined under N.J.A.C. 7:7-13.3(e).

(b) If the sum of the acreage of tree planting required under (a)1 above plus the acreage of either the existing impervious cover on the site as determined under N.J.A.C. 7:7-13.13(b)2 or the acreage covered by buildings and/or asphalt or concrete pavement as determined under N.J.A.C. 7:7-13.13(b)3 exceeds the net land area on the site, as determined under N.J.A.C. 7:7-13.3(e), then trees shall be planted in the area (in acres) remaining after the acreage of impervious cover or acreage covered by buildings and/or asphalt or concrete pavement is subtracted from the acreage of the net land area on the site.

(c) The preservation or planting of trees and/or herb/shrub vegetation areas shall comply with the vegetative cover requirements at N.J.A.C. 7:7-13.4.

1. The requirement for tree planting at (a)1 above can be satisfied by preserving equivalent forested areas in addition to that required under (a)1 above.
2. The requirement for planting of herb/shrub vegetation at (a)2 above can be satisfied by preserving equivalent wooded areas or planting an equivalent area of trees in addition to that required under (a)1 above.

TABLE F

Tree Preservation and Planting

Percentages for a Forested Site

Development Intensity	Tree Preservation Percentage	Tree Preservation and/or Planting Percentage
High development intensity in an urban area region	25 percent	5 percent
Medium development intensity	25 percent	5 percent
Low development intensity	30 percent	0 percent

TABLE G

Tree Planting Percentages for an Unforested Site

Development Intensity	Tree Preservation and/or Planting Percentage
High development intensity	5 percent
Medium development intensity	20 percent
Low development intensity	5 percent

(d) Rationale: Vegetative cover percentages are based on whether the site or portion of the site is forested or unforested and on the development intensity of the site or site portion. There are two components to vegetative cover requirements; tree preservation and/or planting, and herb/shrub preservation and/or planting. The acreage of herb/shrub vegetation that must be planted is the remaining acreage of net land area after the amount of impervious cover and tree planting/preservation area is subtracted from the total net land area. If the acreage of required tree planting plus the acreage of existing legal impervious cover or the acreage covered by buildings and/or asphalt or concrete pavement exceeds the total acreage of the net land area, then trees must be planted in the area remaining after the acreage of existing impervious cover or acreage covered by buildings and/or pavement is subtracted from the acreage of the net land area. These vegetative cover requirements take into account the existing conditions on the site

and on the surrounding patterns of development in order to promote the benefits of trees and other vegetation while recognizing development needs of the area.

7:7-13.15 Coastal Planning Areas in the CAFRA area

(a) For purposes of this subchapter and consistent with all other rules in this chapter, descriptions and policy objectives for the Coastal Planning Areas in the CAFRA area are set forth in (b) through (f) below.

(b) The Coastal Metropolitan Planning Area includes a variety of communities on the New Jersey coast. This Coastal Planning Area generally has a high population density and existing public water and sewer systems. The policy objectives for the Coastal Metropolitan Planning Area are as follows:

1. Guide development and redevelopment to ensure efficient use of scarce land while capitalizing on the inherent public facility and service efficiencies of concentrated development patterns;
2. Accommodate a variety of housing choices through development and redevelopment;
3. Promote economic development by encouraging redevelopment efforts such as infill, consolidation of property, and infrastructure improvements, and by supporting tourism and related activities;
4. Promote high-density development patterns in coastal urbanized areas to encourage the design and use of public transit and alternative modes of transportation to improve air quality, to improve travel among population and employment centers and transportation terminals, and to promote transportation systems that address the special seasonal demands of travel and tourism along the coast;
5. Encourage the reclamation of environmentally damaged sites and mitigate future negative impacts, particularly to waterfronts, beaches, scenic vistas, and habitats;
6. Promote public recreation opportunities in development and redevelopment projects, and ensure meaningful public access to coastal waterfront areas; and
7. Encourage the repair or replacement of existing infrastructure systems where necessary to ensure that existing and future development will cause minimal negative environmental impacts.

(c) The Coastal Suburban Planning Area is generally located adjacent to the more densely developed Coastal Metropolitan Planning Area, but can be distinguished by a lack of high intensity centers and by a more dispersed and fragmented pattern of development. The existing inventory of undeveloped and underdeveloped land in this Coastal Planning Area should be sufficient to accommodate much of the market demand for future growth and development in the CAFRA area. Internally oriented, mixed-use centers should be encouraged in the Coastal Suburban Planning Area. While development patterns are well established here, development intensities should be highest within CAFRA centers to concentrate development and take

advantage of infrastructure efficiencies. Development in the Coastal Suburban Planning Area outside of centers should be less intense than in centers, and less intense than in the Coastal Metropolitan Planning Area. Development in areas not in centers and not in or adjacent to an existing sewer service area should be less intense than in other parts of the Coastal Suburban Planning Area. The policy objectives for the Coastal Suburban Planning Area are as follows:

1. Encourage mixed-use development and redevelopment in compact centers;
2. Guide opportunities for economic development and employment in centers, and promote seasonal and year-round travel and tourism activities in the coastal resort areas;
3. Encourage links from coastal suburban areas to employment centers with public transit, and promote transportation systems that address the special seasonal demands of travel and tourism along the coast; and
4. Ensure adequate wastewater treatment capacity, and minimize off-site stormwater runoff by encouraging the use of best management practices which protect the character of natural drainage systems.

(d) The Coastal Fringe Planning Area is generally located adjacent to the Coastal Metropolitan Planning Area or the Coastal Suburban Planning Area. It is a predominantly rural area that is neither prime agricultural nor environmentally sensitive land, but which supports agriculture and other resource-based activities. The Coastal Fringe Planning Area is served primarily by a rural, two-lane road network and on-site well water and wastewater systems. It generally lacks public wastewater systems except in existing centers. This Coastal Planning Area is characterized by scattered small settlements and free-standing residential and commercial developments. The policy objectives for the Coastal Fringe Planning Area are as follows:

1. Encourage development in more compact, deliberately designed community patterns to minimize land conflicts and to accommodate growth that would otherwise occur elsewhere, encourage development that does not exceed the carrying capacity of natural or built systems and that maintains or enhances the character of existing communities, and maintain existing low-density and low-intensity development patterns that do not exceed the carrying capacity of natural systems and are consistent with the existing landscape;
2. Encourage rural economic activities, such as agriculture and recreation, and guide higher intensity activities to the centers;
3. Encourage transportation systems that link centers in the Coastal Fringe Planning Area to each other and to the Coastal Metropolitan and Coastal Suburban Planning Areas; and
4. Encourage infrastructure that supports development in centers.

(e) The Coastal Rural Planning Area generally contains most of the CAFRA area's remaining prime agricultural land, as well as large contiguous tracts of forested areas and other open lands. It is interspersed with centers and with scattered commercial, industrial, and low density residential development. It is served by rural road networks and on-site wastewater and water supply systems. The Coastal Rural Planning Area also supports rural economic activities such as

recreation related business. The policy objectives for the Coastal Rural Planning Area are as follows:

1. Protect and enhance the rural character and agricultural viability of the Coastal Rural Planning Area by guiding growth into centers, maintain existing low-density and low-intensity development patterns that are supporting rather than conflicting with the rural landscape, encourage creative land use techniques to minimize the impact of new development on rural features, and ensure that development does not exceed the capacity of natural and built systems;
2. Encourage a transportation network that accommodates agriculture and access to markets;
3. Encourage economic activities in centers that complement and support rural and agricultural communities and that provide diversity in the rural economy, accommodate economic activities outside of centers in ways that maintain or enhance the rural environment, have minimal impact on agricultural resources, and minimize the need for infrastructure improvements; and
4. Protect and preserve large contiguous areas of farmland and open space, and protect the critical resources and environmentally sensitive features of the coastal ecosystem, including water resources and wildlife habitat, by maintaining development outside of centers at low densities, and minimize conflicts between development, agricultural practices, resource based activities, and sensitive coastal resources.

(f) The Coastal Environmentally Sensitive Planning Area generally has large contiguous land and water areas with critical coastal ecosystems, wildlife habitats, geological features, and other valuable coastal resources. Some of these lands have remained rural and relatively undeveloped, while others have been dominated by development for many years, such as the coastal barrier islands and spits. The barrier islands represent a major public investment in infrastructure systems that should be maintained while protecting the economic and ecological value of adjacent coastal resources. Centers on the barrier islands are almost all served by public wastewater facilities whereas centers in other environmentally sensitive areas are not often. Centers are usually linked by rural roads and separated by open spaces, or linked to the mainland by State highways crossing coastal wetlands and waterways. Areas outside of centers in the Coastal Environmentally Sensitive Planning Area are by definition more vulnerable to disturbance from new development. Damage may include fragmentation of landscapes, degradation of aquifers and potable water supplies, habitat destruction, extinction of plant and animal species, and destruction of other irreplaceable resources that are vital to the preservation of the ecological integrity of the coastal area. The Coastal Environmentally Sensitive Planning Area also supports recreation and tourism industries, and resource based industries such as mining and forestry. The policy objectives for the Coastal Environmentally Sensitive Planning Area are as follows:

1. Protect environmentally sensitive features by guiding development into centers and maintaining low intensity development patterns elsewhere, carefully link the location, character and magnitude of development to the capacity of natural and built environments

to support new growth, accommodate development at higher intensities in the Coastal Environmentally Sensitive Planning Area barrier island centers, compatible with development patterns in existing centers, and discourage the development of public infrastructure facilities outside of centers;

2. Encourage transportation systems that link centers and support the travel and tourism industry, recreational and natural resource-based activities, and address the special seasonal demands of travel and tourism to barrier islands;
3. Locate economic development opportunities in centers that serve the surrounding region and the travel and tourism industry and accommodate in other areas appropriate seasonal, recreational, and natural resource based-activities that have a minimal impact on environmental resources; and
4. Protect sensitive natural resources critical to the maintenance of coastal ecosystems by maintaining large contiguous areas of undisturbed habitat, open space and undeveloped land, maintain the balance of ecological systems and growth, and protect the areas outside of centers from the effects of development by maintaining it as open space.

(g) Rationale: The designation of planning areas allows the Department to preserve the most ecologically sensitive parts of the CAFRA area by encouraging development in compact growth areas and limiting it in outlying and environmentally sensitive areas. These broad planning area criteria are applied to the CAFRA permit decision-making process. Development is encouraged or concentrated in areas where development already exists and where infrastructure is already in place to reduce sprawl and preserve remaining open space.

7:7-13.16 Boundaries for Coastal Planning Areas, CAFRA centers, CAFRA cores, and CAFRA nodes; non-mainland coastal centers

(a) The boundaries of the Planning Areas, the community development boundaries of centers, and the boundaries of cores and nodes formally approved by the State Planning Commission as of August 1, 1999**,** are incorporated by reference into this subchapter. These boundaries are the boundaries of the Coastal Planning Areas, CAFRA centers, CAFRA cores, and CAFRA nodes and shall be operative for the purposes of applying the requirements for impervious cover and vegetative cover under this subchapter, unless the Department, in accordance with (b) and (c) below, accepts a State Planning Commission formally approved new or changed boundary, or unless the Department, in accordance with (b) and (e) below, rejects a State Planning Commission formally approved new or changed boundary and subsequently promulgates a revised boundary.

(b) Whenever the State Planning Commission formally approves (see (h) below) any new or changed Planning Area boundary, any new or changed community development boundary, or any new or changed core or node boundary, the Department shall evaluate the new or changed boundary to determine whether it is consistent with the purposes of CAFRA and this chapter. The Department shall not reject or reject and revise a boundary unless it finds that accepting the State Planning Commission approved boundary would result in unacceptable harm to the coastal

ecosystem or the resources of the built or natural environment, or would otherwise be clearly inconsistent with the purposes of CAFRA or this chapter. For those new or changed community development boundaries or new or changed core or node boundaries which are located within the Pinelands National Reserve, the Department shall also, in consultation with the New Jersey Pinelands Commission, determine whether the boundaries are consistent with the intent, policies and objectives of the National Parks and Recreation Act of 1978, P.L. 95-625, section 502, creating the Pinelands National Reserve, and the State Pinelands Protection Act of 1979 (N.J.S.A. 13:18A-1 et seq.). Within 90 calendar days after the date on which the State Planning Commission formally approves such boundary, the Department shall publish in the New Jersey Register a notice of its determination to accept, reject, or reject and revise the boundary for the purposes of this subchapter.

(c) If the Department determines under (b) above to accept the State Planning Commission formally approved new or changed Planning Area boundary, community development boundary, or core or node boundary, the accepted new or changed boundary is incorporated by reference as the boundary of the Coastal Planning Area, CAFRA center, CAFRA core**,** and CAFRA node, and shall be operative 30 calendar days after the date of publication of the New Jersey Register notice under (b) above. A CAFRA center boundary shall supersede the boundary for a corresponding coastal center, if any, in Appendix H. CAFRA centers are listed for informational purposes in Appendix I of this chapter. As part of the New Jersey Register notice published under (b) above, the Department shall incorporate into Appendix I by administrative change the name of each CAFRA center for which the Department has accepted the boundary. However, in order to determine the location of a site with reference to the accepted boundaries of a CAFRA center, CAFRA core, or CAFRA node for purposes of determining the applicable impervious cover limit, an applicant shall refer to the CAFRA Planning Map in accordance with N.J.A.C. 7:7-13.17(b).

(d) If the Department determines under (b) above to reject the State Planning Commission formally approved new or changed Planning Area boundary, community development boundary, or core or node boundary, the boundary incorporated by reference under (a) above shall continue to be operative, except as provided under (e) below.

(e) The Department may determine under (b) above to reject the State Planning Commission formally approved new or changed Planning Area boundary, community development boundary, or core or node boundary and to establish a revised Coastal Planning Area, CAFRA center, CAFRA core, or CAFRA node boundary by promulgating an amendment to this chapter in accordance with the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq. Until the Department promulgates such revised boundary, the Coastal Planning Area, CAFRA center, CAFRA core, or CAFRA node boundary under (a) above shall continue to be operative.

(f) The CAFRA Planning Map, with all Coastal Planning Area, CAFRA center, CAFRA core, and CAFRA node boundaries operative under this section for purposes of this subchapter, is available on the Department's Geographic Information System (GIS) and may be reviewed at the Department, 401 East State Street, Trenton, New Jersey 08625, 609-777-0672.

(g) The boundaries delineated by the Department for non-mainland coastal centers, as defined at N.J.A.C. 7:7-13.2, are described in Appendix H of this chapter.

(h) For purposes of this section, a State Planning Commission formally approved new or changed boundary is one that the State Planning Commission has amended in accordance with the New Jersey State Planning Act, N.J.S.A. 52:18A-196 et seq., and the State Planning rules, N.J.A.C. 5:85.

(i) A site in the CAFRA area may include land in more than one coastal center, Coastal Planning Area, CAFRA center, CAFRA core, or CAFRA node. Where this occurs, the impervious cover limits and vegetative cover percentages appropriate to the respective coastal center, Coastal Planning Area, CAFRA center, CAFRA core, or CAFRA node portions of the site apply.

(j) Neither formal approval by the State Planning Commission of a new or changed boundary for a Planning Area, a new or changed community development boundary, or a new or changed core or node boundary, nor the incorporation by reference and acceptance or revision by the Department of such boundary as the Coastal Planning Area, CAFRA center, CAFRA core, or CAFRA node boundary under this section shall exempt any development from this subchapter or from any of the requirements in this chapter.

(k) Rationale: The boundaries of Planning Areas, community development boundaries of centers, and the boundaries of cores and nodes formally approved by the State Planning Commission as of August 1, 1999, were drawn after a lengthy public process that involved the participation of municipal, county, and State officials and the submittal of thousands of documents from public officials and private organizations and individuals. The Department determined that the boundaries drawn by the State Planning Commission in the CAFRA area are in keeping with the purposes of the CAFRA statute to "encourage the development of compatible land uses in order to improve the overall economic position of the inhabitants of {the CAFRA} area within the framework of a comprehensive environmental design strategy which preserves the most ecologically sensitive and fragile area from inappropriate development and provides adequate environmental safeguards for the construction of any developments in the coastal area." These State Planning Commission boundaries are, therefore, an appropriate starting point for the boundaries depicted in the CAFRA Planning Map, which are used for the purposes of determining impervious cover limits and vegetative cover percentages. However, the CAFRA Planning Map boundaries for Coastal Planning Areas, CAFRA centers, CAFRA cores, and CAFRA nodes will not necessarily always be the same as the boundaries formally approved by the State Planning Commission. The Department evaluates any new or revised boundaries approved by the State Planning Commission in order to determine if the changes are consistent with the purposes of CAFRA and this chapter. If the changes are not consistent with CAFRA and the CZM rules, the Department can choose not to incorporate the changes and may propose modifications to boundaries approved by the State Planning Commission through rulemaking, which allows public input.

7:7-13.17 Impervious cover limits for a site in the CAFRA area

(a) The impervious cover limit for a site in the CAFRA area shall be determined as follows:

1. If a site is located in a CAFRA center, CAFRA core, or CAFRA node, the impervious cover limit is determined under (c) below. Note that the impervious cover limit for such a site is calculated based on the acreage of the total land area on the site, as opposed to the acreage of the net land area on the site;
2. If a site is not located in a CAFRA center, CAFRA core, or CAFRA node but is located in the Coastal Metropolitan Planning Area or in a coastal center, the impervious cover limit is determined under (d) below;
3. If a site is not located in a CAFRA center, CAFRA core, or CAFRA node, and is not located in the Coastal Metropolitan Planning Area or in a coastal center, the cover limit is determined under (e) below; and
4. If a site is located on a military installation, the impervious cover limit is determined under (f) below.

(b) To determine the location of a site for the purposes of determining the applicable impervious cover limit:

1. Determine if the site is located in a CAFRA center, CAFRA core, or CAFRA node by referring to the CAFRA Planning Map;
2. If the site is not located in a CAFRA center, CAFRA core, or CAFRA node, determine if the site is located in a coastal center by referring to Appendix H;
3. If the site is not located in a CAFRA center, CAFRA core, or CAFRA node, and is not located in a coastal center, determine the Coastal Planning Area in which the site is located by referring to the CAFRA Planning Map; and
4. If the site is located on a military installation, see (f) below.

(c) If a site is located in a CAFRA center, CAFRA core, or CAFRA node, the impervious cover limit is the limit at (c)1, 2**,** or 3 below, whichever is higher:

1. The acreage of the total land area on the site as determined under N.J.A.C. 7:7-13.3(e)1, multiplied by the impervious cover percentage in Table H below for the type of CAFRA center, CAFRA core, or CAFRA node in which the site is located;
2. For a site located in the Coastal Metropolitan Planning Area, the acreage of the net land area on the site as determined under N.J.A.C. 7:7-13.3(e), multiplied by the impervious cover percentage in Table H below for the Coastal Metropolitan Planning Area; or
3. The amount of legal, existing impervious cover located on the site, as determined under (g) below.

(d) Subject to the limitations regarding mainland coastal centers at N.J.A.C. 7:7-13.19(e), if a site is located in the Coastal Metropolitan Planning Area or in a coastal center, the impervious cover limit is the limit at (d)1 or 2 below, whichever is higher:

1. The acreage of the net land area on the site as determined under N.J.A.C. 7:7-13.3(e), multiplied by the impervious cover percentage in Table H below for the type of coastal center in which the site is located; or
2. The amount of legal, existing impervious cover located on the site, as determined under (g) below.

(e) If the site is not located in a CAFRA center, CAFRA core, or CAFRA node, is not located in the Coastal Metropolitan Planning Area, and is not located in a coastal center, the impervious cover limit is the limit at (e)1, 2, or 3 below, whichever is higher:

1. The acreage of the net land area on the site as determined under N.J.A.C. 7:7-13.3(e), multiplied by the impervious cover percentage in Table H below for the Coastal Planning Area in which the site is located; or
2. The acreage covered by buildings and/or asphalt or concrete pavement legally existing on the site at the time the application is submitted to the Department, excluding any buildings, asphalt and/or concrete paving placed on a site in accordance with (e)3 below; or
3. For a marina support facility at a legally existing and operating commercial marina including a marina operated by a public agency, commission or authority, the limit at (e)1 or 2 above or the amount of legal existing impervious cover located on the site, as determined under (g) below, provided the marina support facility is placed on existing legal impervious cover, whichever is higher. For the purposes of this subsection, marina support facilities are boat rack systems, facilities for sewage treatment and marina support buildings. Marina support buildings, include**,** but are not limited to, showrooms, sheds, restrooms, and buildings for marine supplies, bait and tackle, boat sales, dock masters office(s), and boat repair, maintenance**,** and manufacturing.

(f) If a site is located on a military installation, the impervious cover limit is the limit at (f)1 or 2 below, whichever is higher:

1. The acreage of the net land area on the site as determined under N.J.A.C. 7:7-13.3(e), multiplied by the impervious cover percentage in Table H below for a military installation; or
2. The amount of legal, existing impervious cover located on the site, as determined under (g) below.

(g) For the purposes of determining impervious cover limits under (c)3, (d)2, (e)3, and (f)2 above, the amount of existing impervious cover is the highest of the following, provided the impervious cover was legally placed on the site:

1. The amount of impervious cover located on the site at the time the application is submitted to the Department;
2. The amount of impervious cover that appears on the applicable 95-97 imagery; or
3. The amount of impervious cover that was placed under the authority of a coastal permit and after the date the photography was performed for the imagery in (g)2 above.

TABLE H

Percentages For Calculating Impervious Cover

Limits Under N.J.A.C. 7:7-13.17

Site Location	Impervious Cover Percentage
CAFRA urban center	90 percent
CAFRA regional center Coastal regional center CAFRA core CAFRA node	80 percent
CAFRA town Coastal town Military installation	70 percent
CAFRA village Coastal village	60 percent
CAFRA hamlet Coastal hamlet	50 percent
Coastal Metropolitan Planning Area	80 percent
Coastal Suburban Planning Area, within a sewer service area	30 percent
Coastal Suburban Planning Area, outside a sewer service area	5 percent
Coastal Fringe Planning Area	5 percent
Coastal Rural Planning Area	3 percent
Coastal Environmentally Sensitive Planning Area	3 percent

(h) Rationale: The impervious cover percentage for sites located in a CAFRA center, CAFRA core, or CAFRA node is determined by multiplying the total land area, rather than the net land area, by the applicable impervious cover percentage, and comparing the resulting amount to the amount of existing legal impervious cover on the site, with the impervious cover limit being whichever is higher. If a site in a CAFRA center, CAFRA core, or CAFRA node is also in the Coastal Metropolitan Planning Area, in addition to the above two factors, the net land area is multiplied by the impervious cover percentage applicable to the Coastal Metropolitan Planning Area, with the impervious cover limit being the highest of the three resulting amounts. Development in these areas furthers the goal of encouraging the concentration of development and discouraging sprawl. Accordingly, more impervious cover is afforded to these areas.

Impervious cover limits for sites in the Coastal Metropolitan Planning Area or in a coastal center are based either on the acreage of net land area multiplied by the applicable impervious cover percentage, or are equal to the amount of existing impervious cover on the site, whichever is higher. Again, it is likely that there is already impervious cover existing on the site. Sites in this planning area or in coastal centers are often already developed and surrounded by development; these rules seek to concentrate development around existing development and infrastructure.

For other sites, the maximum amount of impervious cover allowed is the acreage of net land area multiplied by the applicable impervious cover percentage or the acreage covered by buildings, asphalt, and/or concrete pavement, whichever is higher. Impervious cover for marina support facilities may also equal the amount of legal existing impervious cover on the site if it results in a larger amount of impervious cover than the first two alternatives. This flexibility for marinas is intended to facilitate marina development in order to promote boating in New Jersey and specifically promote the concentration of boating-related development in marinas rather than individual docks.

Military installations are allowed impervious cover equal to the net land area multiplied by 70 percent, or equal to the existing amount of impervious cover, whichever is larger. Military installations are important for national security and require the placement of impervious surface for buildings, pavement, and other structures in order to serve their intended purpose.

Impervious cover percentages set forth in Table H serve to concentrate development in areas with existing development, infrastructure, and capacity for growth. For example, for sites in the Coastal Suburban Planning Area that are within a sewer service area, impervious cover can be up to 30 percent of the net land area of the site. In the same planning area but outside of a sewer service area, impervious cover can only equal five percent of the net land area. This distinction steers suburban development towards areas with adequate infrastructure to support growth.

7:7-13.18 Vegetative cover percentages for a site in the CAFRA area

(a) The area (in acres) on a site in the CAFRA area in which trees and/or herb/shrub vegetation shall be planted or preserved is calculated as follows:

1. To determine the area (in acres) of tree preservation and/or tree planting on the site:

i. Determine the location of the site for purposes of determining applicable vegetative cover percentages using the method described at N.J.A.C. 7:7-13.18(b);

ii. Identify the forested or unforested portions of the site, as determined under N.J.A.C. 7:7-13.5; and

iii. For each forested site or portion identified at (a)1ii above, multiply the acreage of the net land area on the forested site or forested portion as determined under N.J.A.C. 7:7-13.3(e), by the tree preservation percentage in Table I below for the site location that applies to the site or portion, as determined under (a)1i above; and

iv. For each unforested site or portion identified at (a)1ii above, multiply the acreage of the net land area on the site or portion, as determined under N.J.A.C. 7:7-13.3(e), by the tree planting percentage in Table I below for the site location that applies to the site or portion, as determined under (a)1i above; and

2. To determine the area (in acres) of herb/shrub vegetation preservation or planting on the site, subtract both the acreage of the impervious cover allowed under N.J.A.C. 7:7-13.17 and the acreage of tree planting and/or preservation required under (a)1 above from the acreage of the net land area on the site.

(b) If the sum of the acreage of tree planting required under (a)1 above plus the acreage of either the existing impervious cover on the site as determined under N.J.A.C. 7:7-13.17(c), (d), (e)3, or (f) or the acreage covered by buildings and/or asphalt or concrete pavement as determined under N.J.A.C. 7:7-13.17(e)2, exceeds the net land area on the site, as determined under N.J.A.C. 7:7-13.3(e), then trees shall be planted in area (in acres) remaining after the acreage of impervious cover or acreage covered by buildings and/or asphalt or concrete pavement is subtracted from the acreage of the net land area on the site.

(c) The preservation or planting of trees and/or herb/shrub vegetation areas shall comply with the vegetative cover requirements at N.J.A.C. 7:7-13.4.

1. The requirement for tree planting at (a)1 above can be satisfied by preserving equivalent forested areas in addition to that required under (a)1 above.
2. The requirement for planting of herb/shrub vegetation at (a)2 above can be satisfied by preserving equivalent wooded areas or planting an equivalent area of trees in addition to that required under (a)1 above.

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

TABLE I

Tree Preservation and Planting Percentages

For Forested and Unforested Sites

Site Location	Tree preservation percentage for forested portion of site	Tree preservation and/or planting percentage for unforested portion of site
CAFRA urban center CAFRA regional center Coastal regional center CAFRA core CAFRA node Military installation	10 percent	0 percent
CAFRA town Coastal town	25 percent	5 percent
CAFRA village Coastal village	30 percent	5 percent
CAFRA hamlet Coastal hamlet	40 percent	5 percent
Coastal Metropolitan Planning Area	10 percent	0 percent
Coastal Suburban Planning Area, within a sewer service area	35 percent	5 percent
Coastal Suburban Planning Area, outside a sewer service area Coastal Fringe Planning Area Coastal Rural Planning Area Coastal Environmentally Sensitive Planning Area	70 percent	5 percent

(d) Rationale: Vegetative cover percentages are based upon whether the site or portion of the site is forested or unforested, as well as location and existing development patterns. The area of trees required to be preserved and/or planted is calculated by multiplying the net land area by the applicable percent. The acreage of the site remaining after subtracting the impervious cover acreage and acreage of tree planting/preservation from the acreage of the net land area must be planted with herb/shrub vegetation. If the sum of the acreage of tree planting and the existing area of impervious cover or existing area covered by buildings, asphalt, and/or concrete pavement exceeds the net land area acreage, then only the area remaining after the area of impervious cover/buildings/pavement is subtracted from the net land area must be planted with trees. This requirement balances tree planting with existing site conditions and serves to facilitate the redevelopment of sites already covered with impervious surfaces. A higher percentage of the net land area must be preserved trees in forested than in unforested sites or portions of sites in order to protect existing forest habitat. It is important to note that, while Table I includes tree preservation/planting percentages for CAFRA centers, CAFRA cores, and CAFRA nodes, these areas are not subject to the standard tree requirements but instead to the more flexible requirements described at N.J.A.C. 7:7-13.4(b). However, the area subject to those requirements is determined by using Table I, so these areas are included in the table.

As reflected in the other policies within this subchapter, the vegetative cover requirements are intended to concentrate development in areas where infrastructure and services already exist and limit development in outlying and environmentally sensitive areas.

7:7-13.19 Mainland coastal centers

(a) On March 15, 2007, the boundaries delineated by the Department for mainland coastal centers not located on barrier islands, oceanfront spits, or peninsulas in the CAFRA area expired. The expired boundaries were re-established under the Permit Extension of Act of 2008 as amended January 18, 2010, September 19, 2012, and December 26, 2014. The boundaries of mainland coastal centers are described in Appendix J of this chapter.

(b) The boundaries of the mainland coastal centers established in accordance with (a) above shall expire in accordance with P.L. 2012, c. 48 on December 31, 2015. On and after the expiration of the mainland coastal centers, the impervious cover limits and vegetative cover percentages for all sites in the CAFRA area, except for sites in the non-mainland coastal centers in Appendix H of this chapter, shall be determined in accordance with N.J.A.C. 7:7-13.17(c), (e), or (f).

(c) To reflect changes in mainland coastal centers occurring after February 6, 2006, the Department shall publish in the New Jersey Register a notice of administrative change when the boundaries of a mainland coastal center expire under (b) above.

(d) The areas identified at (d)1 through 6 below shall not be considered part of a mainland coastal center, except for purposes of (f) below:

1. Areas mapped as endangered or threatened wildlife species habitat on the Department's Landscape Maps of Habitat for Endangered, Threatened or Other Priority Species. The

data are available from the Department's Division of Fish and Wildlife, Endangered and Nongame Species Program at https://www.nj.gov/dep/fgw/ensp/landscape/index.htm;

2. Areas mapped as Natural Heritage Program priority sites, excluding those lands within the boundaries of these sites mapped in the URBAN lands layer extracted from the most recent NJDEP Land Use/Land Cover GIS data set. Both the Natural Heritage Program priority site data and the URBAN lands data are available as a download at the following webpage: https://www.nj.gov/dep/gis/listall.html;
3. Land that is owned by Federal, State, county or municipal agencies or conservation organizations and dedicated to recreation, conservation of natural resources, wildlife protection, or wildlife management;
4. Special water resource protection areas along a Category One water established under the Stormwater Management rules, N.J.A.C. 7:8. Surface waters that are designated Category One are listed in the Surface Water Quality Standards at N.J.A.C. 7:9B;
5. Wetlands as defined at N.J.A.C. 7:7-9.27; and
6. Areas identified as Coastal Critical Environmental Sites. The data are available as a download at the following webpage: https://www.nj.gov/dep/gis/listall.html.

(e) For the purposes of any CAFRA permit issued for a development within a re-established mainland coastal center pursuant to (a) above:

1. The impervious cover limits and vegetative cover percentages for those portions of the site located within the mainland coastal center shall be determined in accordance with N.J.A.C. 7:7-13.17(d) and 13.18, respectively, provided no portion of the proposed development, is located outside the boundaries of the mainland coastal center, or in one of the areas identified at (d)1 through 6 above.
2. If any portion of the proposed development is located outside of the mainland coastal center boundaries, or in one of the areas identified at (d)1 through 6 above, then the impervious cover limits and vegetative cover percentages for the entire development shall be determined in accordance with N.J.A.C. 7:7-13.17(e) and 13.18, respectively, for the appropriate Coastal Planning Area.

(f) For the purposes of (d)6 above, the boundaries of the Critical Environmental Sites on the State Plan Policy Map adopted by the State Planning Commission on March 1, 2001, are incorporated by reference into this subchapter. These boundaries are the boundaries of the Coastal Critical Environmental Sites. Whenever the State Planning Commission formally approves any new or changed Critical Environmental Site boundary within a mainland coastal center, the Department shall evaluate the new or changed boundary to determine whether it is consistent with the purposes of CAFRA and this chapter. The Department shall not reject, or reject and revise, a boundary unless it finds that accepting the State Planning Commission approved boundary would result in unacceptable harm to the coastal ecosystem or the resources of the built or natural environment, or would otherwise be inconsistent with the purposes of CAFRA or this chapter. For those new or changed Critical Environmental Site boundaries

located within the Pinelands National Reserve, the Department shall also, in consultation with the New Jersey Pinelands Commission, determine whether the boundaries are consistent with the intent, policies and objectives of the National Parks and Recreation Act of 1978, P.L. 95-625, section 502, creating the Pinelands National Reserve, and the State Pinelands Protection Act of 1979 (N.J.S.A. 13:18A-1 et seq.). Within 90 calendar days after the date on which the State Planning Commission formally approves such boundary, the Department shall publish in the New Jersey Register a notice of its determination to accept, reject, or reject and revise the boundary for the purposes of (d) above.

1. If the Department accepts the State Planning Commission formally approved new or changed Critical Environmental Site boundary, the accepted new or changed boundary is incorporated by reference as the boundary of the Coastal Critical Environmental Site, and shall be operative 30 calendar days after the date of publication of the New Jersey Register notice under this subsection.
2. If the Department determines under this subsection to reject the State Planning Commission formally approved new or changed Critical Environmental Site boundary, any applicable boundary incorporated by reference under this subsection shall continue to be operative, except as provided under (f)3 below.
3. The Department may determine under this subsection to reject the State Planning Commission formally approved new or changed Critical Environmental Site boundary and to establish a revised Coastal Critical Environmental Site boundary by promulgating an amendment to this chapter in accordance with the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq. Until the Department promulgates such revised boundary, any applicable Coastal Critical Environmental Site boundary under this subsection shall continue to be operative.

(g) Rationale: The 1993 amendments to CAFRA required that the rules adopted to implement those amendments be closely coordinated with the State Development and Redevelopment Plan. In response to these statutory amendments, the Department adopted new rules for determining impervious cover limits and vegetative cover percentages for sites in the CAFRA area based on the site's location in a CAFRA center, core or node, Coastal Planning Area or coastal center (see 32 N.J.R. 503(a)) with higher impervious cover allowed in a coastal or CAFRA center. A five-year term was established for the boundaries of coastal centers located on the less developed mainland (mainland coastal centers), with the five-year term expiring February 5, 2005. This five-year term was intended to provide sufficient time for municipalities to obtain center designation through the State Planning process and ultimately achieve CAFRA center status. In consideration that some local governments had committed substantial time and money on diligent efforts to obtain plan endorsement from the State Planning Commission, the Department determined it appropriate to re-establish the boundaries of mainland coastal centers that expired on February 7, 2005, for a limited term and in limited circumstances. Re-established mainland coastal centers remained effective until March 15, 2007, or until the municipality's petition for plan endorsement was approved by the State Planning Commission and the Department determined the appropriateness of the State Planning Commission approved center boundary as a CAFRA center boundary, whichever occurs first (38 N.J.R. 928(c)). In September 2008, the

Permit Extension Act of 2008 was enacted. This Act re-established certain mainland coastal centers. The Act initially extended the expiration of approvals covered by the Act, including mainland coastal centers, to July 1, 2010. The Permit Extension Act of 2008 was subsequently extended on January 18, 2010. As a result of the 2010 amendments to the Permit Extension Act of 2008, the boundaries of certain mainland coastal centers were extended through March 15, 2013.

On September 19, 2012, the Permit Extension Act of 2008 at N.J.S.A. 40:55D-136.2 through 136.6 was further amended by P.L. 2012, c. 48. This Act further extended center designations in municipalities that had submitted an application for plan endorsement to the State Planning Commission as of March 15, 2007, and were in compliance with the provisions of existing N.J.A.C. 7:7E-5B.6. In accordance with P.L. 2012, c. 48, these centers expired December 31, 2015. P.L. 2016, c. 14, extended the Permit Extension Act for Sandy-impacted counties until December 31, 2016. All mainland coastal centers have now expired. The impervious cover and vegetative cover requirements for the expired mainland coastal centers in the CAFRA area are subject to N.J.A.C. 7:7-13.17(c), (e), or (f).

Certain areas are not included in mainland coastal centers. These areas include mapped endangered or threatened wildlife habitat, Natural Heritage Program priority sites, land dedicated to recreation, conservation, or wildlife protection/management, wetlands, and Coastal Critical Environmental Sites. In order for the impervious cover and vegetative cover requirements for a coastal center to apply, the entire proposed development must be located within the area of the coastal center. These provisions ensure that coastal centers do not expand inappropriately or contribute to sprawl.

The State Planning Commission's approved boundaries of Critical Environmental Sites are incorporated into the CZM Rules as Coastal Critical Environmental Sites. When the State Planning Commission approves any new or changed Critical Environmental Site boundary, the Department will evaluate the change for consistency with the purposes of CAFRA and the CZM Rules, and will accept, reject, or reject and revise the boundary of the Coastal Critical Environmental Site for the purposes of this chapter accordingly. These procedures remain relevant even since the expiration of the mainland coastal centers.

SUBCHAPTER 14. GENERAL LOCATION RULES

7:7-14.1 Rule on location of linear development

(a) A linear development shall comply with the specific location rules to determine the most acceptable route, to the maximum extent practicable. If part of the proposed alignment of a linear development is found to be unacceptable under the specific location rules (for example, the proposed alignment does not result in the linear development impacting the least possible area), that alignment may nonetheless be acceptable, provided the following conditions are met:

1. There is no prudent or feasible alternative alignment which would have less impact on sensitive areas and marine fish or fisheries, as defined at N.J.A.C. 7:7-16.2;

2. There will be no permanent or long-term loss of unique or irreplaceable areas;
3. Appropriate measures will be used to mitigate adverse environmental impacts to the maximum extent feasible, such as restoration of disturbed vegetation, habitats, and land and water features; and
4. The alignment is located on or in existing transportation corridors and alignments, to the maximum extent practicable.

(b) Rationale: Linear development, including public roads and utilities, serve a public need. Appropriate flexibility is afforded to such development in strictly circumscribed cases. This flexibility ensures that appropriate linear development projects can proceed in cases where the project does not meet all requirements of a specific location rule but nonetheless has no alternative design, does not permanently destroy unique or irreplaceable areas, includes appropriate mitigation of adverse environmental impacts, and is collocated with existing transportation corridors and alignments as much as possible. This common sense approach appropriately balances linear development needs with the protection of the coastal environment.

7:7-14.2 Basic location rule

(a) A location may be acceptable for development under N.J.A.C. 7:7-9, 12, 13, and 14, but the Department may reject or conditionally approve the proposed development of the location as reasonably necessary to:

1. Promote the public health, safety, and welfare;
2. Protect public and private property, wildlife and marine fisheries; and
3. Preserve, protect and enhance the natural environment.

(b) Rationale: This rule is intended to afford appropriate discretion to the Department to reject or conditionally approve projects that otherwise meet the applicable rules but may pose a threat to the public, natural resources, property, or the environment. This common sense approach recognizes that unusual circumstances may result in a project meeting the letter of the rules but not their intent and provides necessary parameters for the Department's review of such projects.

7:7-14.3 Secondary impacts

(a) Secondary impacts are the effects of additional development likely to be constructed as a result of the approval of a particular proposal. Secondary impacts can also include traffic increases, increased recreational demand and any other offsite impacts generated by onsite activities which affect the site and surrounding region.

(b) Coastal development that induces further development shall demonstrate, to the maximum extent practicable, that the secondary impacts of the development will satisfy this chapter. The Department may restrict coastal development from connecting to an approved infrastructure in

order to prevent adverse impacts to special areas as defined at N.J.A.C. 7:7-9 and to protect and preserve coastal resources.

1. The level of detail and areas of emphasis of the secondary impact analysis are expected to vary depending upon the type of development. Minor projects may not even require such an analysis. Transportation and wastewater treatment systems are the principal types of development that require a secondary impact analysis, but major industrial, energy, commercial, residential, and other projects may also require a rigorous secondary impact analysis.
2. Secondary impact analysis must include an analysis of the likely geographic extent of induced development, its relationship to the State Development and Redevelopment Plan, an assessment of likely induced point and non-point air and water quality impacts, and evaluation of the induced development in terms of all applicable special area rules, N.J.A.C. 7:7-9; general water area rules, N.J.A.C. 7:7-12; requirements for impervious cover and vegetative cover for general land areas and certain special areas, N.J.A.C. 7:7-13; location rules, N.J.A.C. 7:7-14; and resource rules, N.J.A.C. 7:7-16.
3. Models for secondary impact analysis may be found in New Jersey Department of Community Affairs, Division of State and Regional Planning, Secondary Impacts of Regional Sewerage Systems (1975), and in USEPA, Manual for Evaluating Secondary Impacts of Wastewater Treatment Facilities (EPA-600/5-78-003, 1978).

(c) Rationale: Further development stimulated by new development and the cumulative effects of coastal development, including development not directly managed by the Department, may gradually adversely affect the coastal environment. The capacity of existing infrastructure does, however, limit the amount and geographic extent of possible additional development. Secondary impact analysis, particularly of proposed infrastructure, enables the Department to ascertain that the direct, short-term effects, and the indirect or secondary effects of a proposed development will be consistent with the basic objectives of New Jersey's Coastal Management Program. Secondary impact analysis enables the Department to evaluate likely cumulative impacts in the course of decision-making on specific projects.

SUBCHAPTER 15. USE RULES

7:7-15.1 Purpose and scope

Many types of development seek to locate in the coastal zone. The second stage in the screening process of the Coastal Zone Management rules involves analysis of appropriate uses of coastal resources. Use rules are rules and conditions applicable to particular kinds of development. Use rules do not preempt location rules which restrict development, unless specifically stated. In general, conditions contained in the use rules must be satisfied in addition to the location rules (N.J.A.C. 7:7-9 through 14), and the resource rules described in the following subchapter (N.J.A.C. 7:7-16).

7:7-15.2 Housing

(a) "Housing" includes single family detached houses, multi-family units with apartments or town houses, high-rise buildings and mixed use developments.

(b) Standards relevant to water area and water's edge housing are as follows:

1. New housing or expansion of existing habitable housing is prohibited in water areas. Reconstruction of existing habitable structures on pilings located over water areas is conditionally acceptable except when damaged by wind, water, or waves, in which case reconstruction is prohibited.
2. In special urban areas and along large rivers where water dependent uses are demonstrated to be infeasible, new housing is also acceptable on structurally sound existing pilings, or where piers have been removed as part of the harbor clean-up program, the equivalent pier area may be replaced in the same or another location.
   i. Structurally sound existing pilings may be reconfigured provided that the total area of water coverage is not increased and fisheries resources are not adversely impacted.
   ii. Expansion of the total area of water coverage is discouraged, except where it can be shown that extensions are functionally necessary for water dependent uses.
   iii. New housing acceptable under this rule shall be consistent with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.
3. Housing is conditionally acceptable in the filled water's edge, provided that it meets the requirements of the filled water's edge rule, N.J.A.C. 7:7-9.23, lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9. The residential development shall comply with the requirements for impervious cover and vegetative cover that apply to the site under N.J.A.C. 7:7-13, except on bay islands where the requirements of the bay islands rule, 7:7-9.21, shall apply.
4. New housing involving the stabilization of existing lagoons through revegetation, bulkheading, or other means is conditionally acceptable provided that the conditions of the existing lagoon edge rule, N.J.A.C. 7:7-9.24, and the filling rule, N.J.A.C. 7:7-12.11, are satisfied.
5. On sites with existing shore protection structures, the residential structure shall be set back a minimum of 25 feet from the oceanfront shore protection structures, and a minimum of 15 feet from shore protection structures elsewhere. This distance shall be measured from the waterward face of a bulkhead or seawall and from the top of slope on the seaward side of the revetment.
6. Water area and water's edge housing shall include a provision for boat ramps wherever feasible unless an accessible boat ramp is nearby.

(c) Standards relevant to floating homes are as follows:

1. Floating homes are prohibited in the coastal zone. Those floating homes registered with the New Jersey Department of Motor Vehicles prior to June 1, 1984 are not subject to this paragraph.

(d) Standards relevant to cluster development are as follows:

1. Housing developments are encouraged to cluster dwelling units on the areas of sites most suitable for development. "Clustering" is defined as an increase of net density realized by reducing the size of private lots and retaining or increasing the gross density of a project.

(e) Standards relevant to the development of one or two single-family homes or duplexes and/or accessory development (such as garages, sheds, pools, driveways, grading, excavation, filling, and clearing, excluding shore protection structures) which does not result in the development of more than two single-family homes or duplexes either solely or in conjunction with a previous development as defined at N.J.A.C. 7:7-2.2(b)8, and provided the single-family home(s) or duplex(es) and accessory development are located landward of the mean high water line are as follows:

1. Development shall comply with N.J.A.C. 7:7-9.22, Beaches, 7:7-9.27, Wetlands, 7:7-9.28, Wetland buffers, and 7:7-9.36, Endangered or threatened wildlife or vegetation species habitats;
2. Development within riparian zones, as defined in the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13-1.2 and in this chapter at N.J.A.C. 7:7-9.26, shall comply with the following:
   i. No disturbance is located within 25 feet of any top of bank, unless the project lies adjacent to a lawfully existing bulkhead, retaining wall, or revetment along a tidal water or impounded fluvial water;
   ii. Within a 50-foot riparian zone, no more than 3,500 square feet of riparian zone vegetation is cleared, cut, and/or removed; and
   iii. Within a 150-foot or 300-foot riparian zone, no more than 7,000 square feet of riparian zone vegetation is cleared, cut, and/or removed.
3. On filled water's edge sites that have included a water dependent use at any time since July of 1977, development shall comply with the filled water's edge rule, N.J.A.C. 7:7-9.23.
4. Development shall comply with N.J.A.C. 7:7-9.16, Dunes, except as provided under (e)4i or ii below.
   i. Development that is located on the landward slope of a secondary or tertiary dune as described at (e)4i(2) below, whichever is most landward, need not comply with the dunes rule, N.J.A.C. 7:7-9.16, if the site and the development meet all of the following criteria:
      (1) The area of the site proposed to be developed is located greater than 500 feet landward of the mean high water line of the adjacent water body;

(2) The cross-sectional volume per linear foot of the primary frontal dune waterward of the proposed single family home or duplex as measured above the 100-year stillwater elevation and waterward of the primary frontal dune crest, is greater than 1,100 square feet. For the purposes of this section, primary frontal dune means a continuous or nearly continuous mound or ridge of sand with relatively steep waterward and landward slopes immediately landward of and adjacent to the beach, and subject to erosion and overtopping from high tides and waves during major coastal storms. Secondary and tertiary dunes means the second and third dune mound or ridge, respectively, landward from and adjacent to the primary frontal dune;

(3) The beach area adjacent to the proposed development is either naturally stable without beach nourishment or naturally accretional without beach nourishment, as determined by using the method described at N.J.A.C. 7:7-9.19, Erosion hazard areas, and the information in the Department's Geographic Information System (GIS) database as found in the Historical Shoreline coverage 1836-1986; and

(4) The site disturbance, including grading, excavation and vegetation removal, is limited to that necessary to develop the single family home or duplex and/or accessory structures; or

ii. Development that is located on a dune which is isolated from a beach and dune system by a paved public road, public seawall or public bulkhead, existing on July 19, 1993, need not comply with the dunes rule at N.J.A.C. 7:7-9.16, if the site and the development meet all of the following criteria:

(1) The road, seawall or bulkhead is of sufficient size to be designated as the V zone boundary on the applicable FEMA flood mapping;

(2) The road, seawall or bulkhead has eliminated the protective function of the isolated dune, by providing a significant barrier to coastal processes, including storm waves and flooding;

(3) The road, seawall or bulkhead is functional and is currently maintained by a public entity;

(4) The area of proposed construction is designated as an A zone, B zone, or C zone on the applicable FEMA flood mapping;

(5) The site disturbance, including grading, excavation and vegetation removal, is limited to that necessary to develop the single family home or duplex and/or accessory structures; and

(6) The proposed development does not include the construction of a shore protection structure;

5. Development shall comply with N.J.A.C. 7:7-9.29, Coastal bluffs, if the site is located on the Atlantic Ocean, Delaware Bay, Raritan Bay, or Sandy Hook Bay. Coastal bluffs are defined at N.J.A.C. 7:7-9.29(a). If the site is not located on one of the four water bodies

listed above, the development shall comply with the setback requirements at (e)13i below, unless the development meets either (e)5i or ii below:

i. The development is located in the "developed bluff area." For the purposes of this paragraph, a "developed bluff area" is an area delineated by the limit of existing buildings, in-ground pool or tennis court that existed on July 19, 1993; or

ii. The development on the coastal bluff is located landward of the developed bluff area as defined at (e)5i above, and does not exceed the cumulative surface area of the developed bluff area on the site. If all or part of the proposed development on the coastal bluff is located landward of the existing developed bluff area, an equivalent area of the existing developed bluff area shall be restored through the planting of native woody vegetation species.

6. Development shall comply with N.J.A.C. 7:7-9.18, Coastal high hazard areas, and 9.19, Erosion hazard areas, except as excluded under (i) below;

   i. Development that is located on a site partially or completely within a coastal high hazard area or erosion hazard area need not comply with the coastal high hazard areas rule, N.J.A.C. 7:7-9.18, or erosion hazard areas rule at N.J.A.C. 7:7-9.19 if:

      (1) The lot was shown as a subdivided lot prior to July 19, 1993;

      (2) The lot is served by a municipal sewer system; and

      (3) house or commercial building is located within 100 feet of each of the lot lines that run roughly perpendicular to the mean high water line. The 100 feet shall be measured outward from each lot line, along a line generally parallel to the mean high water line;

7. Public access shall be provided in accordance with the public access rule, N.J.A.C. 7:7-16.9.

8. The use of plastic under landscaped or gravel areas is prohibited. All sub-gravel liners shall be made of filter cloth or other permeable material;

9. Any driveway shall be covered with a permeable material or else shall be pitched to drain all runoff onto permeable areas of the site;

10. For a wooded site, site clearing shall be limited to an area no more than 20 feet from the footprint of the single family home or duplex and the area necessary for driveway, septic, and utility line installations;

11. The development shall comply with the requirements of the flood hazard areas rule at N.J.A.C. 7:7-9.25;

12. For a site adjacent to or including surface water bodies or wetlands, a silt fence with a 10-foot landward return shall be erected at the limit of disturbance along the waterward and wetland sides of the development before construction begins. This fence shall be maintained and remain in place until all construction and landscaping is completed;

13. Development shall comply with the following setbacks:

i. On a site with coastal bluffs that is not located on the Atlantic Ocean, Delaware Bay, Raritan Bay, or Sandy Hook Bay, the single family home or duplex and/or accessory structures shall be set back a minimum of 10 feet from the crest of the bluff provided that development will not result in a loss of stability of the bluff or vegetation on the bluff face. Any structure that requires excavation shall be set back one foot beyond the 10 foot setback for every foot of excavation below existing grade;

ii. On an oceanfront site with existing or proposed shore protection structures, the single family home or duplex and/or accessory structures (except decks) shall be set back at least 25 feet from existing or proposed oceanfront shore protection structures. This distance shall be measured from the waterward face of a bulkhead or seawall and from the top of slope on the waterward face of the revetment. This setback shall not apply to below grade structures;

iii. On a non-oceanfront site with existing or proposed shore protection structures, the single-family home or duplex and/or accessory structures (except decks) shall be set back at least 15 feet from existing or proposed shore protection structures. If there is no alternative to locating the proposed development at least 15 feet landward of the shore protection structure, the Department shall reduce the required setback if an engineering certification is submitted demonstrating that, after the proposed development has been constructed, the shore protection structure can be replaced within 18 inches of the existing shore protection structure and a conservation restriction that complies with N.J.A.C. 7:7-18 is recorded for the property which states that any reconstruction of a shore protection structure shall be within 18 inches of the existing shore protection structure. A site with coastal bluffs shall instead comply with (e)13i above; and

14. The standards for the expansion or reconstruction (with or without expansion) of a single family home or duplex are found at N.J.A.C. 7:7-15.2(f).

(f) Standards relevant to the expansion, or reconstruction (with or without expansion) of a legally constructed habitable single-family home or duplex and/or accessory development (such as garages, sheds, pools, driveways, grading, excavation, filling, and clearing, excluding shore protection structures) which does not result in the development of more than one single-family home or duplex either solely or in conjunction with a previous development as defined at N.J.A.C. 7:7-2.2(b)8, and provided the single-family home or duplex and accessory development are located landward of the mean high water line are as follows:

1. Development shall comply with N.J.A.C. 7:7-9.22, Beaches, 9.26 Riparian Zones, 9.27, Wetlands, 9.28, Wetland buffers, and 9.36, Endangered or threatened wildlife or vegetation species habitats;

2. Development shall comply with N.J.A.C. 7:7-9.16, Dunes, except as provided under (f)2i ii, and iii below.

   i. Development that is located on the landward slope of a secondary or tertiary dune as described at (f)2i(2) below, whichever is most landward, need not comply with the

dunes rule, N.J.A.C. 7:7-9.16, if the site and the development meet all of the following criteria:

(1) The area of the site proposed to be developed is located greater than 500 feet landward of the mean high water line of the adjacent water body;

(2) The cross-sectional volume per linear foot of the primary frontal dune waterward of the proposed single family home or duplex as measured above the 100-year stillwater elevation and waterward of the primary frontal dune crest, is greater than 1,100 square feet. For the purpose of this section, primary frontal dune means a continuous or nearly continuous mound or ridge of sand with relatively steep waterward and landward slopes immediately landward of and adjacent to the beach, and subject to erosion and overtopping from high tides and waves during major coastal storms. Secondary and tertiary dunes means the second and third dune mound or ridge, respectively, landward from and adjacent to the primary frontal dune;

(3) The beach area adjacent to the proposed development is either naturally stable without beach nourishment or naturally accretional without beach nourishment, as determined by using the method described at N.J.A.C. 7:7-9.19, Erosion hazard areas, and the information in the Department's Geographic Information System (GIS) database as found in the Historical Shoreline coverage 1836-1986; and

(4) The site disturbance, including grading, excavation and vegetation removal, is limited to that necessary to expand or reconstruct the single family home or duplex and/or accessory structures;

ii. Development that is located on a dune which is isolated from a beach and dune system by a paved public road, public seawall, or public bulkhead, existing on July 19, 1993, need not comply with the dunes rule at N.J.A.C. 7:7-9.16, if the site and the development meet all of the following criteria:

(1) The road, seawall, or bulkhead is of sufficient size to be designated as the V zone boundary on the applicable FEMA flood mapping;

(2) The road, seawall or bulkhead has eliminated the protective function of the isolated dune, by providing a significant barrier to coastal processes, including storm waves and flooding;

(3) The road, seawall or bulkhead is functional and is currently maintained by a public entity;

(4) The area of proposed construction is designated as an A zone, B zone or C zone on the applicable FEMA flood mapping;

(5) The site disturbance, including grading, excavation and vegetation removal, is limited to that necessary to expand or reconstruct the single family home or duplex and/or accessory structures; and

(6) The proposed development does not include the construction of a shore protection structure.

iii. Development that is located on a dune need not comply with the dunes rule, N.J.A.C. 7:7-9.16, if the development meets the following criteria:

(1) The single family home or duplex legally existed on July 19, 1993;

(2) The development constructed after July 19, 1993 does not exceed a cumulative surface area of 750 square feet on the dune, excluding the area of reconstruction within the existing footprint of development and the area of development authorized under (f)iv below above;

(3) The development is located within the footprint of development of the existing single family home or duplex and/or on the landward side of the existing footprint of development and within the area between lines extended landward and perpendicular to the mean high water line from the widest shore parallel points of the existing footprint of development, except as provided at (f)2iii(4) below;

(4) For every 10 feet the footprint of development of the single family home or duplex is set back landward on the lot from the existing footprint of development of the single family home or duplex, the total area of development may be increased by 200 square feet in addition to that authorized in (f)2iii(2), provided the additional square footage is constructed on the non-waterward side of the single family home or duplex;

(5) The dune area waterward of the single-family home or duplex is enhanced as follows:

(A) Sand fill shall be placed as necessary to establish a uniform dune crest elevation matching the highest dune crest elevation at the site; and

(B) Native dune vegetation shall be planted as necessary to establish vegetative cover in accordance with the specifications contained in the Guidelines and Recommendations for Coastal Dune Restoration and Creation Projects (DEP, 1985) and/or Restoration of Sand Dunes Along the Mid-Atlantic Coast (U.S. Soil Conservation Service, 1992). These documents are available upon request from the Department's Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6; and

(6) A conservation restriction for the dune areas waterward of the existing and/or approved single-family home or duplex and/or accessory development that complies with N.J.A.C. 7:7-18 is recorded.

iv. Development that is located on a dune and entails the enclosure of an existing deck, patio, or porch, need not comply with the dunes rule, N.J.A.C. 7:7-9.16, if the development meets the following criteria:

(1) The development is the enclosure of a deck, patio, or porch;

(2) The deck, patio, or porch enclosure is located on the non-waterward side of the single-family home or duplex;

(3) The deck, patio, or porch legally existed on July 19, 1993;

(4) The deck, patio, or porch abuts the dwelling;

(5) The enclosure does not extend beyond the limit of the existing deck, patio, or porch as it existed on July 19, 1993;

(6) The footprint of development of the deck, patio, or porch enclosure does not exceed 400 square feet;

(7) The dune area waterward of the single-family home or duplex is enhanced as follows:

(A) Sand fill shall be placed as necessary to establish a uniform dune crest elevation matching the highest existing dune crest elevation at the site; and

(B) Native dune vegetation shall be planted in accordance with the specifications contained in the Guidelines and Recommendations for Coastal Dune Restoration Projects (DEP, 1985) and/or Restoration of Sand Dunes Along the Mid-Atlantic Coast (U.S. Soil Conservation Service, 1992). These documents are available upon request from the Department's Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6; and

(8) A conservation restriction for the dune areas waterward of the existing and/or approved single family home or duplex and/or accessory development that complies with N.J.A.C. 7:7-18 is recorded.

3. Development shall comply with N.J.A.C. 7:7-9.29, Coastal bluffs, if the site is located on the Atlantic Ocean, Delaware Bay, Raritan Bay, or Sandy Hook Bay. Coastal bluffs are defined at N.J.A.C. 7:7-9.29(a). If the site is not located on one of the four water bodies listed above, the development shall comply with the setback requirements at (f)11i below, unless the development meets either (f)3i or ii below:

i. The development is located in the "developed bluff area." For the purposes of this paragraph, a "developed bluff area" is an area delineated by the limit of existing buildings, in-ground pool or tennis court that existed on July 19, 1993; or

ii. The development on the coastal bluff is located landward of the developed bluff area as defined at (f)3i above, and does not exceed the cumulative surface area of the developed bluff area on the site. If all or part of the proposed development on the coastal bluff is located landward of the existing developed bluff area, an equivalent area of the existing developed bluff area shall be restored through the planting of native woody vegetation species.

4. Development shall comply with N.J.A.C. 7:7-9.18, Coastal high hazard areas, and N.J.A.C. 7:7-9.19, Erosion hazard areas, except as excluded under (i) below.

i. Development that is located on a site partially or completely within a coastal high hazard area or erosion hazard area need not comply with the coastal high hazard areas rule, N.J.A.C. 7:7-9.18, or erosion hazard areas rule at N.J.A.C. 7:7-9.19 if:

(1) The lot was shown as a subdivided lot prior to July 19, 1993;

(2) The lot is served by a municipal sewer system; and

(3) A house or commercial building is located within 100 feet of each of the lot lines that run roughly perpendicular to the mean high water line. The 100 feet shall be measured outward from each lot line, along a line generally parallel to the mean high water line;

5. Public access shall be provided in accordance with the public access rule, N.J.A.C. 7:7-16.9;

6. The use of plastic under landscaped or gravel areas is prohibited. All sub-gravel liners shall be made of filter cloth or other permeable material;

7. Any driveway shall be covered with a permeable material or else shall be pitched to drain all runoff onto permeable areas of the site;

8. For a wooded site, site clearing shall be limited to an area no more than 20 feet from the footprint of the single family home or duplex and the area necessary for driveway, septic, and utility line installations;

9. The development shall comply with the requirements of the flood hazard areas rule at N.J.A.C. 7:7-9.25;

10. For a site adjacent to or including surface water bodies or wetlands, a silt fence with a 10-foot landward return shall be erected at the limit of disturbance along the waterward and wetland sides of the development before construction begins. This fence shall be maintained and remain in place until all construction and landscaping is completed;

11. Development shall comply with the following setbacks:

i. On a site with coastal bluffs that is not located on the Atlantic Ocean, Delaware Bay, Raritan Bay, or Sandy Hook Bay, the single-family home or duplex and/or accessory structures shall be set back a minimum of 10 feet from the crest of the bluff provided that the development will not result in a loss of stability of the bluff or vegetation on the bluff face. Any structure that requires excavation shall be set back one foot beyond the 10-foot setback for every foot of excavation below existing grade;

ii. On an oceanfront site with existing or proposed shore protection structures, the single-family home or duplex and/or accessory structures (except decks) shall be set back at least 25 feet from existing or proposed oceanfront shore protection structures. This distance shall be measured from the waterward face of a bulkhead or seawall and from the top of slope on the waterward face of the revetment. This setback shall not apply to below grade structures; and

iii. On a non-oceanfront site with existing or proposed shore protection structures, the single-family home or duplex and accessory structures (except decks) shall be set back at least 15 feet from existing or proposed shore protection structures. If there is no alternative to locating the proposed development at least 15 feet landward of the shore protection structure, the Department shall reduce the required setback if an engineering certification is submitted demonstrating that, after the proposed development has been constructed, the shore protection structure can be replaced within 18 inches of the existing shore protection structure and a conservation restriction that complies with N.J.A.C. 7:7-18 is recorded for the property which states that any reconstruction of a shore protection structure shall be within 18 inches of the existing shore protection structure. A site with coastal bluffs shall instead comply with (f)11i above; and

12. The standards for the development of one or two single-family homes or duplexes are found at N.J.A.C. 7:7-15.2(e).

(g) The standards relevant to housing and transportation are as follows:

1. The development of housing at locations and densities that contribute to the feasibility of public transportation is encouraged.
2. Residential developments are encouraged to include bicycle paths to activity centers and bicycle storage facilities.
3. Residential developments are encouraged to provide pedestrian amenities which include lighted walkways with benches, lighted sidewalks with curb ramps and intersections, shade trees, and pedestrian controlled traffic lights.

(h) Rationale: Housing is not dependent on water access, and does not generally qualify for exemption to the rule of restricting non-water dependent development along the water's edge. In addition to this general restriction, most of the special area rules contain specific restrictions that have the practical effect of discouraging or prohibiting new development, including housing, from sensitive areas.

Housing provided by a floating home is no different than land-based housing. Floating homes, therefore, are not water dependent, and should not be permitted to preempt limited land's edge locations from water dependent uses such as boating. Boats that are used for navigation and serve a secondary function as houses are not considered floating homes and are not prohibited, as their main purpose is dependent on access to the water. Their main purpose is to provide transportation on the water and they are, therefore, water dependent; they are considered vessels and not housing for the purposes of this rule. Floating homes have an adverse impact on water quality through grey water discharges. The proliferation of houseboats in New Jersey would have a cumulative adverse effect on water quality, navigation, and aesthetics. Floating homes conflict with water dependent and recreational uses, can impact localized sedimentation patterns, and can have an adverse effect on nearshore fish, aquatic, and avian habitats. Therefore, floating homes are prohibited.

In cases where housing development is conditionally acceptable, clustering is encouraged. The open space that is produced by clustering can be returned to the community as common open space. The location policies define certain sensitive areas where development is limited. When such areas are present on site, the acceptable gross density may have to be reduced, unless the net density can be increased by clustering. Where municipal zoning requires minimum lot sizes that preclude clustering, applicants are encouraged to seek local approval, through new ordinances and/or variances, to maintain the permissible gross density by clustering. The Department will aid this endeavor by providing a rationale and testimony, as appropriate, especially for the protection of sensitive areas. Cluster developments lessen the impact of construction by preserving valued soil, open space, vegetation, and aquifer recharge resources. Some cluster developments also increase insulation and reduce energy consumption due to shared walls between units.

While planned cluster developments are often preferred, single-family homes and duplexes are the most prevalent type of development along the developed oceanfront communities of the Jersey Coast. This rule recognizes the importance of protecting the safety of local residents from the natural shoreline changes and hazard areas, especially in the event of a storm. However, in view of the extensive development that has occurred along the coast and the minimal impacts associated with the development of one or two single-family homes or duplexes, construction of these developments on dunes and coastal bluffs, and within coastal high hazard areas and erosion hazard areas, is acceptable in certain situations.

Development of one or two single-family homes or duplexes on a dune may be acceptable in cases where the development is proposed on the landward slope of a secondary or tertiary dune or the dune is isolated from a beach and dune system by a paved public road, public seawall, or public bulkhead. One or two single-family homes or duplexes may be constructed on the landward slope of the secondary or tertiary dune where the intervening dune is of sufficient volume to provide protection during a 100-year storm, without the construction having a significant adverse long-term impact on the natural functioning of the beach and dune system. Similarly, the development of one or two single-family homes or duplexes on a dune that is isolated from a beach and dune system by an existing paved public road, public seawall, or public bulkhead that is of a sufficient size to eliminate the protective functioning of the isolated dune is acceptable, since the development will not have a significant adverse impact on the natural functioning of the beach and dune system. Single-family homes and duplexes may be developed in some coastal high hazard areas and erosion hazard areas where extensive developments have already occurred. Infill single family homes or duplexes are found to be acceptable because such development will not alter the existing need for public expenditure in shore protection at these locations, the risk involved is reduced to a minimum in terms of the quantity and intensity of developments that will be permitted and it would allow the infill sites to be developed to the degree currently existing in that area. With regards to coastal bluffs, since the disturbance associated with the development of one or two single-family homes or duplexes is minimal and, therefore, will not adversely affect the stability of the coastal bluff, the construction of single-family homes or duplexes is allowed within 10 feet of the crest of the coastal bluff, except along high-energy shorelines of the Atlantic Ocean, Delaware Bay, Raritan Bay, or Sandy Hook Bay and where excavation is proposed.

Prior to the 1993 amendments, single-family homes and duplexes were not regulated under CAFRA. This rule allows for the limited expansion or reconstruction with or without expansion of a single-family home or duplex located on a dune that existed prior to July 19, 1993 (date of CAFRA amendments), in recognition of the impact of the CAFRA amendments on these developments. The limited expansion of an existing single-family home or duplex will not have a significant long-term, adverse impact on the natural functioning of the beach and dune system since they are limited in size and cannot be located on the waterward side of the dwelling. Further, the rule requires that the dune waterward of the existing dwelling be enhanced through the placement of sand and the planting of native dune vegetation thus improving the functioning of the existing dune.

Development that is conducive to use of public transportation and has features that promote bicycling and walking as modes of transportation are encouraged. Public health and welfare concerns about air quality, as well as the necessity to limit energy consumption, require that public policies and decisions encourage alternatives to reliance on private automobiles.

7:7-15.3 Resort/recreational

(a) Resort/recreation uses include the wide range of small and large developments attracted to and often dependent upon locations along the coast. These uses include hotels, motels, marinas, boating facilities, campgrounds, amusement piers, parks and recreational structures such as bathhouses, natural areas, open space for active and passive recreation, and linear paths for bicycling and jogging.

(b) Standards relevant to recreation priority are as follows:

1. Each waterfront municipality should contain at least one waterfront park on each body of water within the municipality. Municipalities that do not currently provide, or have active plans to provide, access to the water will not be eligible for Green Acres or Shore Protection Bond Funding.
2. Resort/recreation uses and commercial fisheries uses shall have priority over all other uses in Monmouth, Ocean, Atlantic, and Cape May counties with highest priority reserved for those uses that serve a greater rather than a lesser number of people, and those uses that provide facilities for people of all ages and for people with physical handicaps.

(c) Standards relevant to recreation areas within developments are as follows:

1. "Recreation areas" include a variety of types and sizes of open space adequate to accommodate appropriate recreational activities or facilities.
2. Appropriate recreation areas shall be incorporated in the design of all residential, industrial and commercial development to the maximum extent practicable, as necessary to ensure that needed on-site recreation opportunities will not be precluded by a lack of suitable open space. The "maximum extent practicable" will be determined based on guidelines of the Green Acres Program (N.J.S.A. 13:8A-1 et seq.) which consider the

recreation resource supply and demand, the natural characteristics of the site, and the ability to identify a public agency or other organization willing to manage, maintain and develop the open space as a recreational resource. What is necessary will be determined by consideration of recreation resource supply and demand and municipal and county open space and recreation master plans.

(d) Standards relevant to marinas are as follows:

1. Marina means any dock, pier, bulkhead, mooring or similar structure or a collection of adjacent structures under singular or related ownership providing permanent or semi-permanent dockage to five or more vessels.
2. New marinas or expansion or renovation (including, but not limited to, dredging, bulkhead construction and reconstruction, and relocation of docks) of existing marinas for recreational boating are conditionally acceptable if:
   i. The marina posts prominent signs indicating discharges shall not be allowed within the basin and provides restrooms and marine septic disposal facilities for wastewater disposal from boats. For marinas with dockage for 25 or more vessels or any on vessel with live-aboard arrangement, adequate and conveniently located pumpout facilities shall be provided.
   ii. Restrooms and at least one portable toilet emptying receptacle shall be provided at a marina. The portable toilet emptying receptacle requirement may be satisfied either by the installation of a receptacle device or by the designation of either a pumpout facility or restroom facility for this use; and
      (1) Discharge to a municipal or regional treatment plant where practicable;
      (2) Discharge to a subsurface sewerage disposal system constructed in accordance with N.J.A.C. 7:9-2 and N.J.A.C. 7:7-16.14; or
      (3) Discharge to a holding tank with waste being removed by a licensed septage hauler. A marina employing this method shall maintain a record of waste removal; and
   iii. New marina facilities and expansions and renovation of existing marinas shall provide public access in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and public access rule, N.J.A.C. 7:7-16.9.
3. New marinas or boat launching facilities that provide primarily for sail, oar or rental boating are encouraged.
4. Expansions of existing marinas shall be encouraged by limiting non-water dependent land uses that preclude support facilities for boating.
5. Publicly funded marinas shall be designed to be part of multiple use parks, to the maximum extent practicable.
6. New marinas are encouraged to locate on filled water's edge sites, where minimal dredging is required.

7. Except for the marinas satisfying the requirements specified at N.J.A.C. 7:7-9.2, the construction of new marinas within areas designated by the Department as shellfish habitat is prohibited. Expansions of existing marinas within shellfish habitat areas shall comply with the standards of the shellfish habitat rule, N.J.A.C. 7:7-9.2 and submerged vegetation rule, N.J.A.C. 7:7-9.6.
8. The construction of a restaurant at a new or existing marina facility is acceptable provided:
    i. The marina facility supports 25 or more dockage units consisting of either dry dock storage or wet slips;
    ii. In the case of an existing marina facility, the existing upland marina support facilities (including boat rack systems and marina support buildings providing services such as showrooms, maintenance and repair, marine supplies, bait and tackle sales, boat sales, and the dock master's office buildings) shall be preserved to the maximum extent practicable such that the marina use on the site is not compromised. The existing wet slips servicing the marina shall not be reduced in number except as may be necessary to reconfigure the wet slips to accommodate different size vessels;
    iii. In the case of a new marina facility, the facility includes the development of an appropriate mix of dry storage and berthing areas, and marina support facilities providing services such as showrooms, maintenance and repair, marine supplies, bait and tackle sales, boat sales, and the dock master's office;
    iv. The restaurant is located landward of the mean high water line;
    v. The restaurant shall be set back a minimum of 15 feet from a shore protection structure and 25 feet from the mean high water line where no shore protection structure is present;
    vi. The marina facility provides onsite pumpout facilities and restrooms for marina and restaurant patrons; and
    vii. Public access shall be provided in accordance with the public trust rights rule, N.J.A.C. 7:7-9.48, and public access rule, N.J.A.C. 7:7-16.9.
9. In addition to complying with all other applicable portions of these rules, all new, expanded, and renovated boat mooring facilities with five or more slips which are located on any portion of the Navesink River, Shrewsbury River, or Manasquan River (upstream of the Route 35 Bridge) or the St. George's Thorofare shall meet the conditions in (d)8i through iii below. Renovation shall include complete or partial alteration of any portion of a structure, including construction, reconstruction of or relocation of existing docks, piers, moorings, and bulkheads, and dredging. The conditions are:
    i. A pumpout facility shall be constructed and maintained at those facilities at which boats over 24 feet in length or those with on-board septic facilities (heads) shall be docked. All other facilities shall construct and maintain on site marine septic disposal facilities;

ii. Bulkhead sheathing and planking, and dock planking, shall be of a nonpolluting material. Pilings are not subject to this requirement. In addition, this requirement does not apply to any construction upland of the mean high water line; and

iii. The applicant and/or property owner shall finance monthly sampling and testing of fecal coliform levels per milliliter of water at five locations selected by the Department in the water in which the project is located. Testing shall be performed by a State-certified laboratory and shall be conducted beginning in the first month following the mooring of vessels and monthly thereafter for two full seasons of operation (that is, May 1 through October 31). The monitoring shall occur on the day of the month selected by the Department and no advance notice of the sampling day shall be given to the property owner. Results of the monitoring shall be provided to the Department and the property owner in writing by the laboratory within 10 calendar days after the date of sampling.

(1) The State-certified laboratory shall determine the pre-construction median level of fecal coliform in the water at each of the Department selected test sites at the applicant's expense, and advise the Department and the applicant in writing of these results within 10 calendar days after the date of sampling. If any post-construction test at any single site yields fecal coliform levels which exceed the pre-construction reading at that site by 100 percent, the property owner shall allow Department personnel access to the property during daylight hours to assess whether the operation of the project is causing or contributing to the elevated reading.

(2) In the event the Department determines in writing that the elevated readings of fecal coliform are caused, in whole or in part, by the operation of the project, the property owner shall, as a condition of the permit, cease such uses and practices as described in writing by the Department and shall implement such practices as determined by the Department in writing to be minimally necessary to reduce the levels of fecal coliform emanating from the project.

(3) In the event the Department determines that the laboratory has twice or more failed to sample in the correct location, failed to comply with commonly accepted sampling techniques and laboratory methods or has divulged the date of sampling to the applicant and/or property-owner in advance of sampling, the property owner shall immediately discontinue use of such laboratory upon receipt of written notice to this effect from the Department and shall arrange for all future sampling to be conducted by another State-certified laboratory. For every month in which sampling does not occur as a result of a change in laboratory, an extra month of sampling shall be required from the property owner during the next season of operation.

(4) If the property owner fails to arrange for water sampling as required herein without first securing the express written permission of the Department to omit sampling for that month, the property owner shall be in violation of the terms of the permit issued under these rules and the Department shall notify the

property owner in writing of its intention to revoke the permit and prohibit use of the project pending final revocation of the permit in accordance with N.J.A.C. 7:7-27.8.

(e) Standards relevant to amusement piers, parks**,** and boardwalks are as follows:

1. New amusement piers are prohibited, except in areas with privately held riparian grants, where they are discouraged. Expanded or extended amusement piers, parks, and boardwalks at the water's edge or in the water, and the on-site improvement or repair of existing amusement piers, parks**,** and boardwalk areas are discouraged unless the proposed development meets the following conditions:
   i. The amusement pier, park, or boardwalk does not reasonably conflict with aesthetic values, ocean views, or other beach uses and wildlife functions;
   ii. The proposed pier expansion will not eliminate or affect the existing direct public access to the beach, unless another access point is provided immediately adjacent to the expanded pier, for each access point eliminated;
   iii. The surrounding community can adequately handle the activity and uses to be generated by the proposed development;
   iv. The pier expansion is constructed on pilings at the same elevation as the existing pier;
   v. The pier expansion includes a provision for public seating and viewing at the terminal end of the expansion; and
   vi. Public access shall be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48;
2. The expansion of a pier qualifying for general permit 1 for amusement pier expansion, N.J.A.C. 7:7-6.1 is acceptable.

(f) Rationale: The national and State interests in recreation are clearly indicated in the coastal economy and are essential for the quality of life. The coastal environment provides numerous opportunities for recreation which should be expanded by public policy and action, including priority setting.

Recreation is increasingly being considered vital to a person's mental and physical well-being. The 2013-2017 New Jersey Statewide Comprehensive Outdoor Recreation Plan (SCORP), published September 2014, recognizes the success of State and Federal agencies, local governments, and nonprofit conservation organizations in preserving open space in the State. As of July 1, 2013, there were 1,323,374 acres of land Statewide being used for public conservation and recreation purposes. However, the SCORP also recognizes the increasing population and urbanization of New Jersey, and anticipates the State's population to exceed nine million people by 2020. The continually increasing population will create further demand for recreational opportunities.

Development, especially residential development, increases the local demand for close to home recreation opportunities yet consumes open space necessary for such opportunities. In the absence of adequate existing or planned recreation resources, suitable on-site open space needs to be incorporated in the design and development to assure that sufficient opportunities will be available to the future residents or workforce, as addressed by the standards for recreational areas within developments in this rule.

Water-dependent recreation, such as boating, is an integral part of New Jersey's economy and culture. Marinas are located on land at the water's edge, which exists only in limited supply and which, in its natural state, is indispensable to many land and water-related activities. The rules are intended to ensure that the area devoted to marinas is efficiently utilized to keep the size of the area required to a minimum to maintain the environmental integrity of the water and water's edge areas and to preserve the scenic and natural characteristics of the area. Facilities for sail and oar boating are encouraged because such boats consume less energy, are less disturbing to wildlife, and pollute less than motor boats. Facilities offering rental boats and rental slips are encouraged because they reduce the need for construction of additional mooring facilities, serve a greater number of people, and afford the casual boater access to water-related recreation. Marina development that is permissible under these rules is encouraged to take place on filled water's edge lands because they are of low environmental sensitivity.

As a water-dependent use, marinas are an essential component of the State's waterfront communities, providing necessary infrastructure and services to the boating public. However, over the last several years the State has seen a decrease in the money spent on recreational boating, as well as a decrease in the number of boat registrations. This in turn has resulted in a loss of jobs, revenue, and services at marina facilities, as well as the conversion of some marinas to non-water dependent uses. To preserve existing marinas and the services they provide, while minimizing their impacts to coastal resources, the expansion of existing marinas or construction of new marinas in limited situations in shellfish habitat is conditionally acceptable. Specific requirements apply to boat mooring facilities of with five or more slips in the Navesink River, Shrewsbury River, or Manasquan River (upstream of the Route 35 Bridge) or the St. George's Thorofare in recognition of importance of these waters to shellfish populations. For more information, see N.J.A.C. 7:7-9.2(m).

New Jersey's waterfront communities are diverse, active lands, where people come to enjoy being in close proximity to the water and where the economy thrives. Restaurants located along tidal waterways allow the public to enjoy this resource and provide the community with an economic benefit. Allowing for the construction of a restaurant at a new or existing marina facility that provides dockage for 25 or more dockage units consisting of either dry dock storage or wet slips will expand the public's opportunity for both visual and physical access and will provide marina facilities with a year-round use making them more economically viable, while assuring that marina functions continue to be provided.

Amusement piers, amusement parks, and boardwalks form an essential element of the resort and recreational character of some of the communities fronting on the Atlantic Ocean. The carnival atmosphere of these areas provides fun and excitement annually for hundreds of thousands of people. However, new piers for amusement purposes are an inappropriate use of

scarce coastal resources, due to the natural hazard of the desired ocean location and the importance of maintaining the visual quality of the oceanfront. Also, amusement parks are not a water dependent use; these facilities may be located inland on less sensitive land and water features.

7:7-15.4 Energy facility

(a) Energy facilities include facilities, plants or operations for the production, conversion, exploration, development, distribution, extraction, processing, or storage of energy or fossil fuels. Energy facilities also include onshore support bases and marine terminals. Energy facilities do not include operations conducted by a retail dealer, such as a gas station, which is considered a commercial development.

(b) Standards relevant to siting of new energy facilities, including all associated development activities, are as follows:

1. Energy facilities shall not be sited in special areas as defined at N.J.A.C. 7:7-9.1 through 9.40, 9.42, and 9.44, and marine fish and fisheries areas defined at N.J.A.C. 7:7-16.2, unless site-specific information demonstrates that such facilities will not result in adverse impacts to these areas;
2. Except for water dependent energy facilities, energy facilities shall be sited at least 500 feet inland of the mean high water line of tidal waters in the following areas:
   i. The CAFRA area; and
   ii. The Western Ocean, Southern, Mullica Southern Ocean, Great Egg Harbor River, and Delaware Estuary regions, as defined at N.J.A.C. 7:7-13.6(d);
3. Notwithstanding (b)2 above, wind and solar energy facilities, including blades, towers and site disturbance shall be sited at least 50 feet inland of the mean high water line of tidal waters, excluding manmade lagoons and manmade ditches, in the areas identified at (b)2i and ii above, except for the following:
   i. A wind energy facility that meets N.J.A.C. 7:7-9.47(c)5;
   ii. A wind energy facility that meets (b)3ii(1) and (2) below. The Department shall limit approvals under this subparagraph to ensure that the cumulative number of wind turbines approved does not exceed five, each with a power rating as determined by the manufacturer of five megawatts or less, or six, each with a power rating as determined by the manufacturer of four megawatts or less. The wind energy facility shall be:
      (1) Located in the Atlantic Ocean within State waters between latitude 39 degrees 55 minutes 56 seconds N (offshore of Seaside Park) and latitude 39 degrees 01 minute 58 seconds N (offshore of Stone Harbor); and
      (2) No closer than 2.5 nautical miles to the mean high water line; or

iii. A wind energy facility located on a pier provided the facility is an accessory use to the other uses of, or purposes for, the pier;

4. Public access shall be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9; and
5. The scenic and visual qualities of coastal areas shall be maintained as important public resources in the siting of energy facilities, pursuant to N.J.A.C. 7:7-16.10.
6. Rationale: New energy facility construction has the potential to cause significant impacts to coastal ecosystems, natural resources, public access, and scenic and visual qualities in coastal areas. The standards for energy facility siting and requirements for specific types of energy facilities are intended to steer non-water dependent development away from the coast and to preserve coastal values. Wind and solar energy are renewable resources that do not involve the refining or burning of fossil fuels. These types of energy facilities often result in fewer adverse impacts and, thus, have less stringent setback requirements.

(c) Coastal energy facilities construction and operation shall not directly or indirectly result in net loss of employment in the State for any single year.

1. Coastal energy facility construction and operation which results in loss of 200 or more person-years of employment in jobs in New Jersey directly or indirectly related to the State's coastal tourism industry in any single year is prohibited.
2. Rationale: Coastal energy facilities provide social and economic benefits to New Jersey and the nation by contributing to provision of energy, by purchasing materials and equipment, and by providing employment through facility construction and operation. However, energy facilities also can have an impact on the environment. Certain facility related environmental changes are perceived by travelers as reduced recreational resources. When travelers respond to loss of recreational resources by leaving the New Jersey shorefront for alternative recreational opportunities, their expenditures are lost from the New Jersey economy. The Coastal Zone Management Rules are intended to assure that the net employment and economic impact for New Jersey of coastal energy facility development will not be negative and that energy facilities will be located such that impacts on the local tourism industry will not be excessive.

(d) Standards relevant to Outer Continental Shelf (OCS) oil and gas exploration and development are as follows:

1. Exploration of the Mid-Atlantic, North Atlantic, and other offshore areas with potential reserves of oil and natural gas is discouraged, as long as there are other viable alternatives with less or no environmental threats to the coastal environment, including energy conservation, which have not been fully explored. Should exploration occur and commercially recoverable amounts of oil or natural gas be found, development and production of offshore hydrocarbons shall be carried out according to the specific energy facility policies of this section.
2. Rationale: The Rationale statement for this subsection is not reproduced in the Code.

The Rationale statement may be reviewed by contacting the Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6.

(e) Standards relevant to onshore support bases are as follows:

1. New or expanded onshore support bases and marine terminals to support offshore oil and gas exploration, development, and production (including, but not limited to, facilities for work boats, crew boats and helicopters, pipelaying barges, pipeline jet barges, ocean-going tugs, anchor handling vessels, and limited, short-term storage facilities) are encouraged at locations in the Urban Area, Delaware River and Northern Waterfront regions and discouraged in the CAFRA area.
   i. Preferable locations for water-dependent onshore support bases include urban waterfront areas, where onshore adverse physical, economic, and institutional impacts will be less than the impacts likely to be placed on less industrially developed areas which are more dependent upon tourism and the resort industry.
   ii. Small facilities for storing oil spill containment and cleanup equipment for offshore operations, and emergency crew transport facilities, including crew boat operations, will, however, be acceptable along the Atlantic Ocean or Delaware Bay where such a location would facilitate and expedite offshore emergency operations.
2. Rationale: Offshore exploratory activity began off New Jersey in the Baltimore Canyon on March 29, 1978, but did not result in well production. If exploratory drilling is successful in the future, the offshore oil and gas industry is likely to seek onshore support bases in New Jersey. Because of shallow inlets in the CAFRA area, few locations in this part of New Jersey meet industry's siting requirements or are suitable for such facilities. This policy recognizes that the New Jersey coast is favored by proximity to potential offshore tracts as a site for onshore staging bases, and carries out the basic policy to concentrate rather than disperse industrial development in the coastal zone.

(f) Standards relevant to platform fabrication yards and module construction are as follows:

1. Platform fabrication yards and module construction are encouraged in the Urban Area, Delaware River and Northern Waterfront regions, which have the requisite acreage, adequate industrial infrastructure, ready access to the open sea, and adequate water depth, and where the operation of such a yard would not alter existing recreational uses of the ocean and waterways in the areas. They are discouraged elsewhere in the coastal zone.
2. Rationale: The development phase of OCS activity in the Mid-Atlantic may require additional platform construction yards. The need for such facilities is dependent on the long term OCS development in frontier areas of the Atlantic Coast and the worldwide demand for such structures. However, platform construction yards require large tracts of land and are labor intensive. The operation of a platform construction yard could severely disrupt the economy and social fabric of less developed communities and areas. For these reasons, offshore platform construction yards are encouraged to seek locations in the already developed areas of the New Jersey coast. However, the height restrictions

of bridges on certain other New Jersey waterways may sharply limit the suitability of sites in New Jersey. Existing under-utilized shipyards may be used, however, for platform module construction.

(g) Standards relevant to repair and maintenance facilities are as follows:

1. Repair and maintenance facilities for vessels and equipment for offshore activities are encouraged in the Urban Area, Delaware River, and Northern Waterfront regions. Repairs can be accommodated on an emergency basis in existing ship repair facilities in the CAFRA area, but not on a continual, long-term basis.
2. Rationale: Ship repair yards presently exist in the developed coastal areas and should be utilized by OCS vessels that will be based in the same portion of the coast. Small shipyards within the CAFRA area can serve valuable repair functions on an emergency basis because of their proximity to the offshore leased areas. Utilization of repair yards in this region on a continuing basis, however, is not encouraged because of the problems in meeting the OCS vessel draft requirements and because of possible conflicts with recreational vessels.

(h) Standards relevant to pipe coating yards are as follows:

1. Pipe coating yards are discouraged in the CAFRA area and encouraged in the Port of New York and New Jersey and the Port of Camden and Philadelphia.
2. Rationale: Pipe coating yards constitute an industrial activity that is generally incompatible with the suburban and rural character of the CAFRA area. Further, pipe coating yards typically require 100-150 acres, and wharf space with a preferred depth at the wharf of 20 to 30 feet. These siting requirements suggest that highly industrial port areas are preferred locations.

(i) Standards relevant to pipelines and associated facilities are as follows:

1. Crude oil and natural gas pipelines to bring hydrocarbons from offshore of the New Jersey coast to existing refineries, oil and gas transmission and distribution systems, and other new oil and natural gas pipelines are conditionally acceptable, provided:
    i. For safety and conservation of resources, the number of pipeline corridors, including trunk pipelines for natural gas and oil, shall be limited, to the maximum extent feasible, and designated following appropriate study and analysis by interested Federal, State and local agencies, affected industries, and the general public;
    ii. The pipeline corridors for landing oil or natural gas are to be located in or adjacent to existing already developed or disturbed road, railroad, pipeline, electrical transmission or other rightsofway, to the maximum extent practicable;
    iii. Proposals to construct offshore oil and gas pipelines, originating on the Outer Continental Shelf, and all of the contemplated ancillary facilities along the pipeline route such as, for example, gas separation and dehydration facilities, gas processing

plants, oil storage terminals, and oil refineries, will be evaluated in terms of the entire pipeline corridor through the State of New Jersey and its coastal waters;

iv. Pipeline corridors through the State coastal waters shall, to the maximum extent feasible, avoid offshore munitions, chemical and waste disposal areas, heavily used waterways, geological faults, wetlands and significant fish or shellfish habitats;

v. Pipelines shall be buried to a depth sufficient to minimize exposure by scouring, ship groundings, anchors, fishing and clamming and other potential obstacles on the sea floor. Trenching operations shall be conducted in accordance with applicable Federal regulations;

2. New major pumping stations and other ancillary facilities associated with offshore oil and gas pipelines, not specifically identified in this section, are discouraged in the CAFRA area and coastal waters;

3. Oil and gas pipeline related facilities shall provide adequate visual, sound, and vegetative buffers; and

4. Offshore platforms for pumping or compressor stations are encouraged to be located out of sight of the shoreline.

5. Rationale: New Jersey recognizes that pipelines, rather than other modes of surface transportation such as tankers and barges, are the preferred and more environmentally sound method of bringing crude oil and natural gas ashore from offshore wells. The impacts of pipelines are most evident during the construction phase. These effects, and the visual, noise, and odor impacts which may be created by facilities associated with OCS pipelines, require that New Jersey proceed cautiously and prudently in selecting pipeline corridors, specific alignments, and locations for ancillary facilities.

(j) Standards relevant to gas separation and dehydration facilities are as follows:

1. For the purposes of this subsection, the following terms have the following meanings:

i. "Separation" means the removal of free liquids from a gas stream. Free liquids may be either hydrocarbon liquids (which may be processed into fuels such as ethane, butane (and propane) or free water.

ii. "Dehydration" means the removal of water vapor from the gas stream after separation of the liquid from the gas.

2. Separation and dehydration facilities are discouraged in the CAFRA area and coastal waters.

3. Separation and dehydration facilities shall:

i. Provide adequate visual, sound, and vegetative buffers; and

ii. Be reviewed as part of the overall proposed gas transportation system.

4. Rationale: It is anticipated that natural gas extracted from the Mid-Atlantic OCS will

contain natural gas (mostly methane) and water, along with relatively small amounts of liquid hydrocarbons. Most of the water can be removed from the natural gas stream on the production platform. The liquid hydrocarbons, or condensate, will be returned to the gas stream downstream of gas measurement equipment on the platform and transported to shore with the gas in a single pipeline. The natural gas liquids and small amounts of water which reach landfill by the Pipeline must be separated from the gas stream before it reaches an existing interstate natural gas transmission line. This can, from a technological standpoint, occur at any point along the onshore corridor.

Separation/dehydration facilities essentially remove water, natural gas liquids, and other impurities from the gas stream. The natural gas liquids are temporarily stored in fixed-roof storage tanks with vapor recovery systems until transported offsite by rail, tank truck or pipeline to a gas processing plant. Water will be disposed of either by deep well injection or by trucking to an approved offsite disposal location.

Basic siting criteria requires up to 50 acres of fairly level land, with 20-30 acres intensively utilized and the remaining acreage serving as a buffer zone around the plant. Additionally, easy access to either highway and/or railroad facilities is desirable.

(k) Standards relevant to gas compressor stations are as follows:

1. "Compressor stations" are facilities located along natural gas pipelines which raise the pressure of the gas in order to transport the resource more efficiently and economically.
2. Compressor stations are encouraged to be located out of the sight of the shoreline on platforms in offshore waters. They are discouraged in the CAFRA area and coastal waters.
3. Rationale: The pressure of the gas at the well is driving force for pushing the gas through a pipeline to shore, and once ashore, to a connection with an existing interstate transmission line. In some cases, gas pressure at the well is sufficient to free flow the gas to shore.

   Once ashore, the gas will continue through the pipeline to a separation and dehydration facility and then to the interstate transmission line. It is not expected that the pressure losses due to friction and presence of natural gas liquids and water in the gas stream will be sufficient to require compression of Mid-Atlantic natural gas. However, if they are required, it is feasible to place them anywhere along the pipeline corridor.

(l) Standards relevant to gas pigging facility are as follows:

1. A "pig" is a scraping tool that is forced through a pipeline to clean out accumulations of wax, scale, gas liquids or any foreign materials from the inside walls of the pipe. The pig is inserted offshore and would be removed at an onshore location called a "pigging facility."
2. A pigging facility, which may or may not be associated with a separation and dehydration facility, is discouraged in the CAFRA area. The need for and location of the facility will

be reviewed within the context of the entire natural gas pipeline system.

3. Rationale: A pipeline must be periodically "pigged" in order to ensure its efficient operation and to safeguard against damage. Water and hydrocarbon vapor may condense as pressures drop along the length of a natural gas pipeline and may collect in low points in the pipeline. The condensate must be removed to maintain efficiency in the transmission of gas.

(m) Standards relevant to gas processing plants are as follows:

1. A "gas processing plant" is designed to recover liquifiable hydrocarbons from a gas stream before it enters a commercial transmission line. A gas processing facility may include treatment, recovery and fractionation equipment to separate the recovered liquid hydrocarbon stream into its various components including, for example, ethane, butane and propane.
2. Gas processing plants proposed for locations between the offshore pipeline landfall and interstate natural gas transmission lines shall be prohibited from sites within the CAFRA area and shall be located the maximum distance from the shoreline. The siting of gas processing plants will be reviewed in terms of the total pipeline routing system.
3. Rationale: Gas processing plants may be needed if commercially recoverable quantities of natural gas are found off New Jersey's shore.

   These facilities, however, do not require locations on the shoreline. If the amount of liquids separated from the gas stream is minimal, the liquids can be trucked or transported by rail to existing facilities which could process these liquids. A gas processing plant may induce the location and/or expansion of chemical plants since gas and its byproducts often provide the feedstock for the petrochemical industry.

   To promote the most efficient use of land, gas processing plants could be located close to existing interstate natural gas transmission pipelines. Alternatively, where natural gas is associated with oil and oil pipelines, gas processing plants should be located close to refineries to which the oil pipeline will be routed. Thus, gas processing plants which are economically and technically feasible and which do not exceed new source and performance standards regarding air and water quality are conditionally acceptable in the Delaware River and Northern Waterfront areas.

(n) Standards relevant to other gas related facilities are as follows:

1. Additional facilities related to a natural gas pipeline such as metering and regulating stations, odorization plants, and block valves are conditionally acceptable in the CAFRA area if adequate visual, sound, and vegetative buffer areas are provided.
2. Rationale: Certain ancillary facilities, in addition to pipelines, may be necessary to assure the safe, efficient and economical transportation of natural gas to shore. The impacts of these facilities will be evaluated in the overall analysis of the gas transportation system.

(o) Standards relevant to oil refineries and petrochemical facilities are as follows:

1. New oil refineries and petrochemical facilities are conditionally acceptable outside of the CAFRA area provided they are consistent with all applicable location and resource rules.
2. New oil refineries and petrochemical facilities outside the CAFRA area are encouraged to locate in established industrial areas accessible to their potential labor force and existing infrastructure.
3. New oil refineries and petrochemical facilities are prohibited in the CAFRA area.
4. Expansion in capacity of existing oil refineries and petrochemical facilities at existing sites, which are all located outside of the CAFRA area, will be acceptable if such expansion does not violate applicable State air and water quality standards.
5. Rationale: Refineries are large-scale industrial facilities that are neither coastal-dependent nor compatible with the character of the Bay and Ocean Shore Region. However, new refineries or additions to existing refineries using advanced technology to control air and water pollution and other hazards could be compatible with existing development in the Delaware River Area or Northern Waterfront Area.

(p) Standards relevant to storage of crude oil, gases and other potentially hazardous liquid substances are as follows:

1. The storage of crude oil, gases and other potentially hazardous liquid substances as defined in N.J.A.C. 7:1E-1.1 under the Spill Compensation and Control Act (N.J.S.A. 58:10-23.11 et seq.) is prohibited on barrier islands and discouraged elsewhere in the CAFRA area.
2. The storage of crude oil, gases and other potentially hazardous liquid substances is conditionally acceptable in the Urban Area, Northern Waterfront and Delaware River regions if it is compatible with or adequately buffered from surrounding uses.
3. The storage of crude oil, gases and other potentially hazardous liquid substances is not acceptable where it would limit or conflict with a potential recreational use.
4. The storage of crude oil, gases and other potentially hazardous liquid substances is not acceptable along the water's edge unless the storage facility is supplied by ship, in which case it is acceptable on the filled water's edge provided the storage facility complies with (p)1, 2 and 3 above.
5. Rationale: Major storage facilities for potentially hazardous substances are not entirely coastal-dependent and will not be permitted where storage might limit or conflict with recreational or open space uses of the coast

(q) Standards relevant to tanker terminals are as follows:

1. New or expanded tanker facilities are acceptable only in existing ports and harbors where

the required channel depths exist to accommodate tankers.

i. Multi-company use of existing and new tanker terminals is encouraged in the Port of New York and New Jersey and the Port of Camden and Philadelphia, where adequate infrastructure exists to accommodate the secondary impacts which may be generated by such terminals, such as processing and storage facilities.

2. New tanker terminals are discouraged in areas not identified in (q)1 above.

3. Offshore tanker terminals and deepwater ports are discouraged.

4. Rationale: Onshore tanker facilities pose potential adverse environmental impacts and could encourage secondary development activity that is not necessarily coastal dependent. Also, even medium sized tankers require minimum channel depths of 30 feet, which excludes locations within the CAFRA area. New or expanded tanker terminals are therefore directed toward New Jersey's established port areas. Deepwater ports appear attractive to industry due to increasingly larger tankers, limitations on dredging and the scarcity of waterfront land. However, a deepwater port may, depending on its location, cause severe adverse primary and secondary impacts on the built, natural, and social environment.

(r) Standards relevant to electric generating stations are as follows:

1. New or expanded electric generating facilities (for base load, cycling, or peaking purposes) and related facilities are conditionally acceptable provided:

i. The proposed location and site design of the electric generating facility is the alternative which has the least practicable impacts to the coastal zone, based on a comparative evaluation of alternative sites within the coastal zone and inland.

ii. Fossil fuel (coal, oil or gas) and hydroelectric generating stations are discouraged in scenic or natural areas that are important to recreation and open space purposes.

iii. Nuclear generating stations shall be located in generally remote, rural, and low density areas, consistent with the criteria of 10 CFR 100 (United States Nuclear Regulatory Commission rules on siting nuclear generating stations) and/or any other related Federal regulations. In addition, the nuclear generating facility shall be located in an area where the appropriate low population zone and population center distance are likely to be maintained around the nuclear generating facility, through techniques such as land use controls or buffer zones.

iv. The construction and operation of a nuclear generating station shall not be approved unless the proposed method for disposal of the spent fuel to be produced by the facility will be safe, conforms to standards established by the United States Nuclear Regulatory Commission, and will effectively remove danger to life and the environment from the radioactive waste material. This finding is required under present State law (N.J.S.A. 13:1911) and will be made consistent with judicial decisions (see Public Interest Research Group v. State of New Jersey, 152 N.J. Super. 191 (App. Div., certif. den., 75 N.J. 538 (1977)) and Federal law.

v. The cogeneration of electricity and process steam for industrial, community and commercial use is encouraged.

vi. The construction of electric generating facilities using renewable forms of energy such as solar radiation, wind, and water, including experimental and demonstration projects, is conditionally acceptable provided that such facilities do not significantly detract from scenic or recreational values, and for wind energy facilities, comply with (r)1vii and viii below.

vii. In order to minimize adverse effects on birds and bats, wind energy facilities located on land shall:

(1) For a wind turbine(s) 200 feet in height or taller or having a cumulative rotor swept area greater than 4,000 square feet on a site, be sited such that no portion of the wind turbine(s), including blades, towers and site disturbance shall be located in the areas identified on the Department's Large Scale Wind Turbine Siting Map, dated August 8, 2009, incorporated by reference into this chapter. This map is available on the Department's interactive mapping website at https://www.nj.gov/dep/gis. The Department may revise the Large Scale Wind Turbine Siting Map in accordance with (r)3 below. The rotor swept area is the area of a circle delineated by the tips of the blades of the wind turbine for a horizontal axis wind turbine, and the area determined by multiplying the rotor radius times the rotor height times 3.14 for a vertical axis wind turbine;

(2) Have no light(s) placed on or directed at the wind turbine(s), except for lighting required by the Federal Aviation Administration. Shielded ground security lighting may be used. Lighting is shielded when it is covered in a way that light rays are not emitted above the horizontal plane of the light;

(3) Use a freestanding monopole tower if the wind turbine is more than 120 feet tall, measured from the ground surface to the tip of the blade at its highest position. Guy wires or lattice towers are prohibited for a wind turbine more than 120 feet in height;

(4) Perform pre and/or post construction monitoring in order to establish the flight patterns and distribution of avian species and bats and impacts of the operation of these facilities on these species. Information shall be gathered on species composition, abundance, distribution, behavior, and flight pattern heights, as well as collisions associated with wind turbine construction and/or operation. Pre and/or post construction monitoring is dependent upon the scope of the facility including the number, height and rotor swept area of the turbines. Pre and post-construction monitoring may include visual, radar, and acoustic surveys. Post construction monitoring shall also include carcass searches as well as removal and efficiency trials. The Department has prepared a technical manual titled, "Technical Manual for Evaluating Wildlife Impacts of Wind Turbines Requiring Coastal Permits," which provides guidance on monitoring

and reporting. The technical manual is available from the Department's Division of Land Use Regulation website https://www.nj.gov/dep/landuse; and

(5) Curtail operations of wind turbines, as directed by the Department pursuant to (r)1vii(5)(A) below, during peak spring (April through June) and fall (August through November) migration periods when migrating birds or bats would likely be flying at the height of the rotor swept area or be present at seasonally high densities throughout the entire air column. Such curtailment shall not exceed 360 hours in a calendar year per turbine that occurs within the normal range of operation of the turbine. Curtailment measures include establishing a minimum wind speed that must be achieved prior to starting operations and shutting down operations during certain weather conditions or migratory events. Weather conditions that may necessitate curtailment include low wind speeds, low altitude cloud cover, strong storms, or approaching weather fronts favorable to bird or bat migration (such as southerly winds in the spring or northwest winds in the fall). Migratory events that may necessitate curtailment include high concentrations of migrating birds and bats using the coastal area (for example, high concentrations of shorebirds making daily flights between coastal feeding areas, such as mudflats, and roosting areas during spring migration).

(A) Limitations on operation shall be developed by the Department based on monitoring results and published and unpublished studies or data. The Department shall notify the permittee in writing of the operational limitations by March 15th of the first year curtailment is required during the spring migration and by July 15th of the first year curtailment is required during the fall migration. These operational limitations shall remain in effect unless the Department notifies the permittee in writing by the above dates in subsequent years that changes to operational limitations are required. This information shall also be made available on the Department's website at https://www.nj.gov/dep/landuse.

viii. In order to minimize adverse effects on birds, bats, and marine organisms, wind energy facilities located in tidal waters shall:

(1) Have no light(s) placed on the wind turbine(s), except for lighting required by the Federal Aviation Administration and the United States Coast Guard. Shielded ground security lighting may be used. Lighting is shielded when it is covered in a way that light rays are not emitted above the horizontal plane of the light;

(2) Use a monopole tower or other tower design that does not provide perching or roosting opportunities or other obstructions to birds or bats;

(3) Perform a habitat evaluation, including species surveys, an impact assessment and post-construction monitoring in order to establish the movement corridors and distribution of avian species, bats, and marine organisms and impacts of

the construction and/or operation of these facilities on these species. Information shall be gathered on species composition, abundance, distribution, behavior and, for avian species and bats, flight pattern heights, as well as collisions and behavioral changes associated with wind turbine construction and/or operation. The habitat evaluation, impact assessment, and post construction monitoring are dependent upon the scope of the facility including the number, height, and rotor swept area of the turbines. Habitat evaluations may include visual, radar, and acoustic surveys. Post construction monitoring may include visual surveys and other collision detection systems. Habitat evaluations, impact assessments, and post-construction monitoring and reporting requirements will be coordinated with the Department, U.S. Fish and Wildlife Service, and National Marine Fisheries Service. The Department has prepared a technical manual titled, "Technical Manual for Evaluating Wildlife Impacts of Wind Turbines Requiring Coastal Permits," which provides guidance on habitat evaluations and assessments, monitoring, and reporting. The technical manual is available from the Department's Division of Land Use Regulation website https://www.nj.gov/dep/landuse; and

(4) Curtail operations of wind turbines, as directed by the Department pursuant to (r)1viii(4)(A) below, during peak spring (April through June) and fall (August through November) migration periods when migrating birds or bats would likely be flying at the height of the rotor swept area or be present at seasonally high densities throughout the entire air column. Such curtailment shall not exceed 360 hours in a calendar year per turbine that occurs within the normal range of operation of the turbine. Curtailment measures include establishing a minimum wind speed that must be achieved prior to starting operations and shutting down operations during certain weather conditions or migratory events. Weather conditions that may necessitate curtailment include low wind speeds, low altitude cloud cover, strong storms, or approaching weather fronts favorable to bird or bat migration (such as southerly winds in the spring or northwest winds in the fall). Migratory events that may necessitate curtailment include high concentrations of migrating birds and bats using the coastal area (for example, high concentrations of shorebirds making daily flights between coastal feeding areas, such as mudflats, and roosting areas during spring migration).

(A) Limitations on operation shall be developed by the Department based on monitoring results and published and unpublished studies or data. The Department shall notify the permittee in writing of the operational limitations by March 15th of the first year curtailment is required during the spring migration and by July 15th of the first year curtailment is required during the fall migration. These operational limitations shall remain in effect unless the Department notifies the permittee in writing by the above dates in subsequent years that changes to operational limitations

are required. This information shall also be made available on the Department's website at https://www.nj.gov/dep/landuse.

2. Conversion or modification of existing generating facilities for purposes of fuel efficiency, cost reduction, or national interest is conditionally acceptable provided it meets applicable State and Federal laws and standards.

3. The Large Scale Wind Turbine Siting Map identifies areas where large scale wind turbines cannot be constructed in accordance with (r)1vii(1) and N.J.A.C. 7:7-6.26 in order to minimize adverse effects on birds and bats. The Department may revise the Large Scale Wind Turbine Siting Map based on new information on species occurrence, new information on appropriate buffers, or new information on impacts developed from ongoing monitoring or from published and unpublished studies or data, as follows:

   i. The Department shall publish notice of its intent to revise the Large Scale Wind Turbine Siting Map in the New Jersey Register, as well as in a newspaper of general circulation in each affected county and post the proposed revision of the map on the Department's interactive mapping website at https://www.nj.gov/dep/gis. The notice shall include:

      (1) A description of the proposed revision;

      (2) An explanation of why it is being proposed; and

      (3) An invitation for interested parties to submit written comments for a period of 30 days.

   ii. Upon consideration of the available information and public comments, if the Department concludes that revising the Large Scale Wind Turbine Siting Map is appropriate based on the potential risk to birds and bats associated with the operation of large scale wind turbines, the Department shall:

      (1) Revise the map as the Department deems necessary;

      (2) Publish a description of the revision in the New Jersey Register, including a response to any public comments;

      (3) Publish a public notice describing the revision in a newspaper of general circulation in each affected county; and

      (4) Post the revised map on the Department's interactive mapping website at https://www.nj.gov/dep/gis.

4. Rationale: The siting of an electric generating station is an extraordinary event with far-reaching impacts, especially when compared with the typical day-to-day decisions made under the State's coastal zone management program. Such siting decisions therefore, require special scrutiny using: (a) the State's authority in its management of state-owned tidelands and submerged lands contemplated as sites for all or part of an electric generating station, (b) the State's regulatory authority, and (c) the State's influence in Federal proceedings on aspects of the siting process.

New Jersey's coastal zone, especially along Barnegat Bay and Delaware Bay, has experienced the consequences of several major siting decisions in the past decade and already has a diverse mix of existing, proposed, and potential fossil fuel and nuclear generating facilities, both onshore and offshore.

New Jersey recognizes the interstate nature of the electric power system. Some electricity is produced in New Jersey at facilities owned partially by utilities in other states and exported to those states. New Jersey also imports electricity produced in adjacent states. In short, New Jersey is an integral part of the Pennsylvania- New Jersey-Delaware- Maryland interconnecting grid system, importing and exporting electricity from the system at different times of the day, season and year in order to generate electricity efficiently and achieve the lowest achievable cost to electricity users throughout this multi-state region.

New Jersey also recognizes that most electric generating facilities may not be coastal-dependent but do require access to vast quantities of cooling waters, a siting factor that, from the perspective of utilities, increases the attractiveness of coastal locations. This siting rule strikes a balance among various competing national, regional, and State interests in coastal resources, and recognizes some of the differences in the siting requirements of fossil fuel and nuclear generating stations.

The rule directs fossil fuel stations toward extensively developed areas in order to preserve and protect particularly scenic and natural areas important to recreation and open space purposes. New Jersey has articulated this policy with a conscious recognition of the State's progress in attaining and maintaining high air quality. Given the use of appropriate control technology, coal-fired generating stations, for example, appear feasible at various coastal locations. The siting of coal-fired power plants in urban areas also promotes efficient energy use due to the proximity of power plants to load centers.

The nuclear siting rule recognizes public concern for the disposal of spent fuel, as mandated in CAFRA by the New Jersey Legislature in 1973 and left unchanged in the 1993 legislative amendments.

(s) Standards relevant to liquefied natural gas (LNG) facilities are as follows:

1. New marine terminals and associated facilities that receive, store, and vaporize liquefied natural gas for transmission by pipeline are discouraged in the coastal zone unless a clear and precise justification for such facilities exists in the national interest; the proposed facility is located and constructed so as to neither unduly endanger human life and property, nor otherwise impair the public health, safety and welfare, as required by N.J.S.A. 13:1910f; and such facilities comply with the Coastal Zone Management rules.

   i. LNG facilities shall be sited and operated in accordance with the standards set forth in the Natural Gas Act of 1938, 15 U.S.C. §§ 717-717z, the Natural Gas Policy Act of 1978, 15 U.S.C. §§ 3301-3432, the Outer Continental Shelf Lands Act, 43 U.S.C. §§ 1331 et seq., the Energy Policy Act of 1992, P.L. 102-486, 106 Stat. 2776, October 24, 1992, and the National Environmental Policy Act, 42 U.S.C. §§ 4321 et

seq., which set forth standards for siting, design, installation, inspection, testing, construction, operation, transportation of gas, replacement, and maintenance of facilities.

ii. In determining the acceptability of proposed LNG facilities the Department will consider siting criteria including, but not limited to:

(1) The risks inherent in tankering LNG along New Jersey's waterways;

(2) The risks inherent in transferring LNG onshore; and

(3) The compatibility of the facility with surrounding land uses, population densities, and concentrations of commercial or industrial activity.

iii. New LNG facilities that liquefy, store and vaporize LNG to serve demand during peak periods shall be located in generally remote, rural, and low-density areas where land use controls and/or buffer zones are likely to be maintained.

2. Rationale: The Pipeline Safety Act of 1979, P.L. 96-129, amended the Natural Gas Pipleline Safety Act of 1968 and sets forth requirements for the safe operation of pipelines transporting natural gas and liquefied petroleum gases, and provides standards with respect to the siting, construction, and operation of liquefied natural gas facilities.

The State recognizes the responsibilities of various federal agencies, including the U.S. Coast Guard and Office of Pipeline Safety Operations in the U.S. Department of Transportation, the Economic Regulatory Administration in the U.S. Department of Energy (US DOE), and the independent Federal Energy Regulatory Commission within USDOE, for management of various aspects of the siting and operations of LNG facilities.

Importation facilities for LNG are discouraged in view of the present sources of LNG from politically unstable countries. The use of natural gas for base load electric generation purposes is consistent with the Power Plant and Industrial Fuel Use Act of 1978, P.L. 95-620. The availability of domestic sources of LNG and a demonstrated need that such importation facilities are in the national interest dictate the consideration of applications for such facilities on a case-by-case basis.

The tankering, transfer, and storage of LNG pose significant risks to public health, safety and welfare and may cause serious adverse environmental impacts which may not be restricted to one state, given the likely potential locations of LNG terminals along interstate waterway. New Jersey therefore recommends that the siting of LNG facilities be treated as a regional issue on an interstate basis.

7:7-15.5 Transportation

(a) Standards relevant to roads are as follows:

1. New road construction must be consistent with the rule on location of linear development at N.J.A.C. 7:7-14.1, and shall be limited to situations where:

i. A clear need exists, taking into account the alternatives of upgrading existing roads and of using public transportation to meet the need;

ii. Provision is made to include construction of bicycle and foot paths, except where these would not be feasible;

iii. Provision is made to include, where appropriate, catwalks and parking access to nearby waterbodies.

iv. Provision is made for coordinated construction of public transportation rights-of-way and facilities, such as bus lanes, rail lines, and related transit stop or station facilities and parking, except where such construction would not be feasible;

v. Visual and physical access to the coastal waters is maintained, to the maximum extent practicable; and

vi. Induced development in conflict with coastal rules would not be expected to result.

(b) Standards relevant to public transportation are as follows:

1. New and improved public transportation facilities, including bus, rail, air, boat travel, people mover systems and related parking facilities, are encouraged.
2. Development of existing rights-of-way which would preclude either their use for public transportation or public recreation trails is discouraged.

(c) Standards relevant to bicycle and foot paths are as follows:

1. The construction of internal bicycle paths, foot paths and sidewalks in residential, commercial, and industrial developments is required to the maximum extent practicable.
2. Linear bicycle and foot paths are encouraged along the edges of all water bodies, and from the water body to the nearest public road, provided they would not disturb special areas, excluding flood hazard areas, N.J.A.C. 7:7-9.25, and riparian zones, N.J.A.C. 7:7-9.26, or subject to the user to danger.
3. Existing bicycle and foot paths shall be continued around development when it is not practical to pass through development.

(d) Standards relevant to parking facilities are as follows:

1. Parking facility standards apply to all of the following:

   i. Any parking facility of which any part is within the area subject to the Waterfront Development Law, N.J.S.A. 12:5-1 et seq.;

   ii. Any parking facility and related access, of which any part of the facility or related access is located in the coastal zone; or

2. Parking lots, garages and large paved areas are conditionally acceptable, provided that they will not interfere with existing or planned mass transit services, the extent of paved surfaces is minimized, and landscaping with indigenous species is maximized.

(e) Rationale: A basic premise of the coastal management program is concentrating the pattern of development, in part to facilitate public transportation. In the more developed parts of the coastal zone, expansion, improvement, and new construction of all forms of public transportation are the most appropriate ways to meet the new transportation needs generated by goods and people. Parking facilities are a necessary part of a transportation system and are encouraged when they are developed as ancillary facilities to these public transportation systems.

Another encouraged type of transportation-related development is bicycles and foot paths. Paths for pedestrians and bicyclists provide active outdoor recreation and may lead to reduced dependency on cars, especially if settlement patterns are made more compact.

The policy on roads is also influenced by the premise of concentrating development and is based on two conclusions: (1) that the coastal zone is for the most part adequately served already by the existing road network; and (2) that further capital investment in transportation facilities for the coastal region should emphasize those kinds of facilities which would minimize environmental damage and energy use. Consequently, new road construction should be undertaken only where the burden of proving need is met after less damaging and more fuel-efficient alternatives have been considered. In addition, further investment in road construction should include coordinated investment in low-damage, highly fuel-efficient modes wherever possible.

7:7-15.6 Public facility

(a) Public facilities include a broad range of public works for production, transfer, transmission, and recovery of water, sewerage and other utilities. The presence of an adequate infrastructure makes possible future development and responds to the needs created by present development.

(b) Solid waste facility means any system, site, equipment**,** or building which is utilized for the storage, collection, processing, transfer, transportation, separation, recycling, recovering**,** or disposal of solid waste, but shall not include a recycling center, a regulated medical waste collection facility authorized pursuant to N.J.A.C. 7:26-3A.39, or an intermodal container facility authorized pursuant to N.J.A.C. 7:26-3.6.

1. Solid waste facilities are conditionally acceptable provided:
    i. Solid waste conservation techniques such as recycling, resource and energy recovery, and volume reduction are explored and proved infeasible before a new or expanded sanitary landfill, preferably at a regional scale, is deemed acceptable;
    ii. The solid waste facility is not located in coastal wetlands as provided at N.J.A.C. 7:7-2.3(b); and
    iii. The solid waste facility complies with the solid and hazardous waste rule at N.J.A.C. 7:7-16.14.

(c) Wastewater treatment facilities are conditionally acceptable provided:

1. The wastewater treatment facility, including sewer lines, is consistent with an approved Water Quality Management (208) Plan;
2. The secondary impacts associated with the facility are consistent with this chapter; and
3. The facility shall provide for multiple use of the site, including open space and recreation use, to the maximum extent feasible.

(d) New or expanded public facilities other than those listed at (b) and (c) above are conditionally acceptable provided:

1. The public facility would serve a demonstrated need that cannot be met by an existing public facility at the site or region;
2. Alternate technologies, including conservation, are an impractical or infeasible approach to meeting all or part of the need for the public facility; and
3. The public facility would not generate significant secondary impacts inconsistent with this chapter.

(e) Rationale: The development of public facilities responds to the needs created by existing development and may make possible future development. Public facilities should serve a current need and should not have secondary impacts, such as increasing sprawl.

Alternatives to developing new public facilities must be considered. For example, solid waste is a resource whose potential for recovery must be evaluated before locating new sanitary landfills. Recovery/recycling are preferred over utilizing precious coastal land area for a landfill. Further regional solutions to solid waste management are mandated under State law. In addition, the development of new landfills is subject to the regulation of the Department's Division of Solid and Hazardous Waste.

Wastewater treatment systems range in scale from on-site sewage disposal systems to regional treatment systems with centralized plants, major interceptors, and ocean outfalls. In the past decades, considerable wastewater treatment facility construction has taken place or been authorized in developing parts of the coastal zone with corresponding improvements to water quality. New wastewater treatment systems must be carefully evaluated in terms of water quality impacts and secondary impacts.

The Federal Clean Water Act encourages Federally funded wastewater treatment facilities to provide for multiple use of the site. The Coastal Zone Management rules support and extend this Federal policy by requiring that all new wastewater treatment facilities in the coastal zone consider the feasibility of multiple use.

7:7-15.7 Industry

(a) Industry uses are uses that involve industrial processing, manufacturing, storage, or distribution activities. These uses include, but are not limited to, electric power production, food and food by-product processing, paper production, agrichemical production, chemical processes,

storage facilities, metallurgical processes, mining and excavation processes, and processes using mineral products. Industrial uses do not include petroleum refining which is considered an energy use and, therefore, subject to the standards of N.J.A.C. 7:7-15.4.

(b) Industrial uses are encouraged in special urban areas. Elsewhere, industrial uses are conditionally acceptable provided they comply with all applicable location and resource rules. Particular attention should be given to location rules which reserve the water's edge for water dependent uses (N.J.A.C. 7:7-9.16 and 9.30); to the buffers and compatibility of uses rule, N.J.A.C. 7:7-16.11, which requires that the use be compatible with existing uses in the area or adequate buffering be provided; and the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9, which places public access requirements upon the use.

(c) New industrial development is encouraged to locate at or adjacent to existing industrial sites, to the maximum extent practicable.

(d) Industry that is easily accessible to its labor force by foot or public transportation is encouraged.

(e) Marine resource-dependent industry, such as commercial fishing, is encouraged and shall have priority over other waterfront uses, except for recreation.

(f) The cogeneration of electricity with process steam is encouraged.

(g) Rationale: A strong industrial base is vital if an area is to be healthy and vibrant. Many of the developed parts of the coast are suffering from a declining industrial base. Land which had been productive is now vacant and in need of redevelopment. The Industrial rules encourage industry to locate in the vacant areas of the cities of the Northern and Delaware waterfronts. However, the rules recognize that a healthy waterfront will host a mix of uses. By asking waterfront industries to create public access to the water and make sites they would vacate available to the public, the rules also recognize the waterfront as a valuable public resource.

The industry rules address the conflicting demands and effects of industrial waterfront development. The rules recognize several factors which must be considered during the decision-making process. First, water dependent industry must locate somewhere along the waterfront. Other industry which needs water for operating or processing, some or all of the time, might also require a location near the waterfront, but landward of the water's edge. Second, as a result of environmental degradation, urban areas are suffering from unmet recreation and open space needs. Third, urban areas typically suffer from high unemployment and deteriorating tax bases. Fourth, city dwellers must be supported in their efforts to rejuvenate and revitalize their cities to make them pleasant and economically viable places to live.

7:7-15.8 Mining

(a) New or expanded mining operations on land, and directly related development, for the extraction and/or processing of construction sand, gravel, ilmenite, glauconite, and other minerals are conditionally acceptable, provided that the following conditions are met (mining is otherwise exempted from the general land areas rule, but shall comply with the special areas and general water area rules):

1. The location of mining operations, such as pits, plants, pipelines, and access roads, causes minimal practicable disturbance to significant wildlife habitats, such as wetlands and stands of mature vegetation;
2. The location of new or expanded mining operations is generally contiguous with or adjacent to sites of existing mining operations, or probable locations of mineral resources on nearby sites, in order to concentrate and not scatter the location of mineral extraction areas within a region, recognizing that mineral resources occur only in certain limited areas;
3. Buffer areas are provided in accordance with N.J.A.C. 7:7-16.11, using existing vegetation and/or new vegetation and landscaping, to provide maximum feasible screening of new on-land extractive activities and related processing from roads, water bodies, marshes, and recreation areas. The buffers and compatibility of uses rule, N.J.A.C. 7:7-16.11, provides guidance related to buffer treatment. A minimum buffer area of 500 feet will be required to existing residential development;
4. The mine development and reclamation plan, including the timetable, phasing, and activities of the new or expanded mining operations, has been designed with explicit and adequate consideration of the ultimate reclamation, restoration, and reuse of the site and use of its surrounding region, once the mineral resource is depleted;
5. The mineral extraction areas shall be reclaimed, contoured and replanted to ensure slope stability, control erosion, afford adequate drainage, provide as natural an appearance as possible, and increase the recreation potential of the restored site within two years of the termination of mining operations;
6. The mining operations control and minimize to the maximum extent practicable adverse impacts from noise and dust, surface and groundwater pollution, and disposal of spoils and waste materials and conform to all applicable Federal, State, and local regulations and standards;
7. The mineral extraction operation will not have a substantial or longlasting adverse impact on coastal resources, including local economies, after the initial adverse impact of removal of vegetation, habitat, and soils, and not including the long-term irretrievable impact of use of the non-renewable mineral resource; and
8. The mine development and reclamation plan minimizes the area and time of disruption of agricultural operations and provides for storage and restoration of all Agricultural Class I, II, and III soils, so that there will be no net loss in the area covered by these soils whenever feasible. The placement of soils may be acceptable to an alternate location if a

need is demonstrated, there is no net loss in the area covered by these soils and the placement is consistent with this chapter.

(b) The proposed mining, extension of existing mining**,** or associated mining activities in freshwater wetlands or freshwater wetlands transition areas is subject to the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.) In addition, proposed mining extension of existing mining or associated mining activities within the 100-year floodplain is subject to the flood hazard areas rule at N.J.A.C. 7:7-9.25.

(c) Rationale: New Jersey's coastal zone includes important deposits and minerals. Mining these non-renewable resources is vital to certain sectors of the economy of selected regions of the coastal zone, the entire state and in some cases the nation, depending upon the specific type of mineral. For example, the high quality silica sands of Cumberland County supply an essential raw material for New Jersey's glass industry. Other industrial sands mined and processed in Cumberland County serve as basic ingredients in the iron and steel foundry industry. Ilmenite deposits in Ocean County provide titanium dioxide which is used in paint pigment. Construction grade sands are used in virtually all construction activity.

The extraction and processing of minerals from mines on land also produces short and long term adverse environmental impacts on agriculture. For example, open-pit mining removes all vegetation and soil, destroys wildlife habitat, changes the visual quality of the landscape, and irretrievably consumes the depletable mineral resource. Many of these impacts can be ameliorated by incorporating proper, imaginative and aggressive reclamation and restoration planning into the mine development process. However, the location of mineral deposits is an unquestionably limiting factor on the location of mining operations. Reasonable balances must therefore be struck between competing and conflicting uses of lands with mineral deposits.

Depending upon the diversity and strength of a local economy, depletion of mineral deposits through extraction may lead to serious adverse long-term economic consequences, particularly if the planned reclamation does not replace the direct economic contribution of the mining industry. The nonrenewable nature of mineral resources must also be considered carefully in light of the uses of some mined minerals.

7:7-15.9 Port

(a) Port uses are concentrations of shoreside marine terminals and transfer facilities for the movement of waterborne cargo (including fluids), and including facilities for loading, unloading and temporary storage.

(b) Port-related development and marine commerce is encouraged in and adjacent to established port areas. Water-dependent development shall not be preempted by non-water dependent development in these areas.

(c) New port uses outside of existing ports as defined at N.J.A.C. 7:7-9.11(a) are acceptable only when there is a clear demonstration of need, and when suitable land and water area is not available in or adjacent to an existing port.

(d) New or expanded ports must be compatible with surrounding land uses and provide for maximum open space and physical and visual access to the waterfront, provided that this access does not interfere with port operations or endanger public health and safety. New or expanded ports must also not interfere with national, State, county or municipal parks, recreational areas, or wildlife refuges.

(e) New, expanded or redeveloped port facilities must have direct access to navigation channels of sufficient depth for anticipated vessel access, with minimal dredge and fill requirements, adequate access to road, rail transportation, and adjacent land with sufficient load bearing capacity for structures.

(f) Limited water-dependent, port-related activity, such as commercial fishing, support facilities and emergency oil spill cleanup storage, is acceptable at the small commercial harbors in the coastal zone.

(g) Rationale: New Jersey's port areas are a regional, national and international resource. The existing ports, located largely in the Delaware and Northern Waterfront Areas contain unused and under used areas which can be refurbished to meet increase in demand. The State must nevertheless allow for possible unanticipated future needs for port area.

As in the past, port activities will continue to be a vital part of the economy of New Jersey. However, changes in shipping technology have caused once thriving ports such as Jersey City and Hoboken to become the scene of dilapidated docks and piers and acres of vacant land.

The port policies recognize the changing ship technology and will encourage new or expanded needed modern facilities in areas where port facilities would be compatible with existing uses. The policies recognize modern facilities require large expanses of land to accommodate specialized equipment and host a full array of services. However, the policies seek to avoid construction of a modern facility which meets the needs of today but could become obsolete tomorrow. For this season, facilities are encouraged not to over-specialize. At the time, the policies recognize the need to have large bulk cargo facilities to avoid construction of numerous small port facilities.

Recognizing the value of the water as a public resource and the need for environmental controls, the policies require facilities to be designed with provision for minimum environmental degradation. The rules endorse the concept of multimodalism and encourage port facilities to make use of existing infrastructure. In addition, the policies encourage an integrated port system which uses container ships, where ship channels are deep enough to accommodate these vessels, but provides for use of smaller barges to move goods to inland waterways or along shallower channels.

Recognizing the value of the waterfront to the public, the rules require port facilities to provide for the maximum public visual and physical access to the waterfront consistent with safety and security concerns. The policies accommodate port usage of the waterfront, where needed and appropriate, while encouraging redevelopment and other uses which would be in the best interest of the public.

7:7-15.10 Commercial facility

(a) Standards relevant to hotels and motels are as follows:

1. Hotels and motels are commercial establishments, known to the public as hotels, motor-hotels, motels, or tourist courts, primarily engaged in providing lodging, or lodging and meals, for the general public. Also included are hotels and motels operated by membership organizations, whether open to the general public or not.
2. New, expanded, or improved hotels and motels are conditionally acceptable provided that the development complies with all location and resource rules and with the rule for high-rise structures and is compatible in scale, site design, and architecture with surrounding development.
3. Hotels, motels or restaurants may be water oriented if they take full advantage of a waterfront location.
4. In special urban areas, new hotel, motel, or restaurant development is acceptable in the filled water's edge and over large rivers on structurally sound pilings, provided it is consistent with rules on filled water's edge (N.J.A.C. 7:7-9.23) and special urban areas (N.J.A.C. 7:7-9.41), and the existing total area of water coverage is not expanded except where it can be demonstrated that extensions are functionally necessary for water dependent uses.
5. All new hotel or motel development, as well as the expanded portion of an existing hotel or motel, located on a non-oceanfront site with existing or proposed shore protection structures, shall be set back at least 15 feet landward from the existing or proposed shore protection structures. Decks attached to the proposed new or expanded existing hotel or motel are not subject to this setback requirement. If there is no alternative to locating the proposed development at least 15 feet landward of the shore protection structure, the Department shall reduce the required setback if an engineering certification is submitted demonstrating that, after the proposed development has been constructed, the shore protection structure can be replaced within 18 inches of the location of the existing or proposed shore protection structure and a conservation restriction that complies with N.J.A.C. 7:7-18 is recorded for the property which states that any reconstruction of a shore protection structure shall be within 18 inches of the existing shore protection structure.

(b) Standards relevant to retail trade and services are as follows:

1. Retail trade and services is a broad category including, but not limited to, establishments selling merchandise for personal and household consumption, such as food stores and clothing stores; offices; service establishments such as banks and insurance agencies; establishments such as restaurants and night clubs; and establishments for participant sports such as bowling alleys and indoor tennis courts.
2. In special urban areas, new or expanded retail trade and service establishments are conditionally acceptable in filled water's edge areas and over large rivers on structurally sound existing pilings as part of mixed use developments, provided that the development is consistent with the rules on filled water's edge (N.J.A.C. 7:7-9.23) and special urban areas (N.J.A.C. 7:7-9.41), and the existing total area of water coverage is not expanded except where it can be demonstrated that extensions are functionally necessary for water dependent uses.
3. Elsewhere in the coastal zone, new or expanded retail trade and service establishments are conditionally acceptable provided that the development:
   i. Complies with all applicable location and resource rules;
   ii. Is compatible in scale, site design, and architecture with surrounding development; and
   iii. Where appropriate, utilizes the water area as the central focus of the development.
4. All new retail trade and service establishments, as well as expanded portions of existing retail trade and service establishments located on a non-oceanfront site with existing or proposed shore protection structures, shall be set back at least 15 feet landward from the existing or proposed shore protection structures. Decks attached to the proposed new or expanded existing retail trade and service establishments are not subject to this setback requirement. If there is no alternative to locating the proposed development at least 15 feet landward of the shore protection structure, the Department shall reduce the required setback if an engineering certification is submitted demonstrating that, after the proposed development has been constructed, the shore protection structure can be replaced within 18 inches of the location of the existing or proposed shore protection structure and a conservation restriction that complies with N.J.A.C. 7:7-18 is recorded for the property which states that any reconstruction of a shore protection structure shall be within 18 inches of the existing shore protection structure.

(c) Standards relevant to convention centers and arenas are as follows:

1. "Convention centers" are facilities designed primarily for holding conventions. "Arenas" are commercial facilities designed primarily for spectator sporting events. Arenas do not include indoor tennis courts, bowling alleys and other facilities primarily designed for participant sports, nor arenas affiliated with schools and colleges.
2. New convention centers and arenas are encouraged in special urban areas, and conditionally acceptable in Development regions, provided that the development is compatible in scale, site design, and architecture with surrounding development, and is

accessible by public transportation. New convention centers and arenas are discouraged in Barrier Island, Extension and Limited Growth regions.

3. All new convention centers or arenas, as well as expanded portion of an existing convention center or arena, located on a non-oceanfront site with existing or proposed shore protection structures, shall be set back at least 15 feet from such shore protection structures. Decks attached to the proposed new or expanded convention centers or arenas are not subject to this setback requirement. If there is no alternative to locating the proposed development at least 15 feet landward of the shore protection structure, the Department shall reduce the required setback if an engineering certification is submitted demonstrating that, after the proposed development has been constructed, the shore protection structure can be replaced within 18 inches of the existing shore protection structure and a conservation restriction that complies with N.J.A.C. 7:7-18 is recorded for the property which states that any reconstruction of a shore protection structure shall be within 18 inches of the existing shore protection structure.

(d) Rationale: Hotels and motels, retail trade and service establishments, and convention centers and arenas are commercial facilities. The economic benefits of these different types of commercial facilities should be balanced with the potential environmental impacts posed by new or expanded commercial facilities.

Hotels and motels enable New Jersey residents and tourists to visit the coast. They support the tourist economy of the area. The buildings must be located, however, so they do not harm or threaten the resources that attract people to the coast.

Retail and services development in the urban waterfront area is consistent with the State's economic development policy to target loans and bond assistance for commercial and retail establishment to urban areas.

Convention centers and arenas would provide social and cultural benefit to residents and visitors to the waterfront areas. They would also support the economy of the area. However, they can also generate traffic and induce additional development. They must, therefore, be located so that such impacts can be easily absorbed.

While commercial development, including hotels and motels, retail trade and service establishments, and convention centers and arenas, serves an important function in coastal areas, all forms of commercial development must be located so that it does not harm or threaten the resources which attract people to the coast.

7:7-15.11 Coastal engineering

(a) Coastal engineering measures include a variety of non-structural, hybrid, and structural shore protection and storm damage reduction measures to manage water areas and protect the shoreline from the effects of erosion, storms, and sediment and sand movement. Beach nourishment, sand fences, pedestrian crossing of dunes, stabilization of dunes, dune restoration projects, dredged material management, living shorelines, and the construction of retaining structures such as bulkheads, gabions, revetments, and seawalls are all examples of coastal engineering measures.

(b) Nonstructural, hybrid, and structural shore protection and/or storm damage reduction measures shall be used according to the following hierarchy:

1. Non-structural shore protection and/or storm damage reduction measures that allow for the growth of vegetation shall be used unless it is demonstrated that use of non-structural measures is not feasible or practicable. Factors considered in determining whether use of a non-structural measure is feasible include the type of waterway on which the site is located, the distance to the navigation channel, the width of waterway, water depth at the toe of bank, the bank orientation, shoreline slope, fetch, erosion rate, the amount of sunlight the site receives, substrate composition, and presence of shellfish habitat, submerged vegetation and wetlands at the site. For guidance on measures that may be appropriate depending upon factors impacting a site, see Guidance for Appropriate Shoreline Protection and/or Storm Damage Reduction Measures for a Site available from the Division of Land Use Regulation's website at https://www.nj.gov/dep/landuse/guidance.html. This guidance follows N.J.S.A 52:14B-3a and does not impose any new or added requirements nor can it be used for enforcement purposes.
2. Where the use of non-structural shore protection and/or storm damage reduction measures under (b)1 above is demonstrated to be not feasible or practicable, then hybrid shore protection and/or storm damage reduction measures that allow for the growth of vegetation, such as stone, rip-rap, sloped concrete articulated blocks or similar structures, or gabion revetments, shall be used. Factors considered in determining whether use of a non-structural measure is feasible include the type of waterway on which the site is located, the distance to the navigation channel, the width of waterway, water depth at the toe of bank, the bank orientation, shoreline slope, fetch, erosion rate, the amount of sunlight the site receives, substrate composition, and presence of shellfish habitat.
3. Where the use of hybrid shore protection and/or storm damage reduction measures under (b)2 above is demonstrated to be not feasible or practicable, then structural shore protection and/or storm damage reduction measures such as bulkheads, revetments, sea walls, or other retaining structures shall be used. Factors considered in determining whether use of a hybrid shore protection measure is feasible include the type of waterway on which the site is located, the distance to the navigation channel, the width of waterway, water depth at the toe of bank, the bank orientation, shoreline slope, fetch, erosion rate, the amount of sunlight the site receives, substrate composition, and presence of shellfish habitat.

(c) The hierarchy set forth at (b) above does not apply to water dependent uses within existing ports.

(d) The construction, maintenance, or reconstruction of a bulkhead shall comply with the following:

1. A bulkhead that is subject to wave runup forces, specifically, a bulkhead in a V zone as described at N.J.A.C. 7:7-9.18, shall be designed and certified by a professional engineer

to withstand the forces of wave runup. The use of rip-rap along the seaward toe of the bulkhead structure may be required on a case-by-case basis as a means to limit the scour potential;

2. Maintenance or reconstruction of an existing bulkhead is conditionally acceptable provided that it meets (d)2i, ii, or iii below. All measurements specified below shall be made from the waterward face of the original bulkhead alignment of the existing bulkhead to the waterward face of the replacement bulkhead.

   i. The replacement bulkhead is located within 18 inches outshore of the existing bulkhead, except in accordance with (d)2ii or iii below;

   ii. The replacement bulkhead is located no more than 24 inches outshore of the existing bulkhead when the replacement bulkhead is constructed of a corrugated material, and the replacement bulkhead is located as close as possible to the face of the existing bulkhead; or

   iii. Maintenance or reconstruction of an existing bulkhead that does not meet (d)2i or ii above shall be considered new construction, unless it can be demonstrated that the existing bulkhead cannot physically accommodate a replacement in accordance with (d)2i or ii above. In that case, the replacement bulkhead shall be as close as physically possible to the original bulkhead alignment.

(e) Dune restoration, creation, and maintenance projects as non-structural shore protection and/or storm damage reduction measures, are encouraged. These projects, including sand fencing, revegetation, additions of non-toxic appropriately sized material, and measures to control pedestrian and vehicular traffic, shall comply with N.J.A.C. 7:7-10, Standards for Beach and Dune Activities.

(f) Beach nourishment projects as non-structural shore protection and/or storm damage reduction measures are encouraged, provided:

1. The particle size and type of the fill material is compatible with the existing beach material to ensure that the new material will not be removed to a greater extent than the existing material would be by normal tidal fluctuations;
2. The elevation, width, slope, and form of the proposed beach nourishment projects are compatible with the characteristics of the existing beach;
3. The sediment deposition will not cause unacceptable shoaling in downdrift inlets and navigation channels;
4. Public access to the nourished beach is provided in accordance with the lands and waters subject to the public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

(g) Structural shore protection and/or storm damage reduction measures that are conducted using monies from the Shore Protection Fund established by N.J.S.A. 13:19-16 and/or any other Department monies shall comply with (g)1 and 2 below.

1. The construction of new shore protection structures or expansion or fortification of existing shore protection structures, including, but not limited to, jetties, groins, seawalls, bulkheads, gabions, and other retaining structures to retard longshore transport and/or to prevent tidal waters from reaching erodible material, is acceptable only if the structure meets all of the following conditions:
    i. The structure is essential to protect water dependent uses or heavily used public recreation beach areas in danger from tidal waters or erosion, or the structure is essential to protect existing structures and infrastructure in developed shorefront areas threatened by erosion, or the structure, for example, a retained earthen berm, is essential to mitigate the projected erosion in an erosion hazard area along a headland and provide erosion protection for a development that is otherwise acceptable under this chapter;
    ii. The structure will not cause significant adverse impacts on local shoreline sand supply;
    iii. The structure will not create net adverse shoreline sand movement downdrift, including erosion or shoaling;
    iv. The structure will cause minimum feasible adverse impact to living marine and estuarine resources;
    v. The structure is consistent with the State's Shore Protection Master Plan; and
    vi. If the proposed project requires filling of a water area, the filling is consistent with the filling rule, N.J.A.C. 7:7-12.11, and all other applicable rules in this chapter; and
2. Public access to the shore protection project shall be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48 and the public access rule, N.J.A.C. 7:7-16.9.

(h) Rationale: New Jersey's coastal environment is dynamic, and shaped by natural forces such as wind, waves and storms. To manage the effects of these forces on development, water areas, and the shoreline, non-structural and structural shoreline stabilization measures and shore protection and storm damage reduction measures are employed. These measures, collectively known as coastal engineering, include living shorelines, rip-rap and gabion hybrid structures, bulkheads, revetments, seawalls, and dune restoration and beach nourishment projects.

Vegetated or living shorelines are a shore protection and/or storm damage reduction measure that addresses the loss of vegetated shorelines and habitat in the littoral zone by providing for the protection, restoration or enhancement of these habitats. This measure provides "living space" for organisms through the strategic placement of plants, sand or other structural and organic materials.

Structural solutions as shore protection and storm damage reduction measures are appropriate and essential at certain locations, given the existing pattern of urbanization of New Jersey's shoreline. However, the creation, repair, or removal of publicly-funded shore protection

structures must serve clear and broad public purposes and must be undertaken only with a clear understanding, on a regional basis, of the consequences to natural shoreline sand systems.

As documented by the Department, the Federal Emergency Management Agency and others, dunes have proven to be very effective in providing protection from coastal storm surges, wave action and flooding. Dunes have been shown to reduce the level of storm damage particularly to boardwalks, gazebos and residential oceanfront structures. Creation, restoration, enhancement, and maintenance of dunes are, therefore, encouraged.

New Jersey's unique geography places the State in the potential path of hurricanes, tropical storms, and nor'easters. Healthy beaches provide mitigation from these natural disasters by acting as a buffer between the ocean or bay and the homes, businesses, and infrastructure along the coast. Beach nourishment projects consist of the initial placement of sand along a beach that has experienced erosion. Beach nourishment depends upon adequate quantity and suitable quality of beach nourishment material; otherwise the material may quickly return to the ocean or bay. Sources of sand for such projects can include a local source such as from a neighboring beach or sandbar, a dredged source such as a nearby inlet or waterway, an inland source such as a mining quarry, or, as used most commonly in large-scale projects, an offshore source such as a borrow site along the ocean bottom. This sand can be brought in with trucks or barges, hydraulically pumped or any combination of the above, and is then spread evenly along the beach using a common bulldozer. This completes the initial beach nourishment phase. As nourished beaches undergo erosion, they must be maintained through beach re-nourishment.

The Public Trust Doctrine requires that access be provided to publicly funded shore protection structures and that such structures not impede public access.

The New Jersey Supreme Court in *Borough of Neptune v. Avon-by-The-Sea* 61 *N.J.* 296 (1972) held that:

"…at least where the upland sand area is owned by a municipality - a political subdivision and creature of the state –and dedicated to public beach purposes, a modern court must take the view that the Public Trust Doctrine dictates that the beach and ocean waters must be open to all on equal terms and without preference and that any contrary state or municipal action is impermissible.' (61 *N.J.* at 308-309).

Shore protection structures, when located on wet sand beaches, tidally flowed or formerly tidally flowed lands, are subject to the Public Trust Doctrine. Once built, most publicly funded shore protection structures become municipal property and are, therefore, subject to the Public Trust Doctrine in the same manner as municipally owned dry beaches.

7:7-15.12 Dredged material placement on land

(a) Dredged material placement is the disposal or beneficial use of sediments removed during dredging operations. Beneficial uses of dredged material include, but are not limited to, fill, capping material, topsoil, bricks, and lightweight aggregate. This rule applies to the placement of dredged material landward of the spring high water line. The standards for dredged material disposal in water areas are found at N.J.A.C. 7:7-12.9.

(b) Dredged material placement on land is conditionally acceptable provided that the use is protective of human health, groundwater quality, and surface water quality, and manages ecological risks. Testing of the dredged material may be required as needed to determine the acceptability of the placement of the material on a particular site in accordance with Appendix G.

(c) Dredged material disposal and/or construction of a confined disposal facility is prohibited in wetlands unless the criteria found at N.J.A.C. 7:7-9.27 are met.

(d) The beneficial use of dredged material of appropriate quality and particle size for purposes such as restoring landscape, enhancing farming areas, capping and remediating landfills and brownfields, transportation projects, beach protection, creating marshes, capping contaminated dredged material disposal areas, and making new wildlife habitats is encouraged.

(e) Adverse effects associated with the transfer of the dredged materials from the dredging site to the upland confined disposal facility or upland placement site shall be minimized to the maximum extent feasible.

(f) Dredged material placement in wet and dry borrow pits is conditionally acceptable (see N.J.A.C. 7:7-9.14 and 9.33).

(g) If pre-dredging sediment analysis indicates contamination, then special precautions shall be imposed including but not necessarily limited to increasing retention time of water in the disposal site or rehandling basin through weir and dike design modifications, use of coagulants, ground water monitoring, or measures to prevent biological uptake by colonizing plants.

(h) All potential releases of water from confined (diked) disposal facilities and rehandling basins shall meet existing State Surface Water Quality Standards (N.J.A.C. 7:9B) and State Ground Water Quality Standards (N.J.A.C. 7:9).

(i) Rationale: Dredged material disposal and/or beneficial use is an essential coastal land and water use that is linked inextricably to the coastal economy. Dredged material placement on land could have serious impacts in the coastal environment. In the past decade, evolving State and federal policies for protection of the marine and estuarine coastal environment have sharply limited the designation of new open water dredged material disposal areas. Yet maintenance dredging must continue if inlets and navigation channels are to be maintained. This rule recognizes the importance of this use of coastal resources and the need for sites landward of the spring high water line where this material can be placed.

Dredged material may contain pollutants and thus dredging and dredged material placement must be managed to minimize impacts on water, air and habitat. Further, every precaution should be taken to ensure that the placement of dredged material on land does not endanger the natural coastal resources, human health or the environment. Therefore, due investigation is required prior to approval of dredged material placement on land.

7:7-15.13 National defense facilities

(a) A national defense facility is any building, group of buildings, marine terminal, or land area owned or operated by a defense agency (Army, Navy, Air Force, Marines, Coast Guard) and used for training, research, material support, or any other defense related use.

(b) National defense facilities are conditionally acceptable provided the development meets either (b)1 or 2 below:

1. The proposed facility is consistent with all relevant sections of this chapter; or
2. The proposed facility is coastally dependent, will be constructed and operated with maximum possible consistency with this chapter, and will result in minimal feasible degradation of the natural environment.

(c) The construction of new facilities or expansion of existing facilities on land not owned by a defense agency is discouraged, unless it can be shown that the facility cannot feasibly be accommodated on an existing base.

(d) Rationale: Providing for the national defense is the responsibility of the Federal government, and the New Jersey Coastal Management Program will not question the findings of a Federal defense agency with respect to national security needs.

The requirements that coastal dependent facility comply with this chapter only to the maximum extent feasible is in keeping with Section 306(c)(8) of the Federal Coastal Zone Management Act, which requires consideration of the national interest in the siting of facilities necessary to meet requirements which are other than local in nature.

7:7-15.14 High-rise structures

(a) High-rise structures are structures which are more than six stories or more than 60 feet in height as measured from existing preconstruction ground level.

(b) The standards for high-rise structures are as follows:

1. High-rise structures are encouraged to locate in an urban area of existing high density, high-rise and/or intense settlements;
2. High-rise structures within the view of coastal waters shall be separated from coastal waters by at least one public road or an equivalent area (at least 50 feet) physically and visually open to the public except as provided by N.J.A.C. 7:7-9.46;
3. Where the high-rise structure is a building or complex of buildings that comprises both a low-rise component(s) that is six stories or 60 feet or less in height as measured from preconstruction ground level and a component(s) that is more than six stories or more than 60 feet in height as measured from existing preconstruction ground level, the longest lateral dimension of each component that is more than six stories or more than 60 feet in height as measured from existing preconstruction ground level must be oriented

perpendicular to the beach or coastal waters. This restriction does not apply to a high-rise structure that is located in the Redevelopment Zone of the City of Long Branch and authorized pursuant to the Long Branch Redevelopment Zone Permit at N.J.A.C. 7:7-7;

4. To the maximum extent practicable, the proposed structure must not block the view of dunes, beaches, horizons, skylines, rivers, inlets, bays, or oceans that are currently enjoyed from existing residential structures, public roads, or pathways;
5. High-rise structures outside of the Hudson River waterfront special area as defined by N.J.A.C. 7:7-9.46 shall not overshadow the dry sand beach between 10:00 A.M. and 4:00 P.M. between June 1 and September 20, and shall not overshadow waterfront parks year round;
6. The proposed structure must be in character with the surrounding transitional heights and residential densities, or be in character with a municipal comprehensive development scheme requiring an increase in height and density which is consistent with all applicable sections of this chapter;
7. The proposed structure must not have an adverse impact on air quality, traffic, and existing infrastructure; and
8. The proposed structure must be architecturally designed so as to not cause deflation of the beach and dune system or other coastal environmental waterward of the structure.

(c) The high-rise structures rule shall not apply to the following types of development:

1. Development in Atlantic City;
2. Utility structures that have a demonstrated need; or
3. Wind turbines.

(d) Rationale: Considerable recent residential development along the coast, from the Palisades to the barrier islands, has taken the form the high-rise, high-density towers. While conserving land, some high-rise structures represent a visual intrusion, cause adverse traffic impacts, and cast shadows on beaches and parks. This rule seeks not to ban high rise structures, but to provide criteria for their development at suitable locations and in appropriate orientation with regard to the coastline in the coastal zone.

SUBCHAPTER 16. RESOURCE RULES

7:7-16.1 Purpose and Scope

In addition to satisfying the location and use rules, a proposed development must satisfy the requirements of this subchapter. This subchapter contains the standards the Department utilizes to analyze the proposed development in terms of its effects on various resources of the built and

natural environment of the coastal zone, both at the proposed site as well as in its surrounding region.

7:7-16.2 Marine fish and fisheries

(a) Marine fish are marine and estuarine animals other than marine mammals and birds. Marine fisheries means:

1. One or more stocks of marine fish which can be treated as a unit for the purposes of conservation and management and which are identified on the basis of geographical, scientific, technical, recreational and economic characteristics; and
2. The catching, taking or harvesting of marine fish.

(b) Any activity that would adversely impact the natural functioning of marine fish, including the reproductive, spawning and migratory patterns or species abundance or diversity of marine fish, is discouraged. In addition, any activity that would adversely impact any New Jersey based marine fisheries or access thereto is discouraged, unless it complies with (c) below.

(c) The following coastal activities are conditionally acceptable provided that the activity complies with the appropriate general water area rule(s) at N.J.A.C 7:7-12;

1. Construction of submerged cables and pipelines;
2. Sand and gravel mining to obtain material for beach nourishment, provided:
   i. The beach nourishment project is in the public interest;
   ii. There are no alternative borrow sites that would result in less impact to marine fish and fisheries;
   iii. Any alteration of existing bathymetry within prime fishing areas, as defined at N.J.A.C. 7:7-9.4, does not reduce the high fishery productivity of these areas; and
   iv. Measures are implemented to minimize and compensate for impacts to marine fish and fisheries; and
3. The establishment of Aquaculture Development Zones in accordance with N.J.S.A. 4:27-1 et seq. and any rules developed and adopted pursuant thereto;
4. The establishment of living shorelines to protect, restore, or enhance a habitat area, in accordance with N.J.A.C. 7:7-12.23; and
5. Construction of a recreational dock or pier in accordance with N.J.A.C. 7:7-12.5.

(d) Rationale: Finfish (freshwater, estuarine, and marine) and shellfish resources, and the habitats that support these resources provide significant recreation experiences for residents of New Jersey and interstate visitors. These resources also help the State's economy, by leading to expenditures of approximately $1.4 billion per year (US Department of Commerce, National Marine Fisheries Service, 2008). The Department also estimates that 1.2 million people

participated in marine/estuarine recreational fishing in 2010 in New Jersey. (US Department of Commerce, National Marine Fisheries Service, 2011) The value of and participation in recreational saltwater fishing is underestimated here as these figures only include finfish data and do not include recreational crabbing and clamming, which are important activities in New Jersey. Commercial landings for all finfish and shellfish in New Jersey during 2010 were 161,831,909 pounds, valued at $177 million dockside, according to US Department of Commerce statistics (2011). The total ripple effect on the State economy is estimated at $2.6 billion, with recreational fishing yielding $1.6 billion and commercial fishing yielding $1.06 billion. (US Department of Commerce, National Marine Fisheries Service, 2008 and 2011).

Activities that may interfere with marine fish and fisheries include blockage of diadromous finfish spawning runs, reduction in the critical capacity of estuaries to function as finfish nursery or spawning areas, reduction of summer dissolved oxygen level below 4 pm stimulating anoxic phytoplankton blooms, introduction of heavy metals or other toxic agents into coastal water, rise in ambient water temperature regime especially during summer and fall periods, unacceptable increase in turbidity levels, siltation, or resuspension of toxic agents, excavation of marine substrate to obtain sand resources or to install submarine cables and pipelines, and introduction of effluents from domestic and industrial sources.

Water presently condemned for the harvesting of shellfish may not be directly or immediately important to human economics although these areas have been used for resource recovery programs, relay and depuration, and as source areas. These areas, however, serve for restocking fishable areas through production of motile larvae. Shellfish in condemned waters also are not lost to estuarine ecological food-webs, but serve as a food source to other species of wildlife.

Sand mining for the purpose of beach nourishment has the potential to impact marine fish and fisheries by altering the contours of the water bottom (bathymetry) within borrow areas or by covering fishery resources and/or habitat through the placement of sand, thereby reducing the productivity of these areas. Measures to minimize and compensate for impacts to marine fish and fisheries may include, but are not limited to, modifying the location and dimensions of proposed borrow areas, creating and/or enhancing habitat at or near the borrow site, requiring timing restrictions on sand mining activities, limiting frequency of borrow activities, and reducing allowable sand mining volumes.

Shorelines lost due to erosion eliminate intertidal habitat, reduce the amount of sandy beach, and decrease the amount of organic matter necessary to maintain tidal wetlands. This erosion results in the degradation of the coastal environment through impacts to natural habitats, such as tidal wetlands and spawning grounds. Coastal states are seeking natural solutions, such as the creation of living shorelines, to address erosion as an alternative that adds diversity to other shore protection measures. Living shorelines are a shoreline management practice that addresses the loss of vegetated habitats by providing for their protection, restoration or enhancement.

Fishery Management Plans are developed by the Regional Fisheries Management Councils, National Marine Fisheries Service and Atlantic States Marine Fisheries Commission in accordance with the Federal Fisheries Conservation and Management Act of 1976, P.L. 94-265,

as amended or the Federal Atlantic Coastal Fisheries Cooperative Management Act, P.L. 103-206, as amended. Fishery Management Plans are also developed by the Department pursuant to the State's Marine Fisheries Management and Commercial Fisheries Act, N.J.S.A. 23:2B-1 et seq. Fishery Management Plans are intended to prevent overfishing of marine fish and to achieve optimal yield from each fishery on a continuing basis. These Plans are adopted on a regional basis and provide for long-term viability of marine fish and fisheries. This rule provides the Department the ability to ensure that Fishery Management Plans, as well as developmental and other activities, will not adversely affect New Jersey's recreational and commercial marine fisheries.

7:7-16.3 Water quality

(a) As required by Section 307(f) of the Federal Coastal Zone Management Act, 16 U.S.C. §§ 1451 et seq., Federal, State, and local water quality requirements established under the Federal Clean Water Act, 33 U.S.C. §§ 1251 et seq., shall be the water resource standards of the coastal management program. These requirements include not only the minimum requirements imposed under the Clean Water Act but also the additional requirements adopted by states, localities, and interstate agencies pursuant to Section 510 of the Clean Water Act and such statutes as the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq. In the Delaware River Basin, the requirements include the prevailing "Basin Regulations-Water Quality" adopted by the Delaware River Basin Commission as part of its Comprehensive Plan. In the waters under the jurisdiction of the Interstate Environmental Commission in the New Jersey-New York metropolitan area, the requirements include the Interstate Environmental Commission's Water Quality Regulations. Department rules related to water pollution control and applicable throughout the entire coastal zone include, for example, the Surface Water Quality Standards (N.J.A.C. 7:9B), the Ground Water Quality Standards (N.J.A.C. 7:9C), and the New Jersey Pollutant Discharge Elimination System rules (N.J.A.C. 7:14A).

(b) Coastal development which would violate the Federal Clean Water Act, or State laws, rules and regulations enacted or promulgated pursuant thereto, is prohibited. In accordance with N.J.A.C. 7:15 concerning the Water Quality Management Planning and Implementation process, coastal development that is inconsistent with an approved Water Quality Management (208) Plan under the New Jersey Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq., is prohibited.

(c) Rationale: Most of the natural, commercial, recreational, industrial, and aesthetic resources of the coastal zone affect or are affected by surface and groundwater quality. Specific coastal zone water quality problems include pollution by nutrients, pathogenic organisms, toxic and hazardous wastes, thermal discharges, suspended sediments, oxygen demanding wastes, and saline intrusion into freshwater resources. These pollutants can lower water quality sufficiently to prevent desired uses. Pursuant to the Federal Coastal Zone Management Act, Section 307(f), requirements established by a state or local government pursuant to the Federal Clean Air Act and Clean Water Act "shall be incorporated" into any program developed pursuant to the CZMA. This rule incorporates State water quality requirements by making clear that development which would violate New Jersey's water quality related statutes and regulations

adopted pursuant to the Federal Clean Water Act is not allowed.

7:7-16.4 Surface water use

(a) Surface water is water in lakes, ponds, streams, rivers, bogs, wetlands, bays, and ocean that is visible on land.

(b) Coastal development shall demonstrate that the anticipated surface water demand of the facility will not exceed the capacity, including phased planned increases, of the local potable water supply system or reserve capacity, and that construction of the facility will not cause unacceptable surface water disturbances, such as drawdown, bottom scour, or alteration of flow patterns.

1. Coastal development shall conform with all applicable Department and, in the Delaware River Area, Delaware River Basin Commission requirements for surface water diversions.

(c) Rationale: The surface waters of New Jersey coastal zone are an invaluable natural resource. Fresh waters maintain the propagation of established and natural biota. They serve as commercial, recreational, industrial, agricultural, and aesthetic resources. Any development that affects surface water quantity and quality will have a negative impact on these uses.

7:7-16.5 Groundwater use

(a) Groundwater is all water within the soil and subsurface strata that is not at the surface of the land. It includes water that is within the earth that supplies wells and springs.

(b) Coastal development shall demonstrate, to the maximum extent practicable, that the anticipated groundwater withdrawal demand of the development, alone and in conjunction with other groundwater diversions proposed or existing in the region, will not cause salinity intrusions into the groundwaters of the zone, will not degrade groundwater quality, will not significantly lower the water table or piezometric surface, or significantly decrease the base flow of adjacent water sources. Groundwater withdrawals shall not exceed the aquifer's safe yield.

1. Coastal development shall conform with all applicable Department and, in the Delaware River Basin, Delaware River Basin Commission requirements for groundwater withdrawal and water diversion rights.

(c) Rationale: Groundwater is a primary source of water for drinking and industrial use. In some areas of the coastal zone, especially areas in Essex, Middlesex, Monmouth, Salem, Camden, and Cape May Counties, excessive amounts of groundwater are being withdrawn. The problem stems from the overpumping of groundwater, industrial, agricultural and municipal landfill leakage into groundwater and reduction of aquifer recharge caused by increased development and population. This has led to a progressive lowering of the water table or piezometric surface; altered groundwater flow patterns; changed groundwater recharge/discharge relationships which

may in turn result in increasing salt water intrusion into the groundwater; damaged the base flow conditions of streams; and caused well closing due to contamination.

7:7-16.6 Stormwater management

(a) If a project or activity meets the definition of "major development" at N.J.A.C. 7:8-1.2, then the project or activity shall comply with the Stormwater Management rules at N.J.A.C. 7:8.

(b) Rationale: The Stormwater Management Rules (N.J.A.C. 7:8) specify standards for State, municipal, and regional stormwater management. These rules provide minimum Statewide runoff techniques, as well as special protection measures for environmentally sensitive water and land areas. Because development and land use activities contribute greatly to the types and amount of pollutants that are found in stormwater runoff, it is appropriate for major development projects in the coastal zone to comply with the Stormwater Management Rules' standards.

7:7-16.7 Vegetation

(a) Vegetation is the plant life or total plant cover that is found on a specific area, whether indigenous or introduced by humans.

(b) Coastal development shall preserve, to the maximum extent practicable, existing vegetation within a development site. Coastal development shall plant new vegetation, particularly appropriate coastal species, native to New Jersey to the maximum extent practicable.

(c) Rationale: The steady loss of vegetation is a nearly inevitable result of urbanization. Terrestrial vegetation stabilizes soil, retards erosion and runoff, promotes infiltration of surface water, reduces the force of wind, provides food, shelter and breeding sites for wildlife, and adds to aesthetic values for recreation and domestic life. Trees release life-giving oxygen, filter particulate pollutants, provide foods and fuel, with no energy input necessary by man. Because each site is unique, the degree of vegetation preservation required will depend upon the environmental conditions within and adjacent to the development site. In general, the greater the intensity of development permitted, the less vegetation preservation required.

"Appropriate native coastal species" means that species selection must reflect the natural physiological limitations of species to survive in distinct habitats, which include all environmental processes (natural and artificial) that operate within a site. Non-suitable species plantings will do poorly or die, or, if preserved through an intensive maintenance program of pH adjustment fertilization and irrigation, will cause unacceptable ground and surface water impacts. New vegetative plantings should reflect regional geophysical suitability. Illustrative appropriate species can be grouped into three categories:

(i) Barrier Beach Sites - Plants tolerant of salt spray and occasional saline flooding, such as American holly, red cedar, black cherry, beach plum, beach grass, bayberry, beach heather, etc.

(ii) Pine Barrens Sites - Plants tolerant of infertile sandy soils, frequent fires, and acidic water, such as pitch and short-leaf pines, Atlantic white-cedar, dogwood, American holly, oaks, blueberry, etc.

(iii) Inner Coastal Plain and Southern Outer Coastal Plain - Plants compatible with fertile, well drained soils; such as oaks, beech, hickory, dogwood, black cherry, white pine, gray birch, laurel, etc.

(iv) Piedmont Sites - Oak, hickory, beech, ash, elm, hemlock, dogwood and laurel cherry.

Within these regional groupings, the selection of individual species should take into consideration the depth to seasonal high groundwater table. Species which provide food for wildlife or other desirable traits are favored for new planting.

7:7-16.8 Air quality

(a) The protection of air resources refers to the protection from air contaminants that injure human health, welfare or property, and the attainment and maintenance of State and Federal air quality goals and the prevention of degradation of current levels of air quality.

(b) Coastal development shall conform to all applicable State and Federal regulations, standards and guidelines and be consistent with the strategies of New Jersey's State Implementation Plan (SIP). See N.J.A.C. 7:27 and New Jersey SIP for ozone, particulate matter, sulfur dioxide, nitrogen dioxide, carbon monoxide, lead, and visibility.

(c) Coastal development shall be located and designed to take full advantage of existing or planned mass transportation infrastructures and shall be managed to promote mass transportational services, in accordance with the traffic rule, N.J.A.C. 7:7-16.12.

(d) Rationale: Air quality is adversely affected by the contaminants emitted into the atmosphere as by-products of human activities, especially fuel-burning. Air contaminants not only cause discomfort, damage to materials and vegetation, soiling of surfaces, and deterioration of visibility, but can also adversely affect human health.

Historically, the extent of air pollution has increased with industrialization and urbanization. The Northern Waterfront Area has a long history of air contaminants from these sources. Thus, in most cases, abatement practices are required to restore healthful air quality.

The Federal Coastal Zone Management Act, Section 307(f), requires that the air resource standards of the Coastal Management Program be the local, State, and Federal policies established in fulfillment of the Clean Air Act and its amendments. The Department's Air Quality Regulation Group administers the State's air quality program to meet the requirements of the New Jersey Air Pollution Control Act and the Federal Clean Air Act and determines compliance with coastal policy on air quality.

7:7-16.9 Public access

(a) Public access to the waterfront is the ability of the public to pass physically and visually to, from, and along tidal waterways and their shores and to use such shores, waterfronts and waters for activities such as navigation, fishing, and recreational activities including, but not limited to, swimming, sunbathing, surfing, sport diving, bird watching, walking, and boating. Public accessways and public access areas include streets, paths, trails, walkways, easements, paper streets, dune walkovers/walkways, piers and other rights-of way. No authorization or approval under this chapter shall be deemed to relinquish public rights of access to and use of lands and waters subject to public trust rights in accordance with N.J.A.C.7:7-9.48. Further, no authorization or approval under this chapter shall be considered a Tidelands approval or shall exempt an applicant from the obligation to obtain a Tidelands approval, if needed.

(b) In addition to the broad coastal goals outlined at N.J.A.C. 7:7-1.1(c), public access shall be provided in a manner designed to achieve the following public access goals:

1. All levels of government in New Jersey shall seek to create and enhance opportunities for public access to tidal waterways and their shores, on a non-discriminatory basis;
2. All existing public access to, and along tidal waterways and their shores shall be maintained to the maximum extent practicable;
3. New development shall provide opportunity for public access to tidal waterways and their shores on or offsite;
    i. Public access proposed by an applicant may include any one or combination of the following:
        (1) A public accessway designed in accordance with (u) below, located parallel to the shoreline with perpendicular access;
        (2) A boat ramp, pier, fishing, or other direct access to the waterway;
        (3) A waterfront pocket park;
        (4) Public restrooms to accommodate those utilizing public access; and/or
        (5) Additional public parking to accommodate those utilizing public access;
    ii. Public access proposed by an applicant shall incorporate, to the maximum extent practicable, fishing access and associated amenities, including parking that accommodates nighttime fishing for a reasonable duration of time, on or adjacent to tidal waterways and their shores. In the case of a beach, fishing access shall not be required in areas designated for swimming during hours designated for swimming.
4. Public access to tidal waterways and their shores shall be provided in such a way that it shall not create conditions that may be reasonably expected to endanger public health or safety, or damage the environment. To that end, public access may be restricted seasonally, hourly, or in scope (for example, access restricted to a portion of the property, or access allowed for fishing but not swimming due to consistent strong currents); and

5. Public access to tidal waterways and their shores shall be provided in such a way that it shall not create a significant homeland security vulnerability, as determined by the Department in consultation with the New Jersey Office of Homeland Security and Preparedness or the United States Department of Homeland Security. Therefore, public access may be prohibited in locations where homeland security concerns are present or where it is not practicable based on the risk of injury from hazardous operations or substantial permanent obstructions, and no measures can be taken to avert these risks.

(c) Development proposed on sites which are located on or adjacent to tidal waterways and their shores shall provide public access in accordance with (c)1 through 4 below. Municipalities are encouraged to develop and submit to the Department an application for approval of a Municipal Public Access Plan. Public transportation agencies and counties are encouraged to submit to the Department an application for approval of a Transportation Public Access Plan.

1. In municipalities from which the Department has received a resolution incorporating a Department-approved Municipal Public Access Plan into the municipality's Master Plan in accordance with (i) below on or before the date of receipt of a permit application by the Department, public access requirements shall be satisfied in accordance with the Municipal Public Access Plan;
2. In municipalities from which the Department has not received a resolution incorporating a Department-approved Municipal Public Access Plan into the municipality's Master Plan in accordance with (i) below on or before the date of receipt of a permit application by the Department, access shall be provided in accordance with (k) below, for commercial, residential, industrial and public development, for homeland security facilities and ports. Coastal permit applications shall include a project specific access plan that provides for public access in accordance with all applicable requirements; and
3. In all municipalities, regardless of whether the Department has received a resolution incorporating a Department-approved Municipal Public Access Plan into the municipality's Master Plan in accordance with (i) below, access shall be provided in accordance with (m) below for marinas, (n) below for piers, (o) below for beach and dune maintenance activities, and (p) below for shore protection projects. Coastal permit applications shall include a project specific access plan that provides for public access in accordance with all applicable requirements.
4. In all municipalities, regardless of whether the Department has received a resolution incorporating a Department-approved Municipal Public Access Plan into the municipality's Master Plan in accordance with (d) below, public access for public highways shall be provided in accordance with (l) below.

(d) Department approved Municipal Public Access Plans shall satisfy the goals specified at N.J.A.C. 7:7-1.1(c) and the public access goals at (b) above. Municipal Public Access Plans shall additionally meet the requirements at (d)1 through 4 below, as well as all other requirements of this section.

1. Municipal Public Access Plans shall incorporate fishing access and associated amenities, including parking that accommodates nighttime fishing for a reasonable duration of time, to the maximum extent practicable on or adjacent to tidal waterways and their shores. In the case of a beach, fishing access shall not be required in areas designated for swimming during hours designated for swimming.
2. Municipal Public Access Plans shall require public access along the Hudson River and on adjacent piers in the Hudson River Waterfront Area as defined at N.J.A.C. 7:7-9.46(a)2 consistent with N.J.A.C. 7:7-9.46(d) and (e).
3. Municipal Public Access Plans shall require installation and maintenance of appropriate public access signage in accordance with N.J.A.C. 7:7-16.9(r).
4. Municipal Public Access Plans shall not provide for access that is contrary to any requirement contained in this chapter (for example, access that encroaches upon threatened or endangered species habitat or is in violation of the dunes rules).

(e) A municipality may seek approval of a Municipal Public Access Plan by filing an application for approval with the Department. The application shall include a proposed Municipal Public Access Plan consisting of the following elements:

1. A statement describing the overall goal of the Municipal Public Access Plan and the administrative mechanisms (for example, conservation restrictions, easements, ordinances) that either are already in place, or that shall be put in place to ensure that the municipality will provide permanently protected access to the water and water dependent and water oriented activities along all tidal waterways and their shores within the municipal boundaries. If the Municipal Public Access Plan proposes to provide access to the same waterway outside of municipal boundaries through a joint effort with a county or adjacent municipal governmental body, the statement shall include a description of the administrative mechanisms that will ensure access through that effort will be permanently protected;
2. A statement of consistency with any applicable provisions of the municipal Master Plan;
3. A public access needs assessment that evaluates:
    i. Existing access points or locations providing perpendicular access to tidal waterways and their shores within the municipality;
    ii. Existing water dependent and water oriented activities that provide public access to tidal waterways and their shores within the municipality;
    iii. Existing practical limitations to public access. Examples of practical limitations include, but are not limited to, a lack of restrooms or parking, including restrictions on parking availability and duration, which could effectively limit the public's access to tidal waterways and their shores. Alternatives to address any limitations determined to exist shall be provided, where feasible; and
    iv. The need for additional locations to provide perpendicular access to tidal waterways and their shores within the municipality;

4. A digital map and inventory identifying:
   i. All tidal waterways and their shores within the municipality and all lands held by the municipality adjacent thereto;
   ii. All existing and proposed public accessways to tidal waterways and their shores including, but not limited to, streets, roads, paths, trails, easements, paper streets, dune walkovers/walkways, and public dedicated rights-of-way held by the municipality;
   iii. All proposed public access facilities, including, but not limited to, public accessways located parallel to the shoreline with perpendicular access; boat ramps, piers, or other direct access to the waterway; sitting/observation areas; public restrooms; off and on-street parking; and
   iv. Those facilities identified in (e)4ii and iii above that are compliant with the Americans with Disabilities Act of 1990 (42 U.S.C. §§ 12101 et seq.);
5. An implementation strategy that:
   i. Describes the forms of public access proposed in order to satisfy the need for public access as determined by the public access needs assessment, while taking into account the population, anticipated demand and local availability of alternatives;
   ii. Provides a comprehensive list of public access projects and initiatives to be undertaken along with an implementation schedule;
   iii. Identifies proposed tools to implement the municipal public access plan measures, including, but not limited to, the adoption or amendment of municipal ordinances, and the development of other municipal programs that ensure reasonable access to the water, and water dependent and water oriented activities along all tidal waterways and their shores;
   iv. Identifies and, as necessary, proposes modifications to existing plans, ordinances and programs necessary to implement the Municipal Public Access Plan;
   v. For municipalities conducting a shore protection project pursuant to (s) below, identifies how the municipality proposes to provide access points to achieve compliance with that subsection;
   vi. Provides an estimate of the cost of implementing, constructing and maintaining the access facilities proposed in the plan and specifies how this cost will be funded;
   vii. Provides a schedule for implementation of the municipal public access plan;
   viii. Identifies ordinances already in place or to be adopted requiring appropriate signage and placement of signage for public access areas;
   ix. Identifies measures to be implemented to permanently protect the public access identified in the plan through the required recording of conservation easements/restrictions, or, for municipally owned properties providing public access, through placement of the property providing access on the municipal Recreation and

Open Space Inventory (ROSI) (see Green Acres Program rules at N.J.A.C. 7:36-6.5, Recreation and Open Space Inventory submissions);

x. Provides examples and/or model(s) of existing and proposed conservation easements/restrictions that preserve all public access identified in the municipal public access plan, to protect the access in perpetuity; and

xi. Includes a draft resolution for incorporating the Department-approved, Municipal Public Access Plan into a Master Plan element (for example, the land use, recreation, and/or conservation plan element); and

6. Documentation of any public meetings held by the municipality to accept comments on the proposed Municipal Public Access Plan.

(f) A municipality may, pursuant to the general police powers at N.J.S.A. 40:48-1 et seq., the power of municipalities bordering on the Atlantic Ocean, tidal water bays or rivers to exercise exclusive control over municipal beaches and other facilities at N.J.S.A. 40:61-22.20, or pursuant to the powers in the "Municipal Land Use Law" at N.J.S.A. 40:55D-1 et seq., include requirements in its Municipal Public Access that exceed the requirements for certain types of development set forth at (f)1 through 8 below. The Department may approve a Municipal Public Access Plan that includes any additional requirements imposed by a municipality on these types of development under the municipality's independent authority. However, should an applicant propose to the Department a public access project that satisfies the standards listed in (f)1 through 8 below in a municipality which has adopted a Municipal Public Access Plan with requirements in addition to this chapter, the Department shall not deny a permit based upon the public access not satisfying the additional requirements specified in the Municipal Public Access Plan.

1. Public access along the Hudson River in the Hudson River Waterfront Area as defined at N.J.A.C. 7:7-9.46(a)2 shall be consistent with N.J.A.C. 7:7-9.46(e). Public access elsewhere in the Hudson River Waterfront Area shall be governed by this section;

2. Public access at marinas, as defined at N.J.A.C. 7:7-15.3(d)1 shall be governed by (m) below;

3. Public access at piers shall be governed by (n) below;

4. Public access at existing commercial development that is not classified as "new commercial development" pursuant to (k)1ii below shall be governed by (k)1i below;

5. Public access at existing residential development or new residential development where the development consists solely of the construction of one single family home or duplex not in conjunction with a previous development shall be governed by (k)2i below. Public access at new residential development, consisting solely of the construction of one single family home or duplex not in conjunction with a previous development, shall be governed by (k)2ii below;

6. Public access at existing industrial or public development shall be governed by (k)3i below;

7. Public access at existing homeland security facilities shall be governed by (k)4i below; or
8. Public access at existing or new ports shall be governed by (k)5 below.

(g) The Department shall review an application for approval of a Municipal Public Access Plan to determine whether the plan is consistent with the broad coastal goals described at N.J.A.C. 7:7-1.1(c), the goals for public access at (b) above and all other requirements of this section.

1. Upon receipt of an application for approval of a Municipal Public Access Plan that meets the requirements of (e) above, the Department shall seek public comment on the application by:
   i. Posting the proposed Municipal Public Access Plan on the Department's website;
   ii. Notifying by e-mail individuals who have requested notice of applications for approval of Municipal Public Access Plans; and
   iii. Publishing notice in the DEP Bulletin.
2. The Department shall accept public comments on the proposed application for approval of a Municipal Public Access Plan for 30 days following publication of the notice in the DEP Bulletin.
3. After the close of the public comment period, the Department may request revisions to the proposed Municipal Public Access Plan.
4. If revisions are requested, the Department shall, in writing, notify the municipality within 60 days of receipt of the revisions that the proposed Municipal Public Access Plan either:
   i. Satisfies the requirements of this section and is approved; or
   ii. Does not satisfy the requirements of this section and is not approved with explanation.
5. If no revisions are requested by the Department, the Department shall, in writing, notify the municipality within 60 days of the end of the public comment period that the proposed Municipal Public Access Plan either:
   i. Satisfies the requirements of this section and is approved; or
   ii. Does not satisfy the requirements of this section and is not approved with explanation.
6. The Department shall provide notice of its determination under (i)4 or 5 above by:
   i. Posting on the Department's website;
   ii. Notifying by e-mail individuals who have requested notice of applications for approval of Municipal Public Access Plans; and
   iii. Publishing the determination in the DEP Bulletin.

(h) A municipality which has received approval of a Municipal Public Access Plan shall as a condition of the approval:

1. Initiate action necessary to incorporate the Department-approved Municipal Public Access Plan into the municipality's Master Plan;
2. Notify the Department two weeks in advance of the dates and times of any scheduled public meetings on the Department-approved Municipal Public Access Plan. The Department shall post the meeting information on its website and notify by e-mail individuals who have requested notice of applications for approval of Municipal Public Access Plans;
3. Upon adoption of the Municipal Public Access Plan into the municipal Master Plan, provide the Department with a copy of an approved resolution incorporating the Department-approved Municipal Public Access Plan into the Master Plan;
4. Every five years after adoption of the Municipal Public Access Plan, provide the Department with an update on the status of all projects that have been undertaken in accordance with the Municipal Public Access Plan; and
5. Within 90 days notify and submit to the Department for approval any changes to a Department approved Municipal Public Access Plan that impact the location or type of public access provided. Failure to submit any changes under this paragraph may constitute good cause to revoke approval of a Municipal Public Access Plan.

(i) Upon receipt by the Department of the resolution incorporating the approved Municipal Public Access Plan into the municipality's Master Plan, public access required to satisfy the conditions of a coastal permit for development in the municipality for permit applications filed with the Department subsequent to the Department's receipt of the resolution shall be provided in accordance with the Municipal Public Access Plan. The Department shall include on the posted Department-approved Municipal Public Access Plan the date of receipt of the resolution.

(j) The Department shall revoke its approval of a Municipal Public Access Plan for good cause. Good cause includes failure to implement the Municipal Public Access Plan and/or noncompliance with the Municipal Public Access Plan such as, but not limited to, conversion of public access sites to other uses, and failure to maintain existing public access and signage.

1. Upon determination that good cause exists, the Department shall furnish written notice of its determination to the municipality by certified mail, providing 30 days within which to either remedy the noncompliance, provide an explanation of why such noncompliance cannot be remedied, offer a plan to remedy such noncompliance, or demonstrate to the Department that good cause for revocation does not exist. Any remedial plan shall indicate the time necessary to implement the remedy.
2. If the above requirements are not met, the Department shall provide the Municipality with written notice, by certified mail, of intent to revoke the Department's approval of the Municipal Public Access Plan and of the Municipality's right to a hearing pursuant to the provisions of N.J.A.C. 7:7-28. A request for a hearing shall be addressed to the Office of Legal Affairs, ATTENTION: Adjudicatory Hearing Requests, Department of Environmental Protection, Mail Code 401-04L, PO Box 402, 401 East State St., 7th floor,

Trenton, New Jersey 08625-0402. A copy shall also be submitted to the Office of Land Use Planning, Mail Code 401-07C, PO Box 402, 401 East State St., 7th floor, Trenton, New Jersey 08625.

3. If a hearing under (j)2 above is not requested within 10 days of receipt of said notice, the Municipal Public Access Plan shall be revoked.

(k) In municipalities that do not have an approved Municipal Public Access Plan, for sites which are located on or adjacent to tidal waterways and their shores, public access along and use of the beach and the shores shall be provided as specified in this subsection and, as applicable, in (m) below for marinas and (n) below for piers. Public access may include any one or a combination of the options listed at (b)3 above. When determining whether proposed public access is appropriate and/or sufficient, the Department shall consider factors such as type of public access available, the compatibility of the proposed public access with the applicant's proposed use of the site, square footage of access area, and environmental impact or benefit. The Department shall not approve public access that is contrary to any requirement contained in this chapter (for example, access that encroaches upon threatened or endangered species habitat or is in violation of the dunes rules):

1. Commercial development shall provide both visual and physical access as follows:

   i. For existing commercial development, except for existing commercial development classified as "new commercial development" pursuant to (k)1ii below, where the proposed activity consists of maintenance, rehabilitation, renovation, redevelopment, or expansion that remains entirely within the parcel containing the existing development, no public access is required if there is no existing public access onsite. Any existing public access shall be maintained or equivalent public access shall be provided onsite. Equivalent public access shall include access that provides for opportunities to participate in the same activities, such as fishing, swimming and passive recreation, in the same manner and by the same number of people as in the existing public access area;

   ii. Except as provided in (k)1ii(1) below, for new commercial development, access shall be provided onsite, at a minimum during normal operating hours. For the purposes of this subparagraph, "new commercial development" also includes the conversion of any existing non-commercial use to a commercial use and any change in an existing development that would result in either greater than a cumulative 50 percent increase in the area covered by buildings, asphalt, or concrete paving; or development outside the parcel containing the existing development;

      (1) Public access along the Hudson River and on adjacent piers in the Hudson River Waterfront Area as defined at N.J.A.C. 7:7-9.46(a)2 shall be provided in accordance with N.J.A.C. 7:7-9.46(d) and (e).

2. Residential development shall provide both visual and physical access as follows:

   i. At an existing residential development, where the proposed activities consist solely of accessory development or structural shore protection, no public access is required

if there is no existing public access onsite. Any existing public access shall be maintained. If it is necessary to permanently impact the existing public access in order to perform the activities, equivalent access shall be provided onsite;

ii. For new residential development, where the development consists solely of the construction of one single-family home or duplex not in conjunction with a previous development as defined at N.J.A.C. 7:7-2.2(b)8, no public access is required;

iii. Except as provided in (k)2iii(3) below, for new residential development consisting of more than one single-family home or duplex, or the conversion of any existing non-residential use to a residential use consisting of more than one single-family home or duplex, that has a total frontage of 500 linear feet or less on areas subject to N.J.A.C. 7:7-9.48, public access shall be provided onsite.

(1) If the applicant demonstrates that onsite public access is not feasible, based on the size of the site, the character of the waterway, and environmental impact or benefits, equivalent offsite public access shall be provided on the same waterway within the same municipality as the residential development. The Department shall consider factors such as type of public access available (for example, if swimming access is available onsite, then swimming access should be available at the offsite location), square footage of access area, and environmental impact/benefit when determining whether the proposed offsite public access is equivalent to that which would have been required onsite;

(2) If the applicant demonstrates that offsite public access within the same municipality is not feasible because there are no sites available upon which to provide public access in accordance with (k)2iii(1) above, equivalent offsite public access shall be provided on the same waterway within a neighboring municipality where the access is consistent with the neighboring municipality's Municipal Public Access Plan or, if there is no Municipal Public Access Plan, the access is located and designed to be consistent with (b) above. The Department shall consider factors such as type of public access available (for example, if swimming access is available onsite, then swimming access should be available at the offsite location), square footage of access area, and environmental impact/benefit when determining whether the proposed offsite public access is equivalent to that which would have been required onsite;

(3) Public access along the Hudson River and on adjacent piers in the Hudson River Waterfront Area as defined at N.J.A.C. 7:7-9.46(a)2 shall be provided in accordance with N.J.A.C. 7:77:7-9.46(d) and (e).

iv. Except as provided in (k)2iv(1) below, for new residential development consisting of more than one single-family home or duplex or the conversion of any existing non-residential use to a residential use consisting of more than one single-family home or duplex, where the development has a total frontage of more than 500 linear feet on areas subject to N.J.A.C. 7:7-9.48, public access shall be provided onsite.

(1) Public access along the Hudson River and on adjacent piers in the Hudson River Waterfront Area as defined at N.J.A.C. 7:7-9.46(a)2 shall be provided in accordance with N.J.A.C. 7:7-9.46(d) and (e).

3. Except as provided at (k)4 and 5 below, industrial development and public development, except for public highways, shall provide both visual and physical access in accordance with (k)3i through iv below. Public highways shall meet the requirements at (l) below.

i. For existing industrial or public development, except as provided at (k)3ii below, where the proposed activity consists of the maintenance, rehabilitation, renovation, redevelopment, or expansion that remains entirely within the parcel containing the existing development, no public access is required if there is no existing public access onsite. Any existing public access shall be maintained or equivalent onsite public access shall be provided. Equivalent public access shall include access that provides for opportunities to participate in the same activities (such as fishing, swimming, or passive recreation), in the same manner and by the same number of people as in the existing public access area;

ii. Except as provided in (k)3ii(1) below, for new industrial or public development, including the conversion of any existing use to an industrial or public use, public access shall be provided onsite during normal operating hours, unless it can be demonstrated that continued public access is not practicable based on the risk of injury from proposed hazardous operations, or substantial permanent obstructions, or upon documentation of a threat to public safety due to unique circumstances concerning the subject property, and no measures can be taken to avert these risks. In cases where the Department concurs that the risk is too great for onsite public access, access shall be provided in accordance with (k)3iii below. For the purposes of this paragraph, "new industrial or public development" includes development of areas not within the parcel containing the existing development.

(1) Public access along the Hudson River and on adjacent piers in the Hudson River Waterfront Area as defined at N.J.A.C. 7:7-9.46(a)2 shall be provided in accordance with N.J.A.C. 7:7-9.46(d) and (e).

iii. Where it has been demonstrated that onsite access is not practicable based on the presence of substantial permanent obstructions or the risk of injury from proposed hazardous operations, or upon documentation of a threat to public safety due to unique circumstances concerning the subject property, and no reasonable measures can be taken to avert these risks, equivalent offsite public access shall be provided on the same waterway and within the same municipality as the development. The Department shall consider factors such as type of public access available (for example, if swimming access is available onsite, then swimming access should be available at the offsite location), square footage of access area, and environmental impact/benefit when determining whether the proposed offsite public access is equivalent to that which would have been required onsite;

iv. If the applicant demonstrates that offsite public access within the same municipality is not feasible because there are no sites available upon which to provide public access in accordance with (k)3ii above, equivalent offsite public access shall be provided on the same waterway within a neighboring municipality where the access is consistent with the neighboring municipality's Municipal Public Access Plan or, if there is no Municipal Public Access Plan, the access is located and designed to be consistent with (b) above.

4. Homeland security facilities shall provide both visual and physical access as follows:

i. For existing homeland security facilities, except as provided at (k)4ii below, where the proposed activity consists of maintenance, rehabilitation, renovation, redevelopment, or expansion that remains entirely within the parcel containing the existing development, no public access is required if there is no existing public access onsite. Any existing public access shall be maintained onsite or equivalent public access shall be provided either onsite or offsite on the same waterway and within the same municipality as the development. Equivalent public access shall include access that provides for opportunities to participate in the same activities such as fishing, swimming, or passive recreation, in the same manner and by the same number of people as in the existing public access area;

ii. Except as provided in (k)4i(1) below, for new homeland security facilities, including the conversion of a non-homeland security facility to a homeland security facility, or the expansion of an existing homeland security facility onto areas not within the parcel containing the existing development, the applicant may provide either onsite public access or equivalent offsite public access on the same waterway and within the same municipality as the development. The Department shall consider factors such as type of public access available (for example, if swimming access is available onsite, then swimming access should be available at the offsite location), square footage of access area, and environmental impact/benefit when determining whether proposed offsite public access is equivalent to that which would have been required onsite;

(1) Public access along the Hudson River and on adjacent piers in the Hudson River Waterfront Area as defined at N.J.A.C. 7:7-9.46(a)2 shall be provided in accordance with N.J.A.C. 7:7-9.46(d) and (e).

5. Ports, as defined at N.J.A.C. 7:7-9.11, shall provide both visual and physical access as follows:

i. For existing ports, public access shall be provided as follows:

(1) No public access is required if there is no existing public access onsite. Any existing public access shall be maintained or equivalent onsite public access shall be provided. If it can be demonstrated that continued onsite public access is not practicable based on the risk of injury from proposed hazardous operations, or substantial permanent obstructions, or upon documentation of a threat to public safety due to unique circumstances concerning the subject

property, and no measures can be taken to avert these risks, equivalent public access shall be provided offsite on the same waterway and within the same municipality as the development. The Department shall consider factors such as the type of public access available (for example, if linear or visual access is available onsite then linear or visual access should be available at the offsite location), square footage of access area, and environmental impact/benefit when determining whether the proposed offsite public access is equivalent to that which would have been required onsite.

(2) If the applicant demonstrates that offsite public access within the same municipality is not feasible because there are no sites available upon which to provide public access in accordance with (k)5i(1) above, equivalent offsite public access shall be provided on the same waterway within a neighboring municipality where the access is consistent with the neighboring municipality's Municipal Public Access Plan or, if there is no Municipal Public Access Plan, the access is located and designed to be consistent with (b) above.

ii. For new ports, no public access is required.

(l) Public highways, including superhighways, shall provide both visual and physical access as follows. For purposes of this subsection, an example of visual and physical access is a sidewalk on or adjacent to a bridge. Public transportation agencies and counties are encouraged to submit to the Department an application for approval of a Transportation Public Access Plan in accordance with (l)3 below:

1. Superhighways, specifically, the Garden State Parkway, New Jersey Turnpike, Atlantic City Expressway, and Interstates 76, 78, 80, 95, 276, 278, 195, 295, and 676, shall provide access as follows:

i. Where the proposed activity consists of maintenance, rehabilitation, reconstruction, or expansion that remains entirely within the right-of-way existing as of November 5, 2012, no public access is required if there is no existing public access onsite. Any existing public access shall be maintained or equivalent public access shall be provided offsite on the waterway(s) and within the municipality(s) where the development is located. Equivalent public access shall include access that provides for opportunities to participate in the same activities, in the same manner and by the same number of people as in the existing public access area;

ii. Where the proposed activity is an expansion outside the right-of-way existing as of November 5, 2012 and the expansion crosses or proposes fill in a tidal waterway, public access shall be provided offsite on the waterway(s) and within the municipality(s) where the development is located or in accordance with the following:

(1) A Department approved Transportation Public Access Plan;

(2) A Department approved Municipal Public Access Plan; or

(3) An agreement between the New Jersey Department of Transportation and the Department specifying the payment of funds to the Department or the municipality to be used to provide new or enhanced public access;

iii. If the applicant demonstrates that offsite public access in the same municipality is not feasible because there are no sites available upon which to provide public access in accordance with (l)1i and ii above, equivalent offsite public access shall be provided on the same waterway(s) within a neighboring municipality where the access is consistent with the neighboring municipality's Municipal Public Access Plan or, if there is no Municipal Public Access Plan, the access is located and designed to be consistent with (b) above.

2. Public highways, other than superhighways, shall provide both physical and visual access as follows:

i. For existing public highways, except as provided at (l)2ii below, where the proposed activity consists of the maintenance, reconstruction, rehabilitation, or expansion that remains entirely within the right-of-way existing as of November 5, 2012, no public access is required if there is no existing public access onsite. Any existing public access shall be maintained or equivalent onsite public access shall be provided. Equivalent public access shall include access that provides for opportunities to participate in the same activities, in the same manner and by the same number of people as in the existing public access area.

ii. For new public highways, or expansion of existing public highways outside the right-of-way existing as of November 5, 2012 where the new public highway or expansion crosses or proposes fill in a tidal waterway, public access shall be provided in accordance with a Department approved Transportation Public Access Plan if one exists or onsite unless it can be demonstrated that public access is not practicable based on the risk of injury from proposed hazardous operations, or substantial permanent obstructions, or upon documentation of a threat to public safety due to unique circumstances concerning the subject property, and no measures can be taken to avert these risks. In cases where the Department concurs that the risk is too great for onsite public access, access shall be provided in accordance with (l)2iii below;

iii. Where a Transportation Public Access Plan does not exist and it has been demonstrated that onsite access is not practicable based on the presence of substantial permanent obstructions or the risk of injury from proposed hazardous operations, or upon documentation of a threat to public safety due to unique circumstances concerning the subject property, and no reasonable measures can be taken to avert these risks, equivalent public access shall be provided in accordance with the following:

(1) Offsite on the waterway(s) and within the municipality(s) where the development is located where the access is consistent with the municipality's Municipal Public Access Plan;

(2) Consistent with an agreement between the New Jersey Department of Transportation and the Department specifying the payment of funds to the Department or the municipality to be used to provide new or enhanced public access; or

(3) In accordance with (b) above if there is no Municipal Public Access Plan;

iv. If the applicant demonstrates that offsite public access in the same municipality is not feasible because there are no sites available upon which to provide public access in accordance with (l)2ii and iii above, equivalent offsite public access shall be provided on the same waterway(s) within a neighboring municipality where the access is consistent with the neighboring municipality's Municipal Public Access Plan or, if there is no Municipal Public Access Plan, the access is located and designed to be consistent with (b) above.

3. Transportation Public Access Plans shall satisfy the goals specified at N.J.A.C. 7:7-1.1(c) and the public access goals at (b) above. Transportation Public Access Plans shall additionally meet the requirements at (l)3i through iii below:

i. Transportation Public Access Plans shall incorporate fishing access and associated amenities where appropriate.

ii. Transportation Public Access Plans shall require installation and maintenance of appropriate public access signage in accordance with N.J.A.C. 7:7-16.9(u).

iii. Transportation Public Access Plans shall not provide for access that is contrary to any requirement contained in this chapter (for example, access that encroaches upon threatened or endangered species habitat or is in violation of the dunes rules).

4. A public transportation agency or county seeking approval of a Transportation Public Access Plan shall file an application for approval with the Department. The application shall include a proposed Transportation Public Access Plan consisting of the following elements:

i. A statement describing the overall goals of the Transportation Public Access Plan;

ii. A public access policy for public roadways included in the Transportation Public Access Plan;

iii. A description of potential public access options;

iv. A description of the general locations where public access will be provided;

v. A description of the general locations where public access will not be provided due to practical limitations;

vi. An implementation strategy that describes the forms of public access proposed in order to satisfy the public access policy and measures to be implemented to permanently protect public access;

vii. Demonstration that at least two public informational meetings have been held to take public comment on the proposed Transportation Public Access Plan and that the

applicant notified the Department two weeks in advance of the dates and times of the public meetings so that the Department can provide notice of the public meetings by posting the meeting information on its website and notifying by e-mail individuals who have requested notice of applications for approval of Transportation Public Access Plans; and

viii. A description of any changes made to the Transportation Public Access Plan as a result of public comments received.

5. The Department shall review an application for approval of a Transportation Public Access Plan to determine whether the plan is consistent with the broad coastal goals described at N.J.A.C. 7:7-1.1(c), and the goals for public access at (b) above as follows:

i. Upon receipt of an application for approval of a Transportation Public Access Plan that meets the requirements of (l)4 above, the Department shall seek public comment on the application by:

(1) Posting the proposed Transportation Public Access Plan on the Department's website;

(2) Notifying by e-mail individuals who have requested notice of applications for approval of Transportation Public Access Plans; and

(3) Publishing notice in the DEP Bulletin.

ii. The Department shall accept public comments on the proposed application for approval of a Transportation Public Access Plan for 30 days following publication of the notice in the DEP Bulletin.

iii. After the close of the public comment period, the Department may request revisions to the proposed Transportation Public Access Plan.

iv. If revisions are requested, the Department shall, in writing, notify the applicant within 60 days of receipt of the revisions that the proposed Transportation Public Access Plan either:

(1) Satisfies all applicable requirements of this section and is approved; or

(2) Does not satisfy all applicable requirements of this section and is not approved with explanation.

v. If no revisions are requested by the Department, the Department shall, in writing, notify the applicant within 60 days of the end of the public comment period that the proposed Transportation Public Access Plan either:

(1) Satisfies all applicable requirements of this section and is approved; or

(2) Does not satisfy all applicable requirements of this section and is not approved with explanation.

vi. The Department shall provide notice of its determination under (l)5iv or v above by:

(1) Posting on the Department's website;

(2) Notifying by e-mail individuals who have requested notice of applications for approval of Transportation Public Access Plans; and

(3) Publishing the determination in the DEP Bulletin.

6. A public transportation agency or county which has received approval of a Transportation Public Access Plan shall as a condition of the approval, every five years after the date of approval, submit to the Department a report detailing:

   i. The status of all projects that have been undertaken in accordance with the Transportation Public Access Plan; and

   ii. Any problems encountered in pursuit of the plan's objectives and goals and proposed remedies to assure the objectives and goals of the plan are met.

7. Department review and approval is required before a public transportation agency or county may make changes to an approved Transportation Public Access Plan. In support of a request to amend the approved plan under this subsection, the applicant shall submit to the Department the approved plan with the information specified in (l)4 above updated to reflect the proposed change. This submission shall detail how the proposed change affects the approved plan. The Department shall review and make a determination on the Transportation Public Access Plan amendment request in accordance with (l)5 above.

(m) Marinas, as defined at N.J.A.C. 7:7-15.3(d)1, shall provide both visual and physical public access in accordance with this subsection. Public access may include any one or a combination of the options listed at (b)3 above. When determining whether proposed public access is appropriate and/or sufficient, the Department shall consider factors such as type of public access available, the compatibility of the proposed public access with the applicant's proposed use of the site, square footage of access area, and environmental impact or benefit.

1. For existing marina development where the proposed activity consists of maintenance, rehabilitation, renovation, redevelopment, or expansion that remains entirely within the parcel containing the existing development, no public access is required if there is no existing public access onsite, except as provided at (p)3 below. Any existing public access shall be maintained. If it is necessary to impact the existing public access in order to perform the proposed activities, equivalent public access shall be provided onsite. Equivalent public access shall include access that provides for opportunities to participate in the same activities, such as fishing, swimming, and passive recreation, in the same manner and by the same number of people as in the existing public access area;

2. For new marina development, public access shall be provided onsite during normal operating hours. For the purposes of this subsection, "new marina development" includes any change in the existing development that would result in greater than a cumulative 50 percent increase in the area covered by buildings, asphalt, or concrete paving, or proposed development of areas not within the parcel containing the existing development;

3. If the marina development includes a beach area, public access along and use of the beach shall be provided and activities that have the effect of discouraging or preventing

the exercise of public trust rights, as described at N.J.A.C. 7:7-9.48, are prohibited in accordance with (s) below;

4. Applicants for new marinas, as described at (m)2 above, shall provide to the Department at the time of application, for its review and approval, a public access plan for the marina development which shall include the following:
   i. A site plan identifying the location and type of access provided, including both existing and proposed, as well as any areas closed to public access based on the presence of substantial permanent obstructions, the risk of injury from proposed hazardous operations, or a threat to public safety due to unique circumstances concerning the subject property, and where no reasonable measures can be taken to avert these risks. The plan shall include an explanation of what the specific risks and hazards are and shall indicate where access has been enhanced to compensate for the area closed due to the dangerous or hazardous conditions; and
   ii. A listing of the normal operating hours for the marina;
5. Once a marina access plan has been approved by the Department, any proposed changes to that plan shall require additional Department review and approval, regardless of whether or not a permit modification is also required. In support of a request to amend the approved plan under this paragraph, the applicant shall submit to the Department the approved plan updated to reflect the proposed change(s). This submission shall provide information with reference to the requested change(s) to the plan and shall detail how the proposed change(s) affects the approved plan. If the proposed change(s) results in a reduction in any way of public access, the submission shall additionally specify proposed changes to offset proposed reductions in public access.

(n) Except in accordance with the Hudson Waterfront Area at N.J.A.C. 7:7-9.46, and Atlantic City at N.J.A.C. 7:7-9.47, development which is proposed to be located on an existing pier shall provide public access in accordance with the type of development being proposed, that is, commercial, residential, industrial or public, homeland security, or ports (see (n) above).

(o) For coastal permit applications that include beach and dune maintenance activities, existing public access shall be maintained or equivalent onsite public access shall be provided regardless of whether the loss of access is temporary or permanent. Equivalent public access shall include access that provides for opportunities to participate in the same activities, such as fishing, swimming, or passive recreation, in the same manner and by the same number of people as in the existing public access area.

(p) For applicants obtaining permits to conduct shore protection projects along the shores of the Atlantic Ocean, Sandy Hook Bay, Raritan Bay or Delaware Bay, and/or estuaries directly connected therewith, under the guidance of, and with participation by, the Army Corps of Engineers (ACOE), access shall be provided in accordance with the ACOE Planning Guidance Notebook Section IV- Hurricane and Storm Damage Prevention (CECW-P Engineer Regulation 1105-2-100, April 22, 2000), incorporated herein by reference, as amended and supplemented.

The ACOE guidance states, "Reasonable access is access approximately every one-half mile or less," and further states, "lack of sufficient parking facilities for the general public (including nonresident users) located reasonably near and accessible to the project beaches may constitute a restriction on public access and use, thereby precluding eligibility for Corps participation." (See section E-24d., Public Use and its Relation to Federal Participation, provisions (2) and (3).)

(q) Public access must be available on a nondiscriminatory basis. All establishments, including municipalities, counties, marinas, condominium associations, homeowner associations and beach clubs, which control access to tidal waterways and their shores shall comply with the Law Against Discrimination, N.J.S.A. 10:5-1 et seq.

(r) Public access to tidal waterways and their shores shall be clearly marked. Department approved public access signs shall be installed at each public accessway, public access area and/or public parking area at the development site and maintained in perpetuity by the permittee and its successors in title and interest.

(s) Activities that have the effect of discouraging or preventing the exercise of public trust rights, as described at N.J.A.C. 7:7-9.48, are prohibited. These activities include, but are not limited to, requiring photographic identification, requiring a liability waiver, requiring the purchase of drinks or food from a specific vendor, or prohibiting bringing beach equipment such as blankets or beach chairs.

(t) Development on or adjacent to tidal waterways and their shores shall provide barrier free access where feasible and warranted by the character of the site.

(u) If a public accessway is chosen to satisfy the public access requirement in (k) and (m) above, the accessway shall provide a minimum width of 10 feet free of obstructions to public access. Amenities such as public benches, litter or recycling receptacles, and lighting fixtures are provided to enhance public access and shall not be considered obstructions.

(v) A fee for use of bathing and recreational facilities and safeguards, such as lifeguards, toilets, showers, and parking, at publicly or privately owned beach or waterfront areas, may be charged in accordance with (y)1 through 6 below. However, no fees shall be charged solely for access to or use of tidal waterways and their shores. The fee schedule and documentation of compliance with this paragraph shall be submitted to the Department by the permittee and its successors in title and interest upon request.

1. Fees shall be no greater than that which is required to operate and maintain the facility, taking into consideration basic support amenities provided, such as lifeguards, restroom/shower facilities and trash pickup. This requirement applies to facilities and services directly associated with using the tidal waterways and their shores and does not apply to additional amenities such as cabanas, pools, or restaurants;
2. Fees shall not discriminate between residents and non-residents or on any other basis, except as allowed by this rule or other law;

3. Fees shall not be charged for children under the age of 12 years;
4. Badges or passes must be available for sale at times and places that are reasonably convenient for the public. Badges and passes shall be offered for sale in person at the beach or waterfront area during the hours that the beach is staffed. In addition, if the entity that owns or operates the beach or waterfront area offers private memberships, public badges or passes must be offered for sale to the public in the same manner, times and places as private memberships;
5. Weekly, monthly or seasonal badges or passes shall be transferable at the discretion of the badge or pass holder; and
6. Public access to and use of tidal waterways and their shores may not be conditioned upon providing identification or signing or otherwise agreeing to any waiver or similar disclaimer of rights.

(w) The areas set aside for public access to tidal waterways and their shores shall be permanently dedicated for public use through the recording of a Department approved conservation restriction under the New Jersey Conservation Restriction and Historic Preservation Restriction Act, N.J.S.A. 13:8B-1 et seq., maintaining the publicly dedicated areas in perpetuity. The conservation restriction shall comply with the requirements of N.J.A.C. 7:7-18, Conservation Restrictions.

(x) Rationale: The Public Trust Doctrine states that natural resources, including but not limited to tidal waterways and their shores, air and wildlife in this State are held by the State in trust for the benefit of all of the people. Further, the Public Trust Doctrine establishes the right of the public to fully utilize these natural resources for a variety of public uses. The original purpose of the doctrine was to assure public access to waters for navigation, commerce and fishing. In the past two centuries, State and Federal courts in New Jersey have recognized that public uses guaranteed by the Public Trust Doctrine also include public recreational uses such as swimming, sunbathing, fishing, surfing, sport diving, bird watching, walking and boating along the various tidal shores.

As the trustee of the public rights to natural resources, including tidal waterways and their shores, it is the duty of the State not only to allow and protect the public's right to use them, but also to ensure that there is adequate access to these natural resources. As the State entity managing public access along the shore, the Department has an obligation to ensure that this occurs. Access ensured by the Public Trust Doctrine can be classified into different types, including linear/lateral access, perpendicular access, and visual access.

Reasonable, convenient and safe conditions at or around public access areas and public accessways often affect whether the public will be able to reach and use tidal waterways and their shores. Such site conditions include informative signage marking public accessways, the absence of threatening or misleading signage, adequate facilities (such as restrooms and fish cleaning tables) within a reasonable distance of tidal waterways and their shores and sufficient parking located near public accessways. Additionally, special measures, such as ramps installed

in accordance with the Americans with Disabilities Act, can be taken to ensure that coastal lands and waters are accessible by all members of the public.

Development can block tidal waters from public view and/or make physical access to tidal waterways and their shores difficult or impossible. Tidal shore areas located in residential areas or within private beach areas are sometimes fenced, blocked or otherwise obstructed, further complicating access to these sites. In addition, municipalities have at times sold portions of the public beaches and vacated public streets and street ends to private owners. The private ownership of land immediately inland from tidal waterways and their shores can limit public access to tidal waterways and their shores. This leads to limited access to and enjoyment of public resources by citizens who have rights of access and use recognized and protected by the Public Trust Doctrine. Furthermore, public funds have been used to support protection and maintenance of these resources. Barriers to access also negatively affect tourism, which is one of the top revenue producing industries in New Jersey.

The developed waterfront, due to its past industrial utilization and long history of development, has been largely closed to the public, limiting their ability to exercise their public trust rights. In an effort to encourage public access, the Department intends to promote a continuous linear network of open space along the shore of all tidal waters that may be used for fishing, walking, jogging, bicycling, kayaking, sitting, viewing and similar recreational activities. The path will be continuous but may detour around existing or proposed industry due to risk of injury from existing or proposed hazardous operations, or substantial existing and permanent obstructions. These linear walkways will connect future and existing waterfront parks and open space areas. The goal of the rule is to assemble a system, through acquisitions and easements, that will provide continuous linkages and access along the waterfront, enabling the State to adhere to its responsibilities to safeguard public rights of access to and use of all tidal waterways and tidal waterfront areas in New Jersey. Where easements are secured from landowners for public access purposes, the New Jersey Landowner Liability Act (N.J.S.A. 2A: 42A-2 et seq.) offers limited protection from the liability they would normally face under the common law.

In addition to the historic legal rights retained by the public to tidal areas, public funds are invested in numerous ways to protect these public resources and their adjacent lands. The lands and waters subject to public trust rights receive many State and Federal dollars which have been invested in beach replenishment, shore protection, road projects, water quality and monitoring programs, and solid waste monitoring. In part as a result of this investment, the public has the right to use these resources. State funds are also used to acquire and develop lands for parks and recreation through the Department's Green Acres Program. These programs are financed not just by the communities within which these lands and waters subject to public trust rights are located, but by residents Statewide. Additionally, residents Statewide contribute to fund various Federal programs that protect and enhance lands and waters subject to public trust rights. The rule ensures that all residents who contribute to the protection of these lands and waters are able to exercise their rights to access and use the lands and waters. Further, they are consistent with Federal programs which require projects utilizing Federal funds to provide public access upon receipt of funds and will ensure that increases in public access apply to lands and waters subject to public trust rights Statewide.

The Public Trust Doctrine is an example of common law authority that is continually developing through individual Court cases. In addition to cases involving physical barriers to access, there have been instances where municipalities and local property owner associations have attempted to limit use of recreational beaches to their citizens and members through methods designed to exclude outsiders. In the majority of these cases, New Jersey courts have ruled that these actions violate the Public Trust Doctrine because lands that should be available for the general public's recreational use were being appropriated for the benefit of a select few.

New Jersey Supreme Court cases including *Borough of Neptune City v. Borough of Avon-by-the-Sea*, 61 *N.J.* 296 (1972) and *Van Ness v. Borough of Deal*, 78 *N.J.* 174 (1978) held that municipalities could not discriminate between residents and non-residents using municipally owned beaches through differential fees or by setting aside separate areas for each. The decision in the case *Matthews v. Bay Head Improvement Association*, 95 *N.J.* 306 (1984) recognized that, under the Public Trust Doctrine, not only does the public have the right to use the land below the mean high water mark, but also they have a right to use a portion of the upland dry sand area, on quasi-public beaches, "…where use of dry sand is essential or reasonably necessary for enjoyment of the ocean, the doctrine warrants the public's use of the upland dry sand area subject to an accommodation of the interests of the owner."

Most recently, the Court's ruling in *Raleigh Avenue Beach Association v. Atlantis Beach Club, Inc., et al.*, 185 *N.J.* 40 (2005) used the criteria established in the *Matthews* case, and recognized that this principle also applies to the upland dry sand of a wholly privately owned and operated beach. The decision also confirms that the Department has the authority to regulate fees charged for use of beaches under CAFRA. The decisions in these cases guide the Department in upholding the Public Trust Doctrine and providing adequate public access. Other such cases include *Arnold v Mundy*, 6 *N.J.L.* 1, 3 (Sup. Ct. 1821); *Bell v. Gough*, 23 *N.J.L.* 624 (E. & A. 1852); *Martin v. Waddell's Lessee*, 41 *U.S.* 367, 10 L.Ed. 997 (1842); *Shively v. Bowlby*, 152 *U.S.* 1, 14 S.Ct. 548, 38 L.Ed. 331 (1894); *Slocum v. Borough of Belmar*, 238 *N.J.Super.* 179, 185 (Law Div. 1989).

7:7-16.10 Scenic resources and design

(a) Scenic resources include the views of the natural and/or built landscape.

(b) Large-scale elements of building and site design are defined as the elements that compose the developed landscape such as size, geometry, massing, height and bulk structures.

(c) New coastal development that is visually compatible with its surroundings in terms of building and site design, and enhances scenic resources is encouraged. New coastal development that is not visually compatible with existing scenic resources in terms of large-scale elements of building and site design is discouraged.

(d) In all areas, except the Northern Waterfront Region, the Delaware River Region and Atlantic City, new coastal development adjacent to a bay or ocean or bayfront or oceanfront, beach, dune

or boardwalk and higher than 15 feet in height measured from the existing grade of the site or boardwalk shall comply with the following, unless it meets the requirements at (e) or (f) below:

1. Provide an open view corridor perpendicular to the water's edge in the amount of 30 percent of the frontage along the waterfront where an open view currently exists; and
2. Be separated from either the beach, dune, boardwalk, or waterfront, whichever is further inland, by a distance of equal to two times the height of the structure, except for the following:
    i. Infill sites within existing commercial areas along a public boardwalk where the proposed use is commercial and where the set-back requirement is visually incompatible with the existing character of the area; and
    ii. Wind turbines.

(e) Coastal development that modifies a historic structure on or eligible for inclusion on the New Jersey or National Register of Historic Places, is adjacent to a bay, ocean, bayfront or oceanfront, beach, dune**,** or boardwalk, and is higher than 15 feet in height measured from the existing grade of the site or boardwalk need not comply with (d) above provided the development meets the requirements at (e)1 and 2 below. This exception does not apply to new development proposed to be located outside of the historic structure's footprint of development.

1. The development preserves the historic structure; and
2. The development will not detract from, damage, or destroy the value of the historic structure.

(f) Federal, State, county, or municipal development projects which are located adjacent to a bay or ocean or bayfront or oceanfront, beach, dune, or boardwalk, and are greater than 15 feet in height measured from the existing grade of the site or boardwalk need not comply with the setback requirements in (d)2 above provided that the development contains design elements that enhance physical or visual public access to the waterfront beyond that which would be afforded by strict compliance with (d)2 above and the development, as proposed, would remain in compliance with N.J.A.C. 7:7-9.48.

(g) Rationale: A project which is of a scale and location that has significant effect on the scenic resources of a region is considered to have a regional impact and to be of State concern. This rule, applies only to developments which by their singular or collective size, location and design could have a significant adverse effect on the scenic resources of the coastal zone. Restoration of areas of low scenic quality, such as abandoned port facilities and blighted urban areas, through large-scale new construction and design that is compatible with the surrounding region, is also encouraged by this rule. Specific issues of concern include those addressed by the rules on Historic and Archaeological Resources, High Rise Structure, Public Access, and Buffers and Compatibility of Uses.

7:7-16.11 Buffers and compatibility of uses

(a) Buffers are natural or man-made areas, structures, or objects that serve to separate distinct uses or areas. Compatibility of uses is the ability for uses to exist together without aesthetic or functional conflicts.

(b) Development shall be compatible with adjacent land uses to the maximum extent practicable.

1. Development that is likely to adversely affect adjacent areas, particularly special areas, N.J.A.C. 7:7-9, or residential or recreation uses, is prohibited unless the impact is mitigated by an adequate buffer. The purpose, width, and type of the required buffer shall vary depending upon the type and degree of impact and the type of adjacent area to be affected by the development, and shall be determined on a case-by-case basis.
2. The standards for wetland buffers are found at N.J.A.C. 7:7-9.28.
3. The following apply to buffer treatment:
   i. All buffer areas shall be planted with appropriate vegetative species, either through primary planting or supplemental planting. This landscaping shall include use of mixed, native vegetative species, with sufficient size and density to create a solid visual screen within five years from the date of planting.
   ii. Buffer areas which are forested may require supplemental vegetative plantings to ensure that acceptable visual and physical separation is achieved.
   iii. Buffer areas which are non-forested will require dense vegetative plantings with mixed evergreen and deciduous trees and shrubs. Evergreens must be at least eight feet tall at time of planting; deciduous trees must be at least three inches caliper, balled and burlapped; shrubs must be at least three to four feet in height.

(c) Rationale: The juxtaposition of different uses may cause various problems. An activity may cause people to experience noise, dust, fumes, odors, or other undesirable effects. Examples of possible incompatible uses include factories or expressways next to housing, residential developments next to farms, and residential, commercial or industrial development adjacent to wetlands or endangered or threatened wildlife or vegetation species habitat. Vegetated buffer areas between uses can overcome, or at least ameliorate, many of these problems especially if earthen berms are included. Buffers can benefit users of both areas. Where farms operate near a residential area, for example, a buffer can protect residents from of the noise and smells of farming, while protecting the farmers from the imposition of local regulations controlling hours in which machinery can be used.

Buffers serve several important functions, including maintenance of wildlife habitat, water purification, open space and recreation, and control of runoff. Buffers may include fences, landscaped berms, and vegetated natural areas.

7:7-16.12 Traffic

(a) Traffic is the movement of vehicles, pedestrians or ships along a route.

(b) Coastal development shall be designed, located and operated in a manner to cause the least possible disturbance to traffic systems.

1. Alternative means of transportation, that is, public and private mass transportation facilities and services, shall be considered and, wherever feasible, incorporated into the design and management of a proposed development, to reduce the number of individual vehicle trips generated as a result of the facility. Examples of alternative means of transportation include: van pooling, staggered working hours and installation of ancillary public transportation facilities such as bus shelters.

(c) When the level of service of traffic systems is disturbed by approved development, the necessary design modifications or funding contribution toward an area wide traffic improvement shall be prepared and implemented in conjunction with the coastal development, to the satisfaction of the New Jersey Department of Transportation and/or any regional agencies, as applicable.

(d) Any development that causes a location on a roadway to operate in excess of capacity Level D is discouraged. A developer shall undertake mitigation or other corrective measures as may be necessary so that the traffic levels at any affected intersection remain at capacity Level D or better. A developer may, by incorporating design modification or by contributing to the cost of traffic improvements, be able to address traffic problems resulting from the development, in which case development would be conditionally acceptable. Determinations of traffic levels which will be generated will be made by the New Jersey Department of Transportation.

(e) Coastal development located in municipalities which border the Atlantic Ocean, except as excluded under (e)1 and 3 below, shall satisfy the requirements for parking specified in this subsection. Coastal development subject to this subsection shall provide sufficient on-site and/or off-site parking for its own use. In general, on street parking spaces along public roads cannot be credited as part of off-site parking provided for a project. All off-site parking facilities must be located either in areas within reasonable walking distance to the development or areas identified by any local or regional transportation plans as suitable locations. All off-site parking facilities must also comply with N.J.A.C. 7:7-15.5(d), the parking facility rule, where applicable.

1. The non-oceanfront portions of the following municipalities which border the Atlantic Ocean are excluded from the parking requirement at (e) above:
    i. Neptune Township, Monmouth County: Those portions of this municipality which are west of State Highway 71;
    ii. Brick, Toms River and Berkeley Townships, Ocean County: Those portions of these municipalities which are not located between Barnegat Bay and the Atlantic Ocean;

iii. Upper Township, Cape May County: Those portions of this municipality which are not located between Whale Creek and the Atlantic Ocean and/or Strathmere Bay and the Atlantic Ocean; and

iv. Lower Township, Cape May County: Those portions of this municipality which are not between Lower Thorofare and the Atlantic Ocean and/or Jarvis Sound and the Atlantic Ocean;

2. Except as provided in (e)2i through iii below, residential development located within one-half mile of an oceanfront beach or dune shall provide on-site and/or off-site parking at a ratio of two parking spaces per unit for each dwelling unit.

i. The Department shall reduce the parking requirement for developments restricted to senior citizen housing that is, restricted to persons at least 62 years of age or those persons meeting the definition of "senior citizen tenant" pursuant to the Senior Citizens and Disabled Protected Tenancy Act, N.J.S.A. 2A:18-61, upon documentation that the parking needs of the development are less than two spaces per unit;

ii. The Department shall reduce the parking requirement for development that modifies a historic structure on or eligible for inclusion on the New Jersey or National Register of Historic Places, provided the proposed development complies with (e)2ii(1) through (5) below. The reduced parking requirement does not apply to any new development located outside of the existing footprint of development.

(1) The development preserves the historic structure;

(2) The development will not detract from, damage, or destroy the value of the historic structure;

(3) The development is located within the footprint of development of the historic structure;

(4) The development provides on-site and/or off-site parking for any new units created through the addition of new floors within the footprint of development at a ratio of one space per new residential unit; and

(5) All existing parking spaces associated with the historic structure are retained;

iii. On-site and/or off-site parking shall be provided at a ratio of one parking space per unit for each dwelling unit that is 650 square feet or smaller; and

3. Nursing homes and assisted living facilities are excluded from the parking requirements of this subsection.

(f) Rationale: The improper location of a development or the lack of adequate parking provision at a development may exacerbate existing traffic problems or produce new difficulties for both visitors to and residents of the coastal area.

7:7-16.13 Subsurface sewage disposal systems

(a) Subsurface sewage disposal system means a system for disposal of sanitary sewage into the ground which is designed and constructed to treat sanitary sewage in a manner that will retain most of the settleable solids in a septic tank and to discharge the liquid effluent to a disposal field.

(b) Acceptability conditions for subsurface sewage disposal systems are as follows:

1. Construction of the subsurface sewage disposal system is acceptable provided it meets all the provisions of the standards for Individual Subsurface Sewage Disposal Systems (N.J.A.C. 7:9A) and receives approval from the appropriate administrative authority;
2. For areas subject to tidal flooding, the bottom elevation of the disposal bed must be at or above the 10 year flood elevation as determined by the Federal Emergency Management Agency Flood Insurance Study Reports;
3. Construction of subsurface sewage disposal systems must comply with the requirements of the flood hazard areas rule at N.J.A.C. 7:7-9.25.

(c) Rationale: The subsurface sewage disposal system regulations provide standards for the proper location, design, construction, installation, alteration, operation, and maintenance of individual subsurface disposal systems. These regulations serve to protect public health and safety, the environment, and potable water supplies, and to safeguard fish and aquatic life while preserving their ecological values. In areas subject to tidal flooding subsurface sewage disposal systems constructed below the 10-year flood elevation are susceptible to failure during flooding events. Furthermore, construction of subsurface sewage disposal systems within coastal high hazard areas (V zones) is prohibited in accordance with the National Flood Insurance Program Regulations.

7:7-16.14 Solid and hazardous waste

(a) Solid waste means any garbage, refuse, sludge or other waste material, including solid, liquid, semi-solid or contained gaseous material. A material is a solid waste if it is "disposed of" by being discharged, deposited, injected, dumped, spilled, leaked or placed into or on any land or water so that such material or any constituent thereof may enter the environment or be emitted into the air or discharged into ground or surface waters. Solid waste becomes a hazardous waste when it exhibits any of the characteristics which are specified in the Federal Regulations on Identification and Listing of Hazardous Waste (40 C.F.R. 261). The general characteristics of hazardous waste include, but are not limited to, characteristics of ignitibility, characteristics of corrosivity, characteristics of reactivity and characteristics of toxicity.

1. Solid waste shall not include the following:
   i. Source separated food waste collected by livestock producers approved by the State's Department of Agriculture who collect, prepare and feed such wastes to livestock on their own farms, or recyclable materials that are exempt from regulation pursuant to N.J.A.C. 7:26A;

ii. Materials approved for beneficial use or categorically approved for beneficial use pursuant to N.J.A.C. 7:26; and

iii. Spent sulfuric acid which is used to produce virgin sulfuric acid, provided at least 75 percent of the amount accumulated is recycled in one year.

(b) Coastal development shall conform with all applicable State and Federal regulations, standards and guidelines for the handling and disposal of solid and hazardous wastes, including the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., the Solid Waste Management rules, N.J.A.C. 7:26, the Recycling rules, N.J.A.C. 7:26A, and the Hazardous Waste rules, N.J.A.C. 7:26G.

(c) Rationale: The industrial growth that occurred after World War II left the State with numerous contaminated sites that have to be addressed to reduce the risks to current and future generations. While many sites have been cleaned up, many more are still in need of attention. To protect public health, preserve the environment, enhance the quality of life for the citizens of the State of New Jersey and prevent the creation of new contaminated sites, environmentally sound management and disposal of solid and hazardous wastes is needed.

SUBCHAPTER 17. MITIGATION

7:7-17.1 Definitions

In addition to the terms defined at N.J.A.C. 7:7-1.5, the following words and terms, when used in this subchapter, shall have the following meanings unless the context clearly indicates otherwise.

"Creation" means the establishment of wetland or intertidal and subtidal shallows characteristics and functions in uplands.

"Credit purchase" means the purchase of credits from a mitigation bank, as that term is defined at N.J.A.C. 7:7-1.5, as a substitute for performance of restoration, creation, enhancement, or preservation by a permittee. Each credit counts for a certain acreage amount of mitigation type. Once a credit is applied to satisfy a mitigation obligation under this subchapter, it is exhausted and may not be sold or used again.

"Degraded wetland" means a wetland in which there is impaired surface water flow or groundwater hydrology, or excessive drainage; a wetland that has been partially filled or excavated, contaminated with hazardous substances, or that has an ecological function substantially less than that of undisturbed wetlands in the region.

"Enhancement" means the improvement of the ability of an existing, degraded wetland or intertidal and subtidal shallow to support natural aquatic life through substantial alterations to the

soils, vegetation, and/or hydrology. Improvement of a wetland or water that is not degraded does not constitute enhancement.

"Fee simple" means absolute ownership in land, unencumbered by any other interest or estate.

"In-kind mitigation" means mitigation that provides similar values and functions as the area disturbed, including similar wildlife habitat, similar vegetative species coverage and density, equivalent flood water storage capacity, and equivalency of other relevant values or functions. In the case of a mitigation bank, this is accomplished through the purchase of credits at which similar values and functions have been established.

"In-lieu fee program" means a program approved by the Department and the USACE that involves the restoration, creation, enhancement, and/or preservation of aquatic resources through funds paid to a government or non-profit entity to satisfy compensatory mitigation requirements for both State and USACE permits. An in-lieu fee program sells compensatory mitigation credits to permittees whose obligation to provide mitigation is transferred to the in-lieu fee program. An in-lieu fee program does not refer to contributions to the Wetlands Mitigation Council or the Department's dedicated account for shellfish habitat mitigation.

"In-lieu fee program instrument" means the legal document for the establishment, operation, and use of an in-lieu fee program.

"Mitigation" means activities carried out in accordance with this subchapter in order to compensate for the loss or disturbance of wetlands, intertidal and subtidal shallows, submerged aquatic vegetation, riparian zones, or shellfish habitat.

"Mitigation banking instrument" means documentation of Department approval of the objectives and administration of the bank including, as appropriate:

1. Bank goals and objectives;
2. Ownership of bank lands;
3. Bank size and classes of wetlands and/or other aquatic resources proposed for inclusion in the bank, including a site plan and specifications;
4. Description of baseline conditions at the bank site;
5. Geographic service area;
6. Wetland classes or other aquatic resource impacts suitable for compensation;
7. Methods for determining credits and debits;
8. Accounting procedures;
9. Performance standards for determining credit availability and bank success;
10. Reporting protocols and monitoring plan;

11. Contingency and corrective actions and responsibilities;
12. Financial assurances;
13. Compensation ratios; and
14. Provisions for long-term management and maintenance.

"Mitigation bank site" means the portion of a site, or the piece of property, upon which a mitigation bank is proposed or developed.

"Monetary contribution" means giving money to the Department's dedicated account for shellfish habitat mitigation or the Wetlands Mitigation Council.

"Out-of-kind mitigation" means mitigation that is not in-kind mitigation.

"Restoration" means:

1. The reestablishment of wetland, submerged vegetation habitat, tidal water, and/or intertidal and subtidal shallows characteristics and functions in an area that was once a wetlands and/or intertidal and subtidal shallows but is no longer; or
2. The reversal of a temporary disturbance and the reestablishment of the functions and values of the wetlands and/or intertidal and subtidal shallows that was temporarily disturbed.

"Service area" means the geographic area within which impacts can be mitigated at a specific mitigation bank.

"Temporary disturbance" means a regulated activity that occupies, persists and/or occurs on a site for no more than six months. Where a disturbance associated with certain regulated activities, such as hazardous substance remediation or solid waste facility closure, is intended to be temporary but will exceed six months in duration because of the nature of the activity, the Department will consider the disturbance to be temporary for purposes of this subchapter provided the disturbed areas are restored to their original topography, and all necessary measures are implemented to ensure that the original vegetative cover onsite is restored to its previous (or an improved) condition.

"Wetlands Mitigation Fund" means the repository for monetary contributions made for mitigation purposes, established at N.J.S.A. 13:9B-14.a as the "Wetlands Mitigation Bank".

7:7-17.2 General mitigation requirements

(a) Mitigation shall be similar in type and location to the resource(s) lost or impacted and shall fully compensate for any ecological loss. The Department will consider proposals for out-of-kind mitigation provided the mitigation meets the goals and objective of this subchapter and would

result in ecological functions and values equal to the ecological functions and values of the resource(s) prior to loss or impact.

(b) The Department shall not consider a mitigation proposal in determining whether to approve any application under this chapter.

(c) Mitigation is not required for certain types of development in intertidal or subtidal shallows, as provided at N.J.A.C. 7:7-9.15(i).

(d) Mitigation is not required for certain types of filling, as provided at N.J.A.C. 7:7-12.11(f).

(e) Mitigation under this subchapter is not required in cases where the Department determines that environmental impacts to the coastal resource(s) are de minimis and where the applicant demonstrates avoidance and minimization of impacts.

(f) Mitigation shall not be required as part of a permit for the construction of catwalks, piers, docks, landings, footbridges, and observation decks, provided that the applicant shows, to the satisfaction of the Department, that vehicles and equipment will not be placed on the wetlands in order to construct the structure(s) and that the structure(s) will comply with the requirements for recreational docks and piers at N.J.A.C. 7:7-12.5.

(g) When mitigation is required in order to compensate for impacts to wetlands, intertidal and subtidal shallows, shellfish habitat, submerged aquatic vegetation, general water areas, or riparian zones resulting from regulated activities, the Department shall authorize any regulated activities required to undertake and complete the mitigation through:

1. An authorization under a general permit;
2. An individual permit;
3. Approval of a mitigation proposal submitted to comply with a condition of an authorization under a general permit or an individual permit; or
4. An enforcement document.

(h) To be approved under this subchapter, mitigation must have a high probability of long-term success, which, at a minimum, requires the following:

1. Adequate financial and other resources dedicated to the project;
2. A project design that takes advantage of and works within the existing conditions in the proposed mitigation area to the extent possible;
3. Hydrology in and around the mitigation area adequate to support wetland conditions year round and indefinitely into the future (where applicable). The hydrology for a proposed wetland mitigation site shall not include discharged stormwater;
4. Soils (and hydrology) in the mitigation area adequate to support wetland conditions (where applicable); and

5. Assignment of responsibility for long term maintenance of the mitigation area to an entity that has adequate resources to ensure maintenance as required by this subchapter.

(i) Mitigation shall not commence until the Department has approved a mitigation proposal through one of the approvals listed at (g) above.

(j) Mitigation approved under this subchapter may also require additional State or Federal permits or approvals, such as a flood hazard area permit or a freshwater wetlands permit from the Department or an approval from the USACE. Mitigation shall not commence until all necessary permits or approvals are obtained.

(k) If the Department requires mitigation as part of a remedy for a violation under this chapter, the Department shall determine the amount of mitigation necessary and the particular alternative required in consideration of the extent (area) and severity of the violation and the functions and values provided by the proposed mitigation. A mitigation proposal submitted as part of a remedy for a violation shall provide for mitigation that is at least as ecologically valuable as mitigation that would otherwise be required under this chapter under an individual permit. The Department may require a greater amount of mitigation than that required under an individual permit if necessary to compensate for the duration that the coastal resource(s) was impaired due to the particular regulated activities undertaken in violation of this chapter.

(l) A mitigation area shall be permanently protected from future development by a conservation restriction in accordance with N.J.A.C. 7:7-18.

(m) Mitigation may consist of one or more mitigation alternatives set forth under this subchapter.

(n) Mitigation for multiple disturbances by a single permittee may, upon Department approval, be aggregated into a single mitigation project. Such an aggregated mitigation project shall not be used as mitigation for disturbances by any person other than the permittee, unless the permittee obtains approval of the project as a mitigation bank under this subchapter.

(o) Mitigation provided to satisfy a mitigation requirement of a Federal or local law or another State law shall not substitute for or preempt any mitigation requirement under this chapter. A mitigation project proposed for the purpose of satisfying another law shall be approved as mitigation under this chapter only if the mitigation project meets the requirements of this subchapter. For example, a mitigation project proposed to meet a mitigation requirement of the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A shall satisfy a mitigation requirement imposed under this chapter only if the proposed mitigation project meets the requirements of this subchapter.

(p) If the mitigator encounters a possible historic property that is or may be eligible for listing in the New Jersey or National Register, the mitigator shall preserve the resource, immediately notify the Department, and proceed as directed by the Department.

7:7-17.3 Timing of mitigation

(a) Mitigation shall be performed within the applicable time period below:

1. Except for restoration of a temporary disturbance under (a)2 below, mitigation required under a general permit authorization or individual permit shall be performed prior to or concurrently with the regulated activity that causes the disturbance;
2. Mitigation for any temporary disturbance shall commence immediately upon completion of the regulated activity that caused the disturbance and shall continue until completion, which shall not exceed six months after the cessation of the regulated activities that caused the disturbance; and
3. Mitigation required as part of an enforcement action shall be performed in accordance with the schedule set forth in the enforcement document.

(b) All mitigation shall be continued until completion according to the schedule in the approved mitigation proposal.

7:7-17.4 Amount of mitigation required

(a) This section sets forth the general requirements for determining the amount of mitigation required. Specific requirements for each type of mitigation project are located as follows:

1. Requirements for shellfish habitat mitigation at N.J.A.C. 7:7-17.9;
2. Requirements for submerged vegetation habitat mitigation at N.J.A.C. 7:7-17.10;
3. Requirements for intertidal and subtidal shallows and tidal water mitigation at N.J.A.C. 7:7-17.11;
4. Requirements for riparian zones mitigation at N.J.A.C. 7:7-17.12;
5. Requirements for wetland mitigation at N.J.A.C. 7:7-17.13;
6. Requirements for credit purchase at N.J.A.C. 7:7-17.15; and
7. Requirements for in-lieu fee payment at N.J.A.C. 7:7-17.16.

(b) If a proposed mitigation area is affected by an easement or other encumbrance, the portion of the property affected by the encumbrance will not be considered in calculating the total amount of mitigation provided, unless the applicant demonstrates that the encumbrance will not prohibit compliance with the mitigation requirements of this chapter.

7:7-17.5 Property suitable for mitigation

(a) Mitigation under this subchapter may be carried out on private or public property.

(b) Except as provided in (c) below, the Department shall approve mitigation only on property that is owned in fee simple and under the full legal control of the person responsible for

performing the mitigation, unless the person responsible for performing the mitigation demonstrates that they have legal rights to the property sufficient to enable compliance with all requirements of this chapter.

(c) The Department shall approve mitigation on public property if:

1. The public entity gives written permission to allow the mitigation to be conducted on the property;
2. The public entity is willing to allow a conservation restriction to be placed on the area of the mitigation project, in accordance with N.J.A.C. 7:7-18, or can demonstrate that an existing conservation restriction will protect the mitigation project area in perpetuity; and
3. If the land was acquired using Green Acres funding or is encumbered with Green Acres restrictions, as defined at N.J.A.C. 7:36-2.1, the use of the area for mitigation purposes is approved by the Green Acres Program.

(d) The following shall not constitute mitigation under this subchapter:

1. The installation of, or improvement to, an existing public facility intended for human use, such as a ball field, nature trail, or boardwalk; or
2. A stormwater management facility, such as a basin.

(e) The Department shall not approve creation, enhancement, or restoration of a wetland in an area that the Department has determined is currently of high ecological value.

(f) The Department shall not approve mitigation or a mitigation bank that would:

1. Destroy, jeopardize, or adversely modify a present or documented habitat for threatened or endangered species; or
2. In any way jeopardize the continued existence of any local population of a threatened or endangered species.

(g) The Department shall not approve mitigation or a mitigation bank in an area where the proposed mitigation poses an ecological risk. For purposes of this section, ecological risk means that the mitigation or mitigation bank activities have the potential to result in the reintroduction of contamination to ecological communities, the exposure of humans to contamination, or the contamination of the mitigation site by subsequent exposure to new areas of contamination requiring remediation. The proposed mitigation site shall be properly characterized to determine ecological risk. The mitigator shall prepare this characterization and assessment in accordance with the Technical Requirements for Site Remediation at N.J.A.C. 7:26E-1.16 and 4.9.

1. If the Department determines based on the characterization and assessment that the mitigation activities at the proposed site do not pose an ecological risk, the mitigator shall proceed with the mitigation project.

2. If the Department determines based on the characterization and assessment that the proposed mitigation activities at the proposed site do pose an ecological risk, the mitigator shall remediate the site pursuant to the Technical Requirements for Site Remediation at N.J.A.C. 7:26E-4.8, 5.1, and 5.2. The mitigator shall proceed with the mitigation project only after it demonstrates that the remediation and/or mitigation activities will fully address the ecological risk.

(h) Properties where a substantial amount of soil must be removed in order to achieve suitable wetland hydrology are not acceptable mitigation sites.

7:7-17.6 Conceptual review of a mitigation area

(a) This section sets forth the requirements for the conceptual review of any potential mitigation area other than a proposed mitigation bank site. The requirements for conceptual review of a mitigation bank site are set forth at N.J.A.C. 7:7-17.23 (a) and (b).

(b) The Department encourages applicants to obtain the conceptual review of any land being considered as a potential mitigation area prior to purchase of land for mitigation purposes and/or prior to submittal of a mitigation proposal.

(c) To obtain the conceptual review of a mitigation area, the applicant shall submit a written request to the address set forth at N.J.A.C. 7:7-1.6, including:

1. A brief description of the area and the mitigation project being considered;
2. A map showing the location and extent of the prospective mitigation area, including topography if available; and
3. Consent from the owner of the prospective mitigation area allowing Department representatives to enter the property in a reasonable manner and at reasonable times to inspect the site.

(d) The Department's guidance on a proposed mitigation area or mitigation proposal is not binding until and unless it is incorporated into an approval obtained in accordance with this subchapter. A conceptual review does not grant any property or other rights or in any way imply that mitigation activities have been or will be authorized.

7:7-17.7 Basic requirements for mitigation proposals

(a) A mitigation proposal required under this chapter shall be submitted at least 90 calendar days prior to the commencement of regulated activities authorized by a permit.

(b) A mitigation proposal to remedy a violation under this chapter shall be submitted by the deadline set forth in the Department's enforcement document.

(c) A mitigation proposal shall include all information necessary for the Department to determine if the requirements of this subchapter are met.

(d) The information required to be submitted in a mitigation proposal for the restoration, creation, and/or enhancement of wetlands, intertidal and subtidal shallows, submerged vegetation habitat, and riparian zones is set forth in the appropriate mitigation proposal checklist, available from the Department at the address set forth at N.J.A.C. 7:7-1.6, and described at (h) below.

(e) A mitigation proposal for a monetary contribution to the Department's dedicated account for shellfish habitat mitigation shall consist of a copy of the permit authorizing the impact(s) that is being mitigated and a demonstration that the contribution amount addresses the factors specified at N.J.A.C. 7:7-17.9(b)2.

(f) A mitigation proposal for the purchase of bank credits shall consist of a copy of the permit authorizing the impact(s) that is being mitigated and the identity of the mitigation bank from which appropriate credits will be purchased.

(g) A mitigation proposal for the purchase of in-lieu fee credits shall consist of a copy of the permit authorizing the impact(s) that is being mitigated and the identity of the in-lieu fee program from which appropriate credits will be purchased.

(h) The mitigation proposal checklists identified at (d) above require the following information:

1. Basic information regarding the applicant, the impacts for which the mitigation is intended to compensate, and a copy of the permit (if issued) or enforcement document that is the source of the mitigation requirement;
2. The following material necessary to explain and illustrate the existing and proposed conditions at the mitigation site:
    i. Visual materials such as maps, site plans, planting plans, surveys, topography, diagrams, delineations, and/or photographs;
    ii. A narrative describing the existing conditions and proposed mitigation, as well as supporting soil or vegetation samples; and
    iii. A preventive maintenance plan detailing how invasive or noxious vegetation will be controlled, and how predation of the mitigation plantings will be prevented;
3. A specific breakdown of each resource for which mitigation is being proposed (for example, forested wetlands, scrub shrub wetlands, riparian zones, intertidal and subtidal shallows, submerged vegetation habitat) and the type and quantity of proposed mitigation for each resource;
4. Information regarding relevant features of other properties in the vicinity of the mitigation area, such as whether nearby properties are publicly owned, or contain preserved open space, or significant natural resources;

5. Schedules describing in detail the sequence of mitigation activities and estimated dates for completion for each mitigation activity;
6. Cost estimates to perform the mitigation and maintain the mitigation area after construction and/or transfer is completed;
7. A preliminary characterization and assessment of the site in accordance with N.J.A.C. 7:7-17.5(g) to enable the Department to determine if contamination is present and if the proposed mitigation activities pose an ecological risk;
8. A description of post-construction activities, including schedules for monitoring, maintenance, and reporting;
9. Contingency measures that will be followed if the mitigation project fails or shows indications of failing;
10. A certification that the proposed mitigation will not adversely affect historic resources which are listed or are eligible for listing on the New Jersey or National Register of Historic Places;
11. Information and/or certifications regarding the presence or absence of endangered and/or threatened wildlife and plant species habitat or other features on the proposed mitigation area relevant to determining compliance with this chapter;
12. Any letters, contracts, agreements, conservation restrictions, or other draft or executed documents necessary to ensure compliance with this chapter;
13. A certification of truth and accuracy in accordance with N.J.A.C. 7:7-23.2(j);
14. Consent from the owner of the proposed mitigation area allowing the Department to enter the property in a reasonable manner and at reasonable times to inspect the proposed mitigation area; and
15. For a mitigation proposal that was not submitted as part of an application for an individual permit, documentation that public notice of the mitigation proposal was provided in accordance with N.J.A.C. 7:7-24.

(i) In addition to the information required by the mitigation proposal checklist as set forth at (h) above, a proposal to create, restore, or enhance wetlands or intertidal and subtidal shallows shall also include a projected water budget for the proposed mitigation site. The water budget shall:

1. Detail the sources of water for the mitigation project as well as the water losses;
2. Document that an ample supply of water is available to create, enhance, or restore wetland conditions, as applicable;
3. Contain sufficient data to show that the mitigation project will, indefinitely into the future, have sustained wetland hydrology or, for intertidal and subtidal shallows, sustained tidal inundation; and
4. Include the following regional information for the proposed and existing site conditions:

i. The tidal range (low, high and spring high tide) over the course of a month;

ii. The elevation of the existing reference wetland system in the vicinity of the project site;

iii. The salinity range of adjacent waters; and

iv. A detailed discussion relating to the created substrate of the proposed mitigation site.

(j) In addition to the information required by the mitigation proposal checklist as set forth at (h) above, the mitigation proposal for a submerged vegetation habitat mitigation project shall include information sufficient to document the following:

1. That the area proposed for submerged vegetation habitat restoration previously supported submerged vegetation but no longer does;
2. The specific cause(s) of the elimination of submerged vegetation; and
3. That the specific condition(s) or action(s) that caused the elimination of submerged vegetation has since ceased.

7:7-17.8 Department review and approval of a mitigation proposal

(a) The Department shall, within 30 calendar days after receiving a mitigation proposal submitted to comply with a condition of a coastal permit, review the proposal for completeness in accordance with N.J.A.C. 7:7-17.7 and:

1. Request any necessary additional information; or
2. Declare the mitigation proposal complete for further review.

(b) The Department shall approve a mitigation proposal only if it meets all of the applicable requirements of this subchapter.

7:7-17.9 Requirements for shellfish habitat mitigation

(a) This section sets forth the requirements for mitigation required pursuant to N.J.A.C. 7:7-9.2 for impacts to shellfish habitat.

(b) Mitigation for impacts to shellfish habitat associated with the construction of a dock, pier, mooring, or marina shall include:

1. The recording of a conservation restriction in accordance with N.J.A.C. 7:7-18. In addition to the requirements at N.J.A.C. 7:7-18, the conservation restriction shall also meet the requirements at (b)1i or ii below:

   i. If the dock, pier, mooring, or marina is associated with an unbulkheaded shoreline, the conservation restriction shall prohibit the construction of a shoreline protection structure other than stone rip-rap or other similar sloped revetment; or

ii. If the dock, pier, mooring, or marina is associated with a previously bulkheaded shoreline, the conservation restriction shall prohibit replacement, reconstruction, or rehabilitation of the bulkhead with anything other than a non-polluting material; and

2. A monetary contribution to the Department's dedicated account for shellfish habitat mitigation. The amount of each monetary contribution shall be based on the area of shellfish habitat condemned due to coverage by the structure and boat moorings, the documented shellfish density on the property, and the commercial value of the shellfish resource.

7:7-17.10 Requirements for submerged vegetation habitat mitigation

(a) This section sets forth the requirements for mitigation required pursuant to N.J.A.C. 7:7-9.6 for impacts to submerged vegetation habitat.

(b) Mitigation for temporary disturbance to a submerged vegetation habitat shall consist of the restoration of the disturbed area to its preconstruction contours and conditions. This may include subsequent monitoring and replanting of the disturbed area if these species have not recolonized the disturbed areas within three years.

(c) An applicant proposing to mitigate for a temporary disturbance to a submerged vegetation habitat shall submit to the Department, at least 30 calendar days prior to the start of activities authorized by the permit, a schedule describing in detail the sequence of mitigation activities and estimated dates for completion of the restoration of the temporary disturbance, and a restoration plan that includes any proposed grading needed to return the disturbed area to its pre-disturbed elevation, and identifies all proposed plantings, including type, size, and number of plants.

(d) Mitigation for unavoidable, permanent, significant impacts to submerged vegetation habitats shall consist of the restoration of habitat for the appropriate species in accordance with scientifically documented transplanting methods. Monitoring and replanting shall be carried out biannually to demonstrate persistence of the compensatory habitat for a minimum of three years.

(e) Priority shall be given to in-kind restoration of submerged vegetation habitat in as close proximity as possible to the site of the impacts to submerged vegetation.

(f) Mitigation for submerged vegetation habitat shall not consist of planting submerged vegetation within unvegetated interpatch areas of existing submerged vegetation habitat or of increasing bottom coverage within existing submerged vegetation beds. A vegetation bed is an area where submerged vegetation rhizomes overlap, or where submerged vegetation shoots intermingle within less than one square meter.

7:7-17.11 Requirements for intertidal and subtidal shallows and tidal water mitigation

(a) This section sets forth the requirements for mitigation required pursuant to N.J.AC. 7:7-9.15 or 12.11(f) for the filling of intertidal and subtidal shallows or tidal waters, respectively.

(b) Mitigation for the filling of intertidal and subtidal shallows or tidal waters shall be performed through the creation, at a creation to loss ratio of 1:1, of intertidal and subtidal shallows or tidal waters on the site where the filling occurred.

(c) If the onsite mitigation for the filling of intertidal and subtidal shallows described at (b) above is not feasible, mitigation shall be performed as follows:

1. At a single-family home or duplex property that is not part of a larger development, mitigation for the filling of intertidal and subtidal shallows shall be in the form of a monetary contribution to the Wetlands Mitigation Fund. The monetary contribution shall be in the amount of the value of the land filled and the cost of creation of intertidal and subtidal shallows of equal ecological value to those which are being lost; or
2. At a property other than a single-family home or duplex, mitigation for the filling of intertidal and subtidal shallows shall be performed in accordance with the hierarchy at (d) through (g) below.

(d) If mitigation for the filling of intertidal and subtidal shallows as described at (b) above at a property other than a single-family home or duplex is not feasible onsite, or if mitigation for the filling of tidal waters as described at (b) above is not feasible onsite, then mitigation shall be performed offsite through the creation, at a creation to loss ratio of 1:1, of intertidal and subtidal shallows or tidal waters within the same estuary as the site of the filling or through the purchase of in-kind credits from a mitigation bank with a service area that includes the site of the filling.

(e) If mitigation for the filling of intertidal and subtidal shallows or tidal waters as described at (d) above is not feasible, then mitigation shall be in the form of restoration, creation, or enhancement of a wetland within the same estuary as the site of the filling in accordance with N.J.A.C. 7:7-17.13 or through the purchase of out-of-kind credits from a mitigation bank with a service area that includes the site of the filling.

(f) If mitigation for the filling of intertidal and subtidal shallows or tidal waters as described at (e) above is not feasible, then mitigation shall be in the form of one or both of the following, as determined in consultation with the Department:

1. Upland preservation in accordance with the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A-11.13; or
2. In-lieu fee payment in accordance with N.J.A.C. 7:7-17.16.

(g) If mitigation for the filling of intertidal and subtidal shallows or tidal waters as described at (f) above is not feasible, then mitigation shall be in the form of a land donation in accordance with the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A-11.15.

(h) Within 60 calendar days after the construction of an intertidal and subtidal shallows or tidal waters mitigation site is completed, the mitigator shall submit a construction completion report to the Department. The Department may establish a different time frame for the submittal of the

construction completion report if it determines doing so would better facilitate assessing the progress and success of the mitigation. The construction completion report shall include:

1. An as-built plan of the completed mitigation area, showing grading and any structures included in the approved mitigation proposal;
2. Photographs of the completed mitigation; and
3. An explanation for any deviation from the approved mitigation proposal.

(i) In addition to the construction completion report required under (h) above, the mitigator shall submit a post construction monitoring report to the Department. Compliance with the standards listed at (k)1 through 4 below shall be demonstrated for each intertidal and subtidal shallows or tidal waters mitigation site for one lunar month after completion of construction of the mitigation site. A lunar month is the period between two successive full moons. If one or more of the standards listed at (k)1 through 4 below are not met, the post-construction monitoring shall be repeated the following lunar month(s) until all of the standards are met. Failure to meet the standards at (k)1 through 4 below for a given lunar month shall result in corrective action. Corrective action may include regrading or relocation of the mitigation site.

(j) The post-construction monitoring report, required under (i) above, shall be submitted by December 31 of each year and shall include:

1. An executive summary;
2. The requirements and goals of the approved mitigation proposal;
3. A detailed explanation of the ways in which the mitigation has or has not achieved progress towards those goals. If the mitigation has not achieved progress, the report shall also include a list of corrective actions to be implemented as determined pursuant to (k) below and a timeline for completion;
4. A USGS quad map and an aerial photograph on which the limits of the mitigation site and all proposed access points are clearly indicated;
5. Photographs of the mitigation site, with a location map indicating the location and direction of each photograph;
6. An assessment of the hydrology of the mitigation site, including relevant tidal data, photographs, and field observation notes collected throughout the monitoring period; and
7. A field delineation and plan showing the extent and location (using global positioning system data points) of the intertidal and subtidal shallows or tidal waters at the site.

(k) The standards by which a mitigation site where intertidal and subtidal shallows or tidal waters were created shall be determined successful are set forth at (k)1 through 4 below. In accordance with (i) above, the mitigator shall submit a post-construction monitoring report demonstrating that these standards have been met. The standards are:

1. The goals of the approved mitigation proposal have been achieved;

2. The mitigation site is an intertidal and subtidal shallows as defined at N.J.A.C. 7:7-9.15 or a tidal water. The documentation shall include, tidal data, topography for the spring high tide, photographs, and field observation notes collected throughout the monitoring period;
3. The mitigation meets all applicable requirements of this subchapter; and
4. The mitigator has executed and recorded a conservation restriction that meets the requirements of N.J.A.C. 7:7-18.

(l) If the mitigation performed under (e) above is the restoration, creation, or enhancement of a wetland, the mitigator shall demonstrate that the post-construction monitoring standards for a wetland mitigation site at N.J.A.C. 7:7-17.13(d) through (g) are met.

7:7-17.12 Requirements for riparian zone mitigation

As provided at N.J.A.C. 7:7-9.26(h), any development regulated under this chapter in a riparian zone shall meet the requirements for a permit under the Flood Hazard Area Control Act Rules, N.J.A.C. 7:13. Accordingly, mitigation for impacts to riparian zones shall be provided as required at N.J.A.C. 7:13-13 for a regulated activity in a riparian zone.

7:7-17.13 Requirements for wetlands mitigation

(a) This section sets forth the requirements that apply to a wetlands creation, restoration, or enhancement mitigation project.

(b) If creation or restoration is the mitigation alternative, wetlands shall be created or restored at a creation or restoration to lost or disturbed ratio of 2:1, unless the applicant demonstrates in accordance with (b)1 below that creation or restoration at a ratio of less than 2:1 will provide equal ecological functions and values. The mitigation project shall be designed to include a wetlands buffer pursuant to N.J.A.C. 7:7-9.28. The wetlands buffer shall not be counted in the acreage of mitigation provided by the wetlands creation or restoration.

1. A mitigator may create or restore wetlands at a ratio of less than 2:1 if the mitigator demonstrates through the use of productivity models or other similar studies that restoring or creating a lesser area of wetlands will result in replacement wetlands of equal ecological value to those lost or disturbed. However, in no case shall the Department approve a ratio of less than 1:1. In order to demonstrate equal ecological value, the mitigator shall survey and provide written documentation regarding, at a minimum, existing soil, vegetation, water quality functions, flood storage capacity, soil erosion and sediment control functions, and wildlife habitat conditions and detail how the mitigation proposal will replace the ecological values of the wetlands lost or disturbed.

(c) If enhancement is the mitigation alternative, the Department shall determine on a case-by-case basis the amount of enhancement required to ensure that the mitigation results in wetlands of equal functions and values to those lost.

(d) Within 60 calendar days after the construction of a creation, restoration, or enhancement wetlands mitigation project is completed, the mitigator shall submit a construction completion report to the Department. The Department may establish a different time frame for the submittal of the construction completion report if it determines doing so would better facilitate assessing the progress and success of the mitigation. The construction completion report shall include:

1. An as-built plan of the completed mitigation area, showing grading, plantings (including species, size and densities), and any structures included in the approved mitigation proposal;
2. Photographs of the completed mitigation; and
3. An explanation for any deviation from the approved mitigation proposal.

(e) In addition to the construction completion report required under (d) above, the mitigator shall submit a post-construction monitoring report to the Department each year for five years after completion of the construction of a creation, restoration, or enhancement wetlands mitigation project, unless a different time frame for submittal is specified in the approved mitigation proposal. The Department may modify the frequency and/or duration of required reporting if it determines that such modification is necessary to ensure the success of the mitigation. Post-construction monitoring shall begin the first full growing season after the mitigation project is completed.

(f) The post-construction monitoring reports required under (e) above shall be submitted to the Department by December 31 of each reporting year, and shall include:

1. An executive summary;
2. The requirements and goals of the approved mitigation proposal;
3. A detailed explanation of the ways in which the mitigation has or has not achieved progress toward the goals of the approved mitigation proposal. If mitigation has not achieved anticipated progress, the report shall also include a list of corrective actions to be implemented and a timeframe for completion;
4. Information required by the coastal wetlands mitigation monitoring checklist available from the Department at the address set forth at N.J.A.C. 7:7-1.6. For a wetlands mitigation project, the checklist requires the following information:
    i. A USGS quad map and an aerial photograph on which the limits of the mitigation site and all proposed access points are clearly indicated;
    ii. Photographs of the mitigation site with a location map indicating the location and direction of each photograph;
    iii. An assessment of the planted vegetation and the species that are naturally colonizing the mitigation site, including documentation concerning invasive or noxious plant species and the percent coverage of these species on the site;

iv. An assessment of the hydrology of the mitigation site including, where appropriate, monitoring well data, stream gauge data, relevant tidal data, photographs, and field observation notes collected throughout the monitoring period.

v. A field delineation of the wetlands at the wetlands mitigation project site, based on techniques specified in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands, published in 1989 by the USEPA, USACE, USFWS, and U.S. Department of Agriculture's Conservation Services, incorporated herein by reference, available at https://digitalmedia.fws.gov/digital/collection/document/id/1341; and

vi. A plan showing the flagged wetlands delineation and global positioning system data points.

(g) The standards by which the wetlands mitigation project shall be determined to be successful are set forth at (g)1 through 5 below. The mitigator shall submit a post-construction monitoring report as required at (e) above demonstrating that these standards have been met. The standards are:

1. The goals of the approved wetlands mitigation proposal (including the required buffer area) have been achieved;
2. The mitigation site is a wetland, based on the water budget in the approved mitigation proposal, as documented through, when appropriate, monitoring well data, stream gauge data, relevant tidal data, photographs, and field observation notes collected throughout the monitoring period;
3. The percent coverage of the planted vegetation or targeted hydrophytes as detailed in the approved mitigation proposal has been achieved;
4. The mitigation provided meets all applicable requirements of this subchapter; and
5. The permittee has executed and recorded a conservation restriction for the mitigation area that meets the requirements of N.J.A.C. 7:7-18.

(h) The Department shall determine, after consultation with the permittee, the appropriate corrective action(s) that the mitigator must implement so that the standards at (g) above can be met. Corrective action may include regrading or replanting the mitigation site, relocation of the mitigation project to another, more suitable site, and/or extending the monitoring period as necessary to ensure success of the mitigation.

7:7-17.14 Wetlands mitigation hierarchy

(a) This section applies to wetlands mitigation projects and governs the mitigation alternative required and the location of mitigation in relation to the impacts to wetlands.

(b) Mitigation shall be performed through restoration, creation, or enhancement of wetlands onsite in the same drainage area or estuary as the impacts or, if that is not feasible, then offsite in

the same drainage area or estuary as the impacts or through the purchase of credits from a mitigation bank with a service area that includes the area of impacts. In determining the feasibility of onsite or offsite mitigation or credit purchase, the Department shall consider the following factors regarding the proposed mitigation area:

1. Size. Generally, the larger a mitigation area is, the greater is its potential environmental benefit. A mitigation area that is associated with a large existing wetland complex is more likely to be environmentally beneficial;
2. Location in relation to other preserved open space. A mitigation area adjacent to public land or other preserved areas is more likely to be environmentally beneficial;
3. Habitat value. A mitigation area that will provide valuable habitat for critical wildlife species or threatened or endangered species is more likely to be environmentally beneficial;
4. Interaction with nearby resources. A mitigation project is more likely to be environmentally beneficial if it complements existing nearby resources. For example, a mitigation project that adds riparian wetlands habitat adjacent to an existing stream enhances the environmental value of both the riparian area and the stream; and
5. Availability of parcels for offsite mitigation that meet the requirements of (e) below.

(c) If mitigation as described at (b) above is not feasible, then mitigation shall be required in the form of one or more of the following, as determined in consultation with the Department:

1. Monetary contribution in accordance with the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A-11.16;
2. Upland preservation in accordance with the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A-11.13; or
3. In-lieu fee payment in accordance with N.J.A.C. 7:7-17.16.

(d) If mitigation as described at (c) above is not feasible, mitigation shall be in the form of a land donation in accordance with the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A-11.15.

(e) In order to demonstrate that offsite mitigation under (b) above is not feasible, an applicant shall provide to the Department a list of at least six sites within the same drainage area or estuary to accommodate the required mitigation. With respect to each site on the list, the applicant shall explain why:

1. The site is not located at a practical elevation suitable for wetlands;
2. The site lacks an adequate water supply;
3. The site is not available for purchase; and
4. The site does not meet the requirements of N.J.A.C. 7:7-17.5(g) regarding ecological risk.

7:7-17.15 Requirements for credit purchase from an approved mitigation bank

(a) If the Department determines that credit purchase is the appropriate mitigation alternative, the Department shall evaluate the values and functions lost as a result of the impacts and determine the number of credits required to ensure that the mitigation results in wetlands or intertidal and subtidal shallows of equal functions and values to those lost.

(b) The mitigator shall prepare and execute all documents necessary to ensure that the credits have been purchased from a Department approved mitigation bank with available credits.

(c) The Department shall determine mitigation through credit purchase successful upon:

1. Demonstration by the mitigator that the completed mitigation satisfies all applicable permit conditions, requirements of this subchapter, and requirements of the approved mitigation proposal; and
2. Documentation from the mitigator that the credit purchase was made as required. Documentation shall include a written certification from the mitigation bank operator, indicating the number of credits purchased and the Department permit number.

7:7-17.16 Requirements for in-lieu fee payment

(a) If the Department determines that in-lieu fee payment is the appropriate mitigation alternative, the mitigator shall follow the terms of the State-approved in-lieu fee program instrument.

(b) The Department shall determine mitigation through in-lieu fee payment successful upon receipt of documentation from the in-lieu fee program administrator that payment has been received in full.

7:7-17.17 Financial assurance for mitigation projects; general provisions

(a) Financial assurance in accordance with this section is required for mitigation projects involving restoration, creation, or enhancement activities as mitigation for impacts to intertidal and subtidal shallows, tidal waters, and wetlands. Financial assurance is not required for a mitigation proposal or mitigation bank proposal submitted by a government agency or an entity that is exempt from the requirement to provide financial assurance under Federal law.

(b) The person responsible for conducting mitigation identified at (b)1 or 2 below shall establish and maintain financial assurance in accordance with this section:

1. Where mitigation is required pursuant to a permit, the permittee or mitigation bank sponsor of a wetlands mitigation project or mitigation bank; or
2. Where mitigation is required as part of the remedy for a violation, the person designated to provide mitigation in the enforcement document.

(c) The person identified at (b) above shall establish and maintain financial assurance in the amount specified at (f) below, until the Department determines that the mitigation site or mitigation bank has satisfied the applicable performance standards, permit conditions, enforcement document, or settlement agreement.

(d) Financial assurance shall comprise one or more of the instruments identified at (d)1 through 5 below. A template for each of the types of financial assurance identified at (d)1 through 4 below is available from the Department at the address set forth at N.J.A.C. 7:7-1.6.

1. A fully funded trust fund, in accordance with N.J.A.C. 7:7-17.18;
2. A line of credit, in accordance with N.J.A.C. 7:7-17.19;
3. A letter of credit, in accordance with N.J.A.C. 7:7-17.20;
4. A surety bond, in accordance with N.J.A.C. 7:7-17.21; and/or
5. Other forms of financial assurance, other than self-insurance or self-guarantee, as determined by the Department to meet the requirements of this section.

(e) Financial assurance that meets the requirements of this section shall be provided at least 30 calendar days prior to undertaking mitigation activities approved under a permit or mitigation banking instrument, or as required under an enforcement document or settlement.

(f) The amount of financial assurance shall be based on an itemized estimate provided by an independent contractor and shall include the following:

1. Construction costs, equal to 115 percent of the estimated cost of completing the creation, restoration, or enhancement of intertidal and subtidal shallows, tidal waters, or wetlands; and
2. Maintenance costs, equal to 115 percent of the estimated cost of monitoring and maintaining the site, including the cost to replant the wetlands mitigation area.

(g) The Department shall review the financial assurance annually and adjust the amount as necessary to reflect current economic factors.

(h) The Department shall require additional financial assurance in accordance with (f) above if additional construction and/or monitoring is required to ensure success of the mitigation project.

(i) The portion of financial assurance required under (f)1 above shall be released upon the Department's determination that construction (including grading and planting) of the mitigation project or bank has been successfully completed in accordance with the approved mitigation proposal.

(j) The portion of financial assurance required under (f)2 above shall be released when the Department determines that the mitigation project or bank is successful pursuant to N.J.A.C. 7:7-

17.11(k) (for an intertidal and subtidal shallows or tidal waters mitigation project), 17.13(g) (for a wetlands mitigation project), or 17.22(j) (for a mitigation bank), as applicable.

(k) If the Department determines that the person responsible for conducting mitigation and providing financial assurance as specified at (b) above has failed to perform a mitigation project or bank as required by a permit, mitigation banking instrument, enforcement document, or settlement agreement, the Department shall:

1. Provide written notice of this determination to the person; and
2. Require that the mitigation project or bank be brought into conformance with the permit, mitigation banking instrument, enforcement document, or settlement agreement within 30 calendar days after receipt of the notice, unless the time frame for compliance is extended in writing by the Department.

(l) No sooner than 30 days from the date the person required to establish the financial assurance receives the notice under (k) above, the Department may, at its discretion, perform the mitigation project or bank by drawing on the funds available in the financial assurance.

7:7-17.18 Financial assurance; fully funded trust fund requirements

(a) A person who chooses to establish a fully funded trust fund as financial assurance pursuant to this subchapter shall submit to the Department the original fully funded trust fund agreement. The trust fund agreement shall:

1. Be executed by an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a New Jersey or Federal agency;
2. Include any applicable Department file number, and the name, street address, lot, block, municipality, and county of the mitigation site;
3. Specify that the fully funded trust fund cannot be revoked or terminated without the prior written approval of the Department;
4. Specify that the trustee may only disburse funds with the Department's written approval;
5. Specify that funds shall be utilized solely for the purposes of conducting the mitigation project or mitigation bank as approved by the Department;
6. Specify that the Department may access the fully funded trust fund to pay for the cost of the mitigation project or bank, pursuant to N.J.A.C. 7:7-17.17(l); and
7. Identify the Department as the sole beneficiary of the fully funded trust fund.

(b) Any person responsible for conducting a mitigation project or bank that uses a fully funded trust fund to satisfy the requirements of this subchapter shall annually, at least 30 calendar days prior to the anniversary date of when that person was obligated to establish a financial assurance, submit to the Department a written statement from the trustee confirming the value of the trust in

the amount that the Department has approved, and confirming that the trust shall continue for the next consecutive 12-month period.

7:7-17.19 Financial assurance; line of credit requirements

(a) A person who chooses to establish a line of credit agreement as financial assurance pursuant to this subchapter shall submit to the Department the original line of credit. The line of credit shall:

1. Be issued by an entity that is licensed by the New Jersey Department of Banking and Insurance to transact business in the State of New Jersey, or by a Federally regulated bank;
2. Include any applicable Department file number, and the name, street address, lot, block, municipality, and county of the mitigation site;
3. Specify that the line of credit shall be issued for a period of one year, and shall be automatically extended thereafter for a period of at least one year;
4. Specify that, if the issuer of the line of credit decides not to extend the line of credit beyond the then current expiration date, the issuer shall notify the person using the line of credit and the Department by certified mail of that decision at least 120 calendar days before the current expiration date, beginning from the date of receipt by the Department as shown on the signed return receipt;
5. Specify that the lender shall disburse only those funds that the Department approves in writing;
6. Specify that the funds in the line of credit shall be utilized solely for the purposes of conducting the mitigation project or bank; and
7. Specify that the Department may access the line of credit to pay for the cost of the mitigation project or bank, pursuant to N.J.A.C. 7:7-17.17(l).

(b) A person responsible for conducting a mitigation project or bank who uses a line of credit to satisfy the requirements of this subchapter shall annually, at least 30 calendar days prior to the anniversary date of when that person was obligated to establish a financial assurance, submit to the Department a written statement from the lender confirming the value of the line of credit in an amount that the Department has approved and confirming that the lender has renewed the line of credit for the next consecutive 12-month period.

7:7-17.20 Financial assurance; letter of credit requirements

(a) A person who chooses to provide a letter of credit as financial assurance to guarantee the availability of funds pursuant to this subchapter shall submit to the Department the original letter of credit. The letter of credit shall:

1. Be issued by an entity that is licensed by the New Jersey Department of Banking and Insurance to transact business in the State of New Jersey, or by a Federally regulated bank;
2. Include any applicable Department file number, and the name, street address, lot, block, municipality, and county of the mitigation site;
3. Specify that the letter of credit is irrevocable and issued for a period of at least one year, and that it will be automatically extended thereafter for a period of at least one year;
4. Specify that, if the issuer of the letter of credit decides not to extend the letter of credit beyond the then current expiration date, the issuer shall notify the person providing the letter of credit and the Department by certified mail of that decision at least 120 calendar days before the current expiration date, beginning from the date of receipt by the Department as shown on the signed return receipt; and
5. Specify that the Department may access the letter of credit to pay for the cost of the mitigation project or mitigation bank, pursuant to N.J.A.C. 7:7-17.17(l).

7:7-17.21 Financial assurance; surety bond requirements

(a) A person who chooses to provide a surety bond as a financial assurance to guarantee the availability of funds pursuant to this subchapter shall complete and submit to the Department the original surety bond. The surety bond shall:

1. Be issued by an entity that is licensed by the New Jersey Department of Banking and Insurance to transact business in the State of New Jersey, or is listed as acceptable surety on Federal bonds in Circular 570 of the U.S. Department of the Treasury;
2. Include any applicable Department file number, and the name, street address, lot, block, municipality, and county of the mitigation site;
3. Specify that, if the issuer of the surety bond decides not to extend the surety bond beyond the then current expiration date, the issuer shall notify the person using the surety bond and the Department by certified mail of that decision at least 120 calendar days before the current expiration date, beginning from the date of receipt by the Department as shown on the signed return receipt; and
4. Specify that the Department may access the surety bond to pay for the cost of the mitigation project or mitigation bank, pursuant to N.J.A.C. 7:7-17.17(l).

7:7-17.22 Mitigation banks

(a) A mitigation bank requires approval by the Department prior to the sale of any mitigation credits. "Approval" for the purposes of this section means approval in accordance with N.J.A.C. 7:7-17.23.

(b) If the establishment of a mitigation bank involves regulated activities as described at N.J.A.C. 7:7-2, the bank operator shall obtain all necessary approvals from the Department prior to undertaking the regulated activities.

(c) Once the Department has approved a mitigation bank, the bank operator shall carry out all requirements of the banking instrument approving the bank, regardless of whether or when credits are sold.

(d) The Department shall determine how many mitigation credits each mitigation bank operator may receive or sell, based on the increase in values and functions created as a result of the proposed mitigation bank, as well as how the increase in functions and values will interact with the regional aquatic and non-aquatic resources. The Department shall evaluate each mitigation bank to determine its functions and values considering the following:

1. The functions and values provided by the bank site at the time the mitigation bank proposal is submitted, such as existing soil, vegetation, water quality functions, flood storage capacity, soil erosion and sediment control functions, and wildlife habitat functions;
2. Whether the proposed mitigation activities will result in an increase in functions and values over the existing value of the mitigation bank site;
3. The likelihood of long-term success of the proposed mitigation activities in creating functions and values similar to undisturbed wetlands, intertidal and subtidal shallows, submerged vegetation habitat, tidal water, and riparian zones;
4. The amount of wetlands, intertidal and subtidal shallows, submerged vegetation habitat, tidal water, and/or riparian zones located on the proposed bank site;
5. The potential for the completed mitigation site to be a valuable component of the ecosystem;
6. The size and scope of the bank;
7. The types of resource losses that have occurred in the area;
8. The similarity or dissimilarity of the bank to other existing aquatic and wetlands resources in the area;
9. Available scientific literature regarding credit ratios; and
10. The Department's and other government agencies' experience with mitigation and mitigation banks.

(e) The Department shall include in the banking instrument approving a mitigation bank, a schedule, as set forth in (e)1 through 8 below, under which a bank operator may sell credits. The Department shall adjust the amount of credits that can be released under (e)2 through 8 below to reflect the degree of progress the bank has shown toward meeting the goals and performance standards in the approved mitigation proposal:

1. Ten percent of the credits shall be released upon completion of both of the following:
   i. Signing of the banking instrument approving the bank; and
   ii. Compliance with all pre-release credit sale conditions in the banking instrument approving the bank, including securing all construction permits, posting adequate and effective financial assurance in accordance with N.J.A.C. 7:7-17.17, and filing of the conservation restriction;
2. Up to 10 percent of the credits shall be released upon successful establishment of the approved hydrologic regime, such that this regime will persist over time under normal hydrologic conditions;
3. Up to 10 percent of the credits shall be released upon completion of planting as required in the banking instrument approving the bank;
4. Up to 10 percent of the credits shall be released when monitoring indicates that the performance standards in the banking instrument approving the bank have been met for an entire one-year period;
5. Up to 10 percent of the credits shall be released when monitoring indicates that the performance standards in the banking instrument approving the bank have been met for a two year period;
6. Up to 15 percent of the credits shall be released when monitoring indicates that the performance standards in the banking instrument approving the bank have been met for three consecutive years;
7. Up to 15 percent of the credits shall be released when monitoring indicates that the performance standards in the banking instrument approving the bank have been met for four consecutive years; and
8. The remaining credits shall be released when monitoring in accordance with the banking instrument approving the bank indicates that the performance standards in the banking instrument have been met for five consecutive years.

(f) Preservation credits may be released in their entirety when the conditions set forth at (e)1 above have been met.

(g) The mitigation bank operator shall execute and record a conservation restriction on the mitigation bank site prior to the sale of any credits. The conservation restriction shall meet the requirements for protecting mitigation sites from future disturbance set forth at N.J.A.C. 7:7-18.

(h) The mitigation bank operator shall monitor the bank during and after construction until such time that the last credit is sold, the final inspection is conducted, or the bank is transferred to a government agency or charitable conservancy, whichever occurs last, in order to ensure its success. The bank operator shall submit progress reports to the Department at least annually during and after construction, and more frequently if required by the banking instrument approving the bank.

(i) If the mitigation bank falls more than one year behind the schedule for completion specified in the banking instrument approving the bank, the Department may amend the banking instrument approving the bank, and may require corrective action to ensure the successful completion of the bank. The Department may reduce the number of credits that may be sold based on the approved corrective action, in order to reflect the change in values and functions that will result from the changes to the bank.

(j) Upon completion of the monitoring period and all other requirements in the banking instrument approving the bank, the Department shall determine the mitigation bank is successful, provided the mitigation bank operator:

1. Demonstrates that the bank is successful, as set forth within the banking instrument and the permit;
2. Transfers the mitigation bank site in fee simple to a government agency or Department-approved charitable conservancy;
3. Provides the government agency or charitable conservancy to which the mitigation bank site is transferred with a maintenance fund. The maintenance fund shall support maintenance activities such as trash removal, maintenance of natural features, monitoring of the site to ensure proper upkeep, maintenance of water control structures, fences, or safety features, and any other activities necessary to ensure that the site complies with this chapter and all applicable law. The amount of the maintenance fund shall be determined between the bank operator and the agency or conservancy to which the mitigation bank site is transferred; and
4. Ensures that the transfer, and the conservation restriction or easement required under (g) above, are recorded with the county or other appropriate agency.

(k) Upon expiration of the banking instrument that authorizes the creation of a mitigation bank, the Department shall determine whether the amount of mitigation completed at the bank site is commensurate with the number of credits already sold. If the Department determines that the amount of mitigation completed is less than the number of credits already sold, the mitigation bank operator shall be considered in default and the Department may assert its rights to the financial assurance provided under this subchapter.

7:7-17.23 Application for a mitigation bank

(a) A prospective mitigation bank operator may obtain conceptual review of a proposed mitigation bank before buying land or preparing a detailed mitigation bank proposal. In a conceptual review, Department staff will discuss the apparent strengths and weaknesses of the proposed mitigation bank. Guidance provided through a conceptual review is not binding on the Department until and unless it is incorporated into an approval obtained in accordance with this subchapter. A conceptual review does not grant any property or other rights, or in any way imply that mitigation activities or the sale of credits have been or will be authorized. The findings provided by the Department as part of the conceptual review shall be valid for a period of three

years or until the rules governing mitigation banks are amended in a way that would render the conceptual review inconsistent with the new requirements, whichever occurs first. Once expired, a new conceptual review shall be required if a prospective mitigation bank operator chooses to continue pursuing a proposal.

(b) To obtain conceptual review of a proposed mitigation bank, an applicant shall submit the following to the Department:

1. Information on the location, size, and environmental characteristics of the proposed mitigation bank site;
2. Information on previous uses of the site, including possible contamination and/or historic or archaeological resources;
3. The proposed mitigation alternatives being considered, such as creation, restoration, and/or enhancement;
4. Whether the credits generated by the bank will be used solely by the mitigation bank operator, or will be available for use by others;
5. Maps, photographs, diagrams, delineations, and/or other visual materials necessary for the Department to generally evaluate the proposed mitigation bank;
6. The names and addresses of all current owners of the mitigation bank site, and any prospective owners, as of the date the request for conceptual review is submitted; and
7. Consent from the owner of the proposed mitigation bank site, allowing Department representatives to enter the property in a reasonable manner and at reasonable times to inspect the site.

(c) To obtain Department approval of a proposed mitigation bank, an applicant shall submit the information required by the wetlands mitigation bank proposal checklist, available from the Department at the address set forth at N.J.A.C. 7:7-1.6. The checklist shall require the following:

1. A functional assessment of the bank site prior to construction and proposed site conditions after construction;
2. The goals and objectives of the bank;
3. The ownership of the bank site including disclosure of any leases, easements, or other encumbrances;
4. The size of the bank site as well as type and amount of the coastal resources for which credits from the bank could serve as suitable compensation;
5. A description of baseline conditions on the bank site, including all relevant natural features and parameters, as well as pollutants, contamination, and other factors which could affect the bank's ability to provide mitigation credits;

6. The service area within which the mitigation bank credits can be used to compensate for a disturbance. The service area shall be designated to give priority to mitigation for impacts in close proximity to the site;
7. The method for determining credits and debits;
8. Accounting procedures;
9. Performance standards to enable the Department to determine when credits may be released under N.J.A.C. 7:7-17.22(e);
10. Performance standards to enable the Department to determine if and when the mitigation bank is successful;
11. Reporting protocols and a monitoring plan;
12. Contingency and corrective actions that will be taken by the mitigation bank operator in case the bank fails;
13. Financial assurance meeting the requirements of N.J.A.C. 7:7-17.17;
14. Provisions for long-term management and maintenance of the mitigation bank site;
15. Site plans, cost estimates, and schedules for construction, completion, and transfer of the mitigation bank;
16. Draft legal instruments necessary to meet the requirements of this chapter, including a conservation restriction, financial assurance, property transfer, and/or agreement with a charitable conservancy to maintain the site;
17. Identification of the persons who will construct, operate and maintain the mitigation bank and mitigation bank site; and
18. Documentation that public notice of the proposed mitigation bank was provided in accordance with N.J.A.C. 7:7-24.

(d) The Department's approval of a mitigation bank shall incorporate conditions necessary to ensure that the requirements of this subchapter are met.

SUBCHAPTER 18. CONSERVATION RESTRICTIONS

7:7-18.1 Conservation restriction form and recording requirements

(a) Any conservation restriction required under this chapter shall conform with the New Jersey Conservation Restriction and Historic Preservation Restriction Act, N.J.S.A. 13:8B-1 et seq., and shall:

1. Run with the land and be binding, in perpetuity, upon:
    i. For mitigation areas, the land owner and successors in interest to any interest in the land or any part of the land covered by the mitigation area; and

ii. For conservation restrictions required under this chapter that do not include a mitigation area, the land owner and successors in interest to any interest in the land or in any part thereof;

2. Be recorded in accordance with the New Jersey Recording Act, N.J.S.A. 46:15-1.1 et seq., in the chain of title for all properties affected by the restriction; and
3. Be in the form and include such terms as specified and approved by the Department. The applicant shall not alter the form except in consultation with the Department and only when the Department agrees that an alteration is necessary to address site-specific conditions. Form conservation restrictions are available from the Department's website at the address set forth at N.J.A.C. 7:7-1.6.

(b) The conservation restriction shall be recorded in the Office of the County Clerk or the registrar of deeds and mortgages of the county in which the development, project, project site, or mitigation area is located, and proof that the conservation restriction has been recorded shall be provided to the Department as follows:

1. For a permit that authorizes the establishment of a mitigation bank, prior to the release of any credits; and
2. For any other permit for which a conservation restriction is required, prior to the sooner of either the start of any site disturbance (including pre-construction earth movement, removal of vegetation or structures, or construction of the project), or the date that is 90 calendar days after the issuance of the permit.

(c) Proof that the conservation restriction has been recorded under (b) above shall be in the form of either a copy of the complete recorded document or a receipt from the clerk or other proof of recordation provided by the recording office. However, if the initial proof provided to the Department is not a copy of the complete recorded document, a copy of the complete recorded document shall be provided to the Department within 180 days of the issuance of the permit.

(d) In addition to meeting the requirements of this section, a conservation restriction for a mitigation area shall also meet the requirements of N.J.A.C. 7:7-18.2.

7:7-18.2 Additional requirements applicable to a conservation restriction for mitigation areas

(a) The conservation restriction shall include a requirement that each owner of any interest in the land subject to the conservation restriction (that is, the mitigation area) shall:

1. Notify the county and/or municipality of the conservation restriction whenever any application for a local approval involving the land subject to the conservation restriction is submitted; and
2. Insert notice of the conservation restriction into any subsequent deed or other legal instrument by which the owner divests either the fee simple title or any possessory interest in the land subject to the conservation restriction.

(b) Any conservation restriction shall be enforceable by the Department. The Department may also direct that the conservation restriction be made enforceable by a government agency or by a charitable conservancy whose trustees have no other ownership interest in the land.

(c) If the mitigation area is donated land or a freshwater wetlands mitigation bank that requires approval by the Wetlands Mitigation Council in accordance with N.J.A.C. 7:7A, the conservation restriction shall be approved by both the Department and the Wetlands Mitigation Council.

7:7-18.3 Reservation of rights

(a) The property owner or grantor may request approval from the Department to undertake a de minimis modification of the area subject to a conservation restriction recorded in accordance with this subchapter. The Department shall approve the modification if it determines that the modification will result in an equivalent level of protection of the regulated resource; or the modification will result in an equivalent area of resource protection and will not compromise the original protected resource.

(b) The property owner or grantor may reserve the right to abandon the project. At any time prior to the start of any site disturbance, including pre-construction earth movement, removal of vegetation or structures, or construction of the project, the property owner or grantor may inform the Department in writing that it is abandoning the project and request that the Department void the permit. Upon confirmation that no site disturbance, including pre-construction earth movement, removal of vegetation or structures, or construction of the project has occurred, the Department shall provide to the permittee or grantor an executed release of the conservation restriction, which the permittee or grantor may then record.

SUBCHAPTER 19. RELAXATION OF PROCEDURES; RECONSIDERATION OF APPLICATION OF RULES

7:7-19.1 Relaxation of procedures in this chapter

The Department may, in its discretion and if consistent with statutory requirements, relax the application of any of the procedures in this chapter when necessary and in the public interest.

7:7-19.2 Reconsideration of the application of a rule(s) in this chapter

(a) The Department may reconsider the application of one or more of the rules in this chapter, provided:

1. The Department has rendered a decision on a permit application under the rules in this chapter as strictly applied;
2. All administrative and judicial appeals of the permit decision have been concluded; and

3. Any of the following requirements is met:
   i. A court has determined that the issuance, modification, or denial of a coastal permit would constitute a taking of property, and the property owner thereupon submits a request for a reconsideration of the application of a rule(s) in this chapter;
   ii. A takings complaint has been filed with the court or the court has determined that the issuance, modification, or denial of a coastal permit would constitute a taking of property, and the Department initiates the reconsideration; or
   iii. The issuance, modification, or denial of a coastal permit is for a single-family home or duplex and the Department initiates the reconsideration prior to the filing of a takings complaint.

(b) In making the determination to reconsider an application of a rule in this chapter under (a) above, the Department shall prepare a written analysis that evaluates three factors:

1. The investments the property owner made in the property that is the subject of the coastal permit application and whether the investments were reasonable and reflected reasonable expectations, in accordance with (c) below;
2. The minimum beneficial economically viable use of the property, in accordance with (d) below; and
3. The environmental impacts of the minimum beneficial economically viable use for the property, and their consistency with the goals of CAFRA, the Waterfront Development Law, N.J.S.A 12:5-1 et seq., and the Wetlands Act of 1970, N.J.S.A. 13:9A-1 et seq., in accordance with (e) below.

(c) In determining whether the property owner's investments in the property as a whole were reasonable and reflected reasonable expectations, the Department shall evaluate the following information:

1. Conditions at the time of the investment. That is, the investment shall have been made in pursuit of development that would likely have been legally and practically possible on the property, considering all constraints existing and reasonably ascertainable at the time of the investment. For example, if a property owner bought land containing a dune that is regulated under this chapter, it would not be reasonable to expect that the property could be developed without constraints. In determining conditions at the time of the investment, the Department shall consider, at a minimum, the following:
   i. Existing zoning and other regulatory requirements and conditions;
   ii. Historic landmarks or other historic or cultural resources;
   iii. The likelihood of obtaining other necessary approvals such as wastewater treatment approvals or approvals from other local, State or Federal agencies;
   iv. Terrain and other site conditions, and/or environmental constraints, which could affect the potential uses of the property as a whole;

v. The existence of, or likelihood of obtaining, services to the property such as sewers or electricity; and

vi. Land uses on adjacent properties and in the area where the property is located;

2. Costs actually incurred in pursuit of development of the property as a whole;
3. Costs incurred in furtherance of a lawful action. For example, if the property owner began the project without the necessary permits, the cost of defending against an enforcement action for this violation would not constitute a reasonable investment that reflects reasonable expectations;
4. Costs relating only to the specific property as a whole that is the subject of the coastal permit application, and not including costs related to other properties; and
5. Any other factor affecting the property or the property owner, which is related to the reasonableness of the investments, the expectations, and/or the proposed use of the property.

(d) In determining the minimum beneficial economically viable use of the property, the Department shall consider existing legal precedent at the time of the determination. A use shall not be excluded from consideration as a minimum beneficial economically viable use merely because it diminishes the value of the property as a whole, does not result in a profit, reduces the marketability of the property as a whole, or does not allow the property owner to recoup all reasonable investments identified under (c) above.

(e) In determining the environmental impacts of any minimum beneficial economically viable uses of the property and the consistency of those impacts with the goals of CAFRA, the Waterfront Development Law, N.J.S.A. 12:5-1 et seq., and the Wetlands Act of 1970, N.J.S.A. 13:9A-1 et seq., in accordance with (b) above, the Department shall evaluate whether the minimum beneficial economically viable use would:

1. Adversely affect the special areas described at N.J.A.C. 7:7-9;
2. Result in irreversible losses of values and functions provided by coastal resources and whether such losses could be mitigated; and
3. Adversely affect public health, safety and welfare, and wildlife and marine fisheries.

(f) The Department shall not approve a minimum beneficial economically viable use as a result of the reconsideration of the application of a rule(s) in this chapter under this section if that use would cause any one of the following:

1. Irreversible losses of values and functions of the coastal resources that provide essential breeding, spawning, nesting, feeding, resting, or wintering habitats for marine fish and wildlife, including migratory birds, endangered species, and commercially and recreationally important wildlife. For the purposes of this section, "irreversible losses" means an alteration to the coastal resource that would eliminate one or more of the

essential characteristics which provides the breeding, spawning nesting, feeding, resting or wintering habitat for the species in question that could not be mitigated;

2. Irreversible losses in water quality, resulting in degradation of ground or surface waters, in violation of the Federal, State or local water quality standards; or
3. Irreversible losses of wetlands and/or State open waters, providing essential flood and storm damage protection by absorption, the storage of water during high runoff periods and the reduction of flood crests, resulting in creation of a public nuisance.

(g) A property owner may request a reconsideration of the application of a rule(s) in this chapter only after:

1. The conclusion of any administrative and/or judicial appeal of the permit decision; and
2. A court has determined that the issuance, modification, or denial of a coastal permit without reconsideration would result in a taking of property without just compensation.

(h) A complete request for the reconsideration of a rule(s) in this chapter under this section shall include the following items:

1. A completed application form, as described at N.J.A.C. 7:7-23.4 and available from the Department at the address set forth at N.J.A.C. 7:7-1.6, indicating a request for reconsideration and the type of permit being requested;
2. Documentation in accordance with N.J.A.C. 7:7-24.6 that public notice of the request was provided in accordance with the requirements at N.J.A.C. 7:7-24.3. The public notice shall follow the form provided by the Department, and shall state that a request for reconsideration has been submitted to the Department, that the request can be reviewed at the municipal clerk's office or at the Department, and that comments may be submitted to the Department within 15 calendar days of receipt of the notice. This notice may be combined with the offer to sell the property required under (h)8 below;
3. An environmental impact statement or compliance statement, providing the information necessary for the Department to evaluate the environmental impacts of the proposed minimum beneficial economically viable use in accordance with (e) and (f) above;
4. Site plans showing the project that is proposed in order to provide a minimum beneficial economically viable use;
5. Document(s) showing when the property as a whole was acquired, the purchase price of the property as a whole, and the instrument which documents the applicant's real property interest;
6. Document(s) showing the amount and nature and date of any investments made to maintain and/or develop the property as a whole, other than the purchase price;
7. The language of a proposed conservation restriction that meets the requirements of (l)2 below;

8. Documentation that the property has been offered for sale, in a letter following the form provided by the Department, to all owners of property, including easements as shown on the tax duplicate within 200 feet of the property as a whole, and to the land conservancies, environmental organizations, and governmental agencies on a list supplied by the Department. This documentation shall include the following:
   i. A copy of each letter that the property owner sends under this subsection;
   ii. All responses the property owner receives to the letters sent under this subsection. Each response shall be submitted to the Department within 15 calendar days after the property owner's receipt of the response; and
   iii. A list, certified by the municipality, of all owners of real property within 200 feet of the property as a whole, including owners of easements as shown on the tax duplicate. The list of property owners certified by the municipality shall be no more than one year old;
9. The written offer of sale required under (h)8 above shall be sent by certified mail and shall:
   i. Indicate that the offer is open for a period of at least 90 calendar days;
   ii. Include a copy of a fair market value appraisal, performed by a State-licensed appraiser, that assumes that a minimum beneficial economically viable use of the property would be allowed;
   iii. Include full disclosure of the location on the property and of any of the special areas described at N.J.A.C. 7:7-9; and
   iv. Indicate that a reconsideration of a rule(s) in this chapter to allow development of the property has been requested under this section;
10. A copy of a court determination that the Department's issuance, modification, or denial of a coastal permit would constitute a taking of property without just compensation; and
11. Documents showing that the property owner has concluded all administrative and judicial appeals of the Department's decision on the application for a coastal permit. Such documentation shall include the last of the following (submitted after the appeal period for the applicable decision has expired):
   i. A Department decision on the coastal permit application, made in accordance with the rules as strictly applied;
   ii. A final decision issued by the Commissioner regarding the Department's decision on the coastal permit application if the property owner contested the permit decision; or
   iii. Documentation that all appeals of any final decision issued by the Commissioner under (h)11ii above have been concluded.

(i) In the case where the Department initiates the reconsideration of the application of a rule(s) in this chapter under (a) above, the Department shall, upon initiation of the reconsideration process

follow all steps described in (i)1 through 3 below. In the case where the property owner is requesting a reconsideration of the application of a rule(s), the Department shall, upon initiation of the reconsideration process, follow the steps described in (i)1i, 1iii, 2, and 3 below:

1. Provide the following notifications:
   i. Publication in the DEP Bulletin;
   ii. In accordance with the requirements at N.J.A.C. 7:7-24.2 and 24.3; and
   iii. To those who provided comments on the previous application that is the subject of the reconsideration;
2. Include in the notice the applicant's name; project name, if applicable; project number; county and municipality of the project; and an executive summary describing the development that is the subject of the reconsideration; and
3. Provide a 15-calendar-day comment period, commencing from the date of publication of the notice in the DEP Bulletin.

(j) If the Department determines to approve a development upon reconsideration of the application of a rule(s) in this chapter, the Department shall provide notice of the development that the Department proposes to allow under the reconsideration following the same procedure as described in (i)1i above except that the Department shall provide a 30-calendar-day comment period, commencing from the date of publication of the notice in the DEP Bulletin.

(k) The Department shall complete the written analysis required under (b) above, which shall incorporate its decision on the request for reconsideration of the application of a rule(s) in this chapter as follows:

1. For a request for reconsideration under (a) and (g) above, no later than 180 calendar days after receiving a complete request that meets all requirements at (h) above; or
2. For a reconsideration initiated by the Department under (a) above, no later than 180 calendar days from the publication of notice in the DEP Bulletin under (i) above.

(l) If the Department approves a development upon reconsideration of the application of a rule(s) in this chapter under this section, the approval shall, at a minimum:

1. Be the minimum relief necessary to enable the property owner to realize a minimum beneficial economically viable use of the property as a whole, consistent with constitutional standards; and
2. Ensure that any part of the property as a whole that the Department does not allow to be developed upon reconsideration of the application of a rule(s) in this chapter under this section will be protected from future development by a recorded conservation restriction.

(m) The property owner or any other person with a particularized property interest who is aggrieved by the Department's determination on a reconsideration of the application of a rule(s)

in this chapter may request an adjudicatory hearing on the reconsideration determination pursuant to the procedures set forth at N.J.A.C. 7:7-28.1.

SUBCHAPTER 20. PROVISIONAL PERMITS

7:7-20.1 Provisional permits

(a) The Department may issue a provisional permit if it finds that the beginning of construction prior to the completion of the full permit review process is necessary to meet the regulatory or funding requirements of a Federal or State agency.

(b) The issuance of a provisional permit shall not exempt the permittee from any of the requirements of this chapter. A permit application must be submitted before a provisional permit can be issued, and all permit review procedures shall be complied with following issuance of the provisional permit.

SUBCHAPTER 21. EMERGENCY AUTHORIZATIONS

7:7-21.1 Standard for issuance of an emergency authorization

(a) The Department shall issue an emergency authorization only if the person seeking such authorization demonstrates that a threat to life, severe loss of property, or environmental degradation exists or is imminent, and the threat, severe loss, or degradation:

1. Can only be prevented or ameliorated through undertaking a regulated activity; and
2. Is likely to occur, persist, or be exacerbated before the Department can issue an authorization under a general permit or an individual permit for the preventive or ameliorative activity.

7:7-21.2 Procedure to request an emergency authorization

(a) A person requesting an emergency authorization shall provide the Department with the following information by telephone and, in addition, by fax, electronic mail, or letter, unless the nature of the emergency is so immediate that only telephone notice is feasible:

1. The name, address, and contact information for the owner(s) of the property upon which the regulated activity will be conducted and for the owner(s) of any other properties affected by the proposed regulated activity;
2. A demonstration that the property owner(s) has given permission for the proposed regulated activity or, in the case of a public entity proposing activities on private property through power of eminent domain, a written statement of the public entity's intention to conduct the regulated activity;

3. The street address, lot, block, municipality, and county of the property upon which the regulated activity is proposed;
4. The nature and cause of the threat to life, severe loss of property, or environmental degradation, including the condition of existing structures, the vulnerability of people and/or property, and the threat to the environment;
5. The date and time at which the person requesting the emergency authorization learned of the threat to life, severe loss of property, or environmental degradation;
6. The nature and extent of the proposed regulated activity;
7. The proposed start and completion dates for the proposed regulated activity;
8. Photographs of the area where the regulated activity will be conducted;
9. If possible, a site plan showing the proposed regulated activity and anticipated impacts of the proposed activity to special areas; and
10. Any other information necessary for the Department to ensure compliance with the requirements of this chapter.

(b) A person requesting an emergency authorization need not comply with the public notice requirements at N.J.A.C. 7:7-24 or submit an application fee. However, public notice and an application fee are required for the application for the general permit authorization or the individual permit, as applicable, that, as required at N.J.A.C. 7:7-21.3(e), must be submitted for the activities conducted under the emergency authorization.

7:7-21.3 Issuance of emergency authorization; conditions

(a) The Department shall issue or deny an emergency authorization within 15 calendar days after receiving a request that meets the requirements of N.J.A.C. 7:7-21.2. The Director of the Division of Land Use Regulation, or the Director's designee, shall provide this decision to the person who requested the emergency authorization verbally and, if the decision is to issue the emergency authorization, shall provide written confirmation within five working days thereafter.

(b) Within 20 calendar days after the verbal decision to issue an emergency authorization, the Department shall publish notice of the emergency authorization in the DEP Bulletin.

(c) The Department's written confirmation of its decision to issue the emergency authorization shall include:

1. A full description of the activities authorized under the emergency authorization;
2. The time frames within which the regulated activities authorized under the emergency authorization must be commenced and conducted as set forth in (d) below;
3. A requirement that the person conducting the regulated activities authorized under the emergency authorization provide regular updates of progress at the site;

4. Any limits or other criteria necessary to ensure compliance to the maximum extent practicable with all requirements of this chapter; and
5. A requirement to provide mitigation for impacts to special areas in accordance with N.J.A.C. 7:7-9 and 17, as appropriate.

(d) The regulated activities authorized under the emergency authorization shall be commenced and conducted within the following timeframes:

1. Activities authorized under the emergency authorization shall be commenced within 30 calendar days after the Department's verbal decision is provided pursuant to (a) above, unless the Department establishes a different timeframe in accordance with (f) below. If the emergency activities are not commenced within 30 calendar days or by the date established under (f) below, as applicable, the emergency authorization is automatically void as of the 30th calendar day after the verbal approval or as of the date established in accordance with (f) below, as applicable;
2. Activities authorized under the emergency authorization, including any required restoration, shall be completed within 60 calendar days after the Department's verbal decision is provided in accordance with (a) above, unless the Department establishes a different timeframe in accordance with (f) below. If the regulated activities authorized under the emergency authorization are not completed within 60 calendar days or by the date established in accordance with (f) below, as applicable, the regulated activities shall cease until either a general permit authorization or individual permit is obtained, or another emergency authorization is obtained.

(e) The person to whom the emergency authorization is provided shall submit a complete application in accordance with N.J.A.C. 7:7-23 for an authorization under a general permit or for an individual permit for the activities conducted under the emergency authorization within 90 calendar days after the Department's verbal decision is provided in accordance with (a) above, or by a different date established in accordance with (f) below, as applicable.

(f) The Department shall establish a time frame different from those set forth at (d) or (e) above where the applicant demonstrates that the time frame set forth at (d) or (e) cannot feasibly be met for all or a portion of the authorized activities or where the Department determines that a different time frame is necessary to facilitate the regulated activities.

(g) The person to whom the emergency authorization is provided shall conduct all activities authorized under the emergency authorization in accordance with all requirements that apply to that activity under this chapter to the maximum extent practicable.

(h) The general permit authorization or individual permit application submitted under (e) above shall, in addition to meeting the application requirements for the specific general permit authorization or individual permit, include:

1. A demonstration that the regulated activities conducted under the emergency authorization meet the requirements of this chapter, or an explanation as to why full compliance could not be achieved; and
2. "As-built" site plans, signed and sealed by an engineer, land surveyor, or architect, as appropriate, showing the regulated activities that were or are being conducted under the emergency authorization.

(i) Upon review of the application submitted under (e) above, the Department shall require design changes, restoration, and/or stabilization measures as necessary to ensure the requirements of this chapter are met to the maximum extent practicable.

(j) The Department may modify or terminate an emergency authorization at any time without prior notice if the Department determines that modification or termination is necessary to protect public health, safety, and welfare, and/or the environment.

(k) If the person to whom the emergency authorization was provided conducts any regulated activity not authorized under the emergency authorization and/or the general permit or individual permit obtained thereafter for the activities governed by the emergency authorization, such shall constitute a violation of this chapter subject to enforcement action under N.J.A.C. 7:7-29.

SUBCHAPTER 22. PRE-APPLICATION CONFERENCES

7:7-22.1 Purpose and scope

(a) A pre-application conference is a meeting between the Department and a prospective applicant to discuss the applicant's project and the application procedures and standards that will apply to the project. A prospective applicant may request a pre-application conference for any project. In the appropriate case, the Department may determine that the questions raised by a prospective applicant can be adequately addressed by telephone or in writing.

(b) A pre-application conference is not mandatory, except when the prospective applicant's project will involve the installation of submarine cables in the Atlantic Ocean. In this case, the prospective applicant shall comply with the requirements at N.J.A.C. 7:7-22.2(d).

(c) A pre-application conference is recommended for large and/or complicated projects, as well as for dredging and dredged material management projects.

(d) Discussion or guidance offered by the Department at a pre-application conference shall not constitute a commitment by the Department to approve or deny an application.

(e) There is no fee for a pre-application conference.

(f) Where the prospective applicant's project will require approvals from several Department programs, the applicant is encouraged to contact the Department's Office of Permit Coordination and Environmental Review at (609) 292-3600 for assistance in coordinating the various applications.

7:7-22.2 Request for a pre-application conference; scheduling; information required

(a) Except as provided at (b) and (d) below, a request for a pre-application conference shall be directed by electronic mail to LURTechSupport@dep.nj.gov, or by writing to the address set forth at N.J.A.C. 7:7-1.6 to the attention of "Supervisor, (county in which the proposed project is located)."

(b) A request for a pre-application conference for a dredging or dredged material management project shall be directed to the address set forth at N.J.A.C. 7:7-1.6 to the attention of "Supervisor, Office of Dredging and Sediment Technology".

(c) A request for a pre-application conference for any project shall include the following:

1. A written description of the site and the proposed development including the dimensions, number, and uses of proposed structures;
2. Site plans or conceptual designs depicting the proposed development, if available;
3. The street address, lot, block, municipality, and county of the property upon which the regulated activity is proposed; and
4. A copy of any letter of interpretation pursuant to the Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A, or any flood hazard area verification pursuant to the Flood Hazard Area Control Act Rules, N.J.A.C. 7:13, which the Department has issued for the site. If neither a letter of interpretation nor a flood hazard area verification has been issued, the prospective applicant shall provide the general location of freshwater wetlands, freshwater wetland transition areas, State open waters, and special areas, as described at N.J.A.C. 7:7-9.

(d) A pre-application conference for a project that involves the installation of submarine cables in the Atlantic Ocean shall be requested early in the design process and shall be directed to Manager, NJDEP Bureau of Coastal Regulation, Mail Code 501-02A, PO Box 420, Trenton, New Jersey, 08625-0420. In addition to information required to be submitted under (c) above, the prospective applicant shall provide:

1. A written description of the proposed project, along with a NOAA nautical chart depicting potential cable routes in relationship to existing cable routes; and
2. Documentation that written notice of the pre-application conference was provided at least 15 calendar days prior to date of the pre-application conference to the entities at (d)2i through vi below. The notice shall state the date, time and location of the pre-application conference, and shall include a copy of the applicable NOAA nautical chart depicting the proposed cable route.

i. Garden State Seafood Association;

ii. National Fisheries Institute;

iii. North Atlantic Clam Association;

iv. Rutgers Cooperative Extension;

v. New Jersey Shellfisheries Council; and

vi. New Jersey Marine Fisheries Council.

(e) Within 10 calendar days of receipt of the material submitted in accordance with (c) above, the Department shall:

1. Determine that a pre-application conference is necessary and contact the prospective applicant to schedule a pre-application conference; or
2. Determine that a pre-application conference is not necessary and that the prospective applicant's questions can be addressed in writing or by telephone. Where the Department makes such a determination, the Department shall address the questions within 20 calendar days of receipt of the material submitted in accordance with (c) above.

SUBCHAPTER 23. APPLICATION REQUIREMENTS

7:7-23.1 Purpose and scope

(a) This subchapter sets forth the application requirements for:

1. An authorization under a general permit-by-certification;
2. An authorization under a general permit; and
3. An individual permit.

(b) The application requirements for the following are set forth elsewhere in this chapter:

1. For a written determination of exemption from CAFRA or the Waterfront Development Law, see N.J.A.C. 7:7-2.2(f) or 2.4(f), respectively;
2. For an applicability determination, see N.J.A.C. 7:7-2.5;
3. For approval of a mitigation proposal, see N.J.A.C. 7:7-17;
4. For an emergency authorization, see N.J.A.C. 7:7-21; and
5. For an extension, transfer, or modification of a permit, see N.J.A.C. 7:7-27.3, 27.4, or 27.5, respectively.

7:7-23.2 General application requirements

(a) The Department provides a checklist for each type of application submitted under this subchapter. The checklist identifies all of the submissions required under the rules to be part of an application, and also the appropriate level of detail and the format of the information to be submitted for each type of application. For example, where the rules require, as part of an application, the submittal of a site plan or photographs showing certain types of information, the corresponding checklist will indicate, based on the type of development the particular permit covers, the number of copies of the plan to be submitted, the scale and details of the information to be illustrated on the plan, and the number and orientation of photographs of the location of the proposed development. The checklist will also indicate that the plan should be folded or prepared in a certain manner to facilitate processing. Checklists can be downloaded from the Department's website at https://www.nj.gov/dep/landuse or obtained by contacting the Department at the address set forth at N.J.A.C. 7:7-1.6.

(b) The level of detail and documentation required for an application shall be commensurate with the size and impact of the proposed activity, its proximity to any of the special areas described at N.J.A.C. 7:7-9, and its potential for environmental impacts. The Department shall, upon request, provide an applicant with guidance regarding the appropriate level of detail for an application based on the activity the applicant proposes to undertake.

(c) The following persons may submit an application under this subchapter:

1. The owner(s) of a site on which an activity is proposed or conducted;
2. An agent designated by the owner(s) of a site to obtain or operate under a permit on behalf of the owner(s); or
3. A public entity proposing an activity within a right-of-way or easement that is held or controlled by that entity or that will be appropriated by that entity under the power of eminent domain; or
4. A person that has the legal authority to perform the activities proposed in the application on the site and to carry out all requirements of this chapter.

(d) An application shall be certified as set forth in (j) below by the following individual(s), or by a duly authorized representative, as described at (e) below:

1. If the applicant is a corporation, a principal executive officer of at least the level of vice president;
2. If the applicant is a partnership or sole proprietorship, a general partner or the proprietor, respectively;
3. If the applicant is a municipality, or a State, Federal, or other public entity, either a principal executive officer or ranking elected official; or
4. If the applicant is an entity not covered at (d)1 through 3 above, all individual owners of record of the property upon which the activities will occur.

(e) An individual is a duly authorized representative of the applicant under (d) above only if the authorization is:

1. Made in writing by an individual required to certify under (d) above and is provided to the Department as part of the application; and
2. Specifies that the authorized representative is either:
   i. The individual who has overall responsibility to operate, construct or complete the activity, such as a contractor, construction site supervisor, or other individual of equivalent responsibility; or
   ii. A position of responsibility equivalent to that of the individual in (e)2i above. In this case, the individual holding the specified position is the duly authorized representative for purposes of (d) above.

(f) If the written authorization provided to the Department under (e) above is no longer accurate because a different individual or position has overall responsibility to operate, construct, or complete the activity, a new authorization satisfying the requirements of (e) above shall be submitted to the Department prior to or concurrent with any reports, information, or applications requiring the applicant's certification.

(g) If an application includes activities within a right-of-way or easement, the application shall include written consent for the activity from the holder(s) of the right-of-way or easement.

1. For a gas pipeline located within a municipally owned right-of-way, written consent shall consist of one of the following:
   i. Written consent from the municipality in the form of a resolution of the governing body or an ordinance;
   ii. A municipal designation of the route pursuant to N.J.S.A. 48:9-25.4; or
   iii. A Board of Public Utilities designation of route pursuant to N.J.S.A. 48:9-25.4.

(h) Any site plan submitted as part of an application shall be signed and sealed by a New Jersey licensed professional engineer, surveyor, or architect, as appropriate, unless both (h)1 and 2 below apply, in which case the applicant may elect to prepare his or her own site plan:

1. The applicant proposes an activity in a man-made lagoon, or the applicant proposes the construction of a single-family home or duplex or an accessory development located landward of the mean high water line, such as a patio, garage, or shed on his or her own property for his or her own use; and
2. The proposed activity or construction is one for which no survey, topography, or calculations are necessary to demonstrate the requirements of this chapter are met.

(i) Any professional report, survey, calculation, environmental impact statement, or other document prepared by a consultant, engineer, architect, surveyor, attorney, scientist, or other professional and submitted as part of an application shall be certified in accordance with (j)

below. This certification is separate from the certification of the application by the applicant.

(j) The certification required by (d) and (i) above is as follows:

> "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining and preparing the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment."

(k) Failure to provide complete and accurate information of which the applicant or its agents are aware, or reasonably should have been aware, may result in denial of an application or termination of the authorization under the general permit-by-certification or general permit, or the individual permit under N.J.A.C. 7:7-27.8, and may subject the applicant or its agents to enforcement action under N.J.A.C. 7:7-29.

(l) When a proposed development or project requires more than one coastal permit under this subchapter, or requires, in addition, an approval under the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13 and/or the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A, an applicant may submit a single application for all of the approvals, except for an authorization under a general permit-by-certification, provided that the application meets all application requirements of each such approval included.

7:7-23.3 Additional application requirements for an authorization under a general permit-by-certification

(a) An application for authorization under a general permit-by-certification shall be submitted electronically through the Department's online permitting system at https://www.nj.gov/dep/online.

(b) The online application for a general permit-by-certification requires an applicant to provide the following:

1. The number (and subject matter) of the general permit-by-certification under which the application for authorization is being submitted;
2. The name of or other identifier for the proposed development or project;
3. The location of the proposed development or project, including address, city, state, zip code, municipality, State plane coordinates, lot, and block;
4. Information specific to the proposed project related to the requirements of the general permit-by-certification under which the application is being submitted, such as, for example, the length in linear feet of bulkhead that is being replaced under general permit-by-certification 10 (see N.J.A.C. 7:7-5.1);

5. Contact information for both the applicant and the property owner, including: name, address, telephone number, email address, municipality, county, organization, and organization type;
6. A certification, as set forth in N.J.A.C. 7:7-23.2(j), as to each of the following:
   i. That the site identified in the application is the actual location of the project site;
   ii. That public notice of the application has been provided in accordance with N.J.A.C. 7:7-24;
   iii. That the applicant has obtained written consent from the property owner that the application can be made on the property owner's behalf. This certification is required regardless of whether the applicant and property owner are the same person; and
   iv. That conditions specific to the general permit-by-certification under which the application for authorization is being submitted are or will be met. For example, an applicant for authorization under general permit-by-certification 10 must certify that the proposed bulkhead will be constructed of non-polluting materials, and an applicant for authorization under general permit-by-certification 15 must certify that the property is located on a man-made lagoon;
7. To accomplish the certification under (b)6 above, the PIN that was issued to the applicant upon registering with the Department's online permitting system; and
8. The application fee for a general permit-by-certification set forth at N.J.A.C. 7:7-25.

(c) Once the online application process is successfully completed, the authorization will be accessible to the applicant through the Department's online permitting system at https://www.nj.gov/dep/online.

7:7-23.4 Additional application requirements for an authorization under a general permit or for an individual permit

(a) In addition to meeting the requirements at N.J.A.C. 7:7-23.2, an application for an authorization under a general permit authorization or for an individual permit shall include the following material, in the number and format specified in the appropriate application checklist:

1. A completed application form, available from the Department at the address set forth at N.J.A.C. 7:7-1.6. This form requires basic information regarding the proposed development, including the name and address of the applicant and any designated agents, the specific location of the project, the types of permits or authorizations being sought, a brief description of the proposed activities and certifications as to the truth and accuracy of the information provided and as to the ownership of the property;
2. Documentation that public notice has been provided in accordance with N.J.A.C. 7:7-24;
3. The appropriate application fee as set forth at N.J.A.C. 7:7-25;

4. Site plans, certified in accordance with N.J.A.C. 7:7-23.2(i) which include the following, both on and adjacent to the site:
   i. Existing features, such as lot lines, structures, land coverage, vegetation, and bathymetry, which are necessary to demonstrate that the proposed development meets the requirements of this chapter;
   ii. All proposed regulated activities, such as changes in lot lines; the size, location, and details of any proposed structures, roads, or utilities; details of any clearing, grading, filling, excavation, or dredging; changes in bathymetry; and the anticipated limits of disturbance;
   iii. Existing and proposed topography where necessary to demonstrate that the proposed development meets the requirements of this chapter. All topography shall reference the National Geodetic Vertical Datum of 1929 (NGVD), or include the appropriate conversion factor to NGVD;
   iv. The limits of any existing or proposed tidelands instrument;
   v. Details of any proposed soil erosion and sediment control measures;
   vi. The mean high, mean low, and spring high water lines of any tidal waters, water depths, and location of navigation channels;
   vii. The upper and lower limits of all special areas, as described at N.J.A.C. 7:7-9; and
   viii. The location of any existing or proposed public access to lands and waters subject to public trust rights as set forth at N.J.A.C. 7:7-9.48;
5. State plane coordinates for a point at the approximate center of the site, except for linear developments as provided at (a)5i below. The accuracy of the State plane coordinates shall be within 50 feet of the actual center point for the site.
   i. State plane coordinates shall be provided for linear developments or shore protection developments including beach nourishment, beach and dune maintenance, or dune creation as follows:
      (1) For a linear development of one-half mile or more in length, the State plane coordinates shall include the coordinates for the end points of the development and the coordinates for points located at 1,000 foot intervals along the entire length of the development; and
      (2) For a linear development of less than one-half mile in length, the State plane coordinates shall include the coordinates for the end points of the development;
6. In addition to the site plan specified at (a)4 above, other visual representations, such as photographs, graphs, and tables, that illustrate existing site conditions and the proposed development;
7. Calculations, analyses, data, and supporting materials necessary to demonstrate that the proposed development meets the requirements of this chapter, and the requirements of the Department's Stormwater Management rules at N.J.A.C. 7:8, if applicable;

8. Information about the anticipated impacts of the proposed development, including any monitoring or reporting methods that will be used;
9. Any information necessary to ensure compliance with State and/or Federal law, and/or to determine whether an application for authorization under a general permit or for an individual permit meets State and/or Federal standards; and
10. Consent from the owner of the site allowing the Department to enter the site in a reasonable manner and at reasonable times to inspect the site. This consent shall continue in effect for the duration of the permit application review and decision process, including for the duration of any appeal made from the permit decision.

7:7-23.5 Compliance statement requirement for an application for authorization under a general permit

(a) In addition to the requirements at N.J.A.C. 7:7-23.2 and 23.4, an application for authorization under a general permit shall include a compliance statement. The compliance statement is a narrative which shall:

1. Demonstrate that the proposed development satisfies the requirements of the applicable general permit;
2. Demonstrate, for an application for authorization under a CAFRA general permit, that the findings set forth in CAFRA at N.J.S.A. 13:19-10, and at N.J.A.C. 7:7-1.4, which must be addressed in order for the Department to issue the approval, can be made for the proposed development; and
3. Describe the characteristics of the site and the location of all proposed regulated activities, potential impacts from the construction process, and, as applicable, the operation of the development after completion.

7:7-23.6 Additional requirements specific to an application for an individual permit

(a) In addition to meeting the requirements at N.J.A.C. 7:7-23.2 and 23.4, an application for an individual permit shall meet the requirements of this section.

(b) An application for an individual permit shall include an Environmental Impact Statement (EIS). The EIS shall:

1. Describe in a narrative form:
   i. The proposed development or activity;
   ii. The characteristics of the site and the surrounding region; and
   iii. The location of all proposed regulated activities, potential impacts from the construction process, and, as applicable, the operation of the development after completion;

2. Discuss the applicability of this chapter to the proposed development, including a detailed statement of compliance with each rule applicable to the type of development proposed;
   i. Where the applicant believes a rule otherwise applicable to the type of development proposed does not apply, the applicant shall explain the reasons why the rule does not apply to the applicant's development;
3. Demonstrate, for an application for a CAFRA individual permit, that the findings set forth in CAFRA at N.J.S.A. 13:19-10, and at N.J.A.C. 7:7-1.4, which must be addressed in order for the Department to issue the approval, can be made for the proposed development; and
4. As necessary based on project-specific and site-specific circumstances, provide support by relevant experts for the assessments, discussions, and statements made in the EIS; include the qualifications of the persons who prepared each part of the EIS; and provide references and citations to all information, reports, or treatises that are mentioned in the EIS but not contained in the EIS.

(c) An application for an individual permit for development in an area under the Pinelands Area as designated under the Pinelands Protection Act at N.J.S.A. 13:18A-11.a, shall also include a Certificate of Filing, a Notice of Filing, a Certificate of Completeness, or a resolution approving an application for public development, issued by the Pinelands Commission.

(d) If an activity for which an individual permit is sought requires mitigation in accordance with this chapter, the applicant may submit a mitigation proposal as part of the application for the individual permit. If the applicant does not submit a mitigation proposal with the application, the applicant shall submit the mitigation proposal at least 90 calendar days before the start of activities authorized by the permit, in accordance with N.J.A.C. 7:7-17.

(e) An application for an individual permit for the construction of wind turbines for which, in accordance with the energy facility use rule at N.J.A.C. 7:7-15.4, pre- and/or post-construction monitoring is required, shall include the proposed monitoring methodology.

(f) An application for an individual permit under the Waterfront Development Law or the Wetlands Act of 1970 that proposes the discharge of dredged or fill material into waters of the United States shall also constitute an application for a water quality certificate.

SUBCHAPTER 24. REQUIREMENTS FOR AN APPLICANT TO PROVIDE PUBLIC NOTICE OF AN APPLICATION

7:7-24.1 Purpose and scope

(a) An applicant shall provide public notice in accordance with this subchapter for the following:

1. An application for an authorization under a general permit-by-certification pursuant to N.J.A.C. 7:7-3 and 5;
2. An application for an authorization under a general permit pursuant to N.J.A.C. 7:7-3 and 6;
3. An application for an individual permit pursuant to N.J.A.C. 7:7-8;
4. A mitigation proposal pursuant to N.J.A.C. 7:7-17, which is not submitted as part of an application for an individual permit; and
5. An application for a major technical modification pursuant to N.J.A.C. 7:7-27.5(e).

(b) A person who requests a reconsideration of the application of any of the rules in this chapter under N.J.A.C. 7:7-19 shall provide public notice in accordance with N.J.A.C. 7:7-19.2(h)2.

(c) An applicant is not required to provide public notice for the following:

1. A request for an exemption letter pursuant to N.J.A.C. 7:7-2.2(f) and 2.4(f);
2. A request for an applicability determination pursuant to N.J.A.C. 7:7-2.5;
3. Conducting an activity under a permit-by-rule pursuant to N.J.A.C. 7:7-3 and 4;
4. An application for an emergency authorization pursuant to N.J.A.C. 7:7-21;
5. An application for an extension of the term of a permit pursuant to N.J.A.C. 7:7-27.3;
6. The transfer of a permit pursuant to N.J.A.C. 7:7-27.4; and
7. An application for an administrative or minor technical modification pursuant to N.J.A.C. 7:7-27.5(c) or (d), respectively.

(d) When a proposed development or project requires more than one coastal permit under this chapter, or requires, in addition, an approval under the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13 and/or the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A, an applicant may provide combined public notice for all applications submitted, provided the combined notice meets all of the notice requirements applicable to each application.

(e) Failure to provide public notice as required under this subchapter shall be cause for the Department to cancel an application under N.J.A.C. 7:7-26.7.

7:7-24.2 Timing of public notice of an application

(a) For any of the applications listed in N.J.A.C. 7:7-24.1(a) other than an application for a CAFRA individual permit, the applicant shall provide public notice in accordance with this subchapter no more than 30 calendar days prior to submitting the application, and no later than the date the application is submitted to the Department.

(b) An applicant for a CAFRA individual permit shall provide public notice of the application in accordance with the time frames at (b)1 and 2 below. The applicant shall in addition provide public notice of a comment period or public hearing on the application for a CAFRA individual permit in accordance with N.J.A.C. 7:7-24.4.

1. Notice shall be provided pursuant to N.J.A.C. 7:7-24.3(a), (b)1 through 5, and (e) no more than 30 calendar days prior to submitting the application, and no later than the date the application is submitted to the Department. This time frame does not apply for notice to the recipients in N.J.A.C. 7:7-24.3(b)6, to whom notice shall be provided in accordance with N.J.A.C. 7:7-24.4; and
2. Notice shall be provided in the newspaper pursuant to N.J.A.C. 7:7-24.4(a) no more than 10 calendar days after the application is submitted to the Department.

7:7-24.3 Contents and recipients of public notice of an application

(a) For any of the applications listed in N.J.A.C. 7:7-24.1(a), the applicant shall provide a copy of the entire application, as submitted to the Department, to the municipal clerk in each municipality in which the site is located.

(b) For any of the applications listed in N.J.A.C. 7:7-24.1(a), the applicant shall provide notice of the application to all of the persons or entities at (b)1 through 6 below, in accordance with the time frames specified in N.J.A.C. 7:7-24.2. The notice shall include the information specified at (d) below.

1. The construction official of each municipality in which the site is located;
2. The environmental commission, or other government agency with similar responsibilities, of each municipality in which the site is located;
3. The planning board of each municipality in which the site is located;
4. The planning board of each county in which the site is located;
5. The local Soil Conservation District if the project will disturb 5,000 square feet or more of land;
6. All owners of real property, including easements, located within 200 feet of the property boundary of the site in the manner set forth in the Municipal Land Use Law at N.J.S.A. 40:55D-12b, unless the proposed development is one of those listed at (c)1 through 4 below, in which case the notice shall be provided as set forth in (c) below. The owners of real property, including easements, shall be those on a list that was certified by the municipality. The date of certification of the list shall be no earlier than one year prior to the date the application is submitted to the Department; and
7. If the site lies within the 12-mile circle or within 200 feet of the 12-mile circle described at N.J.A.C. 7:7-1.2(c), the State of Delaware. Notice shall be sent to the State of Delaware, Department of Natural Resources & Environmental Control, Delaware Coastal Management Program, 89 Kings Highway, Dover, DE 19901.

(c) If the permit application is for a development listed at (c)1 through 5 below, the applicant shall provide the notice required at (b)6 above by publishing newspaper notice and, in addition, sending the notice at (d) below, in the manner set forth in the Municipal Land Use Law at N.J.S.A. 40:55D-12.b, to all owners of real property, including easements, within 200 feet of any proposed above ground structure that is part of the proposed development, such as a pumping station, treatment plant, groin, bulkhead, revetment or gabion, or dune walkover:

1. A linear project of one-half mile or longer;
2. A shore protection development, including beach nourishment, beach and dune maintenance, or dune creation of one-half mile or longer;
3. A public development on a site of 50 acres or more;
4. An industrial or commercial development on a site of 100 acres or more; or
5. Maintenance dredging of a State navigation channel of one-half mile or longer.

(d) The public notice required at (b) and (c) above, other than newspaper notice, shall:

1. Include all of the following:
   i. A brief description of the proposed project;
   ii. A site plan, showing the location and boundaries of the project site and depicting the proposed development in relationship to existing site conditions. This need not be a full set of plans and may be shown on one 8½ inch by 11 inch sheet of paper provided the scale is legible and the location of the project in relation to the property boundary is clearly shown; and
   iii. A copy of the form notice letter, available from the Department's website as set forth at N.J.A.C. 7:7-1.6. The form notice letter explains that: an application will be submitted to the Department for the specific development depicted on the enclosed site plan; a complete copy of the application is available to be reviewed at either the municipal clerk's office or by appointment at the Department's Trenton Office; and comments or information on the proposed development and site may be submitted to the Department at the address set forth at N.J.A.C. 7:7-1.6 within 15 calendar days of receipt of the letter; and
2. Be sent by certified mail or by delivery whereby the signature of the person to whom the notice is delivered is obtained, except that an applicant may obtain written permission from the specific municipal or county entity to submit notice to it electronically.

(e) An applicant for an authorization under a general permit, individual permit, or major technical modification for a project in the Pinelands Area as designated under the Pinelands Protection Act at N.J.S.A. 13:18A-11(a), shall provide a copy of the entire application, as submitted to the Department, to the New Jersey Pinelands Commission.

(f) In addition to the public notice required at (a) and (b) above, an applicant for a waterfront development individual permit to install a submarine cable in the ocean, or to perform sand

mining in the ocean, shall provide to all of the entities listed below a copy of the completed application form and a copy of the NOAA nautical chart showing the proposed cable route or the limits of the proposed sand mining area that were submitted to the Department as part of the permit application:

1. Garden State Seafood Association;
2. National Fisheries Institute;
3. North Atlantic Clam Association;
4. Rutgers Cooperative Extension;
5. New Jersey Shellfisheries Council; and
6. New Jersey Marine Fisheries Council.

7:7-24.4 Additional requirements for public notice of an application for a CAFRA individual permit

(a) An applicant for a CAFRA individual permit shall publish newspaper notice, pursuant to N.J.A.C. 7:7-24.5, of the application in the time frame set forth at N.J.A.C. 7:7-24.2(b).

(b) An applicant for a CAFRA individual permit shall provide notice of the public comment period on the application when the Department schedules the public comment period in accordance with N.J.A.C. 7:7-26.4. The notice shall include the information listed in (d)1 below and shall be sent to all of the following:

1. The municipal clerk in each municipality in which the project is located;
2. The environmental commission, or other government agency with similar responsibilities, of each municipality in which the project is located;
3. The planning board of each municipality in which the project is located; and
4. All owners of real property, including easements, located within 200 feet of the property boundary of the site in the manner set forth in the Municipal Land Use Law at N.J.S.A. 40:55D-12.b, unless the proposed development is one of those listed at (c)1 through 4 below, in which case the notice shall be provided as set forth in (d) below. The owners of real property, including easements, shall be those on a list that was certified by the municipality. The date of certification of the list shall be no earlier than one year prior to the date the application is submitted to the Department.

(c) An applicant for a CAFRA individual permit for a development listed at (c)1 through 5 below shall provide the notice required at (b)4 above by publishing newspaper notice and, in addition, sending the notice described at (d) below, in the manner set forth in the Municipal Land Use Law at N.J.S.A. 40:55D-12.b, to all owners of real property, including easements, within 200 feet of any proposed above ground structure that is part of the proposed development, such as a pumping station, treatment plant, groin, bulkhead, revetment or gabion, or dune walkover:

1. A linear project of one-half mile or longer;
2. A shore protection development, including beach nourishment, beach and dune maintenance, or dune creation of one-half mile or longer;
3. A public development on a site of 50 acres or more;
4. An industrial or commercial development on a site of 100 acres or more; or
5. Maintenance dredging of a State navigation channel of one-half mile or longer.

(d) The public notice required at (b) and (c) above, other than newspaper notice, shall include all of the following:

1. A brief description of the proposed project;
2. The DEP file number;
3. A site plan, showing the location and boundaries of the project site and depicting the proposed development in relationship to existing site conditions. This need not be a full set of plans and may be shown on one 8½ inch by 11 inch sheet of paper provided the scale is legible and the location of the project in relation to the property boundary is clearly shown; and
4. A copy of the form notice letter, available from the Department's website as set forth at N.J.A.C. 7:7-1.6. The form notice letter explains that: an application will be submitted to the Department for the specific development depicted on the enclosed site plan; a complete copy of the application is available to be reviewed at either the municipal clerk's office or by appointment at the Department's Trenton Office; and comments or information on the proposed development and site may be submitted to the Department at the address set forth at N.J.A.C. 7:7-1.6 within 15 calendar days of receipt of the letter.

(e) An applicant for a CAFRA individual permit shall provide notice of the public hearing on the application when the Department determines, in accordance with N.J.A.C. 7:7-26.5, that a public hearing is necessary. The notice shall be provided in the same manner as the notice of a public comment period under (b) through (d) above, and shall include the date, place, and time of the hearing as set by the Department pursuant to N.J.A.C. 7:7-26.5(b).

7:7-24.5 Content and format of newspaper notice

(a) The newspaper notice pursuant to N.J.A.C. 7:7-24.3 and 24.4 shall be either a legal notice or a display advertisement in the official newspaper of the municipality in which the site is located, or if there is no official newspaper, a newspaper of general circulation in the municipality.

(b) The newspaper notice pursuant to N.J.A.C. 7:7-24.3(c) and 24.4(a) shall include all of the following:

1. The mailing address and telephone number of the Department, as set forth at N.J.A.C. 7:7-1.6;

2. The name and mailing address of the applicant;
3. The approval being sought;
4. A description of the proposed activities;
5. The street address of the site;
6. A list of each lot, block, municipality, and county within which proposed activities will occur; and
7. The standard language of the form notice letter available from the Department website as set forth at N.J.A.C. 7:7-1.6.
   i. For newspaper notice required under N.J.A.C. 7:7-24.3(c), the form notice letter explains that: an application will be submitted to the Department for the specific development as identified pursuant to (b)4 through 6 above; a complete copy of the application is available to be reviewed at either the municipal clerk's office or by appointment at the Department's Trenton Office; and comments or information on the proposed development and site may be submitted to the Department at the address set forth at N.J.A.C. 7:7-1.6 within 15 calendar days of the date of the notice.
   ii. For newspaper notice required under N.J.A.C. 7:7-24.4(a), the form notice letter explains that: an application has been submitted to the Department for the specific development described at (b)1 through 6 above; a complete copy of the CAFRA individual permit application is available to be reviewed at either the municipal clerk's office or by appointment at the Department's Trenton Office; either a 30-day public comment period or public hearing will be held on the application in the future; individuals may request a public hearing on the application within 15 calendar days of the date of the notice; and requests for a public hearing shall be sent to the Department at the address set forth at N.J.A.C. 7:7-1.6 and shall state the specific nature of the issues to be raised at the hearing.

(c) The newspaper notice pursuant to N.J.A.C. 7:7-24.4(c) shall include all of the following:

1. A description of the proposed development;
2. The DEP file number;
3. The date the comment period will begin; and
4. A statement that comments on the application must be submitted to the Department at the address set forth at N.J.A.C. 7:7-1.6, within 30 calendar days after the start of the comment period.

(d) The newspaper notice pursuant to N.J.A.C. 7:7-24.4(e) shall include all of the following:

1. A description of the proposed development;
2. The DEP file number; and

3. The date, place, and time of the public hearing.

7:7-24.6 Documenting public notice of an application; documenting public notice of public comment period or public hearing on CAFRA individual permit application

(a) An applicant submitting an application other than an application for a CAFRA individual permit shall include as part of the application documentation that the required public notice of the application has been provided, as follows:

1. For public notice other than newspaper notice, the documentation shall consist of:
   i. A copy of the certified United States Postal Service white mailing receipt for each public notice that was mailed, or other written receipt; and
   ii. A certified list of all owners of real property, including easements, located within 200 feet of the property boundary of the site (including name, mailing address, lot, and block) prepared by the municipality for each municipality in which the project is located. The date of certification of the list shall be no earlier than one year prior to the date the application is submitted to the Department; and
2. For newspaper notice, the documentation shall consist of:
   i. A copy of the published newspaper notice; and
   ii. The date and name of the newspaper in which notice was published.

(b) An applicant submitting an application for a CAFRA individual permit shall provide documentation that the required public notice of the application has been provided, as follows:

1. For public notice other than newspaper notice, the documentation required under (a)1 above shall be included as part of the application.
2. For newspaper notice, the documentation required under (a)2 above shall be submitted within 10 calendar days of the date the application is submitted.

(c) In addition to the documentation required under (b) above, an applicant for a CAFRA individual permit shall submit documentation that the required public notice of a public comment period or a public hearing has been provided, as follows:

1. For notice of a public comment period, the documentation required under (a)1 and 2 abo.ve shall be submitted to the Department at least 10 calendar days prior to the start of the public comment period.
2. For notice of a public hearing, the documentation required under (a)1 and 2 above shall be submitted to the Department at least three calendar days prior to the date of the public hearing.

SUBCHAPTER 25. APPLICATION FEES

7:7-25.1 Application fees

(a) This subchapter establishes the application fees for:

1. A written determination of exemption from CAFRA pursuant to N.J.A.C. 7:7-2.2(f), or from the Waterfront Development Law pursuant to N.J.A.C. 7:7-2.4(h);
2. An authorization under a general permit, pursuant to N.J.A.C. 7:7-6.1 through 6.32, except for the general permit for habitat creation, restoration, enhancement, and living shoreline activities, N.J.A.C. 7:7-6.24;
3. An individual permit; and
4. A modification of an authorization under a general permit or an individual permit pursuant to N.J.A.C. 7:7-27.5.

(b) There is no application fee for:

1. An applicability determination pursuant to N.J.A.C. 7:7-2.5;
2. An emergency authorization pursuant to N.J.A.C. 7:7-21;
3. A permit-by-rule pursuant to N.J.A.C. 7:7-4;
4. An authorization under general permit-by-certification 1A for the installation of an elevated timber dune walkover at N.J.A.C. 7:7-5.3;
5. An authorization under the general permit for habitat creation, restoration, enhancement, and living shoreline activities, N.J.A.C. 7:7-6.24; or
6. An administrative modification of a permit, N.J.A.C. 7:7-27.5.

(c) All application fees shall be paid by money order, check (personal, bank, certified, or attorney) or government purchase order made payable to the "Treasurer, State of New Jersey."

(d) Any fee required under this chapter that is subject to N.J.A.C. 7:1L, Payment Schedule for Permit Application Fees, shall be payable in installments in accordance with N.J.A.C. 7:1L.

(e) The fee payable at the time of application for a CAFRA or waterfront development individual permit shall not exceed $30,000. If the fee for an individual permit application determined under (g) below exceeds $30,000, the Department will document its actual costs for review and processing of the application and the estimated cost of determining compliance with the conditions of the permit. The Department shall provide the applicant with documentation of such costs, and the applicant shall pay a supplemental fee in that amount.

(f) The application fee for a CAFRA individual permit or a waterfront development individual permit for a mixed residential and non-residential development shall be the sum of the applicable fees for residential development and non-residential development set forth at (g) below.

(g) The fees for applications under this chapter are set forth in Table A below:

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Table A
APPLICATION FEES

Determination of exemption

	Fee
Request for a written determination of exemption from CAFRA pursuant to N.J.A.C. 7:7-2.2(f)	$500.00
Request for a written determination of exemption from the Waterfront Development Law pursuant to N.J.A.C. 7:7-2.4(h)	$500.00

Authorization under a general permit by certification $1000.00

Authorization under a general permit pursuant to N.J.A.C. 7:7-6

	Fee
General permit for habitat creation, restoration, enhancement, and living shoreline activities, N.J.A.C. 7:7-6.24	No fee
Any other general permit	$1,000

CAFRA individual permit

	Fee
CAFRA individual permit for the development of one single-family home or duplex and/or accessory development, which is not being constructed as part of a residential subdivision or multi-unit development	$2,000
CAFRA individual permit for any other residential development	$3,000 per unit
CAFRA individual permit for a commercial, industrial, or public development	$3,000 per acre of the site (or fraction thereof)

Coastal wetlands individual permit

	Fee
Coastal wetlands individual permit for the development of one single family home or duplex and/or accessory development, which is not being constructed as part of a residential subdivision or multi-unit development	$2,000
Coastal wetlands individual permit for any other development	$3,000 per acre of wetlands to be disturbed (or fraction thereof)

Waterfront development individual permit

	Fee
Waterfront development individual permit for the development of one single-family home or duplex and/or accessory development	$2,000

located landward of the mean high water line, where the development is not being constructed as part of a residential subdivision or multi-unit development	
Waterfront development individual permit for any other residential development located landward of the mean high water line	$3,000 per unit
Waterfront development individual permit for a commercial, industrial, or public development located landward of the mean high water line	$3,000 per acre of the site (or fraction thereof)
Waterfront development individual permit for development located waterward of the mean high water line, such as a dock or bulkhead, at a single-family or duplex lot, where the development is not being constructed as part of a residential subdivision or multi-unit development	$2,000
Waterfront development individual permit for any other development located waterward of the mean high water line	$3,000 per acre of water area impacted by the development (or fraction thereof)

Request for a modification of a waterfront development, coastal wetlands, or CAFRA individual permit or a general permit pursuant to N.J.A.C. 7:7-27.5

	Fee
Administrative modification	No fee
Minor technical modification of a waterfront development, coastal wetlands, or CAFRA general permit authorization or individual permit	$500.00
Major technical modification of a waterfront development, coastal wetlands, or CAFRA general permit authorization or individual permit	30 percent of the original application fee or $500.00, whichever is greater

Request to extend a general permit authorization or an individual permit pursuant to N.J.A.C. 7:7-27.3

	Fee
Request to extend a general permit authorization	$240.00
Request to extend a waterfront development individual permit for activities located waterward of the mean high water line*	25 percent of the total original permit application fee up to a maximum of $3,000

Additional application fee for stormwater review if a project is a "major development" pursuant to the Stormwater Management Rules (see N.J.A.C. 7:8-1.2)

	Fee[1]
Base fee for any major development	$3,000
Additional fee for review of groundwater recharge calculations (see N.J.A.C 7:8-5.4)	$250.00 per acre of land disturbed by the project (or fraction thereof)
Additional fee for review of runoff quantity calculations (see N.J.A.C. 7:8-5.4)	$250.00 per acre of land disturbed by the project (or fraction thereof)
Additional fee for review of water quality calculations (see N.J.A.C. 7:8-5.5)	$250.00 per acre of impervious surface subject to water quality review (or fraction thereof)
Modification of previously reviewed stormwater calculations	Thirty percent of the original stormwater fee

[1]The additional application fee for stormwater review set forth in this table shall not exceed $20,000.

7:7-25.2 Adjustment of application fees

(a) When, based on budget considerations, the Department determines to adjust the application fees established in this subchapter for the upcoming State fiscal year (which runs from July 1 to June 30), the Department shall:

1. Prepare an Application Fee Adjustment Report, in accordance with (b) below; and
2. Publish a notice of administrative change in the New Jersey Register that:
   i. States that the Application Fee Adjustment Report is available on the Department's website at https://www.nj.gov/dep/landuse; and
   ii. Sets forth the adjusted application fees determined as provided at (b) below.

(b) In the Application Fee Adjustment Report, the Department shall:

1. Project the total amount of money required to fund the program in the upcoming State fiscal year. This projection shall consider the following:
   i. The number and type of Department staff required to perform each activity for which fees are charged and the projected total salaries of those staff for the upcoming State fiscal year;
   ii. The total cost of fringe benefits for those Department staff, calculated as the projected total salaries of those staff multiplied by a percentage set by the New Jersey Department of the Treasury that reflects costs associated with pensions, health benefits, workers' compensation, disability benefits, unused sick leave, and the employer's share of FICA;

iii. Indirect costs attributable to those Department staff, calculated as the total salaries and fringe benefits for those staff multiplied by a percentage known as the indirect cost rate. The indirect cost rate is negotiated annually with the U.S. Environmental Protection Agency and is the total of the Department's costs for management and administrative costs applicable to multiple cost objectives (including but not limited to, indirect management and administrative salary and non-salary costs, applicable fringe benefits, building rent, and the Department's share of the Statewide Cost Allocation Plan) divided by total Department direct salaries plus applicable fringe benefits; and

iv. Projected operating costs attributable to those Department staff, including, but not limited to, costs for postage, telephone, travel, supplies, and data system management;

2. Project the total amount of revenue expected to be received from application fees in the upcoming State fiscal year. This projection shall consider the following:

   i. The number and type of applications received in previous State fiscal years;

   ii. Any trend toward increasing or decreasing construction activities in regulated areas and such trend's impact, if any, on the number and type of applications anticipated for the upcoming State fiscal year;

   iii. Other data concerning economic trends reasonably likely to influence the number and type of applications anticipated for the upcoming State fiscal year; and

   iv. The application fees in effect at the time such projection is made;

3. Project the total amount of money to be available from sources other than application fees, such as State appropriations or Federal grants, for the upcoming State fiscal year;

4. Subtract the amounts in (b)2 and 3 above from the amount in (b)1 above. The remainder is the projected fee revenue shortfall for the upcoming State fiscal year; and

5. Divide the projected fee revenue shortfall in (b)4 above by the total amount of revenue expected to be received from application fees in (b)2 above to determine the fee adjustment factor. The amounts of the adjusted application fees for the upcoming State fiscal year shall be obtained by increasing the existing fees by the fee adjustment factor.

SUBCHAPTER 26. APPLICATION REVIEW

7:7-26.1 General application review provisions

(a) This subchapter sets forth the review procedures for applications for authorization under a general permit and for applications for an individual permit. These procedures also apply to applications for a water quality certificate.

(b) The review procedures for the following are set forth elsewhere in this chapter:

1. For a request for a written determination of exemption from CAFRA or the Waterfront Development Law, see N.J.A.C. 7:7-2.2(f) or 2.4(f), respectively;
2. For a request for an applicability determination, see N.J.A.C. 7:7-2.5;
3. For a mitigation proposal, see N.J.A.C. 7:7-17;
4. For a request for an emergency authorization, see N.J.A.C. 7:7-21; and
5. For a request to extend, transfer, or modify a permit, see N.J.A.C. 7:7-27.3, 27.4, or 27.5, respectively.

(c) Any application reviewed in accordance with this subchapter, other than an application for a water quality certificate, is subject to the application review requirements of the Construction Permits Law, N.J.S.A. 13:1D-29 et seq. This subchapter incorporates those requirements and is consistent with N.J.S.A. 13:1D-29 et seq.

(d) An applicant may submit a revised application at any time during the application review process. The applicant shall send a copy of the revised portions of the application to the municipal clerk of each municipality in which the site is located and shall provide notice explaining the revisions to any person listed at N.J.A.C. 7:7-24.3(b) whom the Department determines would likely be affected by the revised application. The applicant shall provide documentation in accordance with N.J.A.C. 7:7-24.6 that the notice was provided.

1. If an applicant submits a revised application less than 30 calendar days prior to the deadline for Department decision established pursuant to N.J.A.C. 7:7-26.6, the revised application shall state that the applicant consents to a 30-calendar-day extension of the decision deadline in accordance with N.J.A.C. 7:7-26.6(e).

(e) In reviewing an application, the Department shall apply the requirements of this chapter in effect at the time the application is declared complete for review.

(f) Notwithstanding any other provision of this subchapter, an application shall not be declared complete for review unless the applicant has obtained all tidelands instruments required for occupation of State-owned tidelands or has submitted a complete application for a tidelands instrument, available from the Department's website at https://www.nj.gov/dep/landuse/tl_main.html or from the Bureau of Tidelands Management at P.O. Box 420, Mail Code 501-02B, Trenton, NJ 08625-0420. An application for a tidelands instrument requires the name and address of the applicant/title holder and any agent, site location and description, a property survey, and title or deed information.

(g) The Department shall publish notice in the DEP Bulletin of the receipt of each new application, the status of the application during review, and the Department's decision to approve or deny the application. Publication in the DEP Bulletin constitutes constructive notice to interested persons of Department actions on coastal permit applications. Actual notice of the Department's decision to approve or deny an application will be provided, in accordance with N.J.A.C. 7:7-26.6, to the applicant and to persons who specifically request such notice.

7:7-26.2 Applications for all coastal general permit authorizations and applications for waterfront development and coastal wetlands individual permits – completeness review

(a) Within 20 working days after receiving an application for authorization under a general permit or an application for a waterfront development or coastal wetlands individual permit, where day one of the 20-working-day period is the date the application is received, the Department shall take one of the following actions:

1. Determine the application is both administratively and technically complete and issue notification to the applicant in writing that the application is complete for review, effective as of the date the Department received the application;
2. Determine the application is administratively complete but technically incomplete and issue notification to the applicant in writing that the application is technically incomplete. This notification shall specify the additional information required and the deadline by which the information must be submitted; or
3. Determine the application is administratively incomplete and return the application.

(b) Within 15 calendar days after receiving the additional information submitted pursuant to (a)2 above for a technically incomplete application, the Department shall take one of the following actions:

1. Determine the application is technically complete and issue notification to the applicant in writing that the application is complete for review, effective as of the date the Department received the additional information; or
2. Determine the additional information is not sufficient and issue notification to the applicant in writing that the application remains technically incomplete. The notification shall specify the additional information required and the deadline by which the additional information must be submitted. If the applicant submits all of the information requested pursuant to this notification, the Department shall declare the application complete for review, effective as of the date the Department received the additional information.

(c) The applicant shall send the additional information submitted to the Department pursuant to (a)2 and (b)2 above to the municipal clerk of each municipality in which the project is located and shall provide notice explaining that additional information has been submitted to the Department to any person listed at N.J.A.C. 7:7-24.3(b) whom the Department determines would likely be affected by the additional information. The applicant shall provide documentation in accordance with N.J.A.C. 7:7-24.6 that the additional information and notice were provided.

(d) An applicant shall submit all additional information pursuant to (a)2 or (b)2 above within 90 calendar days after the date of the Department request, unless the Department specifies a different deadline in the request. If the applicant does not submit the additional information by the deadline, the Department shall, in accordance with N.J.A.C. 7:7-26.7, cancel the application or, if the applicant demonstrates good cause for the delay in providing the requested information, extend the time to submit the information.

(e) If the Department does not take one of the actions in (a) above within 20 working days after receiving an application, the application shall be declared complete for review, effective as of the date the application was received by the Department, and the Department shall make a decision to approve or deny the application by the applicable deadline set forth at N.J.A.C. 7:7-26.6.

(f) If the Department does not take one of the actions in (b) above within 15 calendar days after receiving additional information submitted for a technically incomplete application, the application shall be declared complete for review, effective as of the date the additional information was received by the Department, and the Department shall make a decision to approve or deny the application by the applicable deadline set forth at N.J.A.C. 7:7-26.6.

(g) The Department shall hold a fact-finding meeting on a waterfront development or coastal wetland individual permit application if the Department determines that, based on public comment received and/or a review of the scope and/or environmental impact of the proposed project, additional information is necessary to assist the Department in its evaluation of the potential impacts, and that this information can only be obtained through a fact-finding meeting.

(h) Once an application for authorization under a general permit or an application for a waterfront development or coastal wetland individual permit is complete for review, the Department shall make a decision to approve or deny the application by the applicable deadline established under N.J.A.C. 7:7-26.6.

7:7-26.3 CAFRA individual permit application – initial completeness review

(a) As required by N.J.A.C. 7:7-24.4(a), an applicant for a CAFRA individual permit shall, upon submittal of the application to the Department, publish newspaper notice, pursuant to N.J.A.C. 7:7-24.5, of the application. If the documentation of publication of the newspaper notice required under N.J.A.C. 7:7-24.6 is not received by the Department within 10 calendar days of submittal of the application to the Department, the application shall not be declared complete for public comment or public hearing until a minimum of 20 calendar days after publication of the newspaper notice and until the documentation is received by the Department.

(b) Within 20 working days after receiving an application for a CAFRA individual permit, where day one of the 20-working-day period is the date the application is received, the Department shall take one of the following actions:

1. Determine the application is both administratively and technically complete and issue notification to the applicant in writing that the application is complete for public comment or complete for public hearing, effective as of the date the Department received the application;
2. Determine the application is administratively complete but technically incomplete and issue notification to the applicant in writing that the application is technically incomplete. This notification shall specify the additional information required and the deadline by which the information must be submitted; or

3. Determine the application is administratively incomplete and return the application.

(c) Within 15 calendar days after receiving the additional information submitted pursuant to (b)2 above for a technically incomplete application, the Department shall take one of the following actions:

1. Determine the application is technically complete and issue notification to the applicant in writing that the application is complete for public comment or complete for public hearing, effective as of the date the Department received the additional information; or
2. Determine the additional information is not sufficient and issue notification to the applicant in writing that the application remains technically incomplete. The notification shall specify the additional information required and the deadline by which the additional information must be submitted. If the applicant submits all of the information requested pursuant to this notification, the Department shall determine the application complete for public comment or complete for public hearing, effective as of the date the Department received the additional information.

(d) The applicant shall send the additional information submitted to the Department pursuant to (b)2 and (c)2 above to the municipal clerk of each municipality in which the project is located and shall provide notice explaining that additional information has been submitted to the Department to any person listed at N.J.A.C. 7:7-24.3(b) whom the Department determines would likely be affected by the additional information. The applicant shall provide documentation in accordance with N.J.A.C. 7:7-24.6 that the additional information and notice were provided.
(e) An applicant shall submit all additional information pursuant to (b)2 or (c)2 above within 90 calendar days after the date of the Department request, unless the Department specifies a different deadline in the request. If the applicant does not submit the additional information by the deadline, the Department shall, in accordance with N.J.A.C. 7:7-26.7, cancel the application or, if the applicant demonstrates good cause for the delay in providing the requested information, extend the time to submit the information.

(f) If the Department does not take one of the actions in (b) above within 20 working days after receiving an application, the application shall be declared complete for public comment or complete for public hearing, effective as of the date the application was received by the Department.

(g) If the Department does not take one of the actions in (c) above within 15 calendar days after receiving additional information submitted for a technically incomplete application, the application shall be declared complete for public comment or complete for public hearing, effective as of the date the additional information was received by the Department.

(h) In the event the Department does not hold a public hearing on a CAFRA permit application in accordance with N.J.A.C. 7:7-26.5, the Department shall provide for a 30-calendar-day comment period on the application in accordance with N.J.A.C. 7:7-26.4.

7:7-26.4 CAFRA individual permit application – public comment period

(a) Within 15 calendar days after the date that the Department declares a CAFRA individual permit application complete for public comment, the Department shall schedule a public comment period on the application, and shall so notify the applicant.

1. The public comment period shall begin no later than 60 calendar days after the date that the Department declares the application complete for public comment.
2. The Department shall accept written comments for 30 calendar days.
3. The Department shall publish notice of the comment period in the DEP Bulletin.
4. The applicant shall provide notice of the public comment period as required by N.J.A.C. 7:7-24.4(b).

(b) Within 15 calendar days after the end of the public comment period on a CAFRA individual permit application, the Department shall take one of the following actions:

1. Determine the application is complete for review and issue notification to the applicant in writing that the application is complete for review, effective as of the date the comment period ended; or
2. Determine the application is not complete for review because, based on issues raised during the public comment period, additional information is required and issue notification to the applicant in writing that the application is not complete for review, and that additional information is required. The notification shall specify the additional information required and the deadline by which the additional information must be submitted. If the applicant submits all of the information requested pursuant to this notification, the Department shall determine the application complete for review, effective as of the date that the Department received the additional information.

(c) An applicant shall submit all additional information pursuant to (b)2 above within 90 calendar days after the date of the Department request, unless the Department specifies a different deadline in the request. If the applicant does not submit the additional information by the deadline, the Department shall, in accordance with N.J.A.C. 7:7-26.7, cancel the application or, if the applicant demonstrates good cause for the delay in providing the requested information, extend the time to submit the information.

(d) Once an application for a CAFRA individual permit for which a public comment period was held is complete for review, the Department shall make a decision to approve or deny the application by the applicable deadline established under N.J.A.C. 7:7-26.6.

7:7-26.5 CAFRA individual permit application – public hearing

(a) The Department shall hold a fact-finding public hearing on a CAFRA individual permit application if the Department determines that, based on public comment received in response to the newspaper notice that the applicant must provide pursuant to N.J.A.C. 7:7-24.4(a) and/or a

review of the project's scope and/or environmental impact of the proposed project, additional information is necessary to assist the Department in its evaluation of the potential impacts, and that this information can only be obtained through a public hearing.

(b) The Department shall set the date, place, and time of a public hearing within 15 calendar days after the date that the Department declares a CAFRA individual permit application is complete for public hearing under N.J.A.C. 7:7-26.3(b) or (c), and shall so notify the applicant.

1. The date of the public hearing shall be no more than 60 calendar days after the application is declared complete for public hearing.
2. The public hearing shall be held in the municipality in which the development is proposed, if possible.
3. The Department shall accept written comments for 15 calendar days after the public hearing.
4. The Department shall publish notice of the public hearing in the DEP bulletin.
5. The applicant shall give notice of the public hearing as required by N.J.A.C. 7:7-24.4(e).
6. The applicant shall provide a court reporter and bear all costs of the public hearing, including, but not limited to, court reporter fees, transcript costs, and hearing room rental, and shall provide the Department with an electronic copy of the transcript.
7. The presiding official at the public hearing shall have broad discretion to place reasonable limits on oral and written presentations to allow every person the opportunity to speak and ensure the maintenance of an orderly forum. At the conclusion of the statements of interested persons, the applicant shall be afforded the opportunity to respond to the statements offered by interested persons.

(c) Within 15 calendar days after a public hearing is held on a CAFRA individual permit application, the Department shall take one of the following actions:

1. Determine the application is complete for review and issue notification to the applicant in writing that the application is complete for review, effective as of the date the public hearing was held; or
2. Determine the application is not complete for review because, based on issues raised during the public hearing and/or comment period, additional information is required and issue notification to the applicant in writing that the application is not complete for review and that additional information is required. The notification shall specify the additional information required and the deadline by which the additional information must be submitted. If the applicant submits all of the information requested pursuant to this notification, the Department shall determine the application complete for review, effective as of the date that the Department received the additional information.

(d) An applicant shall submit all additional information requested under (c)2 above within 90 calendar days after the date of the Department request, unless the Department specifies a

different deadline in the request. If the applicant does not submit the additional information by the deadline, the Department shall, in accordance with N.J.A.C. 7:7-26.7, cancel the application or, if the applicant demonstrates good cause for the delay in providing the requested information, extend the time to submit the information.

(e) Once an application for a CAFRA individual permit for which a public hearing was held is complete for review, the Department shall make a decision to approve or deny the application by the applicable deadline established under N.J.A.C. 7:7-26.6.

7:7-26.6 Department decision on an application that is complete for review

(a) Within 90 calendar days after an application for a general permit authorization or an application for a waterfront development or coastal wetlands individual permit is declared complete for review in accordance with N.J.A.C. 7:7-26.2, the Department shall:

1. Determine the application meets the requirements of this chapter and issue an authorization or permit approving the application in writing. The authorization or permit shall include any conditions necessary to ensure compliance with this chapter; or
2. Determine the application does not meet the requirements of this chapter and deny the application in writing. The decision denying the application shall include the reasons for the denial.

(b) Except as provided at (d) below, within 60 calendar days after an application for a CAFRA individual permit is declared complete for review after the close of the public comment period in accordance with N.J.A.C. 7:7-26.4, the Department shall:

1. Determine the application meets the requirements of this chapter and issue a permit approving the application in writing. The permit shall include any conditions necessary to ensure compliance with this chapter; or
2. Determine the application does not meet the requirements of this chapter and deny the application in writing. The decision to deny the application shall include the reasons for the denial.

(c) Except as provided at (d) below, within 60 calendar days after an application for a CAFRA individual permit is declared complete for review after the public hearing in accordance with N.J.A.C. 7:7-26.5, the Department shall:

1. Determine the application meets the requirements of this chapter and issue a permit approving the application in writing. The permit shall include any conditions necessary to ensure compliance with this chapter; or
2. Determine the application does not meet the requirements of this chapter and deny the application in writing. The decision denying the application shall include the reasons for the denial.

(d) Where additional information was required to be submitted after a public comment period or a public hearing on an application for a CAFRA individual permit, within 90 calendar days after the date the application is declared complete for review in accordance with N.J.A.C. 7:7-26.4 or N.J.A.C. 7:7-26.5, the Department shall:

1. Determine the application meets the requirements of this chapter and issue a permit approving the application in writing. The permit shall include any conditions necessary to ensure compliance with this chapter; or
2. Determine the application does not meet the requirements of this chapter and deny the application in writing. The decision denying the application shall include the reasons for the denial.

(e) Any deadline set forth in (a) through (d) above may be extended for 30 calendar days by mutual agreement between the applicant and the Department. An applicant consenting to an extension shall do so in writing. A deadline shall not be extended by less than or greater than 30 calendar days.

(f) If the Department does not make a decision to approve or deny an application for authorization under a general permit, or to approve or deny an application for a waterfront development, coastal wetlands, or CAFRA individual permit, by the applicable deadline set forth in this section, the application shall be deemed to have been approved as of that deadline. Regulated activities shall not commence unless and until all required tidelands instrument(s) to use and occupy State-owned tidelands are obtained.

1. An authorization or permit issued under this subsection shall include the standard conditions set forth in N.J.A.C. 7:7-27.2.
2. An authorization or permit issued under this subsection shall not prevent the Department from taking enforcement action pursuant to N.J.A.C. 7:7-29 for any activity undertaken in violation of this chapter.

(g) The Department shall provide notice of the decision on an application for authorization under a general permit or an application for a waterfront development, coastal wetlands, or CAFRA individual permit in the DEP Bulletin and to any person who specifically requested notice of the decision on a particular application.

(h) The Department shall not waive the time frames for review and decision on an application established by the Construction Permits Law, N.J.S.A. 13:1D-29 et seq., and CAFRA.

7:7-26.7 Cancellation of an application

(a) The Department shall cancel an application for any of the following reasons:

1. An applicant does not submit additional information within the time frame prescribed by the Department under this subchapter for an application that has been determined to be technically incomplete;

2. The applicant does not submit a fee required under N.J.A.C. 7:7-25, or the Department cannot collect the fee for any reason (for example, if a check is returned for insufficient funds); or
3. The applicant does not comply with the applicable public notice requirements at N.J.A.C. 7:7-24.

(b) To cancel an application, the Department shall:

1. Send the applicant a written notice of its intent to cancel the application, and notifying the applicant that the fee and/or additional information identified pursuant to (a) above must be provided to the Department within 15 calendar days.
2. If, by the 15-calendar-day deadline, the applicant submits a written statement providing good cause for the delay in providing the fee and/or additional information, the Department shall extend the time required for submittal.
3. If the applicant does not submit the fee and/or additional information, or a statement of good cause for delay under (b)2 above, the Department shall cancel the application and send the applicant a written notice of the cancellation.

7:7-26.8 Withdrawal of an application

An applicant may withdraw an application in writing at any time during the Department's review of the application. The Department shall promptly acknowledge the withdrawal in writing.

7:7-26.9 Re-submittal of an application after denial, cancellation, or withdrawal

If an application for an authorization under a general permit or an application for an individual permit is denied or cancelled by the Department, or is withdrawn by the applicant, the applicant may re-submit the application in accordance with N.J.A.C. 7:7-23. The Department shall treat a re-submitted application as a new application and shall review it in accordance with N.J.A.C. 7:7-26.

7:7-26.10 Fee refund or credit when an application is returned, withdrawn, or cancelled

(a) Except as provided in (b) below, the Department shall, upon written request of an applicant, fully refund the submitted application fee in the following circumstances:

1. The application is returned because it is not administratively complete;
2. The application is withdrawn within 60 calendar days of its submittal to the Department and is not technically complete; or
3. The application is withdrawn within 20 working days of its submittal to the Department, whether or not the application is administratively or technically complete.

(b) The Department shall not refund a fee for an application that has been approved or denied or a fee that has been previously credited under (c) below.

(c) If an application is withdrawn by the applicant under circumstances other than those identified at (a)2 and 3 above, or is cancelled under N.J.A.C. 7:7-26.7, any application fee that was paid to the Department shall be credited toward the application fee for one new application, provided the new application is submitted:

1. Within one year of cancellation or withdrawal;
2. By the same applicant;
3. For the same site; and
4. For the same project.

SUBCHAPTER 27. PERMIT CONDITIONS; MODIFICATION, TRANSFER, SUSPENSION, AND TERMINATION OF AUTHORIZATIONS AND PERMITS

7:7-27.1 Purpose and scope

(a) This subchapter sets forth the conditions that apply to all coastal permits.

(b) This subchapter sets forth the procedures for:

1. Extending the term of an authorization under a general permit the duration of which is governed by N.J.A.C. 7:7-3.7 or of a waterfront development individual permit the duration of which is governed by N.J.A.C. 7:7-8.2(a);
2. Transferring an emergency authorization, an authorization under a general permit, or an individual permit to a new owner of the site where the project authorized under the authorization or permit is taking place;
3. Modifying an authorization under a general permit or an individual permit;
4. Suspending an authorization under a general permit or an individual permit; and
5. Terminating an authorization under a general permit, an individual permit, or an emergency authorization.

7:7-27.2 Conditions that apply to all coastal permits

(a) The Department places conditions on a coastal permit to ensure that the approved project complies with this chapter. The conditions that apply to all coastal permits are set forth in (c) below, and the additional conditions that apply to all coastal permits except permits-by-rule are set forth in (d) below.

(b) If a permittee undertakes any regulated activity authorized under a coastal permit, such action shall constitute the permittee's acceptance of the permit in its entirety as well as the permittee's agreement to abide by the permit and all conditions therein.

(c) The following conditions apply to all coastal permits:

1. The issuance of a permit shall in no way expose the State of New Jersey or the Department to liability for the sufficiency or correctness of the design of any construction or structure(s). Neither the State nor the Department shall, in any way, be liable for any loss of life or property that may occur by virtue of the activity or development conducted as authorized under a permit;
2. The issuance of a permit does not convey any property rights or any exclusive privilege;
3. The permittee shall obtain all applicable Federal, State, and local approvals prior to commencement of regulated activities authorized under a coastal permit;
4. A permittee conducting an activity involving soil disturbance, the creation of drainage structures, or changes in natural contours shall obtain any required approvals from the Soil Conservation District or designee having jurisdiction over the site;
5. The permittee shall take all reasonable steps to prevent, minimize, or correct any adverse impact on the environment resulting from activities conducted pursuant to the permit, or from noncompliance with the permit;
6. The permittee shall immediately inform the Department of any unanticipated adverse effects on the environment not described in the application or in the conditions of the permit. The Department may, upon discovery of such unanticipated adverse effects, and upon the failure of the permittee to submit a report thereon, notify the permittee of its intent to suspend the permit, pursuant to N.J.A.C. 7:7-27.7;
7. The permittee shall immediately inform the Department by telephone at (877) 927-6337 (Warn DEP Hotline) of any noncompliance that may endanger the public health, safety, and welfare, or the environment. The permittee shall inform the Division of Land Use Regulation by telephone at (609) 292-0060 of any other noncompliance within two working days of the time the permittee becomes aware of the noncompliance, and in writing within five working days of the time the permittee becomes aware of the noncompliance. Such notice shall not, however, serve as a defense to enforcement action if the project is found to be in violation of this chapter. The written notice shall include:
    i. A description of the noncompliance and its cause;
    ii. The period of noncompliance, including exact dates and times;
    iii. If the noncompliance has not been corrected, the anticipated length of time it is expected to continue; and
    iv. The steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance;

8. Any noncompliance with a permit constitutes a violation of this chapter and is grounds for enforcement action under N.J.A.C. 7:7-29, as well as, in the appropriate case, suspension and/or termination of the permit;
9. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the authorized activity in order to maintain compliance with the conditions of the permit;
10. The permittee shall employ appropriate measures to minimize noise where necessary during construction, as specified in N.J.S.A. 13:1G-1 et seq. and N.J.A.C. 7:29;
11. The issuance of a permit does not relinquish the State's tidelands ownership or claim to any portion of the subject property or adjacent properties;
12. The issuance of a permit does not relinquish public rights to access and use tidal waterways and their shores; and
13. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to:
    i. Enter upon the permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of the permit;
    ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit; and
    iii. Inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. Failure to allow reasonable access under this paragraph shall be considered a violation of this chapter and subject the permittee to enforcement action under N.J.A.C. 7:7-29.

(d) In addition to the conditions at (c) above, the following conditions apply to all coastal permits except permits-by-rule:

1. The permittee and its contractors and subcontractors shall comply with all conditions, site plans, and supporting documents approved by the permit;
2. All conditions, site plans, and supporting documents approved by a permit shall remain in full force and effect so long as the development or any portion thereof is in existence, unless the permit is modified pursuant to N.J.A.C. 7:7-27.5;
3. The permittee shall record the permit, including all conditions listed therein, with the Office of the County Clerk (the Registrar of Deeds and Mortgages, if applicable) of each county in which the site is located. The permit shall be recorded within 30 calendar days of receipt by the permittee, unless the permit authorizes activities within two or more counties, in which case the permit shall be recorded within 90 calendar days of receipt. Upon completion of all recording, a copy of the recorded permit shall be forwarded to the Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6;
4. The permittee shall notify the Department in writing within five working days prior to commencement of operation of a CAFRA individual permit. At this time, the permittee

shall certify that all conditions of the permit that must be met prior to operation of the development have been met;

5. The permittee shall perform any mitigation required under the permit prior to or concurrently with regulated activities in accordance with N.J.A.C. 7:7-17;
6. If any condition or permit is determined to be legally unenforceable, modifications and additional conditions may be imposed by the Department as necessary to protect public health, safety, and welfare, or the environment;
7. Any permit condition that does not establish a specific time frame within which the condition must be satisfied (for example, prior to commencement of construction) shall be satisfied within six months of the effective date of the permit;
8. A copy of the permit and all approved site plans and supporting documents shall be maintained at the site at all times and made available to Department representatives or their designated agents immediately upon request;
9. The permittee shall provide monitoring results to the Department at the intervals specified in the permit;
10. A permit shall be transferred to another person only in accordance with N.J.A.C. 7:7-27.4;
11. A permit can be suspended or terminated by the Department for cause;
12. The submittal of a request to modify a permit by the permittee, or a notification of planned changes or anticipated noncompliance, does not stay any condition of a permit;
13. Where the permittee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application or in any report to the Department, it shall promptly submit such facts or information; and
14. The permittee shall submit written notification to the Bureau of Coastal and Land Use Compliance and Enforcement, 401 East State Street, 4th Floor, P.O. Box 420, Mail Code 401-04C, Trenton, NJ 08625, at least three working days prior to the commencement of site preparation or of regulated activities, whichever comes first.

7:7-27.3 Extension of an authorization under a general permit or of a waterfront development individual permit for activities waterward of the mean high water line

(a) A permittee may request one five-year extension of an authorization under a general permit the duration of which is governed by N.J.A.C. 7:7-3.7, or one five-year extension of an individual permit for activities waterward of the mean high water line the duration of which is governed by N.J.A.C. 7:7-8.2(a).

(b) The Department shall issue an extension only if:

1. The permittee submits a request for extension that meets the requirements of (c) below and that is received by the Department prior to the expiration of the authorization or

individual permit. The Department shall not accept a request for extension received more than one year prior to the expiration of an authorization or individual permit;

2. The permittee demonstrates that there has been no significant change in the overall condition of the site, including special areas;
3. The permittee demonstrates that regulated activities approved under any authorization or individual permit for which an extension is sought have not been revised or amended, unless the permittee has obtained a modification of the authorization or individual permit under N.J.A.C. 7:7-27.5; and
4. For an individual permit, the permittee demonstrates that the rules in this chapter governing the regulated activities authorized under the permit for which an extension is sought have not been amended such that the activities do not meet the rules as amended.

(c) A request for an extension of an authorization under a general permit or of an individual permit shall include:

1. A completed application form as described at N.J.A.C. 7:7-23.4(a)1 and available from the Department at the address set forth at N.J.A.C. 7:7-1.6;
2. The appropriate application fee as set forth at N.J.A.C. 7:7-25; and
3. A narrative demonstrating that the requirements of (b) above are met.

(d) Within 15 calendar days after receiving a request for an extension of an authorization under a general permit subject to this section for which the application was deemed complete for review on or after July 6, 2015 or within 30 calendar days after a request for an extension of a waterfront development individual permit for activities waterward of the mean high water line has been received by the Department, the Department shall take one of the actions identified below. During the Department's review of the extension request, regulated activities subject to the authorization or individual permit may continue.

1. Determine the request meets the requirements of this section and issue an extension in accordance with (g) below; or
2. Determine the request meets the criteria for denial at (e) below and deny the extension request.

(e) The Department shall deny a request for an extension for any of the following reasons:

1. The authorization or individual permit for which the extension is sought is not one specified in (a) above;
2. The Department receives the request more than one year prior to the expiration date of the authorization or individual permit for which the extension is sought;
3. The Department receives the request after the expiration date of the authorization or individual permit for which the extension is sought;

4. The term of the authorization or individual permit for which the extension is sought has been extended before;
5. The applicant does not demonstrate that all of the requirements at (b) above are met;
6. The request does not include all of the information required to be submitted under (c) above; or
7. The authorization or individual permit for which the extension is sought has been terminated in accordance with N.J.A.C. 7:7-27.8.

(f) If the Department denies a request for an extension under (e) above:

1. The authorization or individual permit shall expire on its original expiration date or on the date of receipt of the denial by the permittee, whichever is later, unless already terminated in accordance with N.J.A.C. 7:7-27.8; and
2. All regulated activities authorized under the authorization or individual permit shall cease on the expiration date of the authorization or individual permit specified in (f)1 above, and shall not commence again unless and until a new permit is obtained in accordance with N.J.A.C. 7:7-23.

(g) If the Department determines that the requirements of this section have been met, the Department shall issue an extension of the authorization or individual permit for one five-year period, beginning on the original expiration date of the authorization or individual permit. The extension shall be in writing, and shall include any conditions the Department determines are necessary to ensure the requirements of this chapter are met.

7:7-27.4 Transfer of an emergency authorization, an authorization under a general permit or an individual permit

(a) If the site on which regulated activities are authorized pursuant to an emergency authorization, an authorization under a general permit, or an individual permit is transferred to a new owner, the authorization or individual permit, including all conditions, shall be automatically transferred to the new owner, provided the authorization or individual permit is valid on the date that the site is transferred to the new owner.

(b) The authorization or individual permit transferred under (a) above shall continue in effect, provided that, within 30 calendar days after the transfer of ownership of the site, the new owner submits the following information to the Department:

1. The name, address, and contact information of the new owner; and
2. Documentation that the transfer will not alter any condition on which the original authorization or individual permit was based and will not otherwise circumvent any requirement of this chapter.

7:7-27.5 Modification of an authorization under a general permit or an individual permit

(a) An authorization under a general permit that is valid as described in the provisions regarding duration of general permit authorizations at N.J.A.C. 7:7-3.6 or 3.7, as applicable, or an individual permit that is valid as described in the provisions regarding duration of individual permits at N.J.A.C. 7:7-8.2, may be modified in accordance with this section through an administrative modification, a minor technical modification, or a major technical modification. An authorization under a general permit-by-certification shall not be modified.

(b) The term of an authorization under a general permit or of an individual permit shall not be extended by a modification.

(c) An administrative modification of an authorization under a general permit or an individual permit applies to a change to a site plan or other document on which the original authorization under a general permit or individual permit was based but which does not alter the design or layout of the project. An administrative modification may include:

1. Correcting a drafting or typographical error on a plan or report;
2. Improving topographical or other data in order to make the authorization or individual permit more accurately reflect the site and/or the permitted activities; or
3. Adding notes, labels, or other clarifying information to the approved site plan, if required to do so by the Department or another government entity.

(d) A minor technical modification of an authorization under a general permit or an individual permit applies to a change in the design or layout of a project, including any associated change to an approved site plan or other document, which does not result in new or additional impacts to any special area other than a special urban area (see N.J.A.C. 7:7-9.41), the Hudson River waterfront area (see N.J.A.C. 7:7-9.46), or Atlantic City (see N.J.A.C. 7:7-9.47). A minor technical modification may include:

1. A change in materials or construction techniques;
2. A reduction in the intensity of development on the site, such as deletion of a permitted structure or activity, or a reduction in the footprint of a project; or
3. For a dredging or dredged material management project:
   i. A change in the method of dredging;
   ii. A change in the processing facility or the disposal or beneficial use location for dredged material, provided:
      (1) The proposed processing facility or proposed disposal or beneficial use site has received all necessary local, State and Federal approvals; and
      (2) A letter of acceptance is received from the proposed processing facility or the proposed disposal or beneficial use site as required in the maintenance

dredging and new dredging rules at N.J.A.C. 7:7-12.6 and 12.7, respectively; or

iii. A change in the volume of material to be dredged without a change in the area to be dredged as depicted on the site plan approved as part of the authorization or permit that authorizes the dredging.

(e) A major technical modification of an authorization under a general permit or an individual permit applies to any change in a project authorized pursuant to the authorization or individual permit, including any associated change to an approved site plan or other document, which is not addressed under (c) or (d) above and that does not require a new permit in accordance with (f) below.

(f) Notwithstanding any other provision in this section, the Department shall not issue a modification of an authorization under a general permit or an individual permit if the Department determines that the permittee proposes changes that constitute a substantial redesign of the project or that will significantly increase the environmental impact of the project. In such a case, the applicant shall submit a new application for an authorization or an individual permit in accordance with N.J.A.C. 7:7-23 and the Department shall review the application in accordance with N.J.A.C. 7:7-26. Changes for which a new application shall be submitted include:

1. A change to the basic purpose or use of a project, such as a change from the construction of a hospital to the construction of an apartment complex;
2. An expansion of a project beyond that which was described in the public notice of the application provided in accordance with N.J.A.C. 7:7-24;
3. A substantial redesign of the project or its stormwater management system such that the Department determines a new engineering analysis of the site and/or project is necessary;
4. A significant change in the size or scale of the project, including the addition of structures;
5. A significant change in the project's impact on any of the special areas governed by N.J.A.C. 7:7-9.2 through 9.40 and 9.42 through 9.45;
6. An excavation or filling of water areas or wetlands significantly beyond that which is approved under the authorization or individual permit; or
7. A change that would result in impacts to a site not owned or controlled by the permittee.

(g) The permittee shall record the modified permit, including all conditions listed therein, with the Office of the County Clerk (the Registrar of Deeds and Mortgages, if applicable) of each county in which the site is located. The modified permit shall be recorded within 30 calendar days of receipt by the permittee, unless the permit authorizes activities within two or more counties, in which case the modified permit shall be recorded within 90 calendar days of receipt. Upon completion of all recording, a copy of the recorded permit shall be forwarded to the Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6.

7:7-27.6 Application for a modification

(a) This section sets forth requirements for an application to modify an authorization under a general permit or an individual permit. The general application requirements at N.J.A.C. 7:7-23.2 apply to applications for modifications in addition to the application requirements in this section.

(b) To apply for an administrative modification to an authorization under a general permit or an individual permit under N.J.A.C. 7:7-27.5(c), the permittee shall submit:

1. A description of the proposed change to the site plan or other document on which the original authorization or permit was based;
2. The site plans approved as part of the authorization or individual permit with revisions illustrating the proposed change;
3. A copy of the authorization or individual permit for which the modification is requested; and
4. Any information necessary to ensure compliance with State and/or Federal law.

(c) To apply for a minor technical modification of an authorization under a general permit or an individual permit under N.J.A.C. 7:7-27.5(d), the permittee shall submit:

1. A completed application form as described at N.J.A.C. 7:7-23.4(a)1 and available from the Department at the address set forth at N.J.A.C. 7:7-1.6;
2. The appropriate application fee set forth at N.J.A.C. 7:7-25;
3. A description of the scope and purpose of the proposed change to the project authorized under the authorization or individual permit;
4. The site plans approved as part of the authorization or individual permit with revisions illustrating the proposed change in the project;
5. A copy of the authorization or individual permit for which the modification is requested;
6. Other visual representations, such as photographs, graphs, and tables, that illustrate the proposed change to the project, as applicable;
7. A revised environmental impact statement if the proposed modification is of an individual permit, or a revised compliance statement if the proposed modification is of an authorization under a general permit. The revised environmental impact statement or compliance statement shall address the aspects of the project that are proposed to be changed and demonstrate that the project for which the modification is requested continues to comply with all requirements of this chapter; and
8. Any information necessary to ensure compliance with State and/or Federal law.

(d) To apply for a major technical modification of an authorization under a general permit or an individual permit under N.J.A.C. 7:7-27.5(e), the permittee shall submit:

1. A completed application form as described at N.J.A.C. 7:7-23.4(a)1 and available from the Department at the address set forth at N.J.A.C. 7:7-1.6;
2. Documentation that public notice of the application for the major technical modification was provided in accordance with N.J.A.C. 7:7-24;
3. The appropriate application fee set forth at N.J.A.C. 7:7-25;
4. A description of the scope and purpose of the proposed change to the project authorized under the authorization or individual permit;
5. The site plans approved as part of the authorization or individual permit with revisions illustrating the proposed change to the project;
6. A copy of the authorization or individual permit for which the modification is requested;
7. Other visual representations, such as photographs, graphs, and tables, that illustrate the proposed change to the project, as applicable;
8. Calculations, analyses, data, and supporting materials necessary to demonstrate that the project as proposed to be changed meets the requirements of this chapter, and the requirements of the Department's Stormwater Management rules at N.J.A.C. 7:8, if applicable;
9. A revised environmental impact statement if the proposed modification is of an individual permit, or a revised compliance statement if the proposed modification is of an authorization under a general permit. The revised environmental impact statement or compliance statement shall address the aspects of the project that are proposed to be changed and demonstrate that the project for which the modification is requested continues to comply with all requirements of this chapter; and
10. Any information necessary to ensure compliance with State and/or Federal law.

7:7-27.7 Suspension of an authorization under a general permit, an individual permit, or an emergency authorization

(a) The Department shall suspend an authorization under a general permit, an individual permit, or an emergency authorization for good cause, including, but not limited to, the following:

1. The authorization under a general permit, individual permit, or emergency authorization was based on false or inaccurate information;
2. The permittee has not complied with a condition of the authorization under a general permit, individual permit, or emergency authorization;
3. The permittee has undertaken activities onsite that violate this chapter;
4. The permittee has misrepresented or failed to fully disclose all relevant facts pertaining to the authorization under a general permit, individual permit, or emergency authorization;

5. The permittee has failed to fully and correctly identify project impacts in the application for the authorization under a general permit, individual permit, or emergency authorization;
6. The regulated activities conducted pursuant to the authorization under a general permit, individual permit, or emergency authorization have caused unanticipated environmental impacts;
7. The permittee has made a change in the project that, under N.J.A.C. 7:7-27.5, would require a modification to the permittee's general permit authorization or individual permit but the permittee did not first obtain the required modification; or
8. The Department determines that suspension of the authorization under a general permit, individual permit, or emergency authorization is necessary for emergency reasons or to protect public health, safety, and welfare or the environment.

(b) The Department shall provide written notice of a suspension by certified mail to the permittee in accordance with (c) below, except if the authorization under a general permit, individual permit, or emergency authorization is suspended for emergency reasons, in which case the Department shall contact the permittee by telephone or by any practical method, and will follow up with written notice.

(c) A notice of suspension shall:

1. State that the authorization under a general permit, individual permit, or emergency authorization is suspended upon the permittee's receipt of the notice;
2. Include the reasons for the suspension;
3. State that all regulated activities authorized under the suspended authorization under a general permit, individual permit, or emergency authorization shall cease immediately upon the permittee's receipt of the notice; and
4. Notify the permittee of the right to, within 10 calendar days after the permittee receives the notice, request:
   i. A meeting with the Department to discuss the suspension; and/or
   ii. An adjudicatory hearing in accordance with N.J.A.C. 7:7-28.

(d) Within 30 calendar days after receiving a notice of suspension under (b) above, the permittee shall provide the Department with a written strategy to remedy the cause(s) of the suspension. The written strategy shall include:

1. A description of how the strategy will remedy the cause(s) of the suspension;
2. A demonstration that the strategy will bring the project into compliance with this chapter; and
3. A proposed time frame within which the permittee will execute the strategy.

(e) Within 30 calendar days after the Department receives the written strategy required under (d) above, the Department shall take one of the following actions:

1. Accept the strategy, reinstate the authorization under a general permit, individual permit, or emergency authorization, and require the permittee to implement the strategy within a prescribed time frame. The Department may add conditions or revisions as necessary to ensure that the strategy achieves compliance with this chapter;
2. Determine that the strategy is insufficient and request additional detail, information, and/or changes to the strategy, in order to remedy the non-compliance. Within 15 calendar days after the Department receives the requested information, the Department shall take either the action described at (e)1 above or the action described at (e)3 below; or
3. Determine that the strategy is unacceptable to achieve compliance with this chapter, and notify the permittee of its intent to terminate the authorization under a general permit, an individual permit, or an emergency authorization pursuant to N.J.A.C. 7:7-27.8.

(f) Noncompliance with any of the requirements of this section shall constitute cause for the Department to terminate the authorization under a general permit, an individual permit, or an emergency authorization under N.J.A.C. 7:7-27.8.

7:7-27.8 Termination of an authorization under a general permit, an individual permit, or an emergency authorization

(a) The Department shall terminate for good cause an authorization under a general permit, an individual permit, or an emergency authorization that has been suspended pursuant to N.J.A.C. 7:7-27.7. Good cause for termination includes, but is not limited to, the following:

1. The permittee has not ceased all regulated activities as required in the notice of suspension pursuant to N.J.A.C. 7:7-27.7(c)3;
2. The permittee has not complied with the requirement at N.J.A.C. 7:7-27.7(d) to submit a strategy to remedy the causes of the suspension; or
3. The Department has determined that the strategy submitted is unacceptable to achieve compliance with this chapter.

(b) The Department shall provide written notice of its intent to terminate an authorization under a general permit, individual permit, or emergency authorization by certified mail to the permittee.

(c) The permittee may request an adjudicatory hearing on the notice of intent to terminate in accordance with N.J.A.C. 7:7-28. The hearing request shall be submitted within 10 calendar days after receipt of the notice of intent to terminate.

(d) If the permittee does not request an adjudicatory hearing under (c) above, or if the adjudicatory hearing request is denied, the authorization under a general permit, individual

permit, or emergency authorization shall automatically terminate, effective 10 calendar days after the permittee received the notice of intent to terminate under (b) above.

(e) If the Department terminates an authorization under a general permit, individual permit, or emergency authorization, the permittee shall take all of the actions at (e)1 through 3 below. Failure to do so shall constitute a violation of this chapter and shall subject the permittee to enforcement action pursuant to N.J.A.C. 7:7-29:

1. Remedy any changes to the site made in violation of this chapter;
2. Remedy any adverse impacts to special areas and the environment caused by the regulated activities on the site; and
3. Restore, to the maximum extent practicable, the site to its condition prior to the start of the activities authorized under the authorization under a general permit, individual permit, or emergency authorization.

SUBCHAPTER 28. REQUESTS FOR ADJUDICATORY HEARINGS

7:7-28.1 Procedure to request an adjudicatory hearing; decision on the request

(a) This subchapter sets forth the process by which a person may request an adjudicatory hearing to contest a Department decision to approve or deny a coastal permit under this chapter. A person seeking to contest an administrative order and/or a civil administrative penalty assessment shall do so in accordance with the adjudicatory hearing request provisions applicable to Department enforcement actions under this chapter at N.J.A.C. 7:7-29.

(b) To contest a Department decision on a coastal permit, a person shall submit an adjudicatory hearing request within 30 calendar days after public notice of the decision is published in the DEP Bulletin. If a person submits the adjudicatory hearing request after this time, the Department shall deny the request.

(c) A person requesting an adjudicatory hearing shall provide the following information on an adjudicatory hearing request form, available from the Department at the address set forth at N.J.A.C. 7:7-1.6:

1. The name, address, and daytime telephone number, fax number, and e-mail address of the person requesting the hearing, and of the person's authorized representative.
2. A copy of the Department decision on which a hearing is being requested;
3. The date that the Department decision on which a hearing is being requested was received by the person requesting the hearing;
4. A specific admission, denial, or explanation of each fact appearing in the Department decision, or a statement that the person is without knowledge thereof;

5. A concise statement of the facts or principles of law asserted to constitute any factual or legal defense; and
6. Where the person submitting the hearing request is not the person to whom the decision that is being contested was issued, evidence that a copy of the hearing request has been mailed or delivered to the person to whom the decision was issued.

(d) A person requesting an adjudicatory hearing shall:

1. Submit the original hearing request to:

   New Jersey Department of Environmental Protection

   Office of Legal Affairs

   Attention: Adjudicatory Hearing Requests

   Mail Code 401-04L, P.O. Box 402

   401 East State Street, 7th Floor

   Trenton, NJ 08625-0402; and

2. Submit a copy of the hearing request to the Director of the Division of Land Use Regulation, at the address set forth at N.J.A.C. 7:7-1.6.

(e) Nothing in this subchapter shall be construed to provide a right to an adjudicatory hearing in contravention of the Administrative Procedure Act, N.J.S.A. 52:14B-3.1 through 3.3.

(f) The Department shall notify the requester that the request for hearing is granted or denied. If the hearing request is denied, the denial shall provide the reason(s) for the denial. If the hearing request is granted, the Department shall refer the matter to the Office of Administrative Law for a contested case hearing in accordance with the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq., and the Uniform Administrative Procedure Rules, N.J.A.C. 1:1.

(g) A final decision issued by the Commissioner after the hearing in the Office of Administrative Law shall be considered final agency action for purposes of the Administrative Procedure Act, and shall be subject to judicial review in the Appellate Division of the Superior Court, as provided in the Rules of Court.

7:7-28.2 Procedure to request dispute resolution

As part of a request for an adjudicatory hearing, a person may request that the Department determine whether the matter is suitable for mediation by the Department's Office of Dispute Resolution. The Department shall promptly notify the requester of its determination. If the Department determines that the matter is suitable for mediation, the Department shall also notify the requester of the procedures and schedule for mediation.

7:7-28.3 Effect of request for hearing on operation of permit or authorization

(a) When a permittee requests an adjudicatory hearing to appeal any portion of a permit or an authorization, the operation of the permit or authorization shall be automatically stayed in its entirety, unless the permittee shows good cause in writing why the permit or authorization should continue in effect while being contested. All permitted activities shall stop as of the date the hearing request is submitted, and shall not be started again until the matter is resolved, unless the Department grants an exception in writing.

(b) When a person other than the permittee requests an adjudicatory hearing on a permit or authorization, the operation of the permit or authorization is not automatically stayed. The Department shall stay operation of the permit or authorization only if it determines that good cause to do so exists. If a stay is imposed, all permitted activities shall stop as of the date the stay is imposed, and shall not be started again until the matter is resolved, unless the Department grants an exception in writing.

7:7-28.4 Notice of certain settlement discussions on a coastal permit decision; notice of settlement agreement

(a) If the Department enters into settlement discussions regarding a project in a municipality in the CAFRA area that will impact a dune or other environmentally sensitive area, the Department shall provide notice, in writing, to the governing body of that municipality. The notice shall state the address, lot, and block of the property on which the project is proposed, shall include a description of the nature of the settlement discussions, and shall offer the governing body of the municipality the opportunity to participate in the settlement discussions. For the purposes of this subsection, environmentally sensitive area is a special water's edge area (see N.J.A.C. 7:7-9.6 through 9.30), an endangered or threatened wildlife or plant species habitat (see N.J.A.C. 7:7-9.36), a critical wildlife habitat (see N.J.A.C. 7:7-9.37), or the Pinelands National Reserve and Pinelands Protection Area (see N.J.A.C. 7:7-9.42).

(b) If the Department and the person requesting an adjudicatory hearing agree to a settlement that may result in the issuance of a coastal permit for a regulated activity, notice of the opportunity to comment on the settlement shall be provided as follows:

1. The person who requested the adjudicatory hearing shall send by certified mail a "notice of intent to settle" the matter, using the notice form available from the Department at the address set forth at N.J.A.C. 7:7-1.6, to the following:
    i. Each person who was provided specific notice of the application which resulted in the decision that is the subject of the adjudicatory hearing request; and
    ii. Each person who commented on the application;
2. The Department shall publish in the DEP Bulletin the notice of intent to settle, and shall accept comments on the notice for at least 30 calendar days; and
3. If, after the 30-day comment period under (b)2 above, the settlement is finalized, the Department shall publish a notice of the final settlement in the DEP Bulletin.

SUBCHAPTER 29. ENFORCEMENT

7:7-29.1 General provisions

(a) Whenever the Department finds that a person has violated any provision of N.J.S.A. 13:19-1 et seq., N.J.S.A. 12:5-1 et seq., N.J.S.A. 13:9A-1 et seq., or any regulation, rule, permit, or order adopted or issued by the Department pursuant thereto, the Department may, singly or in combination, and in accordance with the grace period requirements set forth at N.J.A.C. 7:7-29.10, pursue the remedies specified in (a)1 through 5 below. Pursuit of any of the remedies specified under this section shall not preclude the Department from seeking any other remedy specified.

1. Issue an order requiring the person found to be in violation to comply in accordance with N.J.A.C. 7:7-29.2;
2. Bring a civil action for injunctive and other relief in accordance with N.J.A.C. 7:7-29.8;
3. Levy a civil administrative penalty in accordance with N.J.A.C. 7:7-29.5 or 29.6;
4. Bring an action for a civil penalty in accordance with N.J.A.C. 7:7-29.7; and/or
5. Petition the Attorney General to bring a criminal action in accordance with N.J.A.C. 7:7-29.9.

(b) The Department has the power, as enumerated in N.J.S.A. 13:1D-9, and consistent with constitutional requirements, to enter and inspect any property, facility, building, premises, site, or place for the purpose of investigating an actual or suspected source of pollution of the environment and conducting inspections, collecting samples, copying or photocopying documents or records, and for otherwise ascertaining compliance or noncompliance with any laws, permits, orders, codes, rules, and regulations of the Department.

(c) Each applicant or permittee shall provide, upon request of the Department, any information required to determine compliance with the provisions of N.J.S.A. 13:19-1 et seq., N.J.S.A. 12:5-1 et seq,. N.J.S.A. 13:9A-1 et seq., or any rule or regulation adopted, or permit or order issued pursuant thereto.

7:7-29.2 Issuance of an administrative order

Whenever the Department finds that a person has violated any provision of N.J.S.A. 13:19-1 et seq., N.J.S.A. 12:5-1 et seq., N.J.S.A. 13:9A-1 et seq., or any regulation, rule, permit, or order adopted or issued by the Department pursuant thereto, the Department may issue an order specifying the provision or provisions of the act, regulation, rule, permit, or order of which the person is in violation citing the action which constituted the violation, ordering abatement of the violation, and giving notice to the person of his or her right to a hearing on the matters contained in the order. The ordered party shall have 35 calendar days from receipt of the order within which to deliver to the Department a written request for a hearing in accordance with N.J.A.C. 7:7-29.4. After the hearing and upon finding that a violation has occurred, the Department may

issue a final order. If a hearing is not requested within 35 days of receipt of the order, then the order shall become final on the 36th calendar day following receipt. A request for hearing shall not automatically stay the effect of the order.

7:7-29.3 Assessment, settlement, and payment of a civil administrative penalty

(a) To assess a civil administrative penalty under N.J.S.A. 13:19-1 et seq., N.J.S.A. 12:5-1 et seq., or N.J.S.A. 13:9A-1 et seq., the Department shall notify the violator by certified mail (return receipt requested) or by personal service. This Notice of Civil Administrative Penalty Assessment (NOCAPA) shall:

1. Identify the section of the statute, rule, administrative order or permit violated;
2. Concisely state the alleged facts which constitute the violation;
3. Specify the amount of the civil administrative penalty to be imposed and the fact that interest may be due in accordance with (c) below; and
4. Advise the violator of the right to request an adjudicatory hearing pursuant to the procedures in N.J.A.C. 7:7-29.4.

(b) Payment of the civil administrative penalty is due upon receipt by the violator of the Department's final order in a contested case, or when a notice of civil administrative penalty assessment becomes a final order, as follows:

1. If no hearing is requested pursuant to N.J.A.C. 7:7-29.4, a notice of civil administrative penalty assessment becomes a final order on the 36th calendar day following receipt of the notice of civil administrative penalty assessment by the violator;
2. If the Department denies an untimely submitted hearing request pursuant to N.J.A.C. 7:7-29.4(a), a notice of civil administrative penalty assessment becomes a final order on the 36th calendar day following receipt of the notice of civil administrative penalty assessment by the violator;
3. If the Department denies a hearing request pursuant to N.J.A.C. 7:7-29.4(d) because it does not include all the required information, a notice of civil administrative penalty assessment becomes a final order upon receipt of notice of such denial by the violator; or
4. If the Department grants the hearing request, a notice of civil administrative penalty assessment becomes a final order upon receipt by the violator of a final order in a contested case.

(c) In addition to the amount of the civil administrative penalty that is due and owing pursuant to (b) above, the violator shall also pay to the Department the interest on the amount of the penalty, at the rate established by the New Jersey Supreme Court for interest rates on judgments as set forth in the Rules Governing the Courts of the State of New Jersey, R. 4:42-11(a). Interest shall accrue on the amount of the civil administrative penalty due and owing from the date the payment is due and continuing until the civil administrative penalty is paid in full with interest if:

1. A violator does not pay a civil administrative penalty imposed pursuant to a final order within 90 calendar days of the date that payment is due; or
2. A violator fails to make a civil administrative penalty payment pursuant to a payment schedule entered into with the Department within 90 calendar days of the date that payment is due.

(d) The Department may, in its discretion, settle any civil administrative penalty assessed pursuant to N.J.A.C. 7:7-29.5 or 29.6 according to the following factors:

1. Mitigating or extenuating circumstances not previously considered in the notice of civil administrative penalty assessment pursuant to N.J.A.C. 7:7-29.5(h)4 or 29.6;
2. The timely implementation by the violator of measures leading to compliance not previously considered in the assessment of penalties pursuant to N.J.A.C. 7:7-29.5(g)1i or 29.6(h), including measures to clean up, reverse, or repair environmental damage caused by the violation, or to remove the violation;
3. The full payment by the violator of a specified part of the civil administrative penalty assessed if made within a time period established by the Department in an administrative order and provided that the violator waives the right to request an adjudicatory hearing on the civil administrative penalty; or
4. Any other terms or conditions acceptable to the Department.

7:7-29.4 Procedures to request and conduct an adjudicatory hearing to contest an administrative order and/or a notice of civil administrative penalty assessment

(a) To request an adjudicatory hearing to contest an administrative order and/or a notice of civil administrative penalty assessment issued pursuant to N.J.S.A. 13:19-1 et seq., 12:5-1 et seq., or 13:9A-1 et seq., the violator shall submit a hearing request in writing within 35 calendar days after receipt by the violator of the administrative order and/or the notice of a civil administrative penalty assessment being contested. If a violator submits the hearing request after this time, the Department shall deny the request.

(b) A violator requesting an adjudicatory hearing shall provide the following information on an adjudicatory hearing request form, available from the Department at the address set forth at N.J.A.C. 7:7-1.6:

1. The name, address, daytime telephone number, fax number, and e-mail address of the violator requesting the hearing and the violator's authorized representative;
2. A copy of the Department's administrative order and/or notice of a civil administrative penalty assessment for which a hearing is being requested;
3. The date that the administrative order and/or notice of a civil administrative penalty assessment was received by the violator;
4. A specific admission or denial of each of the facts appearing in the Department's

administrative order and/or notice of civil administrative penalty assessment or a statement that the person is without knowledge thereof. If the violator is without knowledge or information sufficient to form a belief as to the truth of a finding, the violator shall so state and this shall have the effect of a denial. A denial shall fairly meet the substance of the findings denied. When the violator intends in good faith to deny only a part or a qualification of a finding, the violator shall specify so much of it as is true and material and deny only the remainder. The violator may not generally deny all of the findings but shall make all denials as specific denials of designated findings. For each finding the violator denies, the violator shall allege the fact or facts as the violator believes it or them to be;

5. A statement as to whether the violator agrees to allow the Department to delay the transfer of a granted hearing request to the Office of Administrative Law for the purposes of engaging in settlement negotiations as provided by the Uniform Administrative Procedure Rules at N.J.A.C. 1:1-8.1(b);
6. Information supporting the request and specific reference to or copies of other written documents relied upon to support the request;
7. An estimate of the time required for the hearing (in days and/or hours); and
8. A request, if necessary, for a barrier-free hearing location for physically disabled persons.

(c) A person requesting an adjudicatory hearing shall:

1. Submit the original hearing request to:

   New Jersey Department of Environmental Protection

   Office of Legal Affairs

   Attention: Adjudicatory Hearing Requests

   Mail Code 401-04L, P.O. Box 402

   401 East State Street, 7th Floor

   Trenton, NJ 08625-0402; and
2. Submit a copy of the hearing request to:

   New Jersey Department of Environmental Protection

   Bureau of Coastal and Land Use Compliance and Enforcement

   1510 Hooper Avenue

   Toms River, NJ 08753

(d) If the violator fails to include all the information required by (b) above, the Department may deny the hearing request.

(e) All adjudicatory hearings held pursuant to this section shall be conducted in accordance with the Administrative Procedures Act, N.J.S.A. 52:14B-1 et seq., and the Uniform Administrative Procedure Rules, N.J.A.C. 1:1.

7:7-29.5 Civil administrative penalties for failure to obtain a permit prior to conducting regulated activities

(a) For the failure to obtain a permit prior to conducting regulated activities, the Department may assess a civil administrative penalty pursuant to this section of not more than $25,000 for each violation of N.J.A.C. 7:7-2.2, 2.3, or 2.4. For the purposes of this section, a permit shall mean an authorization under a general permit-by-certification, authorization under a general permit, individual permit, emergency authorization, letter of authorization, memorandum of agreement, or other written authorization, or other approval issued pursuant to N.J.S.A. 13:19-1 et seq., 12:5-1 et seq., or 13:9A-1 et seq.

(b) Each violation of N.J.A.C. 7:7-2.2, 2.3, and 2.4, shall constitute an additional, separate, and distinct violation.

(c) Each day during which the violation continues or remains in place without the required permit shall constitute an additional, separate, and distinct offense.

(d) To assess a civil administrative penalty pursuant to this section, the Department shall identify the civil administrative base penalty within the table in (f) below by determining the number of points pursuant to (e) below. The civil administrative penalty shall be the amount within the table in (f) below, unless adjusted pursuant to (g) and/or (h) below.

(e) The Department shall use the two factors described in (e)1 and 2 below to determine the number of points assigned to each violation.

1. The conduct factor of the violation shall be classified as major, moderate, or minor and assigned points as follows:
   i. Major shall include any intentional, deliberate, purposeful, knowing, or willful act or omission by the violator and is assigned five points;
   ii. Moderate shall include any unintentional but foreseeable act or omission by the violator and is assigned two points; and
   iii. Minor shall include any other conduct not included in (e)1i or ii above and is assigned one point.
2. The seriousness factor of the violation is assigned points as provided below and shall be based on the type, size, and location of the violation as provided at (e)2i or ii below, whether the activity also constitutes a Tidelands violation as provided at (e)2iii below, and whether the activity was conducted in a special area as provided at (e)2iv below:
   i. The area of the violation shall be assessed points in accordance with (e)2i(1) through (13) below for violations located in an area regulated under CAFRA as set forth at

N.J.A.C. 7:7-2.2, and upland waterfront development areas as set forth at N.J.A.C. 7:7-2.4(a)3ii. A violation that disturbed:

(1) Greater than 200,000 square feet is assigned 13 points;

(2) Greater than 150,000 square feet up to and including 200,000 square feet is assigned 12 points;

(3) Greater than 100,000 square feet up to and including 150,000 square feet is assigned 11 points;

(4) Greater than 70,000 square feet up to and including 100,000 square feet is assigned 10 points;

(5) Greater than 40,000 square feet up to and including 70,000 square feet is assigned is assigned nine points;

(6) Greater than 20,000 square feet up to and including 40,000 square feet is assigned is assigned eight points;

(7) Greater than 10,000 square feet up to and including 20,000 square feet is assigned seven points;

(8) Greater than 5,000 square feet up to and including 10,000 square feet is assigned six points;

(9) Greater than 2,000 square feet up to and including 5,000 is assigned five points;

(10) Greater than 750 square feet up to and including 2,000 square feet is assigned four points;

(11) Greater than 500 square feet up to and including 750 square feet is assigned three points;

(12) Greater than 50 square feet up to and including 500 square feet is assigned two points; and

(13) Up to and including 50 square feet is assigned one point.

ii. The area and/or type of the violation shall be assessed points, in accordance with (e)2ii(1) through (3) below for violations located in areas regulated pursuant to the Wetlands Act of 1970 as set forth at N.J.A.C. 7:7-2.3, and waterfront development areas as set forth at N.J.A.C. 7:7-2.4(a)1, 2, and 3i:

(1) A violation comprised of excavation or filling, construction, or placement of structures such as pilings, boat lifts, docks, piers, breakwaters, bulkheads, or other disturbance:

(A) Greater than 20,000 square feet is assigned 10 points;

(B) Greater than 15,000 square feet up to and including 20,000 square feet is assigned nine points;

(C) Greater than 10,000 square feet up to and including 15,000 square feet is assigned eight points;

(D) Greater than 7,500 square feet up to and including 10,000 square feet is assigned seven points;

(E) Greater than 5,000 square feet up to and including 7,500 square feet is assigned six points;

(F) Greater than 2,000 square feet up to and including 5,000 is assigned five points;

(G) Greater than 1,000 square feet up to and including 2,000 square feet is assigned four points;

(H) Greater than 500 square feet up to and including 1,000 square feet is assigned three points;

(I) Greater than 100 square feet up to and including 500 square feet is assigned two points; or

(J) Up to and including 100 square feet is assigned one point;

(2) A violation comprised of dredging within a natural waterbody is assigned 10 points; and

(3) A violation comprised of dredging within a man-made lagoon is assigned four points.

iii. In addition to the points assessed in accordance with (e)2i and ii above, for a violation located in a State-owned Tidelands area for which a current tidelands instrument has not been obtained, or for which payment is in arrears, the Department shall assess an additional one point.

iv. In addition to the points assessed in accordance with (e)2i through iii above, for a violation located in a special area described at N.J.A.C. 7:7-9, the Department shall assess an additional one point per special area.

(f) The Department shall sum the total points assigned according to the two factors in (e) above, and shall determine the base penalty amount per day using the following table:

Base Penalty Points Table

Points	Base Penalty
1-3	$500
4-6	$1,000
7-8	$2,000
9-10	$3,000
11-12	$6,000
13-14	$8,000
15-16	$10,000

17-19	$15,000
20-22 points	$20,000
23 or more	$25,000

(g) The Department shall adjust the amount of the base penalty assessed pursuant to (f) above based upon the mitigating penalty component as calculated in (g)1i or ii below, if applicable.

1. The Department shall multiply the base penalty dollar amount by the multiplier for either of the applicable mitigating factors in (g)1i or ii below to obtain the mitigating penalty component. Where neither mitigating factor in (g)1i or ii below applies, the civil administrative penalty shall be the civil administrative base penalty determined pursuant to (f) above, unless adjusted pursuant to (h) below.

	Mitigating Factor	Multiplier
i	Where the nature, timing, and effectiveness of any measures taken by the violator to remove the unauthorized development and to mitigate the effects of the violation for which the penalty is being assessed results in compliance within 30 calendar days of receipt of the notice of violation from the Department; or	0.50
ii.	Where a complete application is submitted within 30 calendar days of receipt of the notice of the violation from the Department and a permit is subsequently obtained for the unauthorized development without the need of any modification, mitigation or restoration.	0.50

2. To obtain the civil administrative penalty, the Department shall subtract the mitigating penalty component calculated pursuant to (g)1 above, where applicable, from the base penalty.

(h) The Department may, in its discretion, adjust the amount of any penalty assessed pursuant to (f) and, where applicable, (g) above based upon any or all of the factors listed in (h)1 through 4 below. No such factor constitutes a defense to any violation. The factors are:

1. The compliance history of the violator;
2. The frequency with which any violation of N.J.S.A. 13:19-1 et seq., N.J.S.A. 12:5-1 et seq., N.J.S.A. 13:9A-1 et seq., or rules, permit, or order adopted or issued pursuant thereto occurred, including environmental impacts;
3. The deterrent effect of the penalty; and/or
4. Any other mitigating, extenuating or aggravating circumstances.

(i) Notwithstanding the maximum civil administrative penalty of $25,000 pursuant to this subsection, the Department may add to a civil administrative penalty assessed under this subchapter the amount of economic benefit in dollars that the violator has realized as the result of not complying, or by delaying compliance with, an applicable law and/or condition.

7:7-29.6 Civil administrative penalties for violations other than failure to obtain a permit prior to conducting regulated activities

(a) For violations other than failure to obtain a permit prior to conducting regulated activities, the Department may, in its discretion, assess a civil administrative penalty pursuant to this section of not more than $25,000 for each violation of N.J.S.A. 13:19-1 et seq., N.J.S.A. 12:5-1 et seq., and/or N.J.S.A. 13:9A-1 et seq., or any regulation, rule, permit, condition, or order adopted or issued by the Department pursuant thereto. The Department shall assess penalties under this section rather than under N.J.A.C. 7:7-29.5 when N.J.A.C. 7:7-29.5 is not applicable to the violation.

(b) Each violation of N.J.S.A. 13:19-1 et seq., N.J.S.A. 12:5-1 et seq., and/or N.J.S.A. 13:9A-1 et seq., or any regulation, rule, permit, condition, or order adopted or issued by the Department pursuant thereto, shall constitute an additional, separate, and distinct violation.

(c) Where any requirement of N.J.S.A. 13:19-1 et seq., N.J.S.A. 12:5-1 et seq., and/or N.J.S.A. 13:9A-1 et seq., or any regulation, rule, permit, condition, or order adopted or issued by the Department pursuant thereto, may pertain to more than one act, condition, or occurrence, the failure to comply with such requirement as it pertains to each such act, condition, or occurrence shall constitute an additional, separate, and distinct violation.

(d) To assess a civil administrative penalty pursuant to this section, the Department shall use the two factors described at (e) and (f) below, seriousness and conduct, to determine the amount of the base daily civil administrative penalty. The applicable daily penalty amount is determined using the base daily penalty matrix in the table below, based on the seriousness of the violation determined pursuant to (e) below and the conduct of the violator determined pursuant to (f) below:

Base Daily Penalty Matrix

SERIOUSNESS

		Major	Moderate	Minor
CONDUCT	Major	$25,000	$15,000	$10,000
	Moderate	$15,000	$7,500	$ 5,000
	Minor	$10,000	$ 5,000	$1,000

(e) The seriousness of the violation shall be determined as major, moderate, or minor as follows:

1. Major seriousness shall apply to any violation which has caused or has the potential to cause serious harm to human health, safety, or the environment, or the coastal regulatory program, or seriously deviates from the applicable law and/or condition. "Serious"

deviations include, but are not limited to, those violations which are in complete contravention of the law, requirement, and/or condition, and/or which severely impair or undermine the protection, operation, or intent of the law, requirement, or condition. Violations of "major" seriousness include, but are not limited to, any unauthorized activity occurring within or impacting a special area described at N.J.A.C. 7:7-9;

2. Moderate seriousness shall apply to any violation which has caused or has the potential to cause substantial harm to human health, safety, or the environment, the coastal regulatory program, or substantially deviates from the applicable law and/or condition. "Substantial deviation" shall include, but not be limited to, violations which are in substantial contravention of the law, requirement, and/or condition, and/or which substantially impair or undermine the protection, operation, or intent of the law, requirement, and/or condition. The Department will consider a violation to be of moderate seriousness if limited solely to upland areas that are not designated as a wetland or other special area identified at N.J.A.C. 7:7-9; and
3. Minor seriousness shall apply to any violation not included in (e)1 or 2 above.

(f) The conduct of the violator shall be determined as major, moderate, or minor as follows:

1. Major conduct shall include any intentional, deliberate, purposeful, knowing, or willful act or omission by the violator. There is a rebuttable presumption that any violation of a Department permit or authorization, emergency authorization, exemption under N.J.S.A. 12:5-3.a, applicability determination, and/or Tidelands instrument or the conditions thereof to be knowing violations;
2. Moderate conduct shall include any unintentional but foreseeable act or omission by the violator; and
3. Minor conduct shall include any other conduct not included in (f)1 or 2 above.

(g) The total civil administrative penalty shall be the daily civil administrative penalty determined under (d) through (f) above, multiplied by the number of calendar days during which each violation continued or remained in place without the required permit.

(h) Notwithstanding the maximum civil administrative penalty of $25,000 pursuant to this subsection, the Department may add to a civil administrative penalty assessed under this subchapter the amount of economic benefit in dollars that the violator has realized as the result of not complying, or by delaying compliance with, an applicable law and/or condition.

7:7-29.7 Civil penalties

(a) Any person who violates the provisions of N.J.S.A. 13:19-1 et seq., N.J.S.A. 12:5-1 et seq., and /or N.J.S.A. 13:9A-1 et seq., any regulation, rule, permit, order, or court order issued pursuant thereto, or who fails to pay a civil administrative penalty in full pursuant to N.J.A.C. 7:7-29.3, or who knowingly makes any false or misleading statement on any application, record, report, or other document required to be submitted to the Department, shall be subject, upon

order of a court, to a civil penalty of not more than $25,000 for each violation, and each day during which a violation continues shall constitute an additional, separate, and distinct offense.

(b) Any penalty established pursuant to this section may be imposed and collected with costs in a summary proceeding pursuant to the Penalty Enforcement Law of 1999, N.J.S.A. 2A:58-10 et seq. The Superior Court shall have jurisdiction to enforce the provisions of the Penalty Enforcement Law of 1999 in connection with N.J.S.A. 13:19-1 et seq., N.J.S.A. 12:5-1 et seq., and /or N.J.S.A. 13:9A-1 et seq.

7:7-29.8 Civil actions

(a) The Department may institute an action or proceeding in the Superior Court for injunctive and other relief, including the appointment of a receiver, for any violation of N.J.S.A. 13:19-1 et seq., 13:9A-1 et seq. and 12:5-1 et seq. or any regulation, rule, permit, or order adopted or issued by the Department pursuant to any of these acts, and the court may proceed in the action in a summary manner. Such relief may include, singly or in combination:

1. A temporary or permanent injunction;
2. Recovery of reasonable costs of any investigation, inspection, or monitoring survey which led to the discovery of the violation, and for the reasonable costs of preparing and bringing a civil action commenced under this subsection;
3. Recovery of reasonable costs incurred by the State in removing, correcting, or terminating the adverse effects resulting from any violation for which a civil action has been commenced and brought under this subsection;
4. Recovery of compensatory damages for any loss or destruction of natural resources, including, but not limited to, wildlife, fish, aquatic life, habitat, plants, or historic or archeological resources, and for any other actual damages caused by any violation for which a civil action has been commenced and brought under this subsection; and/or
5. Execution of an order requiring the violator to restore the site of the violation to the maximum extent practicable and feasible or, in the event that restoration of the site of the violation is not practicable or feasible, provide for an off-site restoration alternative as approved by the Department.

(b) Recovery of damages and costs under (a) above shall be paid to the State Treasurer.

7:7-29.9 Criminal action

(a) The Department, upon petition to the Attorney General, may bring a criminal action in court for certain violations of N.J.S.A. 13:19-1 et seq., 12:5-1 et seq., and/or 13:9A-1 et seq., or any regulation, rule, permit, or order adopted or issued by the Department pursuant thereto.

(b) A person who knowingly, purposely, or recklessly violates N.J.S.A. 13:19-1 et seq., 12:5-1 et seq., and/or 13:9A-1 et seq., or any regulation, rule, permit, or order adopted or issued by the

Department pursuant thereto, shall be guilty, upon conviction, of a crime of the third degree and shall be subject to a fine of no less than $5,000 and not more than $50,000 per day of violation, or imprisonment, or both.

(c) A person shall be guilty, upon conviction, of a crime of the third degree and shall be subject to a fine of not more than $50,000 per day of violation, or imprisonment, or both, if the person:

1. Knowingly, purposely, or recklessly makes a false statement, representation, or certification in any application, record, or other document filed or required to be maintained under N.J.S.A. 13:19-1 et seq., 12:5-1 et seq., and/or 13:9A-1 et seq., or any regulation, rule, permit, or order adopted or issued by the Department pursuant thereto; or
2. Falsifies, tampers with, or purposely, recklessly, or knowingly renders inaccurate, any monitoring device or method required to be maintained under N.J.S.A. 13:19-1 et seq., 12:5-1 et seq., and/or 13:9A-1 et seq., or any regulation, rule, permit, or order adopted or issued by the Department pursuant thereto.

7:7-29.10 Grace period applicability; procedures

(a) Each violation of N.J.S.A. 13:19-1 et seq., 12:5-1 et seq., and 13:9A-1 et seq. identified in Table A at (f) below by an "M" in the Type of Violation column for which the conditions of (d)1 through 6 below are satisfied, and each violation determined under (c) below as minor for which the conditions of (d)1 through 9 below are satisfied, is a minor violation and is subject to a 30-calendar-day grace period.

(b) Each violation of N.J.S.A. 13:19-1 et seq., 12:5-1 et seq., and 13:9A-1 et seq. identified in Table A at (f) below by an "NM" in the Type of Violation column is a non-minor violation and is not subject to a grace period.

(c) If a violation of N.J.S.A. 13:19-1 et seq., 12:5-1 et seq., and 13:9A-1 et seq. is not listed in Table A at (f) below, the designation of the violation as minor or non-minor is determined as follows:

1. If the violation is not listed in Table A at (f) below but is comparable to a violation designated as "M" in Table A and the violation meets all of the criteria of (d)1 through 6 below, then the violation is minor. The minor violation shall be subject to a grace period of 30 calendar days as described at (e) below.
2. If the violation is not listed in Table A at (f) below and is not comparable to a violation listed in Table A but the violation meets all of the criteria of (d)1 through 9 below, the violation is minor. The minor violation shall be subject to a grace period of 30 calendar days as described at (e) below.
3. If the violation is not listed in Table A at (f) below but is comparable to a violation designated as "NM" in Table A, then the violation is a non-minor violation and is not subject to a grace period.

4. If the violation is not listed in Table A at (f) below and is not comparable to a violation listed in Table A, and the violation does not meet all of the criteria at (d)1 through 9 below, the violation is non-minor and is not subject to a grace period.
5. Comparability of a violation to a violation in Table A at (f) below is based on the nature of the violation(s) (for example, recordkeeping, accuracy of information provided to the Department, amount and type of impacts to the protected resources). A violation shall not be considered comparable to any violation designated as "M" in Table A unless the violation also meets the criteria at (d)7 through 9 below.

(d) The Department shall provide a grace period of 30 calendar days for any violation identified as minor under this section, provided the following conditions are met:

1. The violation is not the result of the purposeful, knowing, reckless or criminally negligent conduct of the person responsible for the violation;
2. The activity or condition constituting the violation has existed for less than 12 months prior to the date of discovery by the Department or a local governmental agency;
3. In the case of a violation that involves a permit, the person responsible for the violation has not been identified in a previous enforcement action by the Department or a local governmental agency as responsible for a violation of the same requirement of the same permit within the preceding 12-month period;
4. In the case of a violation that does not involve a permit, the person responsible for the violation has not been identified in a previous enforcement action by the Department or a local governmental agency as responsible for the same or a substantially similar violation at the same facility within the preceding 12-month period;
5. In the case of a violation of the Coastal Area Facility Review Act, N.J.S.A. 13:19-1 et seq.; the Wetlands Act of 1970, N.J.S.A. 13:9A-1 et seq., or any rule or regulation promulgated thereunder, or permit issued pursuant thereto, the person responsible for the violation has not been identified in a previous enforcement action by the Department or a local governmental agency as responsible for the same or a substantially similar violation at the same site or any other site within the preceding 12-month period;
6. In the case of any violation, the person responsible for the violation has not been identified by the Department or a local governmental agency as responsible for the same or substantially similar violations at any time that reasonably indicate a pattern of illegal conduct and not isolated incidents on the part of the person responsible;
7. The violation poses minimal risk to the public health, safety and natural resources;
8. The violation does not materially and substantially undermine or impair the goals of the regulatory program; and
9. The activity or condition constituting the violation is capable of being corrected and compliance achieved within the time prescribed by the Department.

(e) For a violation determined to be minor under (a) or (c) above, the following provisions apply:

1. The Department shall issue a notice of violation to the person responsible for the minor violation that:
   i. Identifies the condition or activity that constitutes the violation and the specific regulatory provision or other requirement violated; and
   ii. Specifies that a penalty may be imposed unless the minor violation is corrected and compliance is achieved within the specified grace period of 30 calendar days.
2. If the person responsible for the minor violation corrects that violation and demonstrates, in accordance with (e)3 below, that compliance has been achieved within the specified grace period, the Department shall not impose a penalty for the violation.
3. In response to a notice of violation, the person responsible for the minor violation shall submit to the Department, before the end of the specified grace period, written information, signed and certified to be true by the responsible person or his or her designee, detailing the corrective action taken or how compliance was achieved.
4. If the person responsible for the minor violation seeks additional time beyond the specified grace period to achieve compliance, the person shall request an extension of the specified grace period in writing no later than one week before the expiration of the specified grace period. The request shall include the anticipated time needed to achieve compliance, the specific cause or causes of the delay, and any measures taken or to be taken to minimize the time needed to achieve compliance. The request shall be signed and certified to be true by the responsible party or their designee. The Department may, in its discretion, approve in writing an extension which shall not exceed 90 calendar days, to accommodate the anticipated delay in achieving compliance. In exercising its discretion to approve a request for an extension, the Department may consider the following:
   i. Whether the violator has taken reasonable measures to achieve compliance in a timely manner;
   ii. Whether the delay has been caused by circumstances beyond the control of the violator;
   iii. Whether the delay will pose a risk to the public health, safety and natural resources; and
   iv. Whether the delay will materially and substantially undermine or impair the goals of the regulatory program.
5. If the person responsible for the minor violation fails to demonstrate to the Department that the violation has been corrected and compliance achieved within the specified grace period, or within any approved extension, the Department may, in accordance with the provisions of this chapter, impose a penalty that is retroactive to the date on which the notice of violation under (e)1 above was issued.
6. The person responsible for a minor violation shall not request more than one extension of a grace period specified in a notice of violation.

(f) The designations of violations N.J.S.A. 13:19-1 et seq., 13:9A-1 et seq., and 12:5-1 et seq. and this chapter as minor (M) or non-minor (NM) are set forth in Table A below. The violation descriptions are provided for informational purposes only. In the event that there is a conflict between a violation description in Table A and the rule to which the violation description corresponds, the rule shall govern.

Table A

Rule Citation	Violation Description	Type of Violation
N.J.A.C. 7:7-2.2, 7:7-2.3, and 7:7-2.4	Conducting regulated or prohibited activities under CAFRA, Wetlands Act of 1970, and/or Waterfront Development Statutes without prior Department approval	NM
N.J.A.C. 7:7-8.2 and 7:7-27.3	Failure to submit a request to continue construction beyond the expiration of a permit no later than 20 working days prior to expiration of the permit, excluding permits authorizing activities located waterward of the mean high water line	M
N.J.A.C. 7:7-17.9, 7:7-17.11, 7:7-17.13, and 7:7-17.22	Failure to execute and record the conservation restriction that meets the requirements of N.J.A.C. 7:7-18	NM
N.J.A.C. 7:7-17.11 and 7:7-17.13	Failure to submit a construction completion report for the mitigation site within the required time frame of completion of construction	M
N.J.A.C. 7:7-17.11 and 7:7-17.13	Failure to submit an annual monitoring report at the required intervals following completion of construction of the mitigation site	M
N.J.A.C. 7:7-17.11 and 7:7-17.13	Failure to demonstrate to the Department at the end of the monitoring period that the mitigation project is successful	M
N.J.A.C. 7:7-17.11 and 7:7-17.14	Failure to provide the government agency or charitable conservancy with a maintenance fund for the mitigation area transferred to the government agency or charitable conservancy	NM

N.J.A.C. 7:7-17.11 and 7:7-17.14	Failure to apply to the Wetlands Mitigation Council for approval of the amount of monetary contribution	NM
N.J.A.C. 7:7-17.11 and 7:7-17.14	Failure to apply to the Wetlands Mitigation Council for approval of the particular parcel of land to be donated following the Department's determination that land donation is the appropriate mitigation alternative	NM
N.J.A.C. 7:7-17	Failure to conduct mitigation as required by a Department approval or administrative order	NM
N.J.A.C. 7:7-17	Failure to comply with all conditions of a mitigation plan	NM
N.J.A.C. 7:7-18	Failure to submit proof that a conservation restriction has been recorded	M
N.J.A.C. 7:7-21.3	Failure to comply with the terms of an emergency authorization.	NM
N.J.A.C. 7:7-21.3(e)	Failure to file a complete permit application and "as built" site plans for completed activities within 90 calendar days after verbal approval	NM
N.J.A.C. 7:7-21.3(i)	Failure to modify the activities to comply with the requirements of this chapter where directed to do so by the Department	NM
N.J.A.C. 7:7-23	Submittal of false information by the applicant, its consultants and/or agents	NM
N.J.A.C. 7:7-23.2(k)	Failure to provide complete and accurate information of which an applicant or its agents are aware, or reasonably should have been aware	NM
N.J.A.C. 7:7-24.2	Failure to provide timely public notice of an application	M
N.J.A.C. 7:7-24.3(a)	Failure to provide verification that a copy of the entire application has been submitted to the municipal clerk	M

N.J.A.C. 7:7-24.3(b)	Failure to provide notice of the application to the following entities: construction official, environmental commission, county planning board, municipal planning board, local soil conservation district, and all owners of real property and easements within 200 feet of the property boundary of the site	M
N.J.A.C. 7:7-24.3(e)	Failure to provide verification that a copy of the entire application has been to the Pinelands Commission	M
N.J.A.C. 7:7-27.2(c)6	Failure to inform the Department of adverse effects on the environment not described in the application or in the conditions of the permit	NM
N.J.A.C. 7:7-27.2(c)10	Failure to minimize noise during construction	NM
N.J.A.C. 7:7-27.2(c)13iii	Failure to allow the Department reasonable access to the site	NM
N.J.A.C. 7:7-27.2(d)3	Failure to record a permit with the county clerk	M
N.J.A.C. 7:7-27.2(d)4	Failure to notify the Department in writing and certify that all permit conditions have been met within five working days prior to operation of a CAFRA development	M
N.J.A.C. 7:7-27.2(d)7	Failure to comply with a permit condition that must be satisfied prior to the commencement of construction	NM
N.J.A.C. 7:7-27.2(d)8	Failure to post and maintain permits and approved site plans at the permitted site at all times	M
N.J.A.C. 7:7-27.2(d)14	Failure to notify the Department in writing at least three working days prior to starting work under a permit	M
N.J.A.C. 7:7-27.4	Failure to submit required documentation concerning the transfer of a property	M

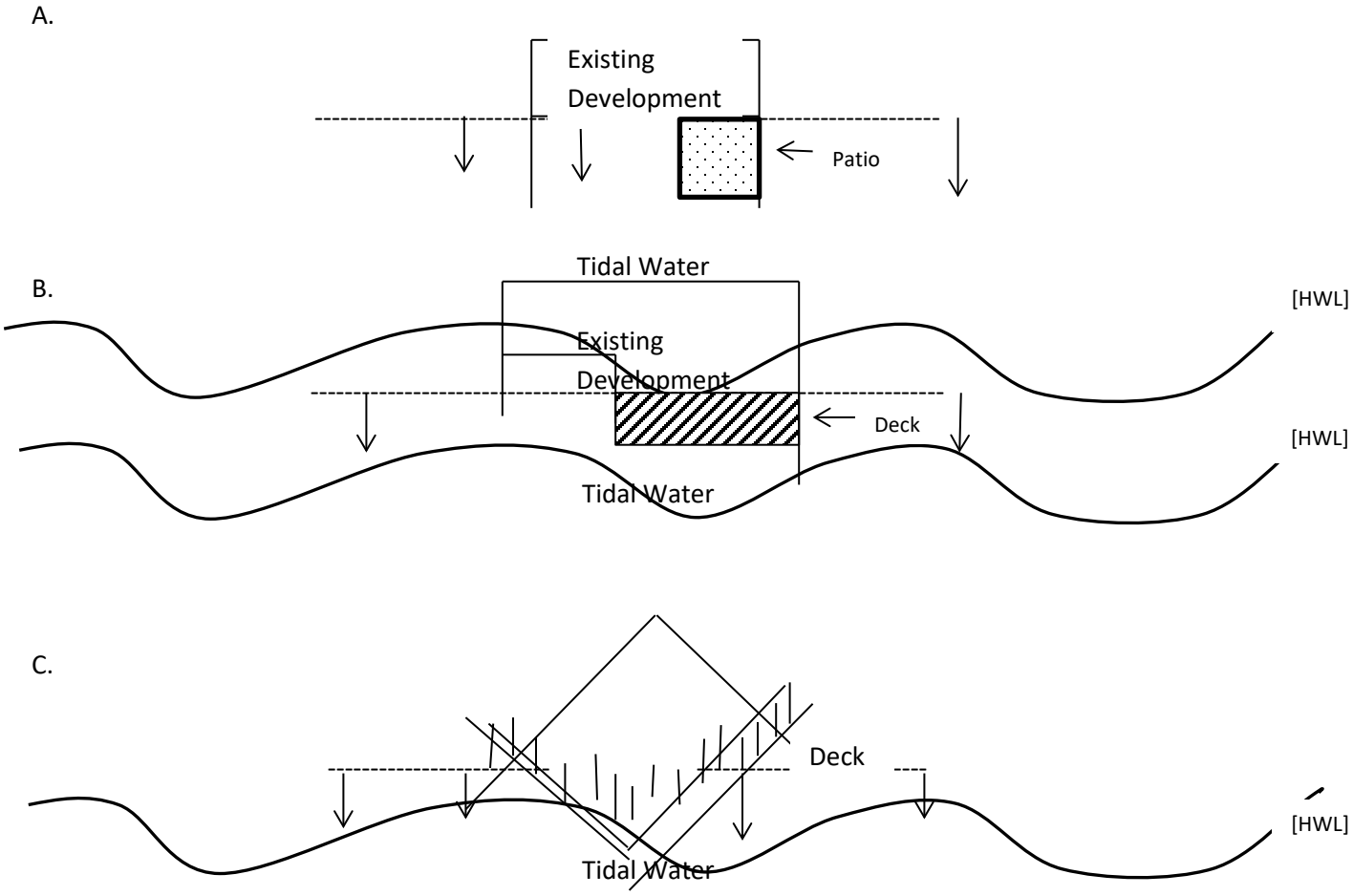
N.J.A.C. 7:7-27.6	Failure to submit to the Department an application for modification of a general permit authorization or individual permit, should a permittee propose a change in the development	NM
N.J.A.C. 7:7-27.6	Failure to provide public notice for request for modification of a permit authorization	M
N.J.A.C. 7:7-27.7 and 7:7-27.8	Failure to comply with the terms of a suspension or termination notice	NM
N.J.A.C. 7:7-27.8	Failure to properly remediate and restore impacts caused under a terminated permit or approval	NM

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

APPENDICES

APPENDIX A

ILLUSTRATION OF THE WATERWARD SIDE
OF DEVELOPMENT
(incorporated by reference at N.J.A.C. 7:7-1.5)

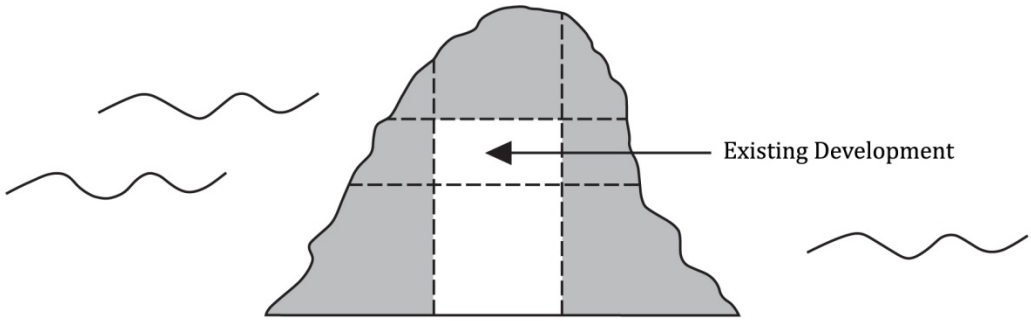


NOT TO SCALE

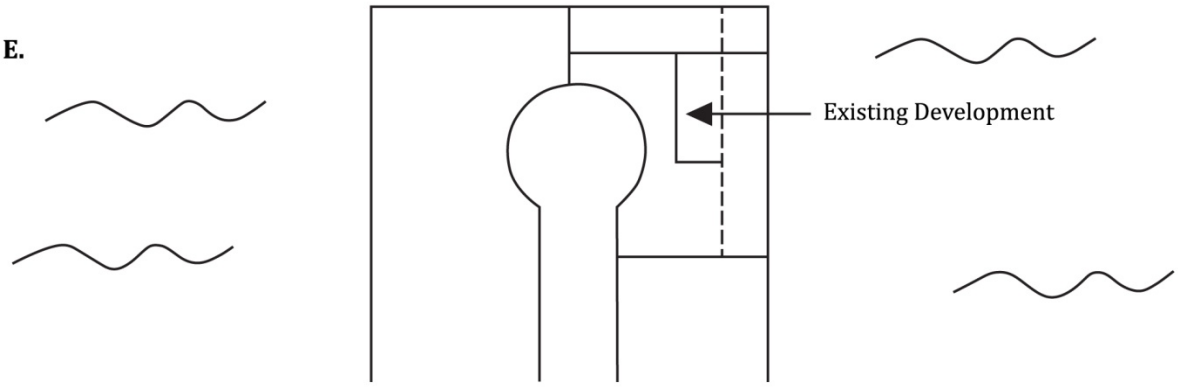
Note: Arrows Denote Waterward Side of the Development

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

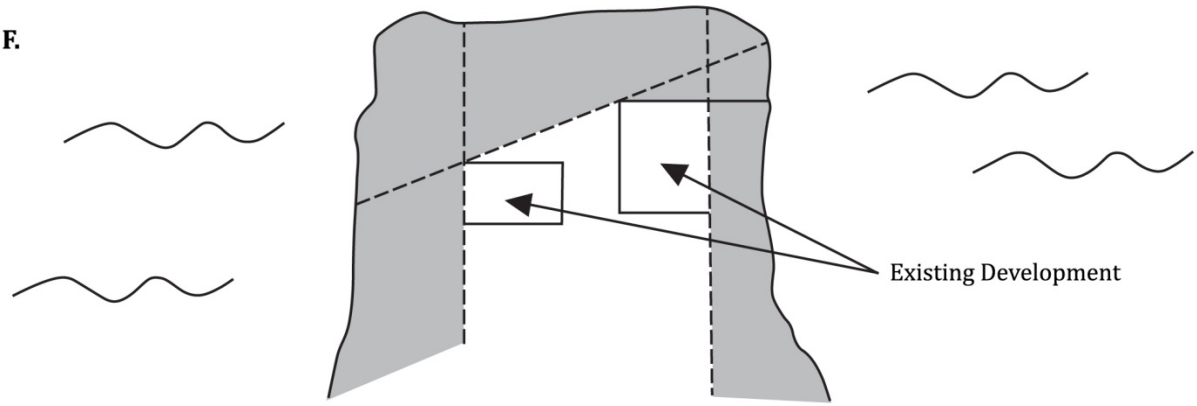
D.



E.



F.



NOTE: Shaded areas denote waterward side of development

▪NOT TO SCALE▪

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

APPENDIX B

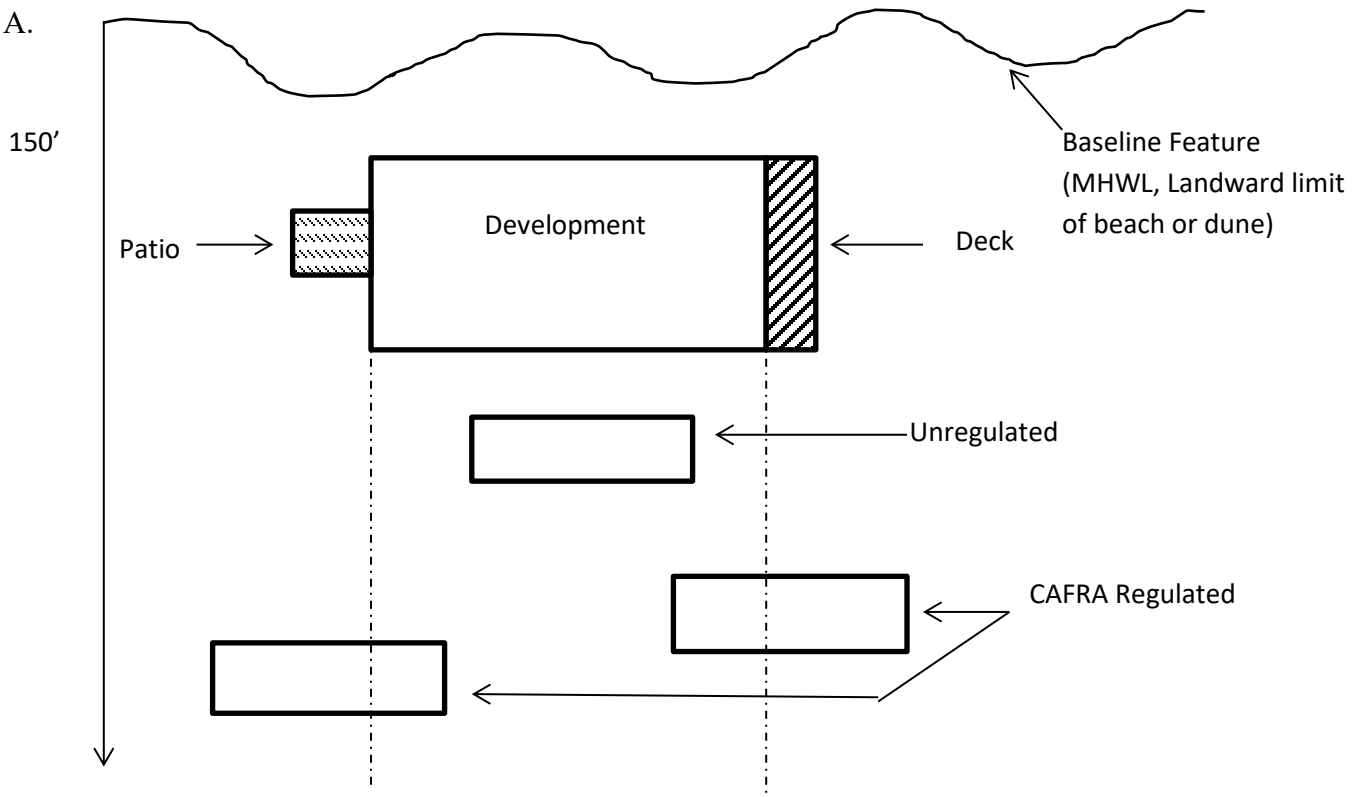
ILLUSTRATION OF INTERVENING DEVELOPMENT FOR PROPOSED

DEVELOPMENT OTHER THAN A SINGLE-FAMILY HOME OR DUPLEX

(incorporated by reference at N.J.A.C. 7:7-2.2(b)1)

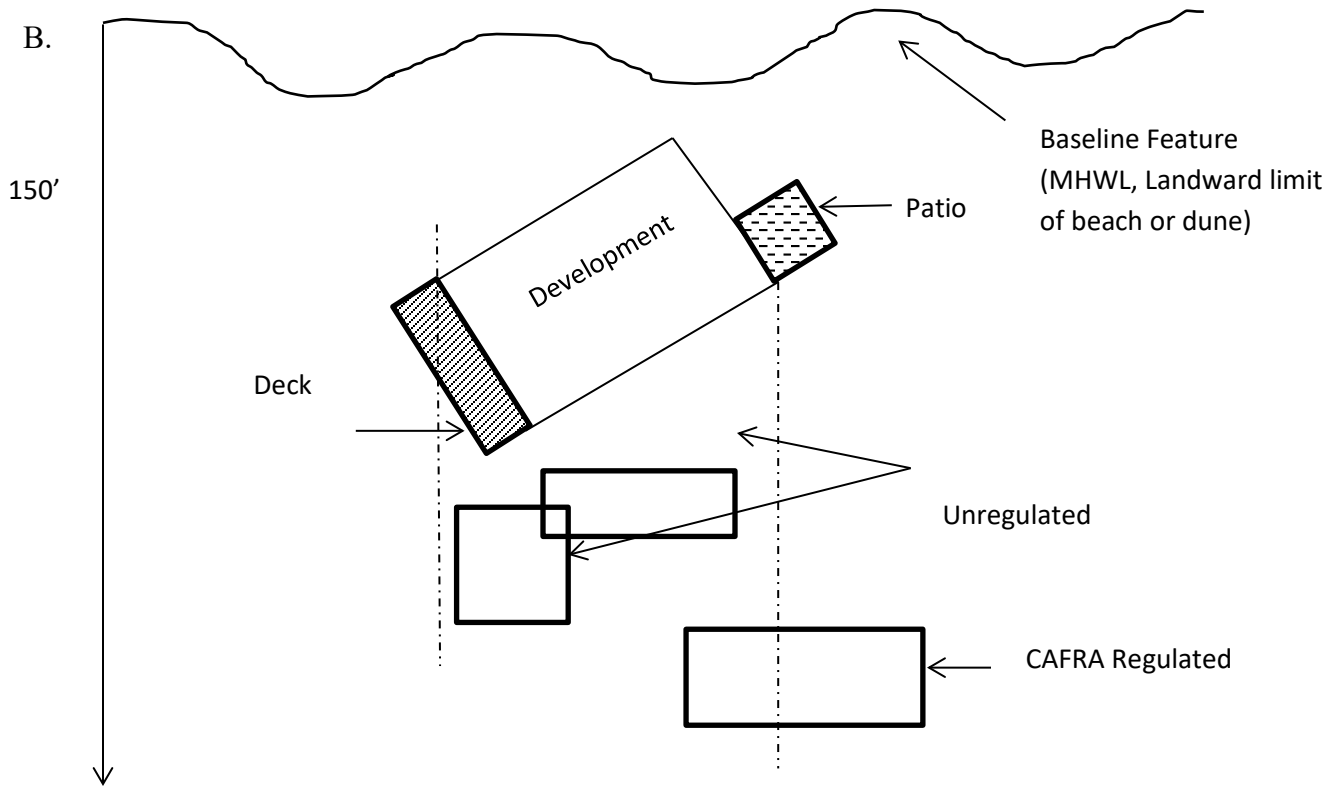
THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

A.



THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

B.



THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

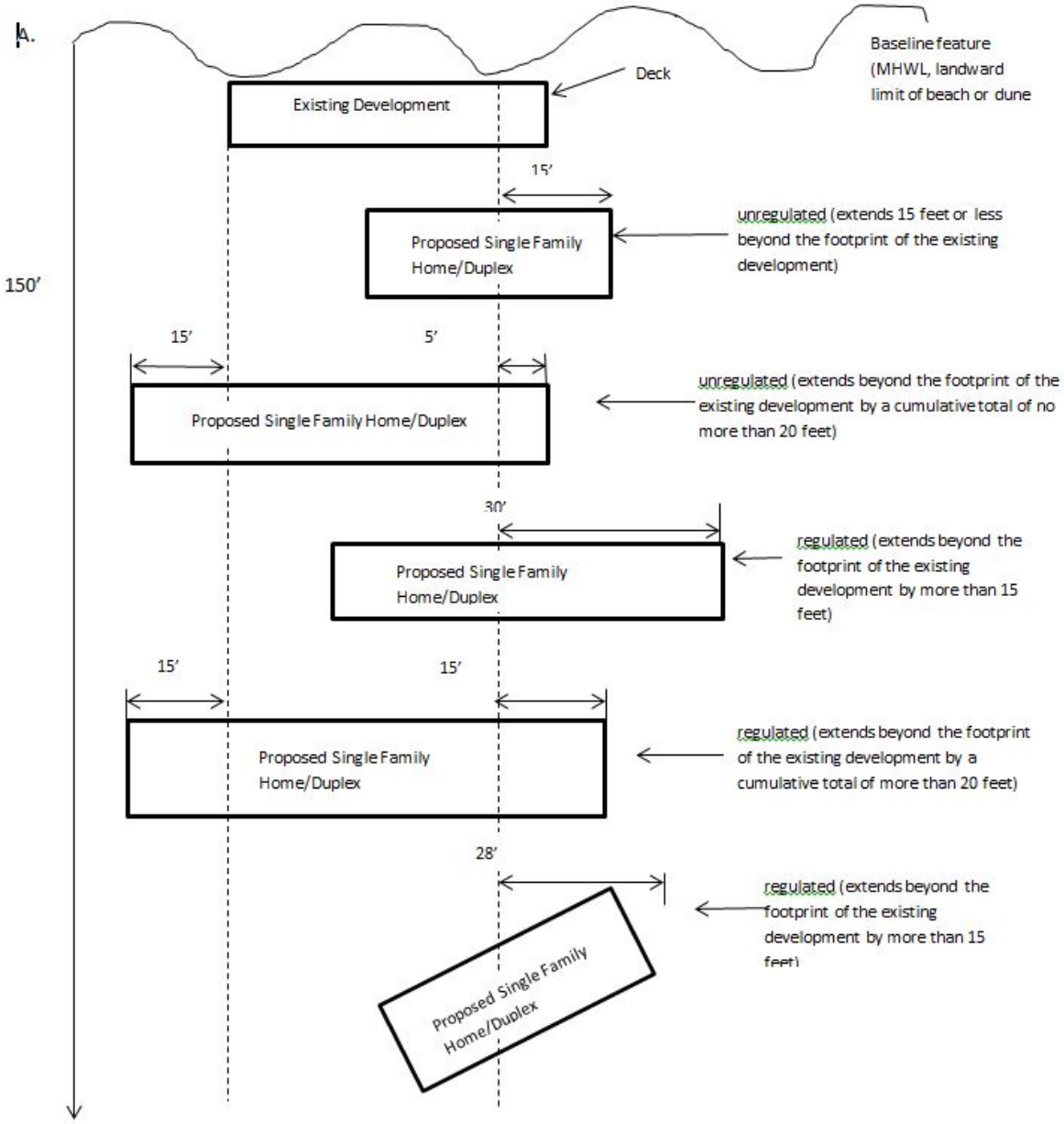
APPENDIX C

ILLUSTRATION OF INTERVENING DEVELOPMENT FOR

PROPOSED SINGLE-FAMILY HOME OR DUPLEX

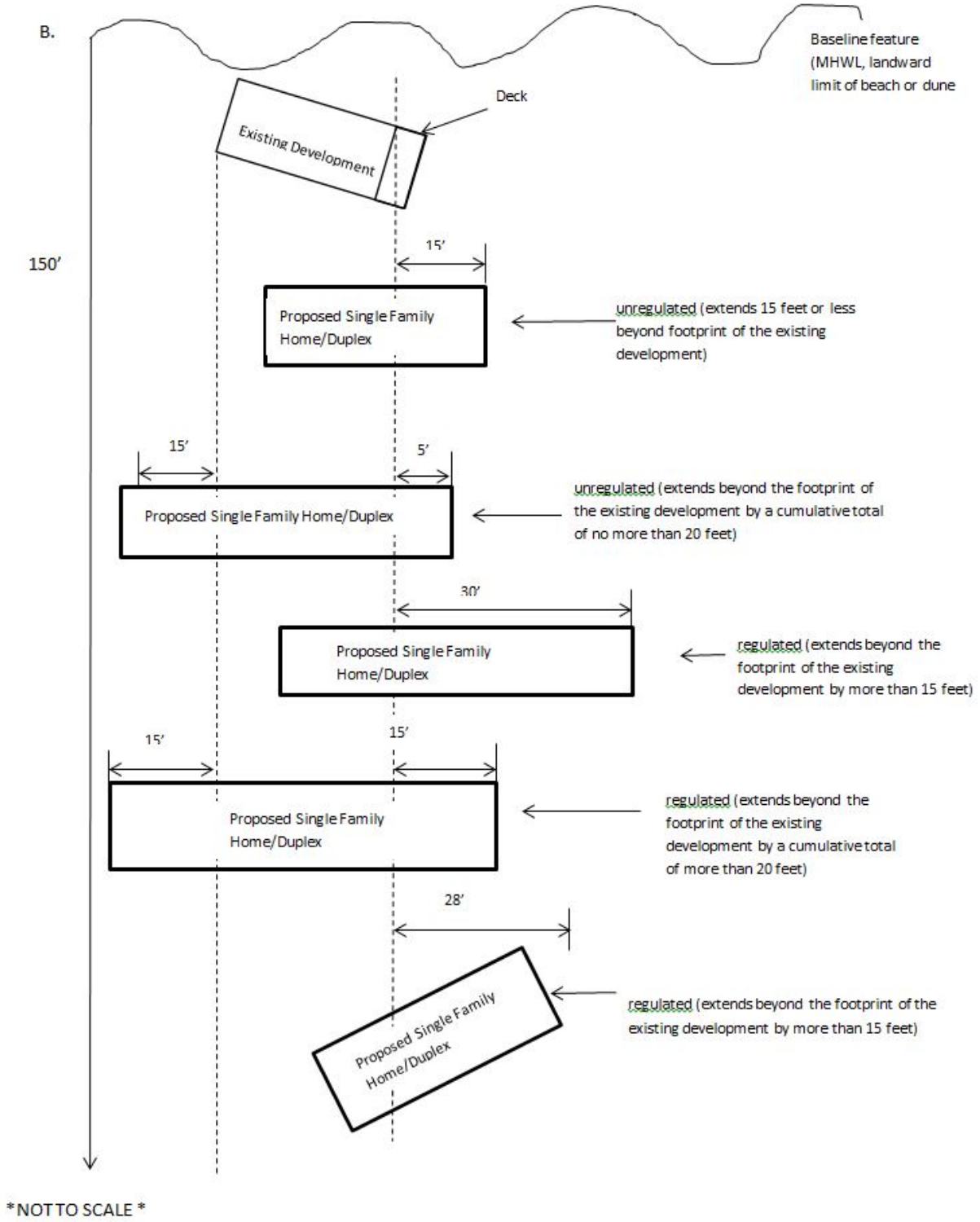
(incorporated by reference at N.J.A.C. 7:7-2.1(b)1)

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.



NOT TO SCALE

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.



THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

APPENDIX D

COASTAL WETLANDS MAPS
(Incorporated by reference at N.J.A.C. 7:7-2.3(c))

1. Middlesex County

574-2082	588-2106	602-2070
574-2088	588-2112	602-2076
581-2082	588-2118	602-2082
581-2088	595-2070	602-2088
581-2100	595-2076	602-2094
581-2106	595-2082	602-2100
581-2112	595-2088	602-2106
581-2118	595-2094	609-2094
588-2076	595-2106	609-2100
588-2082	602-2064	609-2106

2. Monmouth County

455-2160	539-2184	574-2160
455-2166	539-2190	574-2166
462-2160	546-2154	574-2172
462-2166	546-2160	574-2178
462-2172	546-2172	574-2184
462-2154	546-2178	574-2190
469-2160	546-2184	581-2112
469-2172	546-2190	581-2118
469-2178	553-2160	581-2124
476-2166	553-2166	581-2130
476-2172	553-2172	581-2136
476-2178	553-2178	581-2142
483-2172	553-2184	581-2148
490-2166	553-2190	581-2154
490-2172	560-2166	581-2160
490-2178	560-2172	581-2166
497-2166	560-2178	581-2184
497-2172	560-2184	588-2118
518-2184	560-2190	588-2124
532-2178	567-2172	588-2130
539-2154	567-2718	588-2136
539-2160	567-2184	588-2142
539-2166	567-2190	588-2184
539-2172	574-2118	595-2178
539-2178	574-2124	595-2184

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

3. Ocean County

245-2088
245-2094
245-2100
245-2106
252-2076
252-2088
252-2094
252-2100
252-2106
252-2112
259-2070
259-2076
259-2082
259-2088
259-2094
259-2100
259-2106
259-2112
259-2118
266-2070
266-2076
266-2082
266-2088
266-2094
266-2100
266-2106
266-2112
266-2118
273-2076
273-2088
273-2094
273-2100
273-2112
273-2118
273-2124
280-2088
280-2094
280-2100
280-2106
280-2112
280-2118
287-2094
294-2130
294-2136
301-2112
301-2118
301-2124
301-2130
301-2136
301-2142
308-2118
308-2124
308-2130
308-2136
308-2142
315-2124
315-2130
315-2136
315-2142
315-2148
322-2124
322-2130
322-2136
322-2142
322-2148
329-2124
329-2130
329-2136
329-2142
329-2148
329-2154
336-2124
336-2130
336-2142
336-2148
336-2154
343-2130
343-2148
343-2154
343-2160
350-2130
350-2136
350-2148
350-2154
378-2142
378-2148
378-2160
385-2142
385-2148
385-2160
392-2136
392-2142
392-2148
392-2154
392-2160
399-2124
399-2130
399-2136
399-2142
399-2148
399-2154
399-2160
406-2118
406-2124
406-2130
406-2148
406-2154
406-2160
413-2118
413-2148
413-2154
413-2160
420-2142
420-2148
420-2154
420-2160
420-2166
427-2142
427-2148
427-2154
427-2160
434-2148
434-2154
434-2160
434-2166
441-2148

287-2100	357-2124	441-2154
287-2106	357-2130	441-2160
280-2124	357-2136	441-2166
280-2130	357-2142	441-2172
287-2094	357-2154	448-2142
287-2100	357-2160	448-2148
287-2106	359-2160	448-2154
287-2112	364-2130	448-2160
287-2124	364-2136	448-2166
287-2130	364-2142	448-2172
294-2100	364-2160	455-2154
294-2106	371-2136	462-2166
294-2112	371-2142	462-2154
294-2118	371-2148	462-2172
294-2124	371-2160	469-2154

4. Burlington County

252-2064	273-2076	420-1944
259-2046	280-2004	427-1926
259-2052	280-2010	427-1932
259-2058	280-2016	427-1938
259-2064	280-2022	434-1908
259-2070	280-2028	434-1914
266-2034	280-2040	434-1920
266-2040	280-2046	434-1926
266-2046	280-2052	434-1932
266-2052	280-2058	448-1944
266-2058	287-2004	448-1950
266-2064	287-2010	448-1956
266-2070	287-2016	462-1968
273-2022	287-2040	469-1974
273-2028	287-2046	476-1980
273-2034	294-2040	476-1986
273-2040	413-1896	483-1986
273-2046	413-1902	483-1992
273-2052	420-1890	490-1986
273-2058	420-1896	490-1992
273-2064	420-1932	
273-2070	420-1938	

5. Atlantic County

161-1980	189-2052	224-2088

161-1992
161-1986
161-2004
168-1956
168-1962
168-1968
168-1974
168-1980
168-1986
168-1992
168-1998
168-2004
168-2010
168-2016
168-2022
168-2028
168-2034
175-1974
175-1980
175-1986
175-1992
175-1998
175-2004
175-2010
175-2016
175-2022
175-2028
175-2034
175-2040
182-1980
182-1986
182-1992
182-1998
182-2004
182-2010
182-2016
182-2022
182-2028
182-2034
182-2040
182-2046
182-2052
189-1974
189-1980
189-2058
196-1974
196-1980
196-1986
196-2034
196-2040
196-2046
196-2052
196-2058
196-2064
196-2070
203-1980
203-1986
203-2040
203-2046
203-2052
203-2058
203-2064
203-2070
203-2076
210-1974
210-1980
210-1986
210-2040
210-2046
210-2052
210-2058
210-2064
210-2070
210-2076
210-2082
210-2088
217-1974
217-1980
217-1986
217-2040
217-2046
217-2052
217-2058
217-2064
217-2070
217-2076
217-2082
217-2088
224-2094
231-2058
231-2064
231-2070
231-2076
231-2082
231-2088
231-2094
231-2100
238-2058
238-2064
238-2070
238-2076
238-2082
238-2088
238-2094
245-2046
245-2052
245-2058
245-2064
245-2070
252-2046
252-2040
252-2052
252-2058
252-2064
252-2070
259-2034
259-2040
259-2046
259-2052
259-2058
259-2064
259-2070
266-2022
266-2028
266-2034
266-2040
273-2016
273-2026
273-2022
273-2028
273-2034
280-2004

189-1986	217-2094	280-2010
189-1992	224-1980	280-2016
189-1998	224-2052	280-2022
189-2022	224-2058	287-1998
189-2028	224-2064	287-2004
189-2034	224-2070	287-2010
189-2040	224-2076	287-2040
189-2046	224-2082	

6. Cape May County

035-1914	091-1974	126-1956
035-1920	091-1980	126-1980
035-1926	098-1932	126-1986
035-1932	098-1938	126-1992
035-1938	098-1944	126-1998
042-1914	098-1950	133-1926
042-1920	098-1962	133-1932
042-1926	098-1968	133-1986
042-1932	098-1974	133-1992
042-1938	098-1980	133-1998
042-1944	098-1986	133-2004
049-1914	105-1932	140-1926
049-1926	105-1938	140-1932
049-1932	105-1944	140-1974
049-1938	105-1968	140-1980
049-1944	105-1974	140-1992
049-1950	105-1980	140-1998
056-1914	105-1986	140-2004
056-1920	112-1932	140-2010
056-1932	112-1938	147-1980
056-1938	112-1944	147-1986
056-1944	112-1950	147-1992
056-1950	112-1956	147-1998
056-1956	112-1968	147-2004
063-1938	112-1974	147-2010
063-1944	112-1980	154-1980
063-1950	112-1986	154-1986
063-1956	112-1992	154-1992
063-1962	119-1926	154-1998
070-1920	119-1932	154-2004
070-1926	119-1938	154-2010
070-1944	119-1944	154-2016
070-1950	119-1950	161-1962

070-1956
060-1962
070-1968
077-1920
077-1926
077-1932
077-1950
077-1956
077-1962
077-1968
084-1926
084-1932
084-1938
084-1950
084-1956
091-1944
091-1956
091-1962
091-1968
119-1874
119-1980
119-1986
119-1992
126-1926
126-1932
126-1938
126-1944
126-1950
126-1956
126-1980
126-1986
126-1992
126-1998
133-1926
133-1932
133-1986
126-1944
126-1950
161-1968
161-1974
161-1980
161-1986
168-1992
161-1992
161-1998
161-2004
161-2010
161-2016
161-2022
168-1956
168-1962
168-1968
168-1974
168-1980
168-1986

7. Cumberland County

119-1926
126-1860
126-1866
126-1896
126-1902
126-1908
126-1914
126-1920
126-1926
133-1854
133-1860
133-1866
133-1872
133-1878
133-1884
133-1890
133-1896
133-1902
133-1908
133-1914
133-1920
133-1926
154-1896
154-1902
154-1908
161-1818
161-1824
161-1830
161-1836
161-1842
161-1848
161-1854
161-1860
161-1866
161-1872
161-1878
161-1884
161-1896
161-1902
161-1908
161-1914
168-1812
168-1818
168-1824
182-1914
189-1794
189-1800
189-1806
189-1812
189-1818
189-1824
189-1830
189-1890
189-1902
196-1782
196-1788
196-1794
196-1800
196-1806
196-1812
196-1818
196-1824
196-1830
196-1836
196-1842
196-1890

140-1854
140-1860
140-1866
140-1872
140-1878
140-1884
140-1890
140-1896
140-1902
140-1908
140-1914
140-1926
147-1848
147-1854
147-1860
147-1866
147-1872
147-1878
147-1884
147-1890
147-1896
147-1902
147-1908
154-1836
154-1842
154-1884
168-1830
168-1836
168-1842
168-1848
168-1854
168-1902
168-1908
168-1914
175-1812
175-1818
175-1824
175-1830
175-1836
175-1842
175-1848
175-1896
175-1902
175-1908
175-1914
182-1800
182-1806
182-1812
182-1818
182-1824
182-1830
182-1908
196-1896
203-1782
203-1788
203-1794
203-1800
203-1806
203-1812
203-1818
203-1824
203-1836
203-1842
203-1890
210-1782
210-1788
210-1794
210-1800
210-1836
217-1782
217-1788
217-1794
217-1836
224-1788
224-1794
224-1800

8. Salem County

196-1782
196-1788
203-1776
203-1782
203-1788
210-1776
210-1782
210-1788
217-1764
217-1770
217-1776
217-1782
217-1788
224-1752
224-1758
252-1764
252-1770
252-1776
252-1782
252-1788
259-1752
259-1758
259-1764
259-1770
259-1776
259-1782
259-1788
259-1794
259-1800
266-1758
287-1770
287-1776
287-1782
287-1788
294-1746
294-1752
294-1764
294-1770
294-1776
294-1782
294-1788
294-1794
301-1764
301-1770
301-1776

224-1764	266-1764	301-1782
224-1770	266-1770	301-1788
224-1776	266-1776	301-1794
224-1782	266-1782	308-1770
224-1788	266-1788	308-1776
224-1794	266-1794	308-1782
224-1800	266-1800	315-1764
231-1752	273-1746	315-1770
231-1758	273-1752	315-1776
231-1764	273-1758	315-1800
231-1770	273-1764	315-1806
231-1776	273-1770	322-1770
231-1782	273-1776	322-1788
231-1788	273-1782	322-1794
238-1752	273-1788	322-1800
238-1758	273-1794	329-1770
238-1764	280-1746	329-1776
238-1770	280-1752	329-1782
238-1776	280-1758	329-1788
238-1782	280-1764	329-1794
245-1752	280-1770	329-1800
245-1758	280-1776	336-1770
245-1764	280-1782	336-1776
245-1770	280-1788	336-1788
245-1776	280-1794	336-1794
245-1782	287-1746	343-1782
245-1752	287-1752	343-1788
252-1758	287-1764	343-1794

9. Gloucester County

315-1800	343-1854	357-1848
315-1806	343-1860	357-1854
322-1794	350-1794	357-1878
322-1800	350-1800	364-1806
329-1794	350-1806	364-1812
329-1800	350-1812	364-1818
329-1806	350-1818	364-1824
329-1818	350-1824	364-1830
329-1824	350-1830	364-1836
336-1788	350-1842	364-1842
336-1794	350-1848	364-1848
336-1800	350-1854	364-1854
336-1806	350-1860	364-1860

336-1812	350-1878	364-1872
336-1818	357-1794	364-1878
336-1860	357-1800	371-1848
343-1782	357-1806	371-1854
343-1788	357-1812	371-1860
343-1794	357-1818	371-1872
343-1800	357-1824	371-1878
343-1806	357-1830	378-1866
343-1824	357-1836	
343-1848	357-1842	

10. Camden County

364-1878	378-1866	413-1902
371-1872	378-1872	420-1890
371-1878	413-1896	420-1896

11. Mercer County

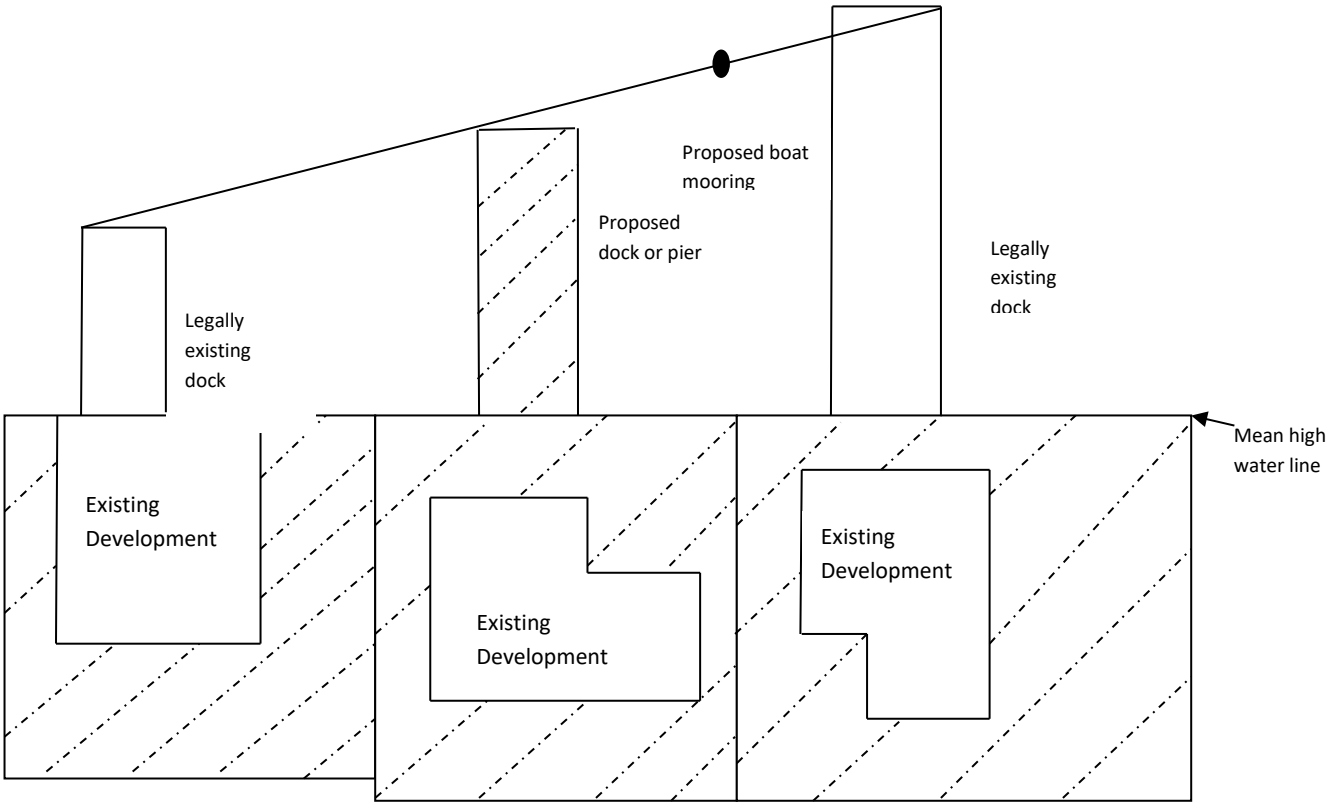
476-1980	483-1986	490-1980
476-1986	483-1992	490-1986
483-1980	490-1974	

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

APPENDIX E

ILLUSTRATION REGARDING THE CONSTRUCTION OF A SINGLE NONCOMMERCIAL DOCK, PIER, OR BOAT MOORING IN SHELLFISH HABITAT PURSUANT TO N.J.A.C. 7:7-9.2(d)3ii

(Note: A dock or pier as well as a boat mooring are shown for illustration purposes only; only one single dock, pier, or boat mooring is allowed pursuant to N.J.A.C. 7:7-9.2(d)3ii.



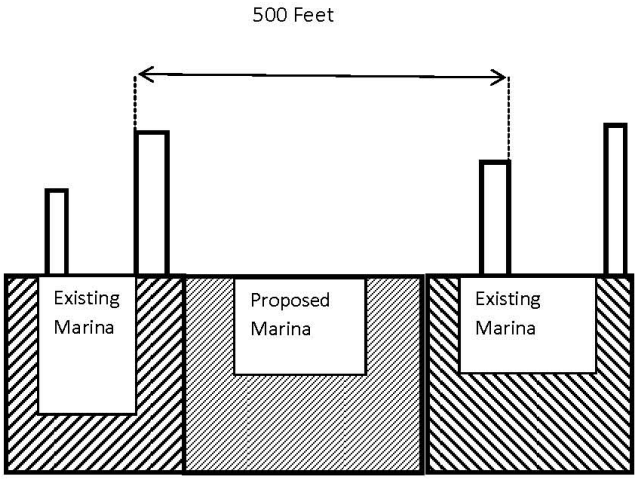
<u>*NOT TO SCALE*</u>

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

APPENDIX F

ILLUSTRATION OF CONSTRUCTION OF A

NEW COMMERCIAL MARINA PURSUANT TO N.J.A.C. 7:7-9.2(d)5



THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

APPENDIX G

THE MANAGEMENT AND REGULATION OF DREDGING ACTIVITIES AND DREDGED MATERIAL IN NEW JERSEY'S TIDAL WATERS

Chapter I - Purpose

This appendix establishes the policies and procedures which the Department will use to conduct reviews of applications for permits for dredging activities in tidal waters of the State of New Jersey and the management of the dredged material. This document also provides Departmental staff and project applicants with criteria for the required sampling, testing, and permitting of dredged material for various identified management alternatives, including potential use options. These policies and procedures have been developed to ensure that proposed dredging projects and the management of dredged material are conducted so as to minimize the potential for adverse impacts to the environment and public health.

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Chapter II - Overview

A: Authorities -The Department is responsible for the evaluation and permitting of all dredging-related activities that occur in the waters of the State of New Jersey. As part of that review, the Department evaluates the proposed dredged material management option. Existing management options include in-water disposal, upland containment/disposal, and/or various potential uses of the dredged material. The objectives of the Department's regulatory program overseeing dredged material management activities include:

(1) the identification of potential adverse impacts to the environment and public health which could result from a proposed activity;

(2) the regulation/management of a proposed activity to ensure that any potential adverse impacts are minimized; and

(3) the development of appropriate protocols to monitor for potential adverse impacts.

The authority to regulate proposed dredging activities and the management of dredged material is derived from the following statutes:

Waterfront Development Law (N.J.S.A. 12:5-3 et seq.)
Riparian Interests (N.J.S.A. 12:3-1 et seq. and 18A:56-1 et seq.)
New Jersey Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.)
Federal Water Pollution Control Act (Clean Water Act Amendments of 1977; 33 U.S.C. § 1341, Section 401)
Federal Coastal Zone Management Act (16 U.S.C. §§ 1451 et seq.)

The siting of upland confined disposal facilities may also be regulated by the following:

Flood Hazard Area Control Act (N.J.S.A. 58:16A-50 et seq.)
Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.)
Wetlands Act of 1970 (N.J.S.A. 13:9A-1 et seq.)
Coastal Area Facility Review Act (N.J.S.A. 13:19-1 et seq.)

B: Permit Review Process - Pre-application conferences in accordance with N.J.A.C. 7:7-22 are recommended prior to the submittal of a permit application, to discuss the proposed project, required permits, sampling and testing protocols, and other information which must be submitted with the application.

In most cases, dredging projects in New Jersey's navigable tidal waters will require a waterfront development permit and a water quality certificate (WQC); the WQC is issued jointly with the waterfront development permit. While a WQC is not required for the actual dredging operation, it is required for any discharge of dredged material into navigable waters of the United States associated with the dredging operation. Any such discharge will also require a permit from the USACE pursuant to Section 404 of the Federal Clean Water Act; the Section 404 Permit triggers the requirement for a WQC. Federally conducted, funded, or permitted activities, including Federal navigation projects, which have a direct impact on New Jersey's Coastal Zone, will require a Federal consistency determination from the Department, pursuant to the Coastal Zone Management Act. The USACE also has authority over dredging activities conducted in

navigable waters of the United States pursuant to Section 10 of the Rivers and Harbors Act of 1899.

Disposal of dredged material in ocean waters is regulated by the USACE and the USEPA pursuant to the Marine Protection, Research, and Sanctuaries Act (MPRSA). Ocean waters are located offshore of the "baseline" established by the USEPA pursuant to the MPRSA -- offshore of Long Island and New Jersey connected by the transect between Rockaway Point and Sandy Hook, offshore of New Jersey and Delaware connected by the transect between Cape May Point and Cape Henelopen Point. Dredged material may be disposed of in ocean waters only at sites designated by the USEPA, with permits issued by the USACE pursuant to Section 103 of the MPRSA. The State of New Jersey has discretionary authority to review disposal activities at ocean disposal sites pursuant to the Federal Coastal Zone Management Act. The review of proposed ocean disposal operations at currently designated ocean disposal sites will be coordinated with the USACE and USEPA. In inland (that is, "non-ocean") waters, the actual dredging operation, or any associated dredged material disposal/management/use alternative, which results in the placement of dredged material into navigable waters of the United States requires a Clean Water Act Section 404 permit from the USACE.

The Department regulates the management of dredged material from out-of-State waters pursuant to the permits issued for the New Jersey facility which will handle the dredged material. These permits identify the dredged material suitable for management at the facility (locations of origin, sediment quality characteristics, quantities, etc.). Any dredged material originating in out-of-State waters would have to meet the requirements specified in the permits for the New Jersey management facility. The sediments to be dredged must comply with all of the sampling and testing requirements and protocols applicable to projects in New Jersey waters. However, note that only Testing Exclusion Case #1 (see Section III-C) will be applicable to dredged material originating in out-of-State waters. The specific evaluative criteria applied will vary with the proposed disposal/management/use alternative and its location. Likewise, dredged material from out-of-State waters proposed to be used in New Jersey would have to meet the same regulatory, sampling, and testing requirements as that of dredged material from New Jersey waters. Given these requirements, any out-of-State applicant(s) proposing to dispose/manage or use dredged material in New Jersey must contact the Department to discuss the project prior to the submittal of permit applications. The background information listed in Section III-A must be submitted to the Department prior to this discussion.

In general, an applicant proposing to dispose of or use dredged material originating in New Jersey at an out-of-State location would have to demonstrate to the Department that this option is approved by the state proposed to accept or use the material. This would consist of a letter from the appropriate regulatory agencies of the state where the disposal facility or use option is located, or copies of current facility permits, verifying that the facility is operating in accordance with applicable rules and regulations and can lawfully accept the dredged material for the declared disposal or use option. Note that the state proposed to accept or use the material may have different sediment sampling and testing requirements and evaluative criteria than those of the Department.

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

A number of factors are considered by the Department in its evaluation of a dredging project and proposed dredged material management alternatives. In general, each proposed project has its own set of potential problems and impacts to the environment and public health. Thus, not all of the concerns or regulatory requirements discussed in this appendix are applicable to all projects. To some degree, each proposed project will be evaluated by the Department on a "case-by-case" basis.

The Department will ensure the appropriate application of this appendix in its regulatory reviews. For example, the Department has divided the tidal waters of New Jersey into three geographical regions based on the expected degree and type of sediment contamination, and historic/potential dredged material management alternatives (see Figure 1 and Section III-B). In general, the applicable regulatory requirements vary between these regions, but are similar for projects located within any one region.

Finally, the Department will periodically revise this appendix as its knowledge and experience increases, additional research is completed, new dredging and dredged material management alternatives become available, and in response to comments from the public. These revisions will also consider the Department's regulatory decisions to further ensure consistency in the Department's regulatory program. In the future, it is expected that many of the case-by-case decisions now required of the Department will be eliminated, and more specific regulatory criteria will be developed for various types of dredging projects and dredged material management alternatives.

Chapter III - Information Required of All Projects

A - Background Information

In order for the Department to determine what specific sampling and testing are required for a proposed dredging project and the management of the dredged material, background information must be submitted to the Department. The following information shall be submitted to Department for all applications:

1. The proposed dredging method, project depth, and areal extent of project.
2. A hydrographic survey of the dredging site taken within the past six months. All hydrographic surveys shall be performed by an ACSM (American Congress of Surveying and Mapping) certified hydrographer, a licensed land surveyor with five years hydrographic experience, or a professional engineer. For detailed information on how to conduct these surveys, see USACE (2002), Engineer Manual for Hydrographic Surveying. This USACE manual provides information on levels of accuracy, transect line spacing, acceptable surveying methods, and the class of survey applicable for a specific project. The hydrographic survey and plans of the dredging project submitted to the Department should also be consistent with the following criteria:

- all hydrographic/survey plans submitted shall be of a scale no greater than one inch equals 100 feet;
- all plans shall be submitted folded with an accompanying site location map (a USGS quadrangle is preferred);
- all projects must provide precision bathymetry (accurate to 0.10 foot vertically and one foot horizontally);
- all plans submitted shall show nearby outfalls, bulkheads, dolphins, mooring areas, turning basins, and any other prominent surface or bottom features;
- all plans must accurately identify proposed core sampling locations;
- hydrographic plans must be dated indicating the time the survey was taken and when the plan(s) was prepared;
- all plans must identify the areas to be dredged;
- all plans shall identify project depths in feet below mean low water;

3. The location of the proposed disposal/management area, photographs of the disposal site, and method of transporting material to the disposal area. For proposed use options, a description of how the dredged material is to be used must be provided.
4. The estimated volume of dredged material and length of time necessary to conduct the dredging project, including approximate number of barge trips, if applicable.
5. An inventory of aquatic resources in the area to be dredged such as shellfish habitat, submerged vegetation habitat, wetlands, shorebird nesting habitat, migratory pathways for finfish, and other aquatic organisms. Mapping of many resources is available from the Division. The Division may require surveys at the application stage if insufficient data are available for the Division to determine the project's compliance with the Coastal Zone Management rules (such a determination will be made on a project-specific basis).

The Department recommends that the following information also be submitted with the application. This information will be utilized by the Department as part of its review to

determine the potential of sediments in the dredging project area to contain contaminants, in an effort to minimize the sampling and testing requirements for applicants, and to develop a sampling plan. Any additional available information related to potential contamination or non-contamination of the sediments should also be submitted.

6. The location and type of all existing outfalls to surface waters on site and within 500 feet of the site.

7. Where available, a 10-year history and summary of past dredging events, including grain size, total organic carbon, percentage moisture, and bulk sediment chemistry analysis data.

8. The past history of on-site and adjacent land uses, and documented spills (including type, volume, and date) either on land or into surface waters.

9. An inventory of known and suspected historic upstream and downstream spills and unauthorized discharges of pollutants.

10. The location of any potable water intakes within one mile of the disposal site.

Pre-application conferences in accordance with N.J.A.C. 7:7-22 are recommended prior to the actual submittal of a permit application, to discuss the proposed project, required permits, sampling and testing protocols, and other information which must be submitted with the application. At this time, a project manager from the Department will be assigned to the proposed project and will act as the Department's point of contact with the applicant. The purposes of the pre-application conferences are (1) to preliminarily identify potential project impacts and areas of concern, (2) to identify the permits required for the proposed project, (3) to develop the sampling and testing plans needed to obtain the data required by the Department to properly characterize the sediments to be dredged (which will, in part, be used to evaluate the potential impacts of the dredging operation and the applicant-selected dredged material management alternative), (4) to identify other information the Department will need as part of its regulatory review process, and (5) to develop a plan of action and tentative schedule for completing data-gathering and review activities, ultimately leading to a regulatory decision by the Department.

B - Geographical Regions

Based on existing information and experience, the Department has divided the tidal waters of New Jersey into three geographical regions (see Figure 1). In general, the expected degree and type of sediment contamination, and historic/potential dredged material management alternatives are similar within each region. Likewise, the applicable regulatory requirements are expected to be generally similar for projects located within any one region, but will vary between the regions.

The three regions are described as follows:

Region 1 - North of Sandy Hook (including Raritan Bay, Sandy Hook Bay, Raritan River, Arthur Kill, Kill Van Kull, Newark Bay, Passaic River, Hackensack River, Upper and Lower New York Bays, Hudson River, and associated tributaries)

Region 2 - the Atlantic Ocean coast from Sandy Hook to the western entrance of the Cape May Canal, including the Navesink and Shrewsbury Rivers, Barnegat Bay and associated tributaries, Mullica River, and Great Egg Harbor River;

Region 3 - Delaware Bay, tidal Delaware River, and associated tributaries.

C - Testing Exclusions

Testing of dredged material for contaminants will not always be necessary. Based on the volume of dredged material, the potential for contaminants to be present, and the proposed management alternative, the Department has developed the following five cases in which dredged material will be excluded from bulk sediment chemistry, elutriate, modified elutriate, and biological testing (see Figure 2). For exclusions from testing for evaluation of ground water impacts, see Section IV-C(4).

Case 1 - Sand:

No further testing will be required if:

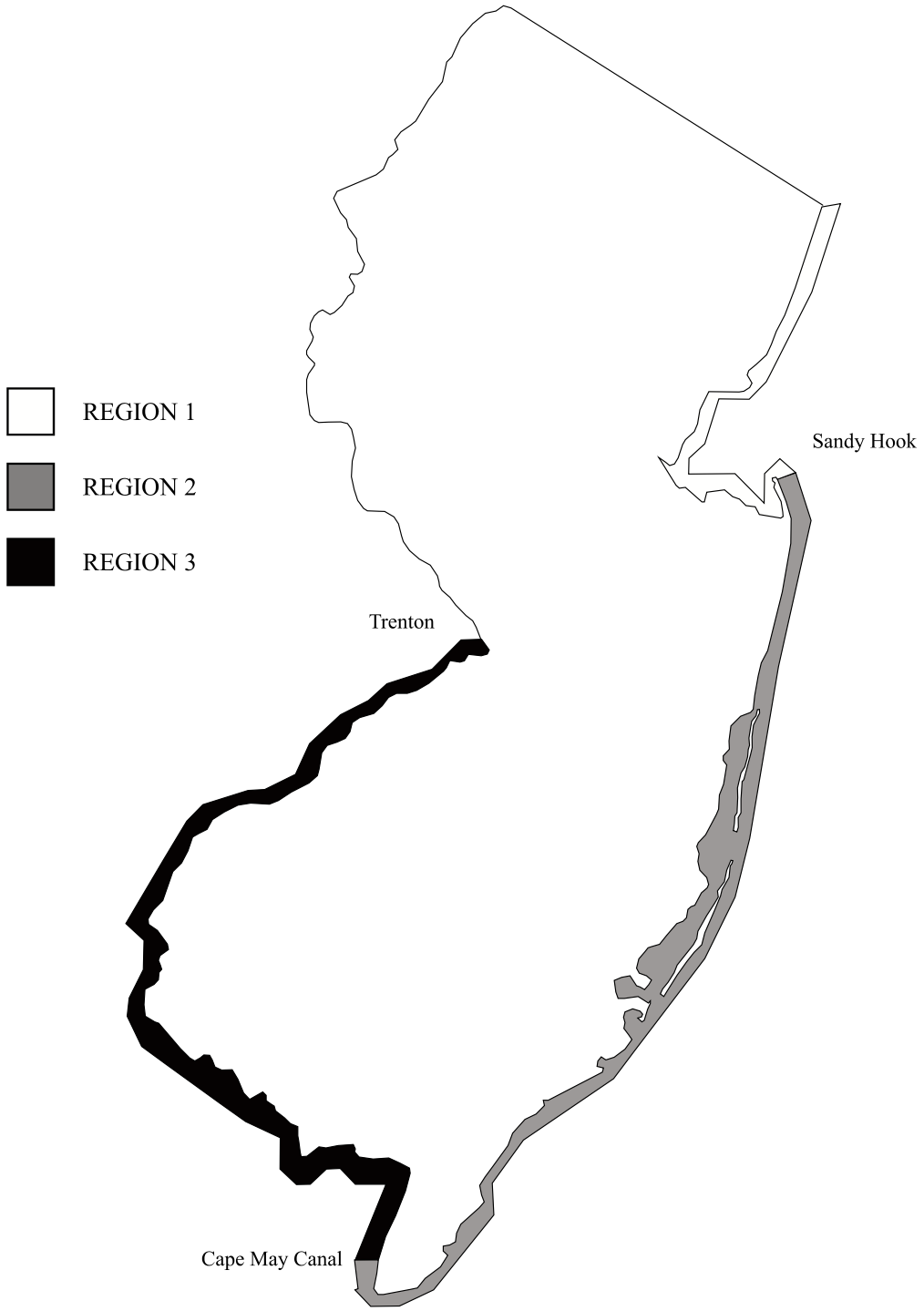
- the material to be dredged is greater than 90 percent sand (grain size >0.0625 mm); and
- other background information (for example, no known historical spills or discharges of pollutants in the project area, previous sediment chemistry data, etc.) does not lead the Department to believe the material may be contaminated.

Case 2 - Subaqueous Disposal Pits:

No further testing will be required for dredging projects where less than 1,000 cubic yards of dredged material will be removed over the five-year life of the waterfront development permit and disposal will occur in a subaqueous disposal pit approved by the Department.

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Figure 1: Schematic Diagram Depicting Three Geographic Regions of New Jersey
(for detailed description - see text)



Case 3 - Residential Properties in Region 2:
No further testing will be required for dredging projects in Region 2 which meet all of the following requirements:

- less than 500 cubic yards of dredged material will be removed over the five-year life of the waterfront development permit;
- the dredged material will be placed on the upland portion of the residential property adjacent to the area being dredged;
- the dredging site contains four or less boat slips;
- the upland property is residential and owned by the same person(s) as the dredging site; and
- the dredged material will be capped with a six-inch layer of clean fill.

Case 4 - Small Projects in Region 2:
For dredging projects in Region 2, no further testing of dredged material will be required if all of the following requirements are met:

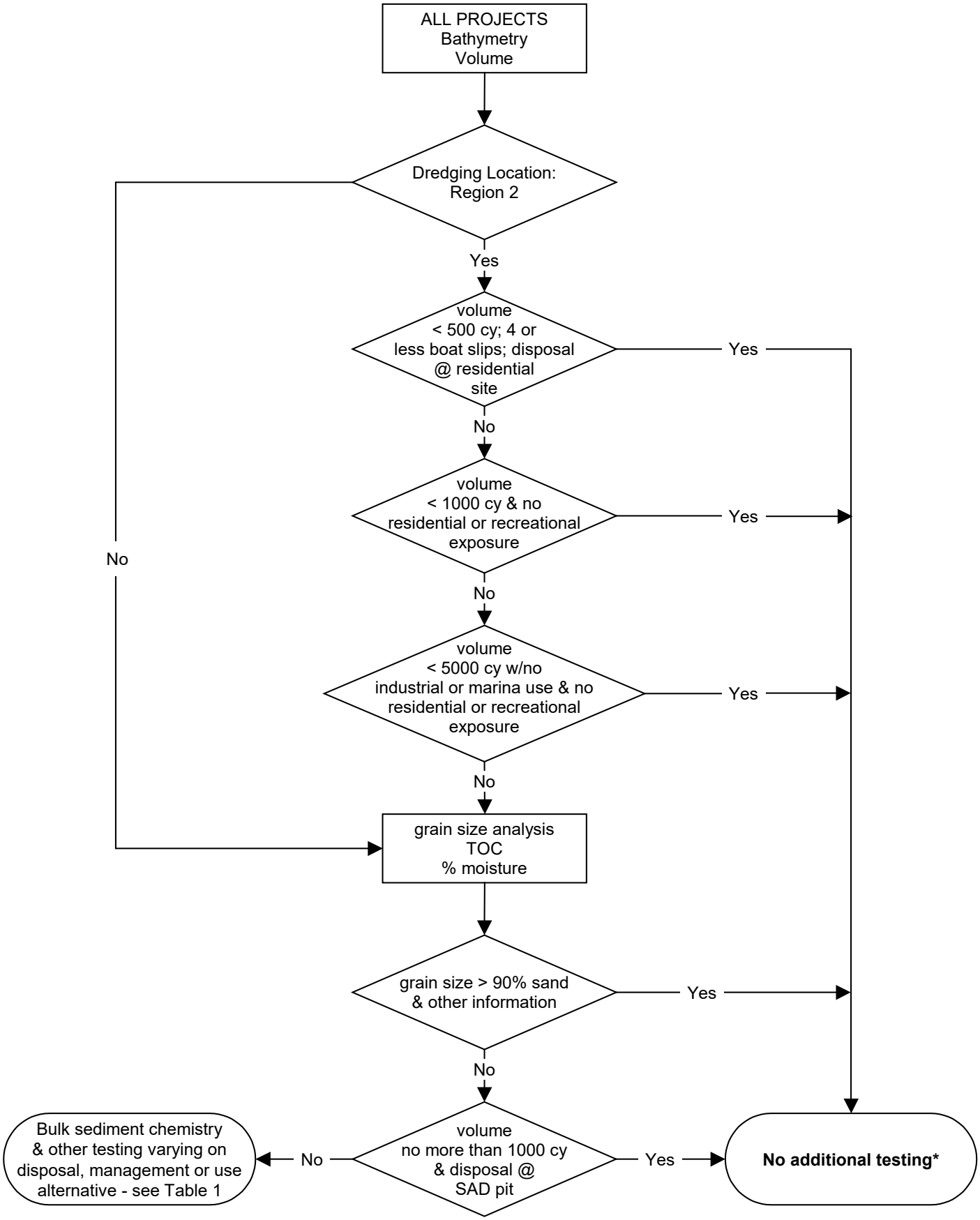
- less than 1,000 cubic yards of dredged material will be removed over the five-year life of the waterfront development permit; and
- disposal is proposed in an area which will not be subject to residential or active recreational use.

Case 5 - Small Marinas, Channels, and Other Projects in Region 2:
For dredging projects in Region 2, no further testing of dredged material will be required if all of the following requirements are met.

- less than 5,000 cubic yards of dredged material will be removed over the five-year life of the waterfront development permit;
- there has not been an historic or current upland industrial use, there is no history of spills or discharges of pollutants in the area, and the site is not now or previously occupied by a marina/marine basin of 25 or more boat slips; and
- disposal is proposed in an area which will not be subject to residential or active recreational use.

For the purposes of these testing exclusions, areas of "active recreational use" refer to those locations and/or facilities visited/used by the general public on a frequent basis. Such recreational areas include sports facilities (for example baseball fields, basketball and tennis courts, golf courses), playgrounds, picnic sites, swimming areas (pools, beaches, shores), and fishing areas. This term does not include more "passive recreational areas", such as hiking trails and open space areas.

Figure 2: Dredged Material Testing Schematic



*Note: Additional testing will be required for ocean disposal or placement at the Historic Area Remediation Site

The proposed sampling plan must be presented to the Department for review and approval prior to samples being taken. In addition, the required information discussed in Section III-A must be submitted to the Department with the proposed sampling plan. The sampling plan must include the following information.

(1) Development of a Sampling Plan

a. Sample locations should be chosen so as to provide representative information on the volume, potential contamination, grain size, total organic carbon, and percentage moisture of sediments to be dredged.

b. In order to evaluate contamination of the sediments by pollutants, the sampling plan should include locations near the positions of any outfalls, tributaries, industrial sources, and historical spill areas. Previous test data for maintenance dredging projects should also be taken into account when choosing sampling locations.

c. The required number of sediment core samples to be taken per volume of sediment to be dredged, and the maximum number of core samples per analytical composite, is based (in part) on the application of guidelines developed for the Puget Sound Dredge Disposal Analysis Program (USACE, Seattle District et al., 1997). This guidance has been used to determine the total number of core samples which will be necessary to fully characterize the dredging project. In most cases, individual core samples may be composited for analytical purposes.

d. For all projects (that do not meet Testing Exclusion Cases #3, #4, or #5 -- see Section III-C), a minimum of three core samples must be collected. For general guidance on the required number of core samples to be taken per volume of sediment to be dredged and the maximum number of core samples which may be composited, use the following table:

	Maximum Project Size (cubic yards (CY))	Max Volume per Core (cubic yards (CY))	Max # Cores per Composite
Region 1 (except Ambrose and Sandy Hook Channels)	60,000 CY	4,000 CY	3
Region 2	72,000 CY	8,000 CY	3
Region 3	64,000 CY	8,000 CY	2

For dredging projects of larger volumes than that stated above, sampling plans and compositing scheme will be developed on a case-by-case basis by the Department in conjunction with the project applicant. Note, however, that each project (regardless of size) should be assessed on a site-specific basis, taking into consideration reach boundaries and the areal extent of the project, the location(s) of outfalls and tributaries, as well as the volume of dredged material.

e. Samples may be composited using the following general guidelines. The Department will determine the sample compositing scheme for the project:

1. Separate cores may be composited only if the grain size and likelihood of contamination is similar based on depositional characteristics, spill history, location of outfalls, etc. If a group of cores is greater than six feet in length, similar strata occurring at approximately the same depths may be composited; dissimilar strata cannot be composited.

2. The number of cores to be composited should be kept to a minimum. Minimal compositing will serve to fully characterize the sediments proposed for dredging and disposal/management/use.

3. Compositing will be conducted on a reach-by-reach basis. A reach is a continuous stretch of waterway not separated by any structure and subject to similar hydrodynamic and depositional features as well as similar upland inputs. Reach boundaries must be approved by the Department.

f. For proposed uses of dredged material (see Chapter V and Attachment G), the general sampling and compositing requirements specified above may not be appropriate. The Department will develop the sampling plan and compositing scheme for such projects on a cases-by-case basis in conjunction with the project applicant.

g. The Department will coordinate with the USACE and USEPA on the approval of sampling plans and testing for ocean disposal projects in New Jersey waters.

(2) Operational Aspects of Sampling and Compositing

a. In order for the data to be valid, all sediment core samples must be taken in accordance with the approved sampling plan, and the guidance specified in this Section and in Attachment A.

b. Core samples are to be taken to the proposed project depth plus allowable overdredge (two feet).

c. Field logs of each core shall be submitted. Grain size analysis shall be conducted, using the method of R.L. Folk, 1980.

d. Core samples six feet or less in length may be homogenized. Separate cores may be composited only if the grain size and likelihood of contamination is similar based on depositional characteristics, spill history, location of outfalls, etc.

e. Cores greater than six feet in length may be homogenized unless there are distinct visual strata in grain size and composition which are at least two feet in depth. The Department shall be notified of any such cores that show grain size stratification prior to homogenizing. For those cores that show grain size stratification, each strata with a depth of two feet or greater must be analyzed separately (that is, the entire core should not be homogenized for testing purposes if distinct strata are present). If a group of cores is greater than six feet in length, similar strata occurring at approximately the same depths may be composited; dissimilar strata cannot be composited.

f. The compositing scheme associated with a sampling plan approved by the Department may need to be modified based on the actual core samples collected. If there are large differences in the grain size characteristics of the individual cores -- and thus potentially large differences in the degree of contamination of the sediments -- it is not appropriate to composite the individual cores, even if so required by the approved sampling plan and compositing scheme. In such cases, before proceeding to composite and analyze the samples, immediately contact the Department in order to obtain a revised compositing scheme.

g. In those cases in which there is a potential for the uncovering of more contaminated sediment, such as new work dredging projects in shoaling zones, the bottom six inches of each core will be separated from the remainder of the core and reserved. The material shall be visually inspected to determine if it is predominantly sand, gravel, silt or clay. The bottom 6 inches is considered representative of the material that will be exposed as a result of dredging. If the 6 inch sample is less than 90 percent sand, as determined by grain size analysis, bulk sediment chemistry analysis will be required. If the bottom six inches of each core is similar in grain size and visual characteristics, this material may be composited for analysis.

The purpose of testing the bottom six inches of a sediment core is to identify a potential problem - that more contaminated sediments will be exposed by the dredging project, and thus available to biota. If such contaminated sediments are found, a number of management/regulatory options are available to the project applicant and the Department:

- not permit the dredging project as proposed;
- dredge to a shallower depth than proposed, so as not to expose the more contaminated sediments; or
- over-dredge the project area, removing and disposing of the contaminated sediments (that is, "remedial/environmental dredging").

The Department will work with the project applicant to develop an appropriate plan of action in the event the proposed dredging project will uncover more contaminated sediments.

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Chapter IV - Management of Dredging Activities and Dredged Material

A - Management of Dredging Activities and Transport of Dredged Material

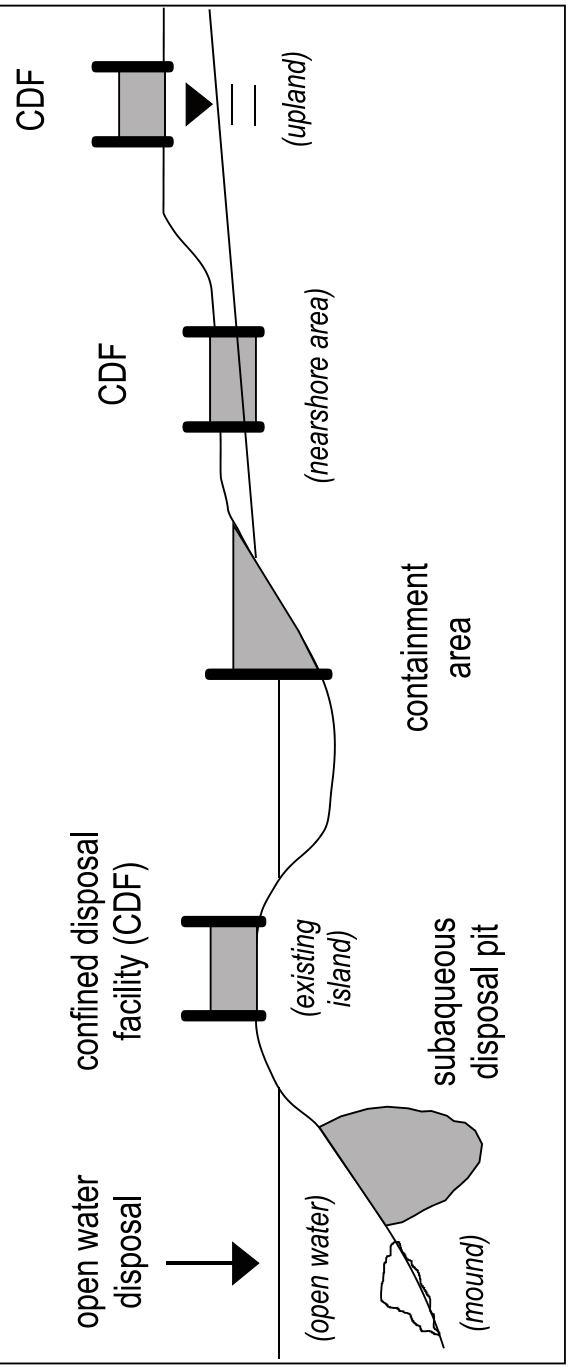
(1) Authority/Permitting Process: Refer to Sections II-B and C for a discussion of relevant statutes, regulations, and an overview of the permitting process. The Department will review proposed dredging operations under the Coastal Zone Management rules (N.J.A.C. 7:7). These rules provide the basis for the Department's review, including an evaluation of the locational requirements for the issuance of permits for maintenance and new dredging projects.

The riparian statutes contained within Titles 18A (N.J.S.A. 18A:56-1 et seq.) and 12 (N.J.S.A. 12:3-1 et seq.) may also apply to a dredging project. Tidelands conveyances are not required when dredged material is removed from tidelands and placed in a different tidelands location. This would include ocean disposal operations, reprofiling, or disposal into subaqueous disposal pits. It would also include placement on upland sites which are State-owned formerly flowed tidelands.

Construction of a subaqueous disposal pit by the removal of material may require a tidelands conveyance to transfer ownership of the tidelands from the State of New Jersey to the owner/operator of the pit. A conveyance may also be needed for a nearshore diked containment area. If dredged material having an economic value is placed in an upland location by an entity other than the State or Federal government, a commercial dredging license must be issued by the Tidelands Resource Council. An example would be dredged material that could be subsequently used or sold as construction aggregate or fill material.

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Figure 3: Schematic Diagram of Dredged Material Disposal Alternatives



THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Table 1: Potential Sediment Testing and Permitting Requirements for Various Dredged Material Management Alternatives

Management Alternative	Open Water	Subaqueous Disposal Pit	Containment Area	Upland CDF	Use
TESTS					
Grain Size, TOC, & Percent Moisture	R	R	R	R	R
Bulk Sediment Chemistry	R*	R*	R*	R*	R
Modified Elutriate	(1)	(1)	R*	R*	-
Leaching Test	-	-	(2)	(2)	(2)
Biological Testing	?	-	?	?	(3)
PERMITS					
Waterfront Dev.	R	R	R	PR	PR
Tidelands Instrument	R	R	R	PR	PR
Water Quality Cert.	R	R	R	PR	PR
NJPDES-DSW	-	-	(1)	(1)	-
NJDES-DGW	-	-	(2)	(2)	-
Stream Encroach.	-	-	PR	PR	PR
CAFRA	-	-	PR	PR	PR
Fresh. Wetlands	-	-	PR	PR	PR
Coastal Wetlands	-	-	PR	PR	PR

Key: R - required in all cases
R* - required except where sediments meet an applicable testing exclusion (see Section III-C)

(1) - may be required when dredged material originates in a waterbody different from that in which the management site is located
(2) - may be required depending upon the results of site specific groundwater impact evaluations and/or sediment characteristics
(3) - may be required depending on the proposed use
? - may be required depending on bulk sediment chemistry data; to be coordinated with USACE
PR - potentially required if the facility is to be located in an area regulated by the listed program

(Note: In addition to required State permits, permits will be required from the USACE pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Federal Clean Water Act.)

(2) Potential Impacts/Regulatory Objectives: Potential adverse environmental impacts associated with dredging operations arise from the alteration of benthic habitat as a direct result of the operation and the dispersal of sediments and associated contaminants away from the dredging area. The Department's objective in regulating dredging operations is to minimize the potential for such impacts to occur.

The dispersal of sediments away from the dredging area may result in adverse impacts. Impacts could result from the direct physical settlement of the dispersed sediments onto sensitive benthic areas. Dispersal of contaminants associated with these sediments could have impacts to both benthic and water column food webs. The Department has developed a list of best management practices which should be used to minimize the creation and dispersal of suspended sediments during dredging operations.

New dredging should avoid impacting areas of ecological importance. The Coastal Zone Management Rules provide the basis for the Department's review of proposed dredging projects and evaluation of the potential impact of dredging projects. In its review of the location and need for any dredging operation, the Department will consider direct and indirect impacts to sensitive areas, such as shellfish beds and finfish migratory pathways. To evaluate potential impacts to estuarine benthic communities as a result of the dispersal of contaminated suspended sediments, the Department will compare the bulk sediment chemistry data with the guideline values developed by Long et al. (1995) and other literature sources, on a case-by-case basis.

The Department is also concerned about the potential long-term and cumulative impacts of dredging operations. The potential for such impacts will be evaluated as part of the Department's review of proposed dredging projects.

(3) Best management practices (BMPs): The Department has identified a number of BMPs which should be used to minimize the potential for, and magnitude of, adverse environmental impacts that could result from dredging operations. The need for any BMPs will be determined by the Department and will be included as permit conditions. The applicability of the use of a

particular BMP for a dredging project will be evaluated by the Department in consultation with the permit applicant.

The effectiveness of a particular BMP to minimize potential adverse impacts will vary with the conditions present at a particular dredging operation. Thus, the Department will consider this list of BMPs as a "menu," from which those practices anticipated to be most effective and implementable for a particular dredging project can be selected. The use of these BMPs would then be incorporated as conditions into the permits issued by the Department for the dredging operation.

The following BMPs have been identified by the Department. This list is not intended to be all inclusive, and additional BMPs will be considered by the Department.

*Hydraulic Dredging - This method can be used when the channel or berthing area configuration, the type of sediments to be dredged, and the volume of dredged material allows it. Hydraulic dredging is preferable when an acceptable upland confined disposal facility (CDF) is available within pumping distance of the dredging area. It reduces the generation of suspended sediments at the dredging site. However, this method results in the production of large volumes of a high percent water content dredged material slurry. Thus, the proposed upland CDF must be designed and operated to accept such material.

*Closed Clamshell - The use of a closed, watertight clamshell reduces the production of suspended solids at the dredging site. An example of an acceptable closed clamshell device is described in Raymond (1983). A closed clamshell will be required by the Department when the sediments to be dredged are contaminated at levels warranting concern. A closed clamshell would also be required by the Department whenever a no-barge-overflow permit condition is in effect. The Department has identified a number of areas in the New York-New Jersey Harbor portion of Region 1 where existing information shows the sediments to be contaminated at levels warranting concern; dredging operations in these areas will require the use of no-barge overflow or shunting, and thus also a closed clamshell.

*Dredging Practices - A number of procedures can be employed by the dredging contractor to minimize the creation and dispersal of suspended sediments when using a clamshell dredge. These include:

(1) maximizing the size of the "bite" taken by the clamshell. This also results in a minimization of the number of "bites" needed to dredge a particular volume of sediment;

(2) slowly withdrawing the clamshell through the water column;

(3) not hosing down or rinsing sediments off the sides and gunwales of the barge.

*No-Barge-Overflow - This BMP reduces the creation and dispersal of suspended sediments when finer-grained sediments are dredged. It will be required by the Department when the dredged material is contaminated at levels warranting concern. This condition will always apply to dredging operations in Newark Bay, the Passaic River and its tidal tributaries from Newark Bay to Dundee Dam, the Hackensack River and its tidal tributaries from Newark Bay to Oradell

Dam, the Kill Van Kull, the Arthur Kill, Elizabeth Channel, City Channel, and Upper New York Bay. This condition will also apply when the dredged material is to be rehydrated as part of its disposal/management.

The purpose of this BMP is to limit the dispersal of contaminated sediments from the dredging site. If the applicant for a specific project can demonstrate that State Water Quality Criteria can be met at the dredging site with barge overflow, the Department will not require this BMP. This "demonstration" must include detailed project- and site-specific evaluations, monitoring, and/or modeling.

*Shunting - This BMP involves the active pumping of free water in a barge to the bottom of the water column at the dredging site. It may act to reduce turbidity in the upper water column. The discharge end of the shunting system must include a diffuser in order to minimize the potential for additional disruption of benthic sediments. Additionally, the pumping rate and location of the discharge must not result in the disruption of in-place sediments. This BMP could be used as an alternative to barge-overflow in reducing the volume of water in the barge.

*Seasonal/Migratory Periods - Depending on the location of the dredging area, the Department may prohibit operations during certain times of the year to minimize potential adverse impacts to anadromous or other migratory finfish, nesting shorebirds, etc.

*In certain semi-enclosed water bodies, dredging only on the incoming tide may provide additional time for suspended sediments to settle, thus minimizing the dispersal of contaminated sediments out of the water body.

*Dredging contractors may be required to employ independent, on-board dredging inspectors certified by the USACE. These inspectors will observe the dredging and disposal operations to ensure compliance with all permit conditions. (Note: The Federal government requires such inspectors for all ocean disposal projects.)

*Silt curtains may be practical for use in areas where the water current is less than one knot. The use of silt curtains may minimize the upper water column dispersal of sediments from the dredging area. This BMP can also be used to protect tidal creeks, interpier areas, etc. adjacent to the dredging area.

*Split-hull barges should only be used in dredging projects which will use open water disposal methods or subaqueous disposal pits.

*Dredged Material Pumping Systems - The use of a number of pumping systems can provide for more precise dredging operations and minimize the resuspension of sediments at the dredging site. In addition, these systems can reduce the volume of the dewatering discharge from an upland CDF, thus reducing the potential for impacts to surface water quality. The greatest percent solids transfer is obtained using positive displacement pumps which move material at *in situ* moisture levels. Typically used for concrete, these devices can achieve pumping capacities

in excess of 140 cubic yards per hour. Reduced water content of dredged material can also be achieved through the use of vortex type pumps, which in combination with a directional control system serve the same function as a closed clamshell or a hydraulic cutterhead. However, the material removed has an increased solids content compared to typical hydraulic dredges, and is similar (if not greater than) a closed clamshell, but with far less sediment disturbance and turbidity generation.

(4) Testing Requirements: Chapter III discusses the sampling required for all proposed dredging projects. Sediments which do not qualify for a testing exclusion, as described in Section III-C, will require additional testing (bulk sediment, modified elutriate, etc.) as discussed in Chapters IV and V.

(5) Overland Transport of Dredged Material: The Department's major concern with the transport of dredged material, by truck or rail, is the prevention of spills and leaks. Dredged material transported in trucks must be managed so as to preclude spillage or leakage onto public roadways. It is recommended that dredged material be dewatered prior to transport by truck. Dredged material that has been dewatered (that is, no free water) should be transported in lined or watertight trucks, adequately covered/tarped over the top, to prevent the spilling or air dispersal of fugitive material. Dredged material shall be considered to contain free water unless it has been dewatered, amended, and/or otherwise stabilized/processed, and/or it has been demonstrated to the Department that the dredged material has no free water.

If dewatering is not possible, dredged material containing free water must be transported in trucks with water-tight tailgates, liners, or other methods to prevent leakage. When filling the trucks, sufficient freeboard must be maintained to prevent spillage over sideboards.

Measures must also be implemented to prevent the off-site tracking of dredged material from the loading and unloading operation sites. This can be accomplished with the use of a stone tracking pad and/or a truck wash station. All trucks, equipment, and staging areas used in the loading and transport of contaminated dredged material should be thoroughly cleaned and/or decontaminated, as appropriate. In addition, all efforts must be made to keep streets free of any dredged material released during transport operations; if needed, routine/periodic sweeping and street cleaning should be undertaken.

B - Open Water Alternatives

(1) Authority: Refer to Sections II-B, C for a discussion of relevant statutes and regulations.

Open water disposal refers to disposal in tidal waters. While the USEPA/USACE Draft Inland Testing Manual (1993) refers to all tidal waters which are not ocean waters as inland waters, the Department will refer to these tidal waters as open waters.

All open water disposal operations in State waters require a WQC (this is required in conjunction with the permit issued by the USACE pursuant to Section 404 of the Clean Water Act). Non-Federal projects also require a waterfront development permit (which is a Federal consistency

determination). Federally-conducted projects require a Federal consistency determination (but not a waterfront development permit).

(2) Ocean Disposal:

(a) Overview. There are currently six Federally authorized ocean disposal sites in proximity to New Jersey. They are the Mud Dump/Historic Area Remediation Site (approximately six miles offshore of Sea Bright), sites at Shark River Inlet, Manasquan Inlet, Cold Spring/Cape May Inlet, and Absecon Inlet (the Inlet sites may only be used for the disposal of sediments dredged from each inlet), and Buoy 10 in Delaware Bay (the Buoy 10 site may only be used for disposal of dredged material from specific reaches on the Delaware River). The expansion of any of these sites or the designation of new sites will require a Federal consistency determination from the Department. In addition, individual disposal operations will require a Federal consistency determination.

(b) Testing Requirements. Disposal of dredged material in ocean waters is regulated by the USACE and the USEPA pursuant to the Marine Protection, Research, and Sanctuaries Act. The State of New Jersey has discretionary authority to review disposal activities at ocean disposal sites pursuant to the Federal Coastal Zone Management Act. The review of proposed ocean disposal operations at currently designated ocean disposal sites will be coordinated with the USACE and USEPA.

(3) Other Open Water Disposal Areas:

(a) Overview. Dredged material can be placed in nearshore waters through sidecasting, reprofiling, interpier disposal, or other means. If the material will be contained by a bulkhead, berm, etc., it will not be considered open water disposal, but will be regulated as a containment area (see Section IV-E).

The following open water disposal sites have been approved by the Department and used repeatedly for the disposal of sediments dredged from the Intracoastal Waterway or adjacent channels. Proposals for open water disposal at these sites (or new proposed sites) will be reviewed by the Department on a case-by-case basis:

- Great Sound site, located north of Gull Island, Cape May County;
- Great Bay site, located behind Little Beach Island, Atlantic County.

(b) Permitting Process. Open water disposal is currently acceptable only in the designated areas. Where the dredged material is less than 90 percent sand, additional testing will be required. (Note: This criterion of 90 percent sand is not based on the mean of the samples/cores collected for a project. This criteria applies to each distinct portion (that is, reach) of the dredging project "represented" by an individual sample/core.) Further, practicable upland disposal alternatives must not be available. Disposal at a designated open water site requires a waterfront development permit (with the exception of Federal projects), a WQC, and a Federal consistency determination. (Note: A Clean Water Act Section 404 Permit will also be required from the USACE.)

(c) Potential Impacts/Regulatory Objectives. Disposal at an open water site requires a demonstration that no practicable alternative site exists, Federal and State Water Quality Standards will be met, and potential adverse environmental impacts will be minimized. An evaluation of the proposed disposal operation will be made using the Coastal Zone Management Rules (N.J.A.C. 7:7) to ensure that sensitive areas will not be adversely affected. Sensitive areas include, but are not limited to, shellfish habitat, prime fishing areas, submerged vegetation, shallow water habitat, and threatened and endangered species habitat.

(d) Testing Requirements. Required testing of dredged material to be disposed of at an open water site includes an analysis of sediment cores for grain size, total organic carbon, and percent moisture. If the dredged material is greater than 90 percent sand, no additional testing will be required. If the dredged material is less than 90 percent sand, the Department may require additional testing, such as that contained in the USEPA/USACE Draft Inland Testing manual (1993). See Section III-D for sampling procedures.

(4) Reprofiling Operations

(a) Definition. Reprofiling is a method of maintenance dredging which consists of the movement of sediments from one location to a specific adjacent and deeper location, without removing the sediments from the water, resulting in a recontouring of both the reprofiled and depositional areas. It is usually performed by a crane or tug boat dragging a steel I-beam across the area to be reprofiled. The drag is terminated in the adjacent, deeper area, where the sediments are deposited (see Figure 4). Reprofiling operations are limited to the displacement of accumulated sediments within a previously dredged area to the previously approved depth. Overdredging will not be permitted.

(b) Permitting Process. The Department considers the use of reprofiling only as an interim management technique suitable for smaller projects (generally less than 5,000 cubic yards in size). Its use requires a demonstration that no other dredged material management alternative discussed in this appendix is practicable. Further, reprofiling will be restricted to the New York-New Jersey Harbor area of Region 1, excluding Raritan Bay and its tributaries east of the Cheesequake Creek. A reprofiling operation will require a waterfront development permit, a WQC, and a Federal consistency determination from the Department.

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Figure 4a: Schematic Diagram of Reprofiling at Berthing Area

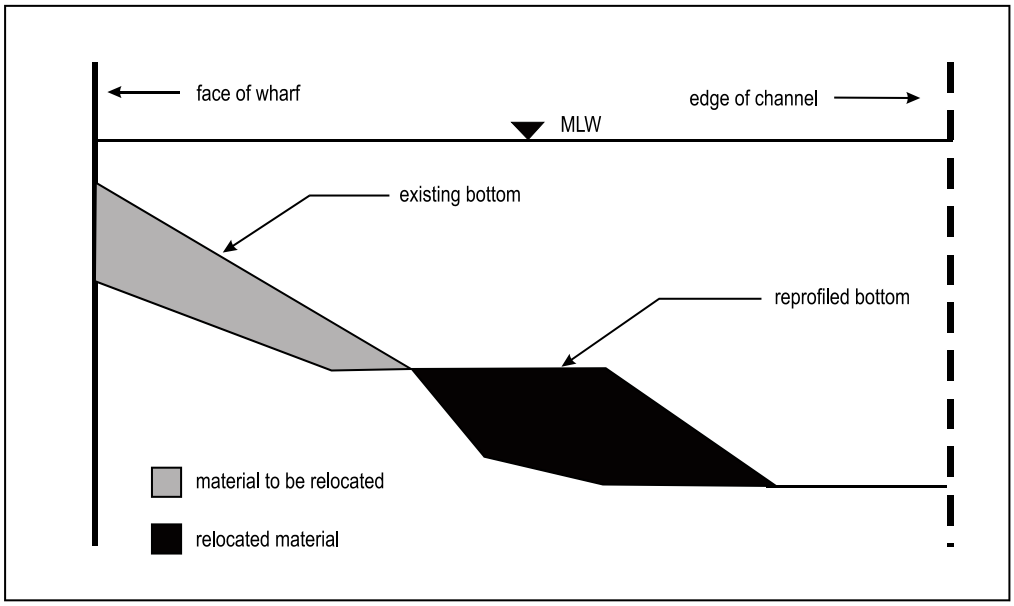
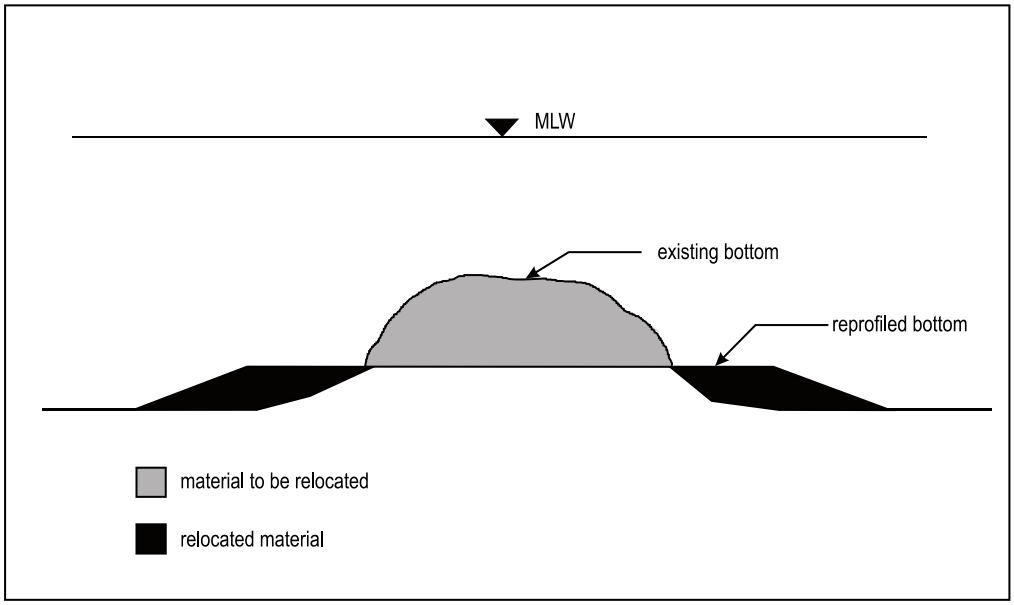


Figure 4b: Schematic Diagram of Reprofiling in Channel Area



(c) Potential Impacts/Regulatory Objectives. The Department's main concern with reprofiling operations is to ensure that the proposed depositional area is of sufficient size and depth to contain the relocated sediments. In addition, since reprofiling only moves sediments from one location to another, the Department is concerned that the sediments may be resuspended and redeposited in other areas, particularly adjacent berths and navigation channels. The redeposition of sediments may also adversely impact existing benthic communities in the vicinity of the project area. Whereas conventional dredging operations remove contaminated sediments from the aquatic ecosystem, reprofiling does not and, further, may result in the redistribution of such sediments. The potential for, and magnitude of, these impacts can be reduced by employing techniques to ensure that the resuspension/redeposition of the relocated sediments is minimized.

Reprofiling does not remove sediments from the aquatic environment, and thus is not a long-term solution to navigational problems caused by shoaling. Simply put, reprofiling begets more reprofiling.

(d) Management/Regulatory Process. The following criteria apply to proposed reprofiling operations and the identified information must be submitted with the permit application and/or reprofiling request:

i. The applicant must contact the Department to determine the boundaries of the area within which to conduct pre- and post-work hydrographic surveys. This survey area will typically include an area larger than the reprofiling and depositional locations, and will show bathymetry to any existing navigable channels and berths up to 500 feet from the work area.

a. The applicant must submit a pre-work precision hydrographic survey (accurate to 0.10 feet vertically and one foot horizontally), completed no more than 60 days prior to the submission of the permit application or reprofiling request.

b. The applicant must demonstrate that there is adequate capacity at the proposed adjacent depositional area(s) for the sediments to be relocated. This shall be accomplished through the submission of a cut and fill calculation prepared by a licensed land surveyor or a professional engineer.

ii. The cut limit for a reprofiling operation shall be a maximum of three feet.

iii. A second pre-work precision hydrographic survey must be completed no more than 48 hours prior to the start of the reprofiling operation. This survey shall be used in the additional quantitative cut and fill calculations stipulated in Item iv.

iv. Within 48 hours of the completion of the reprofiling operation, a post-work precision hydrographic survey must be completed. This post-work survey area shall be identical to the pre-work survey area, including the same survey stations. The bathymetric data collected shall be used to provide cross sections of the reprofiled and depositional areas, and to prepare a quantitative calculation to compare the actual volumes of cut and fill material.

v. A second post-work hydrographic survey of the survey area shall be conducted 30 days after the completion of the reprofiling operation, and plotted in cross section on the same stations as the pre- and post-work hydrographic surveys. No cut and fill calculations are required for this survey data.

vi. The survey data, cross sections, and quantitative cut and fill calculations for the post-work hydrographic survey (Item iv only) shall be submitted to the Department within 60 days of the completion of the reprofiling operation. Should the results of the hydrographic surveying/monitoring or cut and fill calculations demonstrate that sediments from the reprofiling operation are entering adjacent channels or berths, the Department may require that these sediments be removed, and/or may not approve further reprofiling operations in the project area.

vii. Reprofiling shall be accomplished by dragging a steel beam or pipe across the berth/channel bottom, thereby leveling accumulated sediment to a uniform, specified depth. Alternative procedures will be considered only under special instances where the use of a drag bar is impractical due to limited space in the project area.

viii. Sediment depositional areas used for all reprofiling operations must be a minimum of 100 feet from established navigation channels, unless otherwise deemed suitable by the Department.

Any waterfront development permits issued by the Department for reprofiling operations are valid in accordance with N.J.A.C. 7:7-8.2. However, only the initial reprofiling operation will be approved upon issuance of the permits. Subsequent operations must receive specific approval (this will be a condition of the permits). If the hydrographic surveys required by the Department show that the reprofiled sediments do not stay in the depositional area, future reprofiling operations may not be approved by the Department.

(e) Testing Requirements. Testing of the sediments to be reprofiled is not required.

C - Upland Confined Disposal Facilities

(1) Overview: Sediments in New Jersey's tidal waters may be impacted to varying degrees by a number of pollutants. Not all sediments are considered to be "contaminated." In order to place dredged material in an upland confined disposal facility (CDF), it must be demonstrated that the placement of the dredged material would not result in significant adverse impacts to terrestrial or aquatic ecosystems or pose risks to public health. The Department's regulatory programs are designed to identify and minimize potential adverse environmental impacts resulting from proposed activities. For dredged material upland CDFs, the magnitude of these impacts is dependent upon the following:

(a) Location of the facility and site-specific conditions (including compatibility with adjacent and nearby land uses);

(b) Characteristics of the dredged material proposed for placement at the facility;

(c) Design and construction of the facility;

(d) Operation of the facility; and
(e) Final closure and use of the facility site.

These five factors will be considered collectively, as regulatory decisions will be based on a comprehensive review of a proposed upland CDF. With proper design and operation of the upland CDF, the potential for adverse impacts can be reduced significantly. Upland CDFs will be designed, permitted, and operated on a case-by-case basis.

Siting of a proposed upland CDF will be addressed by the Division. In New Jersey's designated coastal zone, the Coastal Zone Management Rules will be applied to proposed sites. These rules include constraints on the types of activities which can occur in various types of coastal areas. In addition, a number of regulatory programs, such as the Freshwater Wetlands Protection Act and the Flood Hazard Area Control Act, may restrict the use of a particular site.

The major potential adverse environmental impacts associated with the upland containment of dredged material are surface and ground water contamination. Testing of dredged material for upland containment is driven, in large part, by the potential for contamination of surface and groundwaters. The discharge of contaminants from upland CDFs to surface water must be controlled to minimize potential adverse impacts to the aquatic ecosystem. The Department's testing requirements and evaluation protocols for surface and groundwater discharges are discussed in detail in Sections IV-C(3) and IV-C(4), respectively.

Potential adverse impacts could result from the dispersal of contaminants into terrestrial ecosystems effecting receptor organisms. The upland CDF must be designed and operated to minimize the dispersal of contaminants. A number of management techniques are available to address this concern. This topic is discussed in more detail in Section IV-C(5).

Potential adverse impacts to public health could result from human exposure to dredged material contaminated at levels which have been identified as being of concern. Potential exposure pathways with contaminated dredged material must be identified and controlled. This topic is discussed in more detail in Section IV-C(6).

End-use(s) and final closure of the upland CDF site must also be addressed in the regulatory process. Long-term impacts of the facility will be evaluated and appropriate management actions to minimize such impacts will be required. These concerns are discussed in more detail in Section IV-C(2).

(2) Design, Construction, Operation, and Closure:

(a) Authority. The Department will regulate the design, construction, operation, and closure of upland CDFs pursuant to the Waterfront Development statute. The New Jersey Flood Hazard Regulations and the Coastal Area Facilities Review Act may also be applicable.

(b) Potential Impacts/Regulatory Objectives. Potential adverse impacts which could result from the operation and interim/final closure of an upland CDF would be caused by the dispersal

of contaminants out of the upland CDF into the environment. These potential impacts are discussed in detail in Sections IV-C(1), (3), (4), (5), and (6). Potential contaminant migration pathways and exposure hazards can be minimized and controlled through oversight of the design, construction, operation, and interim/final closure of the upland CDF.

i. Design and Construction - an upland CDF is not fundamentally different in the structural aspects of its design from any earthen berm/dike. It must be capable of resisting the forces exerted by the weight of the dredged material placed within it and the hydraulic forces exerted by adjoining surface water bodies, underlying ground water, stormwater discharges, and dewatering effluent. The containment structure must be able to withstand the effects of erosion, settlement, provide a stable platform for the operation of equipment, and allow for the potential vertical expansion of the containment structure.

The USACE has considerable experience in the design of upland CDFs. The Department will use the technical standards in the following documents as the basis for its engineering review of the design and construction of proposed upland CDFs:

Confined Disposal of Dredged Material, Engineer Manual (EM 1110-5027), September 1987; and

Confined Disposal Guidance for Small Hydraulic Maintenance Dredging Projects - Design Procedures, Environmental Effects of Dredging Technical Note EEDP-02-8, December, 1988.

Where circumstances, as described in Section IV-C(4)(c), require the use of liners and leachate collection systems within the design of an upland CDF to control discharges to groundwater, the Department's regulatory standards for the design, construction, and quality control of landfill liners and leachate collection systems (N.J.A.C. 7:26-2A.7) will be used for technical guidance. The Department does not anticipate that the multiple liner system required for certain landfills will be needed in the design of upland CDFs.

Erosion control of all external surfaces of an upland CDF will be necessary to prevent undermining of the containment berms and to control sediment transport to adjoining surface waters. Erosion may be caused by wind and wave action, stormwater runoff, discharge of dewatering effluent, and infiltration of water through the containment berm. The New Jersey Standards for Soil Erosion and Sediment Control (N.J.A.C. 2:90) shall be applied to the design and construction of a proposed upland CDF. If required by the appropriate regional office of the Soil Conservation Service, a Certified Soil Erosion and Sediment Control Plan shall be obtained for the upland CDF.

The importance of following all aspects of the approved engineering design for an upland CDF must be emphasized. Accordingly, the Department will require the filing of "as built" plans, with a certification by a professional engineer licensed to practice in New Jersey that the approved engineering design plans have been adhered to.

ii. Operation - It will be necessary for the Department to have adequate operational oversight of an upland CDF in order to ensure that the stability and integrity of the containment structure is maintained, and to prevent the uncontrolled release of dredged material, ponded water, and associated contaminants. Additional oversight and/or monitoring may be needed to control the rate at which the upland CDF is filled, the manner in which it is filled, and how dewatering occurs in order to address potential requirements relating to surface water (Section IV-C3) and ground water (Section IV-C4) discharges. Additional oversight may be needed to address potential human and terrestrial ecosystem exposure concerns as they may arise on a case-by-case basis (see Sections IV-C5 and 6).

To maintain oversight, the Department will require the owner and/or operator of an upland CDF to submit an annual report to the Department. The report will summarize the past year's activities at the upland CDF. Projected activities for the next five years shall also be identified. The report shall document the following information:

(1) Condition of containment berms, dewatering and stormwater discharge weirs, and other engineering structures critical to the operation of the upland CDF. Any changes to the upland CDF must be first approved by the Department and revised "as built" plans documenting any significant changes submitted.

(2) Summary of disposal operations at the upland CDF, including a listing of all dredging projects and their volumes.

(3) Summary of maintenance and management activities conducted at the upland CDF, including regrading, ditching, crust management, and interim closure procedures, if required (see Section iii below).

(4) Summary of any dredged material removed from the upland CDF and its final use/destination.

(5) An analysis of available disposal capacity in the upland CDF. This will be compared with the projected disposal activities for the next five years and a running total of available capacity for the next five years estimated.

(6) Summary of surface and ground water discharge monitoring programs for all required parameters.

(7) Any additional monitoring or certifications required pursuant to Sections IV-C(5) and (6) of this appendix.

The USACE Engineer Manual EM 1110-2-5027, Confined Disposal of Dredged Material, includes discussions of a variety of concerns critical to the proper operation and maintenance of an upland CDF.

iii. Closure - It is expected that most of the dredged material placed in upland CDFs will be contaminated by organic and inorganic pollutants at various levels. It is necessary to assure long-term containment of the dredged material, in order to prevent the dispersal of contaminants into the environment. Potential human health exposure pathways include direct contact and inhalation (particulate transport via dust) routes (refer to Section IV-C(6)). Potential uptake of contaminants by plants and animals which colonize or use the upland CDF is also of concern (see Section IV-C(5)). Upland CDFs may erode, resulting in the transport of contaminants into

surface waters. Infiltration will also continue to occur, with the resulting generation of leachate and surface water runoff, which may impact ground or surface water resources.

This section discusses the closure requirements for those upland CDFs which accept any dredged material which does not meet the testing exclusion criteria listed in Sections IV-C(4) and III-C.

To control or mitigate these potential adverse impacts, the Department will require interim/final closure of the upland CDF. Final closure refers to the implementation of practices after the cessation of dredged material disposal operations at the upland CDF. Interim closure practices may be needed if there will be a long (generally greater than six months) interval between disposal or management activities at the upland CDF.

Interim Closure

Interim closure procedures are largely concerned with minimizing the potential for direct human and plant/animal exposure to contaminated dredged material. These are discussed in Sections IV-C(5) and (6).

The need for interim closure procedures will be determined by the Department on a case-by-case basis. The Department will require the submittal and approval of a formal plan to address interim closure requirements. Such a determination will be based on the testing data available for the dredged material; alternatively, additional testing of the exposed dredged material may be needed (see Section (d) below).

Interim closure procedures include the implementation of measures to control the generation of dust. Site access controls (for example, fencing) shall be maintained. The need for capping of exposed dredged material with clean fill will be determined by the Department on a case-by-case basis. The requirements of any WQC or New Jersey Pollutant Discharge Elimination System (NJPDES) permits for discharges to surface or ground water from the upland CDF must be maintained during the interim closure period. Likewise, required soil erosion and sediment control measures must be maintained.

The annual report on the status of the upland CDF, discussed in Section ii-Operation, shall include a summary of interim closure procedures implemented at the facility. An interim closure period will not last longer than five years; implementation of final closure procedures will be required for such situations.

Final Closure

Upland CDFs are expected to contain dredged material contaminated with pollutants at various levels of concern. Thus, long-term containment of these contaminants must be assured. The owner of record of the property on which the upland CDF is constructed is ultimately responsible for the final closure of the facility and any required post-closure monitoring.

The Department will require the submittal and approval of formal plans that address final closure, post-closure maintenance and monitoring, and site development or use for all upland

CDFs. This requirement does not apply to those upland CDFs permitted and used solely for the disposal of dredged material which meets the exclusion criteria listed in Sections IV-C(4) and III-C. A preliminary final closure plan should be submitted with the permit application to construct and operate the upland CDF. A Final Closure Plan shall be submitted to the Department no later than 60 days following the issuance of Departmental approval to construct and operate the upland CDF. The Final Closure Plan must propose all engineering controls designed to contain the contaminated dredged material and prevent direct contact with, and off-site transport of, contaminants of concern. The Final Closure Plan must also include provisions for post-closure monitoring of the upland CDF and a Financial Plan. The Financial Plan shall be prepared following the general guidance in the Department's landfill closure regulations (N.J.A.C. 7:26-2A.9), adapted to the specific design and closure features of the upland CDF. In the event of a proposed transfer of ownership of property containing an upland CDF, a new Final Closure Plan (including a Financial Plan), to be implemented by the prospective purchaser, shall be submitted to the Department for approval prior to the final change of Title.

A major component of the Final Closure Plan will relate to the cap design for the upland CDF. The exact nature of the cap construction must be included in the Final Closure Plan. Cap requirements will be determined on a case-by-case basis by the Department, in consultation with the owner/operator of the upland CDF. In general, a minimum thickness of two feet of cover, consisting of 18 inches of clean fill overlain by six inches of topsoil, with a complete vegetative cover, will be required. Clean fill and top soil shall be considered material demonstrated to have an origin from a non-contaminated source or material which has been tested and shown to attain the appropriate Residential Direct Contact Soil Remediation Standards. In situations where all the dredged material placed in the upland CDF meets the appropriate Residential Direct Contact Soil Remediation Standards, at N.J.A.C. 7:26D, or if such material is used as a substantial top cover on the upland CDF, reduced cap design criteria may be warranted.

Generally, the final cap should be placed as soon as the dredged material has dried and consolidated to the point where it can support placement of the cap. This will vary with the characteristics of the dredged material and the type of dewatering operations conducted at the upland CDF. In general, the Department anticipates that the final cap will be placed no later than three years after the cessation of disposal operations at the upland CDF.

The Final Closure Plan, where warranted, shall include provisions to restrict site access, including fencing, and future site use using a declaration of environmental restrictions, deed restrictions, or other site use restriction documentation. It is possible that at some point following final closure of the upland CDF, reuse of the property may be proposed (the potential for such reuse should be identified in the Final Closure Plan, and continually investigated during the operational lifetime of the facility). If a final reuse (other than the creation of habitat via natural succession processes) is proposed, the owner of the property will be required to submit a modified Final Closure Plan to the Department. The contents of this plan will vary with the upland CDF and the proposed final reuse, and will be determined on a case-by-case basis by the Department, in consultation with the owner of the property. The main objective of the Final

Closure Plan is to ensure that the proposed project design will not in any way reduce the effectiveness of the dredged material containment provided by the upland CDF.

Additional components of the Final Closure Plan could include provisions for the maintenance and monitoring of the following parameters:

(1) Surface and/or ground water discharge monitoring required pursuant to any WQC or NJPDES permits issued for the upland CDF;
(2) Erosion, stormwater run-off, and drainage controls;
(3) Stabilization and vegetation of the final cover;
(4) Weir and other outlet structures;
(5) Security and access restrictions; and
(6) Leachate collection and/or control (if required).

The submission of an annual Post-Closure Maintenance Report, summarizing the status of the upland CDF and activities associated with its final closure, and updating the Financial Plan, may be required by the Department.

(c) Permitting Process. Applications to construct, operate, and close upland CDFs will be reviewed by the Department pursuant to the Waterfront Development statute, the Coastal Area Facilities Review Act, and the New Jersey Flood Hazard Control Act, as applicable. The Department's review will also address the concerns discussed in Sections IV-D(3), (4), (5), and (6).

(d) Testing Requirements. Design of the upland CDF containment structures must consider the engineering properties (for example, soil density, grain size, percent compaction) of the material to be used. In those cases where dredged material is to be used to construct, or enlarge, containment berms, the material on the exposed surfaces of the berm must meet the appropriate Direct Contact Soil Cleanup Criteria. Additional bulk sediment analyses of any dredged material proposed for such use may be required, as determined by the Department on a case-by-case basis.

Given that the dredged material in the upland CDF has already been tested, with prompt capping of the exposed dredged material, no additional sampling other than that required to ensure the use of clean fill and soil cover in the cap, will be required. If a reduction in the design cap criteria are proposed by the owner and/or operator based upon site-specific conditions, then sampling and testing of the exposed dredged material will be required. In general, a minimum sampling frequency of one sample per two acres will be required. Analysis must include all the target compounds listed in Attachment A of this appendix.

Should off-site transport of dredged material or its contaminants become evident, the sampling of the media (including surface waters, sediments, and soils) surrounding the facility shall be required. Such sampling would require analysis for all of the target compounds listed in Attachment C of this appendix.

(3) Surface Water Discharges:

(a) Authority. The authority to issue permits for direct point source surface water discharges is derived from both the Federal and State Water Pollution Control Acts, also known as the Clean Water Act(s). The New Jersey Pollutant Discharge Elimination System (NJPDES) regulations (N.J.A.C. 7:14A) are the operating regulations that implement the State Clean Water Act.

Additionally, authority for the permitting of the effluent from dewatering dredged material to surface waters of the State can be found in Section 401 of the Federal Clean Water Act for the issuance of WQCs.

(b) Potential Impacts/Regulatory Objectives. The objectives of any regulatory oversight document (that is, NJPDES permit or WQC) for the point source discharge of effluent from the dewatered dredged material is to prevent any adverse impacts of the discharge on the receiving water body. Adverse impacts to the receiving water body may include toxic effects or bioaccumulation of contaminants in aquatic organisms, as well as adverse effects in humans through finfish and shellfish consumption or water exposure. To ensure that no adverse impacts occur, the amount and type of potential pollutants (as defined by N.J.S.A. 58:10A-3) that could be discharged to the receiving water body will be regulated. The two principal methods of controlling the amount and type of potential pollutants that could be discharged are by having either technology based discharge criteria or water quality based discharge criteria in either the NJPDES permit or the WQC. Either of these two methods of developing discharge criteria will serve to protect the water quality of the receiving water body.

i. Technology Based Discharge Criteria - The rationale for technology based numbers is that compliance with either NJPDES permit or WQC discharge conditions can be demonstrated through the use of engineering solutions such as retention basins, flocculents, and other innovative methods. Any particular type of treatment that will achieve pollutant reduction to a defined and/or acceptable level(s) is satisfactory. These criteria may be utilized when the source dredged material is from a waterbody other than the discharge receiving water body. The effluent from the dewatered dredged material must meet these NJPDES permit or WQC conditions at all times.

ii. Water Quality Based Discharge Criteria - These types of discharge criteria are based on the existing water quality of the receiving water body as well as the ability of the receiving water body to assimilate any additional loading(s) of pollutants without any adverse effects. The rationale for this method of permit development for the effluent from the dewatered dredged material is to set the discharge criteria of the effluent to ambient levels of the receiving water. In this way no additional loading(s) of potential pollutants will be discharged to the receiving water body in excess of what is already presumably present in the receiving water body. The procedures to establish ambient conditions can be found in the following three reference documents:

(1) Guidance for Preparation of Combined Work/Quality Assurance Project Plans for Environmental Monitoring. (OWRS QA-1), Office of Water Regulations and Standards, USEPA;
(2) Field Sampling Procedures Manual. NJDEP, 2005; and
(3) USEPA Handbook - Stream Sampling for Waste Load Allocation Applications.

Additionally, this method can utilize indicator parameters such as total suspended solids (TSS) as action levels in the permit or WQC. Indicator parameters are indicative of groups of individual pollutants; the use of an indicator parameter serves to limit the discharge of the target group of pollutants. The use of indicator parameters will allow for more rapid data generation for compliance purposes.

The criteria established by the Department for dewatering effluent discharges include consideration of ambient surface water quality criteria and/or State water quality criteria. In addition, the Department will consider requests to incorporate a mixing zone approach to the discharge of dewatering effluent from an upland CDF. These criteria will be based on a daily maximum or appropriate average discharge levels. Monitoring for compliance with the WQC or NJPDES permit must be representative of the dewatering discharge. Monitoring requirements will be developed by the Department on a site-specific basis, and may include monitoring for daily maximum and/or appropriate average discharge levels. For most upland CDFs, it is anticipated that monthly average monitoring will be required, however this would vary with the length of the activity and operations at the upland CDF.

The setting of action levels as permit conditions is consistent with the Department's direction of emphasizing compliance with permit conditions instead of monetary penalties for numerical permit violations. Exceedances of action levels trigger corrective action measures such as additional treatment of the effluent or increased retention time prior to effluent discharge. The permit and WQC will contain language that reflects the action level concept so that permission to discharge is contingent upon compliance with either action levels or corrective action measures. This is the method of choice when the dredged material originates in the same water body to which the effluent from the dewatered dredged material is being discharged.

(c) Permitting Process. The point source discharge of the effluent from the dewatering dredged material to surface waters of the State will fall into one of two categories:
(1) Dredged material dewatering effluent returning to the same water body from which the material was originally dredge will require a WQC. This WQC will have discharge conditions similar, if not identical, to those which would be found in a NJPDES/ Discharge to Surface Water (DSW) permit; or
(2) A NJPDES/DSW permit will be required for discharges from facilities accepting material from single or multiple dredging sites located in a different surface water body, or from "unidentified" sites.

(d) Testing Requirements. Exclusionary criteria for the testing requirements are described in Section III-C. Any project which does not qualify for a testing exemption as described in Section III-C will be subject to the following requirements.

Initially, the background information submitted for a dredging project proposing upland disposal/containment will be evaluated to determine the testing necessary to characterize potential adverse impacts of the dewatering discharge to the receiving waterbody. A list of the required background information is provided in Section III-A. The primary information used to assess potential surface water impacts are previous and current bulk sediment chemistry and modified elutriate analyses of site sediments.

Unless the bulk sediment chemistry data shows no detections for the target analytes listed in Attachment D, the Modified Elutriate Test will be required to predict pollutant concentrations in the discharge, both soluble and particulate-bound. Modified Elutriate Test results will be considered valid only if:

(1) The Standard Operating Procedure (SOP) found in the U.S. Army Corps of Engineers Waterways Experimental Station Environmental Effects of Dredging Technical Note, EEDP-04-2 (June 1985; or most recent version) is followed, in conjunction with the Department-approved use of a site-specific field retention time, and analysis of both dissolved and suspended fractions;

(2) Sediment core sampling, homogenizing, and compositing follows Section III-D; and

(3) The total suspended solids value required for the final calculation in the Modified Elutriate Test data analysis does not exceed either ambient TSS concentrations for the receiving waterbody or State surface water quality standards for TSS for the receiving waterbody.

As described in Section IV-C(3)(b)ii, the applicant, in the recommended pre-application conference, may choose to determine ambient pollutant/parameter concentrations in the receiving waterbody for setting discharge criteria; the methods required for this determination are referenced in this section. Ambient condition determinations will be reviewed by the Department on a case-by-case basis. Should existing information lead the Department to believe that surface water discharges from an upland CDF will not result in adverse impacts, the Modified Elutriate Test may not be required.

If the applicant proposes to use a flocculent to increase the settling of solids in the upland CDF, this should be incorporated into the Modified Elutriate Test procedure.

(4) Ground Water Discharges:

(a) Authority. The New Jersey Water Pollution Control (WPC) Act includes "dredge spoils" in its definition of a "pollutant." The placement of dredged material in an upland CDF represents a potential discharge of pollutants, and is subject to regulation pursuant to the authority of the New Jersey Pollutant Discharge Elimination System (NJPDES) regulations (N.J.A.C. 7:14A-1) and the Ground Water Quality Standards (GWQS; N.J.A.C. 7:9C).

(b) Potential Impacts/Regulatory Objectives. When dredged material is placed at upland locations, contaminants may become soluble and can be transported into the subsurface

terrestrial environment by leachate generation and seepage. The introduction of contaminants into the subsurface terrestrial environment may degrade ground water quality and may threaten potable water supplies. The susceptibility of ground water to contamination and the degree to which it can be degraded is dependent upon the hydrogeologic characteristics of ground water resource and the designated use. The impact of upland confined disposal facilities (CDFs) on ground water resources can be limited through an integrated approach of ground water resource classification, engineering of upland CDFs, dredged material testing and leachate analysis, and site-specific geotechnical evaluation. Through this approach, ground water resources can be protected at an appropriate level relative to their sensitivity and use, and the objectives of the NJPDES regulations and the GWQS can be achieved.

(c) Permitting Process. The degree to which the discharge to ground water (DGW) emanating from the upland disposal of dredged material will be regulated pursuant to the NJPDES regulations and the GWQS is dependent upon the following characteristics:

- The classification of the ground water (Table 2);
- The nature of the upland CDF (Type A or B);
- The source and quality of the dredged material; and
- The management of the dredged material.

The NJPDES-DGW permitting process involving the upland disposal of dredged material will include any or all of the following components:

- Determination of leachate quality from dredged material;
- Ground Water Protection Plans; and/or
- An NJPDES-DGW permit.

In order to determine which components of the NJPDES-DGW permitting process apply, it must be determined whether the project involves a Type A or Type B upland CDF as defined below:

Type A upland CDFs involve projects where the specific location(s) from which sediments are to be dredged is known prior to preceding with the development of a Ground Water Protection Plan and issuance of a NJPDES-DGW permit. In these cases, leachate quality from the sediments to be dredged can be evaluated on a preliminary basis allowing for a wider variety of management and/or permitting alternatives.

Type B upland CDFs are constructed independent of any specific dredging project(s). As such, the leachate quality of all sediments to be placed within the upland CDF cannot be determined prior to development of a Ground Water Protection Plan and issuance of a NJPDES-DGW permit. Therefore, the only regulatory options available are those detailed below at IV-C(4)(c)ii and iii.

i. Determination of Leachate Quality from Dredged Sediments: Leachate quality from dredged sediments to be placed in upland CDFs can be determined preliminarily for Type A upland CDFs, or as a monitoring condition of a NJPDES-DGW permit for Type B upland CDFs. Leachate quality shall be evaluated according to the procedure outlined in IV-C(4)(d).

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Where leachate testing is conducted on dredged sediments to be managed in a Type A upland CDF, and the maximum leachate quality for any parameter exceeds the Ground Water Quality Criteria in Table 2, a Ground Water Protection Plan will have to bedeveloped and implemented through a NJPDES-DGW permit. Where leachate testing is conducted on dredged sediments to be managed in a Type A upland CDF, and the maximum leachate quality for all parameters does not exceed the Ground Water Quality Criteria in Table 2, the project will be exempt from both the requirement to develop a Ground Water Protection Plan and to obtain an individual NJPDES-DGW permit.

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Table 2: Ground Water Quality Criteria

	Aquifer Classification		
	Class I: Ground Water of Special Ecological Significance	Class II: Ground Water for Potable Water Supply	Class III: Ground Water with Uses Other Than Potable Water Supply
Ground Water Quality Criteria	Site specific ground water constituent standards determined as per N.J.A.C. 7:9-6.8	IIA Ground Water Quality Criteria or site specific criteria based upon ground water constituent standards determined as per N.J.A.C. 7:9-6.8	IIA Ground Water Quality Criteria or site specific criteria based upon ground water constituent standards determined as per N.J.A.C. 7:9-6.8

ii. Ground Water Protection Plans: Ground Water Protection Plans shall be developed for:

- All Type B upland CDFs; and
- All Type A upland CDFs where the anticipated quality of the leachate, determined as per IV-C(4)(c)i and in accordance with IV-C(4)(d), exceeds the Ground Water Quality Criteria for any parameter.

The Ground Water Protection Plan for any upland CDF must comply with the general provisions of N.J.A.C. 7:14A-7.6, which includes the following:

- An engineering design and construction plan of the proposed CDF;
- An operation and maintenance plan which details the use of the proposed CDF;
- Detailed evaluation of potential contaminant migration pathways which considers at a minimum the following:
  - Regional physiography;
  - Site specific geology and hydrogeology; and
  - Regional ground water use and receptors;
- Annual leachate discharge and contaminant loading into ground water from the upland CDF in consideration of:
  - Maximum leachate concentration determined as per IV-C(4)(c)i; and
  - Annual leachate volume estimated using the Hydrologic Evaluation of Landfill Performance (HELP) Model, (Schroeder et al., 1994; EPA/600/R-94/168a; and

- Submission of results of a physical or mathematical ground water flow and/or contaminant transport model that depicts the fate of the DGW.

iii. NJPDES-DGW Permitting: A NJPDES-DGW permit is required for a facility that must develop a Ground Water Protection Plan according to IV-C(4)(c)ii. Dependent upon the results of the Ground Water Protection Plan, a NJPDES-DGW permit may require any or all of the following:

- Installation and periodic sampling of ground water monitoring wells;
- In-situ leachate monitoring through lysimetry;
- Liner and/or leachate collection system monitoring; and/or
- Leachate quality analysis of the dredged material.

iv. Exclusions: Projects which qualify and meet either of the three criteria listed below are exempt from the requirements outlined in IV-C(4)(c)i-iii because they represent insignificant discharges to ground water and are not considered likely to contravene ground water quality standards. These exclusions only apply to upland CDFs which do not discharge into Class I ground waters or wellhead protection areas as delineated by the Department.

(1) Projects in Region 2 where:

- Less than 5,000 cubic yards (yd^3) of dredged material will be placed in an upland CDF over the five-year life of the associated permit; and
- The sediments are dredged from a waterway(s) where there has not been an historic or current upland industrial use and the site is not currently or previously occupied by a marina of 25 or more boat slips.

(2) Any project is excluded from NJPDES-DGW permit requirements where:

- Less than 1,000 cubic yards (yd^3) of dredged material will be placed within an upland CDF over the five-year life of the associated permit; and
- The sediments are placed over impervious soils, or are underlain by a liner that has a hydraulic conductivity less rapid then 10^{-7} centimeters per second (cm/sec)

(3) Any project is excluded from NJPDES-DGW permit requirements where:

- The dredged material to be placed in the upland CDF is >90 percent sand (grain size >62.5 um); and
- Other background information does not lead the Department to believe the material is contaminated.

(d) Testing Requirements. Leachate quality shall be determined using the Sequential Batch Leaching Test (SBLT) procedure (for freshwater and estuarine sediments) or the Column Leaching Test (CLT) procedure (for estuarine sediments) developed by the USACE, Waterways Experiment Station (USACE-WES), or other tests as approved by the Department in advance. Leaching tests shall be conducted in accordance with the guidelines established by USACE-WES (Myers et al., 1996; Brannon et al., 1994).

For Type A upland CDFs leachate quality shall be determined for a representative number of samples for the parameters listed in Attachment C, in each location to be dredged prior to proceeding with the development of a Ground Water Protection Plan and issuance of a NJPDES-DGW permit.

For Type B upland CDFs, leachate quality shall be determined for a representative number of samples for the parameters listed in Attachment C on all sediments to be received as a condition of the NJPDES-DGW permit.

(5) Terrestrial Ecosystem Impacts:

(a) Authority. The Department's authority to regulate terrestrial ecosystem impacts which may occur during the operation of an upland CDF depends on the location of the facility. The Department may have regulatory authorities pursuant to the Flood Hazard Area Control Act, the Freshwater Wetlands Protection Act, the Wetlands Act of 1970, the Waterfront Development Act, and the Coastal Area Facility Review Act. Additional Department authority may also be derived from both the Federal and State Water Pollution Control Acts and the Federal Coastal Zone Management Act.

(b) Potential Impacts/Regulatory Objectives and the Management/Regulatory Process. The regulatory objectives of the Department are to identify and minimize the potential for contaminant mobility and transport into terrestrial ecosystems resulting from the upland disposal of contaminated dredged material. Potential adverse impacts will be evaluated on a case-by-case basis, initially considering the bulk sediment chemistry analyses of the dredged material placed in the upland CDF and the proposed schedule for future disposal and management operations at the facility. Additional discussions of potential impacts to the terrestrial ecosystem can be found in Section IV-C(2).

When dredged material is allowed to dry in an upland CDF, there is potential for dust generation. This potential is greater when the dredged material consists of fine particles and has not revegetated. Dust generation could facilitate the dispersal of contaminants into the terrestrial ecosystem. Management techniques will be required, as necessary, to control the generation and dispersal of dust from an upland CDF. Potential management techniques include interim/final capping of contaminated and exposed dredged material and the use of erosion control mats.

The potential impacts to terrestrial ecosystems associated with the upland disposal of contaminated dredged material also include the possibility of increased contaminant mobility through uptake by colonizing plants and animals. This potential is enhanced by the physicochemical changes which occur when dredged material is disposed of in an upland setting. Such chemical changes include the oxidation associated with drying, leaching by rainwater, and a decrease in pH, resulting in increased availability of metal contaminants.

The Department has identified a number of possible scenarios for the operation of upland CDFs. These scenarios, described in the following sections, have different potentials to produce adverse impacts to the terrestrial ecosystem. During the operation of an upland CDF, management

techniques can be utilized to minimize potential adverse impacts. Appropriate management techniques, summarized and briefly discussed in the following sections, will be evaluated as part of the project-specific review and permitting of an upland CDF. In general, potential impacts to the terrestrial ecosystem as a result of the upland disposal of contaminated dredged material will be evaluated on a case-by-case basis.

i. Upland CDFs Maintained in Continuous Operation

For most large upland CDFs, it is expected that the facility will be operated in a continuous active mode during its operational lifetime. This would involve the continual placement of dredged material in the upland CDF, followed by periods of dewatering, drying, crust management, etc. - with subsequent repetitions of this cycle. This active mode of operation, in which the dredged material placed in an upland CDF remains in a disturbed condition, should effectively limit the ability of plants and animals to recolonize the site. However, wildlife may forage at the site because of the easy availability of aquatic organisms in dredged material. For such facilities, the permittee will be required to submit an annual report (see Section IV-C(2)(b)ii) to the Department, summarizing the disposal and management operations at the upland CDF, and further certifying that the site has not been recolonized to any significant extent by terrestrial plants or animals for extended periods of time (generally considered to be six months or longer). This certification shall include photographs of the upland CDF documenting site conditions. In addition, the owner/operator of the facility must implement measures to minimize foraging activities at the site if they are observed.

ii. Upland CDFs Operated Intermittently

Upland CDFs which are operated intermittently, such that the dredged material placed on the site is allowed to dry out for a period of time exceeding six months in an undisturbed condition, will be more available for use and/or recolonization by plants and animals. Such upland CDFs therefore have the potential to result in increased contaminant mobility and transport into terrestrial ecosystems.

a. Maintaining an upland CDF in a ponded condition would serve to reduce the potential for increased contaminant mobility through plant and animal colonization. This may be practicable in situations where the upland CDF will be used infrequently, with long periods of time between disposal operations. However, there is a concern that birds may use a ponded CDF. If this occurs, methods could be employed to discourage such use. For such facilities, the permittee will be required to submit an annual report (see Section IV-C(2)(b)ii) to the Department, summarizing the disposal and management operations at the upland CDF, and further certifying that the site has not been recolonized or used by terrestrial plants or animals for an extended period of time.

b. In those cases where an upland CDF will be used only intermittently and allowed to dry out and remain undisturbed for time periods exceeding six months between disposal operations, the potential exists for the site to be recolonized and/or used by plants and animals. The greater the contamination of the dredged material, and the longer the site remains undisturbed (and thus available for recolonization and use), the greater the potential for adverse terrestrial ecosystem impacts to occur.

Potential adverse impacts will be evaluated on a case-by-case basis, initially considering the bulk sediment chemistry analyses of the dredged material placed in the upland CDF and the proposed schedule for future disposal and management operations at the facility. The permittee will be required to submit an annual report (see Section IV-C(2)(b)ii) to the Department, summarizing the anticipated disposal and proposed management operations at the upland CDF. Interim management operations (between disposal operations) may be required to minimize potential adverse terrestrial ecosystem impacts. These could include interim capping measures to isolate contaminated dredged material (see Section IV-C(2)).

(c) Testing Requirements. Section III-C of this document identifies those sediments which are excluded from the Department's testing or reporting requirements; these exclusions also apply to any additional testing required for an evaluation of potential terrestrial ecosystem impacts. Any dredged material which does not qualify for a testing exemption as described in Section III-C may be subject to additional testing.

Section (b)-ii discusses "Upland CDFs Operated Intermittently." If recolonization and/or use of such CDFs by plants or animals occurs, there is potential for increased contaminant mobility and transport into the terrestrial ecosystem. To evaluate the potential for such impacts, predictive animal and plant uptake bioassays may be required. Specific contaminants of concern will be determined by the Department on a site-specific basis, and will vary with the dredged material placed in the upland CDF. In particular, the Department will consider the contaminants present in the last-placed dredged material, along with proposed capping measures, in its evaluation of the potential bioaccumulation of contaminants by terrestrial organisms. The Department will determine the need for such testing on a case-by-case basis.

(6) Public Health Impacts:

(a) Authority. The Department's authority to control potential public health impacts which may be associated with the disposal of dredged material at an upland confined disposal facility is derived from the Federal and State Water Pollution Control Acts, the New Jersey Waterfront Development Law, and the Federal Coastal Zone Management Act.

(b) Potential Impacts/Regulatory Objectives. The potential impacts to public health associated with the upland disposal of dredged material include the potential for direct human contact with contaminated dredged material, dust generation from drying dredged material with a potential inhalation exposure pathway, and surface and ground water impacts. The frameworks for regulating potential surface and ground water impacts are described in Sections IV-C(3) and IV-C(4), respectively.

The regulatory objectives of the Department are to identify and control public health impacts originating from the upland disposal of contaminated dredged material. The Department discourages the use of upland CDF sites for agricultural activities, unless such use can be demonstrated not to have potential adverse impacts to public health.

(c) Management/Regulatory Process. The Department will use the Coastal Zone Management rules in evaluating the siting of upland confined disposal facilities (CDFs). These rules serve to minimize potential public health impacts.

During the operation of an upland CDF, management techniques can be applied to control and minimize potential public health impacts. Management techniques will be required, as necessary, to control the generation and dispersal of dust. This will further serve to minimize the inhalation pathway for human exposure. Direct human contact will be controlled through access restrictions to the upland CDF. Facility personnel will be required to use the appropriate precautionary measures to avoid direct contact with contaminated dredged material.

(d) Testing Requirements. Section III-C of this document identifies those sediments which are excluded from the Department's testing requirements. Any dredged material which does not qualify for a testing exemption as described in Section III-C will be subject to the following requirements.

Bulk chemical analysis of the sediments to be dredged will be required. Potential public health impacts will be evaluated by comparison to the appropriate Residential Direct Contact Soil Remediation Standards, N.J.A.C. 7:26D. These analyses will be conducted to determine if the dredged material to be disposed of requires precautions to avoid direct human exposure pathways during and after disposal in an upland CDF.

Results of the bulk sediment chemistry analyses will be considered valid only if:

(1) The bulk sediment chemistry analysis includes all target analytes for which appropriate Direct Contact Soil Cleanup Criteria exist (which is included in the list in Attachment D); and

(2) Sediment core sampling, homogenizing, and compositing follows Section III-D sampling procedures.

D - Subaqueous Disposal Pits

(1) Overview: Subaqueous disposal pits are submarine trenches or pits excavated below the ocean/bay bottom for the specific purpose of containing contaminated dredged material. This also includes pits excavated under navigation channels. Existing subaqueous borrow pits created as a result of past sandmining activities, or natural pits and depressions, could also be used as subaqueous disposal pits. The effective function of a subaqueous disposal pit is predicated upon its ability to contain the contaminated dredged material which will be placed in it.

Subaqueous disposal pits are considered distinct from open water disposal sites (discussed in Section IV-B).

(2) Authority: Refer to Section II-B for a listing of relevant statutes and regulations.

(3) Potential Impacts: The potential adverse environmental impacts of a subaqueous disposal pit depend directly upon the location (including physical conditions and hydrodynamics) and existing ecological functions of the pit site. Potential impacts which may require evaluation

include physical disruptions during construction and disposal operations (resulting in, for example, temporary interference with existing benthos, fisheries, or anadromous fish migrations), short-term benthic and water column toxicity impacts as a result of the disposal of contaminated dredged material, and water column impacts associated with the resuspension of sediment. In addition, long-term impacts to biota and the ecosystem may result if the contaminated dredged material placed in a subaqueous disposal pit is not adequately contained and isolated from the marine environment.

(4) Regulatory Objectives/Management Process: Short-term regulatory concerns lie primarily with minimizing the potential adverse environmental impacts associated with the construction of a subaqueous disposal pit and dredged material disposal operations. Submarine excavation of bay/ocean bottom or the use of existing pits/depressions to create a subaqueous disposal pit will be evaluated using the Coastal Zone Management Rules. In general, it is preferable that subaqueous disposal pits be located in areas where existing surficial sediments have similar levels of contamination as the dredged material proposed for disposal in the pit.

Short-term impacts can result from the dispersal of dredged material during disposal operations. Such impacts include physical disruption of benthos surrounding the subaqueous disposal pit, as well as water column and benthic toxicity and contamination. With proper design and management of the subaqueous disposal pit, these impacts can be limited. The use of best management practices (BMPs) during disposal operations will be required and permit conditions will be applied to ensure these impacts are minimized.

The filling of a subaqueous disposal pit with contaminated dredged material will employ BMPs which reduce suspension and dispersal of the dredged material during the disposal operation. These include adherence to strict navigation requirements to ensure point disposal of the dredged material. Additionally, restrictions on conducting disposal operations during severe weather/tidal conditions may also serve to minimize the dispersal of dredged material. The use of geotextile containers (see Clausner et al., 1996) or the direct shunting of dredged material into the pit should be considered.

Potential long-term impacts can be minimized, and mitigated upon closure of the subaqueous disposal pit. Designing the pit to be properly capped, and maintaining the integrity of the cap, is an essential regulatory goal to ensure the long-term isolation of contaminants. In general, one meter of suitable clean material (as defined in Section V-I) will be required as a final cap. The placement of interim caps may also be required between dredged material disposal operations. Long-term monitoring of the subaqueous disposal pit, its final cap, and the surrounding environment will be required to ensure cap integrity is maintained. For additional discussion of generally applicable capping requirements, see Section VI. In addition, restoration of the natural bathymetry of the subaqueous disposal pit site using appropriate clean material as a final cap will serve as *de facto* mitigation for the temporary loss of benthic habitat resulting from the construction of the pit.

Some of the techniques and designs which should be considered when constructing a subaqueous disposal pit are:

(a) Existing Pit with Capping - involves locating a subaqueous disposal pit in a natural bottom depression or existing subaqueous borrow pit. This reduces the need to excavate. Dredged material is placed in the pit up to a predetermined level. The site is then capped with clean material up to the level of the surrounding bay/ocean bottom.

(b) Contained Subaqueous Disposal - involves constructing a berm opposite an existing subaqueous ledge or wall. The cavity formed between these features is then filled and capped with clean material.

(c) New Excavation - entails the construction of a new subaqueous disposal pit, designed specifically for the containment of contaminated dredged material. In theory, such a pit may provide for better containment compared to that offered by existing borrow pits or natural depressions.

(5) Testing Requirements: Section III-C discusses general testing exclusions. Where the dredged material originates in the same waterbody as the subaqueous disposal pit, required testing will consist of grain size analysis, total organic carbon, and bulk sediment chemistry. In general, the disposal capacity of subaqueous disposal pits should be "reserved" for projects for which other dredged material management alternatives are not available or acceptable. The bulk sediment chemistry data will be used to ensure that only contaminated dredged material is placed in the subaqueous disposal pit. It will also be used in the development of the monitoring and management plan for the pit.

If the dredged material originates in a waterbody different from that of the subaqueous disposal pit, testing requirements will be determined on a case-by-case basis. Testing may include bulk sediment chemistry and modified elutriate testing (with retention time to be specified; ambient water quality testing of the subaqueous disposal pit site may also be needed), depending on the dredging site, subaqueous disposal pit site characteristics, and the volume of dredged material to be placed in the pit. Section III-D includes general guidance on sampling and testing the dredged material.

Precision bathymetry (accuracy to six inches or better) of the subaqueous disposal pit site will be required prior to initial site disturbance/pit construction, upon the completion of the construction of the pit, and may be required prior to and after any dredged material disposal operation. This will provide information on existing subaqueous disposal pit capacity and help ensure the dredged material is contained within the pit.

E - Containment Areas

(1) Overview: Dredged material containment areas are features artificially created in open water or wetlands and include any structure which, upon the completion of its filling with dredged material, would result in an extension of existing upland into open waters (that is, the

creation of "fastland"). In addition, a containment area could be constructed so as to form the substrate on which a wetland could develop. They are usually created by constructing a retaining structure (berm or bulkhead) in an open water area and filling the enclosed area with dredged material.

(2) Authority: The near-shore disposal of dredged material into a containment area is subject to the Waterfront Development Act, the Coastal Zone Management Rules (N.J.A.C. 7:7), Federal consistency determinations pursuant to the Federal Coastal Zone Management Act, Water Quality Certification pursuant to Section 401 of the Clean Water Act, and riparian interests. Disposal into open waters or wetlands is also regulated by the Federal government pursuant to Section 404 of the Federal Clean Water Act.

In all cases, either a WQC or NJPDES Discharge to Surface Water permit will be required for a containment area. A NJPDES Discharge to Surface Water permit may be required for the effluent from the dewatering dredged material if the dredged material is not from the same waterbody as the containment area. A WQC will be required for the effluent from a containment area which only accepts dredged material from the waterbody in which it is located.

A NJPDES Discharge to Groundwater Permit may be required pursuant to N.J.A.C. 7:14A-1, subject to a determination by the Department's Bureau of Nonpoint Pollution Control.

(3) Potential Impacts: The potential adverse environmental impacts of a dredged material containment area depend directly upon the location and existing ecological functions of the site. Potential impacts which require evaluation include the destruction and permanent loss of benthic, open water, or wetlands habitats, and temporary physical disruptions during construction of the containment area (resulting in, for example, interference with existing benthos, fisheries, or anadromous fish migrations). Potential short-term surface water quality and benthic toxicity impacts may result from the dispersal of sediments and associated contaminants due to the construction of the containment area.

Potential impacts to surface water quality during the filling of the containment area with contaminated dredged material resulting from the discharge of effluent from the dewatering dredged material, are similar to those for upland confined disposal facilities (CDFs; see Section IV-C(3)). In addition, potential water quality impacts resulting from the permeability of the berm/bulkhead will be considered on a case-by-case basis.

Potential long term impacts to ground water quality are also similar to those for upland CDFs, and are discussed in Section IV-C(4). Long-term impacts to aquatic biota and the marine ecosystem may result if contaminated dredged material placed in a containment area is not adequately contained and isolated. In addition, filling of the containment area ultimately results in the creation of additional upland. Potential impacts to the terrestrial environment are essentially the same as those associated with upland CDFs (see Sections IV-C(2), (5), and (6)).

(4) Regulatory Objectives/Management Process: The creation of upland (or wetlands) areas by filling open water/wetland environments is a regulatory concern. Based upon the Coastal Zone Management Rules at N.J.A.C. 7:7-12.11, filling in natural water areas is discouraged and filling wetlands areas is prohibited. Such activity requires a demonstration that there is no practicable or feasible land alternative. In addition, minimal interference to special areas at N.J.A.C. 7:7-9 (such as intertidal and subtidal shallows, finfish migratory pathways, and submerged vegetation habitats) must be demonstrated.

Short-term regulatory concerns lie primarily with minimizing the potential adverse environmental impacts associated with the construction of the containment area and dredged material disposal operations. It is preferable that containment areas be located in areas impacted by similar levels of existing sediment contamination as the dredged material proposed for disposal in the area. Locating a dredged material containment area site will be evaluated using the Coastal Zone Management Rules.

Short-term impacts can result from the dispersal of contaminated dredged material during disposal operations. Such impacts include physical disruption of benthos surrounding the containment area, and water column and benthic toxicity and contamination. With proper design and management of the containment area, these impacts can be minimized. The use of best management practices (BMPs) during disposal operations will be required and permit conditions will be applied to ensure these impacts are minimized. Such BMPs could include controlling the rate of dredged material placement in the containment area to allow for adequate settling of suspended solids. The use of geotextile containers or liners (see Clausner et al., 1996), and the pumping of free water to upland water quality basins to provide settling of suspended solids prior to discharge, could also be used.

Potential long-term impacts could result if the containment area does not adequately isolate contaminated dredged material from the surrounding aquatic and terrestrial environments. The containment area berm/bulkhead must be designed and constructed to ensure maximum isolation of contaminants. If the containment area is filled with contaminated dredged material, final capping of the created upland (or wetlands substrate) area is required to ensure the long-term isolation of contaminants from the environment. Potential impacts to the terrestrial environment and public health are similar to those for upland CDFs, and are discussed in Sections IV-C(5) and (6). In addition, site closure/final use considerations are discussed for upland CDFs in Section IV-C(2). Long-term monitoring of the containment area site and the surrounding environment may be required to ensure that contaminated dredged material has been adequately isolated.

The use of dredged material in habitat development (including wetlands) is discussed in Section V-D.

Construction of the containment area will result in the loss of open water habitat and/or wetlands. In some cases, mitigation for this loss by means of in-kind replacement will not be possible. Thus, construction and operation of a dredged material containment area may result in the

permanent loss of aquatic habitat. Proposals for out-of-kind mitigation may be considered by the Department during the regulatory review of proposed containment areas.

(5) Testing Requirements: Section III-C discusses general testing exclusions. Regulatory concerns with potential impacts to surface and ground water quality, the terrestrial ecosystem, public health, and site closure/final use are essentially similar to those for uplands CDFs; see Sections IV-D(2), (3), (4), (5), and (6) for applicable guidance.

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Chapter V - Use Alternatives

A - Authority

Dredged material can be considered a resource, and the Department strongly supports its use, wherever possible, as opposed to exclusive reliance on disposal facilities. The Department will evaluate and authorize proposed uses of dredged material pursuant to the process described in Attachment G of this appendix. This Acceptable Use Determination process is intended to streamline the approval of use activities.

Authority to regulate potential uses of dredged material can be found in the State and Federal Water Pollution Control Acts, the Waterfront Development Law, the Flood Hazard Area Control Act, and the Federal Coastal Zone Management Act. The Coastal Zone Management Rules are also applicable to these use options.

B - Linkages with Other Management Alternatives

The use options discussed in Sections V-C through V-H can be divided into three general categories. These categories reflect the degree to which the dredged material must be processed/amended prior to its use, or the use of dredged material to support another dredged material management alternative (discussed in Section IV of this document):

(1) Use options supporting other dredged material management alternatives - capping open water disposal sites;

(2) Use options requiring minimal processing of the dredged material - beach nourishment, aquatic and wetland habitat development; and

(3) Use options requiring substantial processing or amendment of the dredged material - structural and non-structural fill material, landfill cover, agricultural use, and terrestrial habitat development.

For uses (1) and (2), the dredged material would have to meet applicable testing requirements to verify its suitability for the proposed use. Suitability criteria would include grain size and contaminant characteristics. Rehandling of this material would be limited to its transport to the use site and its placement in accordance with the applicable engineering design and regulatory requirements.

In most cases, dredged material proposed for the use (3) options noted above would first have to be dewatered. This would most likely occur at an upland confined disposal facility (CDF). A "use train," involving sequential placement of dredged material in an upland CDF, dewatering over a period of time, and then removal from the upland CDF for use purposes, could be developed. Olin and Bowman (1996) discuss the potential of soil washing and other techniques to isolate the coarser-grained and less-contaminated fractions of dredged material placed in upland CDFs. Such activities would not only provide a useable product, but would enable an upland CDF to remain in operation for a longer period of time before it reached its design capacity. Dredged material contaminated to various degrees could be suitable for these use options; testing requirements, evaluation criteria, and site-specific authorization of potential use projects are discussed in the appropriate sections of this document.

C - Beach Nourishment

(1) Authority: the Department's authority to regulate the use of dredged material for beach nourishment is derived from the Waterfront Development Act, the Coastal Area Facilities Review Act, the Federal Coastal Zone Management Act, and the Water Quality Certification provisions (Section 401) of the Clean Water Act.

(2) Potential Impacts/Regulatory Objectives: The Department encourages the renourishment of eroding beaches through the placement of clean sand of acceptable grain size composition.

Beach nourishment operations usually involve the borrowing of sand from inshore or offshore locations and transporting it by truck or hydraulic pipeline to an eroding beach for the purpose of restoration. A hopper dredge, with or without pumpout capability, can also be used. This can result in displacement of existing substrate, the destruction of non-motile benthic communities, and changes in the topography of both the placement and borrow areas. However, a beach nourishment operation also creates new habitat which is usually rapidly recolonized by benthic organisms. Significant impacts to offshore organisms can be minimized by selecting borrow areas to avoid important benthic habitats, not creating deep/anoxic borrow pits, and maintaining substrate quality in the borrow area (that is, grain size characteristics, total organic carbon, etc.).

Potential adverse impacts could also result from the placement of dredged material with excessive organic content on beaches. This situation is aesthetically unpleasant, but temporary in duration. In addition, placement of dredged material contaminated by chemical or biological pollutants may affect nearby benthic and open water habitats, and may pose a public health concern. The Department's objectives in regulating the placement of dredged material on beaches are to prevent any adverse impacts to the beach area, be they aesthetic (human interest), public health, or to nearby benthic and open water communities.

(3) Permitting Process: Permitting for this use of dredged material is conducted by the Division. The Coastal Zone Management Rules govern beach nourishment and dune construction activities.

In terms of grain size, suitable material must be comprised of 75 percent or greater sand (grain size larger than 0.0625 mm) with a grain size compatible with that of the receiving beach. (Note: Material less than 90 percent sand will require bulk sediment chemistry analyses and additional testing - see Section III.)

(4) Testing Requirements: All dredged material proposed for beach nourishment must be characterized by grain size analyses. In addition, grain size analyses of the sand on the proposed receiving beach must also be completed. Sampling guidance for these required analyses will be provided by the Department on a case-by-case basis. Exclusionary criteria for testing requirements are described in Section III-C. Bulk sediment chemistry analyses will be required for dredged material which does not meet the exclusionary criteria. This data will be compared with the Residential Direct Contact Soil Remediation Standards, N.J.A.C. 7:26D, to evaluate potential impacts to public health. To evaluate potential impacts to estuarine benthic

communities, the Department will compare this data with the guidelines values developed by Long et al. (1995) and other literature sources, on a case-by-case basis.

D - Habitat Development

(1) Overview: A wide range of habitat types can be developed (created, restored, or enhanced) using dredged material. The development of upland and wetlands habitats is discussed in this Section of the appendix. These could include areas which would then be developed further, in whole or in part, for parkland/open space or passive/active recreation uses.

The construction of islands using dredged material, on which wetlands as well as upland habitat types could develop, is considered to be a special case. Islands are not addressed in this appendix, but will be considered by the Department on a project-specific basis.

Aquatic habitats (including tidal flats, seagrass meadows, and other benthic habitats) could also be developed as a result of the open water disposal of dredged material (see Section IV-B). Development of aquatic habitat in association with such disposal operations will be evaluated on a case-by-case basis. In general, dredged material used to create such habitats should be placed so as to maximize habitat value; the final cap must also be designed to consider potential contaminant uptake. A special case of aquatic habitat development is the use of dredged rock to create artificial reefs, jetties, etc.

The USACE Engineer Manual EM 1110-2-5026 (30 June 1987), Beneficial Uses of Dredged Material, includes detailed discussions and a listing of references concerning habitat development using dredged material.

(2) Authority: The Department's authority to regulate the use of dredged material for habitat development depends on the location of the project site. The Department may have regulatory authority pursuant to the Flood Hazard Area Control Act, the Waterfront Development Act, the Freshwater Wetlands Protection Act, the Wetlands Act of 1970, and the Coastal Zone Management Act. Additional Departmental authority may also be derived from both the Federal and State Water Pollution Control Acts. Dredged material could also be used in restoration or mitigation activities required pursuant to permits issued for other projects.

(3) Potential Impacts/Regulatory Objectives:

(a) Upland Habitats. Habitats will develop on upland dredged material disposal sites regardless of human intervention. However, the use of a variety of management techniques can improve the habitat that develops, or foster the development of specific habitat types. Although the level of effort needed to develop upland habitat could essentially be limited to that necessary to provide erosion control, additional effort and long-term management may be needed to create specific and more productive habitats. The objectives (that is, habitat functions and values) of proposed upland habitat development projects must be identified in advance, and the project designed and managed accordingly.

Some of the potential impacts and regulatory objectives associated with habitat creation at upland confined disposal facilities (CDFs) are discussed in Section IV-D(5).

Dredged material used for upland habitat development must be suitable in terms of physical (particularly grain size) and chemical (salinity, nutrients, and contaminants) characteristics. The main concern of the Department is the potential dispersal of contaminants from the dredged material into the terrestrial environment and food webs. For example, Brandon et al. (1996) report on plant uptake of heavy metals (zinc, cadmium, nickel, lead, chromium, copper, and mercury) at levels of potential concern. Uptake of lead and cadmium by animals colonizing the upland habitat area are also of potential concern. Refer to Section IV-D(2) for information concerning the development of habitat as part of the final closure process on upland CDFs. In general, placement of a clean cap at least two feet thick will serve to isolate the underlying contaminated dredged material and eliminate many of the concerns with the dispersal of contaminants into the terrestrial ecosystem.

When placed in an upland environment, among other changes it will undergo, dredged material will dry, tend to oxidize, and decrease in pH. Thus, soil amendments (including lime, manure, sand, and limestone gravel) may be needed to provide a suitable medium for the recolonization and growth of plants. In addition, the salt content of material dredge from estuarine areas may inhibit the development of upland habitat. For additional information and guidance, refer to Brandon et al. (1996 and 1992).

Section V-C of this appendix briefly discusses the use of dredged material to create dunes on beaches.

(b) Wetlands. The beneficial use of dredged material to create or restore wetlands shall be consistent with N.J.A.C. 7:7-9.27.

The objectives (that is, habitat functions and values) of proposed wetlands development projects must be identified in advance, and the project designed and managed accordingly.

Dispersal of contaminants from dredged material used for wetland development can occur through two major routes: (1) resuspension of dredged material due to waves and currents, and (2) uptake by plants and animals colonizing or using the created wetland. In order to prevent the physical dispersal of the placed dredged material, low wave/current energy, shallow water sites should be used for wetland creation projects. Temporary (and possibly permanent) protective/retaining structures may be needed to contain the dredged material (see Containment Areas, Section IV-E). Additional design and management factors which must be considered to create a productive wetland, while minimizing the potential for contaminant dispersal, include salinity, tidal range, weir operation, and placement of a cap.

Uptake of contaminants by plants and animals will be minimized by restricting the contaminant levels allowable in dredged material proposed for wetland creation. In addition, capping of contaminated dredged material with clean material may be required. To evaluate potential

impacts to benthic communities, the Department will compare bulk sediment chemistry data with the guidelines values developed by Long et al. (1995) and other literature sources. Additional biological testing as specified in the USACE/USEPA Inland Testing Manual (1998) may also be required.

(4) Permitting Process: The development of wetlands using dredged material is regulated by the Division pursuant to the Coastal Zone Management Rules and other applicable authorities.

Long-term maintenance and monitoring of both upland and wetlands habitat development projects may be required.

(5) Testing Requirements: The use of dredged material to develop wetlands habitats may require project-specific permits with specific conditions. Section III-C of this document identifies those sediments which are excluded from the Department's testing or reporting requirements for the purpose of disposal. These exclusions may not apply to the testing required for an evaluation of potential impacts resulting from the use of the dredged material for habitat development. The testing needed to evaluate the suitability of the dredged material for the proposed habitat development project includes considerations of salinity, nutrients, and degree of contamination. This could include bulk sediment analyses, modified elutriate testing, and predictive animal and plant bioassays. The Department will determine the need for such additional testing on a case-by-case basis.

E - Structural & Non-structural Fill

(1) Overview: Given the various physical/geotechnical requirements for structural or non-structural fill applications, dredged material must be dewatered before it could be used. In addition, if the dredged material contains a high proportion of fine-grained particles and/or contaminants at levels of concern, it would have to be blended with coarser-grained material or otherwise processed/stabilized/amended to form a "product" which would then meet the required engineering and environmental specifications.

(2) Potential Impacts/Regulatory Objectives: Given that the dredged material has been dewatered and/or processed/stabilized/amended to meet the physical and engineering specifications required for a proposed structural or non-structural fill use, the Department's main concerns are (1) potential human exposure to contaminants in the dredged material, and (2) the dispersal of contaminants from the dredged material. In particular, the Department is concerned with the leaching of contaminants from the dredged material due to percolation and stormwater runoff. The Department will evaluate any proposed fill uses on a case-by-case basis consistent with the "Acceptable Use Determination Process" presented in Attachment G.

(3) Testing Requirements: exclusionary criteria for testing requirements are described in Section III-C. However, note that the processing/stabilization/amendment of dredged material through the addition of various substances has the potential to increase the bulk concentration of contaminants in the dredged material "product" compared to the "raw" dredged material. Thus, depending on the types of substances to be added, testing of the "product" may be required

irrespective of the dredged material meeting any of the testing exclusions discussed in Section III-C (see Attachment G). Required testing will be determined by the Department on a case-by-case basis, but will usually consist of bulk chemical analysis of the dredged material and any processed/stabilized/amended "product," and an appropriate leaching test.

F - Landfill Cover

(1) Authority/Management Process: In recent years, the Department has received numerous requests for the utilization of residual materials as daily landfill cover throughout the State. Contaminated soils, shredder residue, sludge derived products, and other materials have been authorized for daily cover application or in blends with other soil to produce a suitable product. Since landfill operators would otherwise have to purchase soil for cover, the acceptance of residual materials for approved applications has been considered an exempt activity pursuant to N.J.A.C. 7:26-1.1.

The Department's regulations at N.J.A.C. 7:26-2A.8(b)13 and 14 address landfill cover requirements. In general, three different classifications of cover are addressed - daily, intermediate, and final cover. All exposed surfaces of solid waste must be covered at the close of each operating day with a minimum of six inches of daily cover. Areas outside the immediate landfill working face which will be exposed for any period exceeding 24 hours must contain at least 12 inches of intermediate cover. Finally, the Federal government adopted amendments to the Resource Conservation and Recovery Act in 1993 at 40 CFR 258.60 which address landfill closure requirements. Under these rules, an infiltration layer of at least 18 inches of earthen material with a permeability less than or equal to the bottom liner and an erosion layer of at least six inches of earthen material capable of sustaining plant growth must be provided as part of a final landfill cover system.

(2) Testing Requirements: The purpose of a good landfill cover is to (1) impede rodents and vectors from entering the waste fill, (2) control malodorous emissions, (3) provide a firebreak, (4) have limited erosion potential, (5) not be easily windblown, and (6) provide control of windblown litter. Given these purposes, the physical properties of dredged material (which tend to be low cohesion fine-grained material) must be evaluated to ascertain its suitability for use as cover material. For example, excessively fine-grained material is generally prohibited due to its susceptibility to windblown dust, erosion, and potentially limiting hydraulic conductivity (preventing good drainage capability which consequently can cause leachate seeps on side slopes). The moisture content of the material must also be evaluated to ascertain its workability. If the moisture content is too high, then the material must be dewatered, which will require additional processing. The Department will evaluate the suitability of dredged material proposed for use as landfill cover on a case-by-case basis.

G - Agricultural Use

(1) Overview: An additional area in which dredged material may have potential use applications is for agricultural/horticultural purposes, particularly for non-food crop applications. As an example of this type of a use with a material similar to dredged material, New Jersey potable water treatment plant residuals have been approved by the Department for several uses.

These include blending with other materials to create soil products for rehabilitating barren sites and as soil for nursery use as potting and field growing media. In some cases, the residuals also have qualified for use directly as clean fill on review by the Department on a case-by-case basis.

While the chemical and physical qualities of specific dredged material would have to be evaluated, it is likely that cleaner materials would also qualify for many types of similar agricultural/horticultural uses in New Jersey, and other states as well. For example, dredged material can contain high levels of plant nutrients (including nitrogen, phosphorous, and silicon) and thus could be used to amend marginal soils, resulting in increased crop production. However, salinity problems will occur with the use of dredged material from estuarine waters.

(2) Potential Impacts/Regulatory Objectives: The Department's main concerns with the use of dredged material for agricultural purposes are human exposure to, and the dispersal of contaminants from, the dredged material through runoff/leaching and uptake by plants. In addition, the level of contamination in the dredged material will affect its potential use in food and non-food crop applications. In general, dredged material proposed to be used for agricultural purposes will have to meet the Residential Direct Contact Soil Remediation Standards, N.J.A.C. 7:26D, or blended with suitable materials to meet these criteria.

(3) Testing Requirements: Any dredged material proposed for use in agricultural operations must be subjected to bulk sediment chemistry analyses; the testing exclusions discussed in Section III-C are not applicable. In addition, if the dredged material is blended with other materials prior to its use, this "product" must also be subject to bulk chemical analysis. In addition, the Department may require an appropriate leaching test of the dredged material.

H- Capping Open Water Disposal Sites

(1) Overview: Depending upon its degree of contamination, dredged material proposed for disposal at an open water site (see Section IV-B) may only be acceptable for disposal if management techniques are used to isolate the contaminated dredged material from the surrounding environment. The principal method used to isolate contaminated dredged material placed at an open water disposal site is to cap it with a layer of clean material. Capping could be required as both an interim and final dredged material management method.

The use of suitable clean dredged material for capping purposes involves a number of engineering and design considerations beyond those associated solely with the open water disposal of dredged material. In addition, capping may be required for the disposal of contaminated dredged material. Thus, the Department considers capping to be a potential use of clean dredged material.

Capping may also be required at subaqueous disposal pits (Section IV-D) and containment areas (Section IV-E) in which contaminated dredged material is disposed. The following discussion of capping open water disposal sites is also generally applicable to these two dredged material management alternatives.

(2) Authority: Capping may be required for contaminated dredged material placed at an open water disposal site, in a subaqueous disposal pit, or in a containment area. The Department's authority to regulate dredged material disposal activities at these areas has been discussed in Sections IV-B, IV-D, and IV-E, respectively.

Disposal of dredged material in ocean waters (and thus any required capping of such material) is regulated by the USACE and USEPA. The State of New Jersey has discretionary authority to review disposal activities at ocean disposal sites pursuant to the Federal Coastal Zone Management Act. The review of proposed ocean disposal (and capping) operations at currently designated ocean disposal sites will be coordinated with the USACE and USEPA.

(3) Potential Impacts/Regulatory Objectives: The primary purpose of capping an open water disposal site is to isolate contaminated dredged material placed at the site from the surrounding environment. This will serve to minimize potential adverse impacts to the benthic and pelagic communities as a result of exposure to the contaminants.

It must be emphasized that the use of capping must be considered throughout the siting, development and implementation of the open water dredged material disposal alternative. This begins with the process used to select the disposal site. The USACE Waterways Experiment Station Dredging Research Technical Notes DRP-5-03 (Palermo, 1991a) and DRP-5-04 (Palermo, 1991b) provide discussions of design, engineering, and construction considerations for the capping of dredged material disposal sites. The USACE emphasizes that a capping project must be considered as an engineered structure, with specific design and construction requirements that must be implemented, monitored, and maintained.

Any cap placed on contaminated dredged material must be of a thickness to ensure the long-term isolation of the contaminants from the surrounding environment. The required thickness will be dependent on the following factors:

(a) The physical and chemical properties of the contaminated dredged material and the clean material to be used for capping;

(b) The potential for bioturbation by recolonizing benthic organisms to disturb the cap and expose the underlying contaminated dredged material; and

(c) The potential for consolidation and erosion of the cap material, including consideration of hydrodynamic conditions at the site.

In general, a required final cap will be three to four feet thick, plus allowances for consolidation and erosion.

Interim capping, between disposal operations at open water disposal sites or in subaqueous pits, may also be required. The need for and thickness of an interim cap will be determined on a case-by-case basis. Factors that will be considered in making such a determination include the grain

size of the last-placed dredged material, its degree of contamination, the anticipated schedule of future disposal operations at the site, and the physical conditions (particularly currents) at the disposal site.

Only clean material of suitable grain size, which would otherwise be acceptable for unrestricted open water disposal, can be used for capping purposes. Both fine grain and sandy material may be suitable for capping. However, in order to avoid mixing or displacing the contaminated dredged material during capping operations, the cap material should be applied in a manner that does not displace the underlying contaminated dredged material. In addition, the cap material should be of a grain size which will be resistant to erosion and thus stable over the long-term. The USACE Waterways Experiment Station Dredging Research Technical Note DRP-5-05 (Palermo, 1991c) discusses a variety of techniques which can be used to construct a cap.

When selecting material to be used for capping purposes, its suitability (particularly grain size) for recolonization by benthic organisms must be considered. The cap must be thick enough to ensure that recolonizing organisms cannot penetrate down to the underlying contaminated dredged material and that bioturbation will not expose the contaminated material. However, the cap may also serve to mitigate the original loss of habitat resulting from the disposal of the contaminated dredged material.

(4) Management Process: Short- and long-term monitoring of capped open water disposal sites will be required to ensure that contaminated dredged material is isolated from the environment. Refer to the USACE Waterway Experiment Station Dredging Research Technical Note DRP-5-07 (Palermo et al., 1992) for general guidance on designing an appropriate monitoring program.

A precision bathymetric survey (accuracy to six inches or better) of the disposal site will be required prior to any interim or final capping operation. Immediately after the capping operation is completed, additional monitoring will be required to verify that a cap of the required thickness has been placed as intended. This would include a precision bathymetric survey and the collection of core samples. The placement of additional cap material will be required if the specified cap design parameters have not been met.

Long-term monitoring of the open water disposal site and its cap will be required to ensure that (1) the stability and required thickness of the cap is maintained, and (2) the cap is effective in isolating the contaminated dredged material. This will consist of precision bathymetric surveys, the collection of core samples and the chemical analysis of sediment and body burden analyses of benthic organisms in the disposal area. Appropriate management actions will be required to ensure that the contaminated dredged material is isolated from the environment. This will usually involve the placement of additional suitable cap material.

(5) Testing Requirements: Only clean dredged material which will ensure the long-term isolation of the underlying contaminated dredged material is suitable for use in capping open water disposal sites. This involves a consideration of the physical and chemical characteristics

of the capping material in relation to both the disposal site and the underlying contaminated dredged material. Such considerations must be evaluated as part of the process of selecting/siting the open water disposal site. Grain size analyses will be required to evaluate the potential long-term stability of the cap when subjected to the current and other erosive forces in the disposal area. The grain size data will also be used to ensure that the contaminated dredged material is not dispersed as a result of the capping operation. In addition, this information will be considered as part of the evaluation of the potential recolonization of the cap by benthic organisms.

Chemical analyses of the proposed capping material will also be required to ensure it is acceptable for unrestricted open water disposal. Refer to Section IV-B-(3)(d) for applicable testing requirements (note: Any dredged material that meets the testing exclusion criteria listed in Section III-C does not need to undergo bulk sediment chemistry testing). This information, together with the chemical data for the underlying contaminated dredged material, will be used in the development of a monitoring program for the open water disposal site and its cap.

Given the interdependent and complex evaluations needed, the suitability of any material for use in the capping of an open water disposal site will be made on a case-by-case basis.

Dredged material proposed for capping at an ocean disposal site must be tested per the document entitled "Dredged Material Proposed for Ocean Disposal - Testing Manual" (USEPA and USACE, 1992) and regional implementation (USACE and USEPA, 1992) testing manuals, unless it meets the exclusionary criteria of the USEPA Ocean Dumping Regulations (see 40 CFR 227.13).

Chapter VI - References

The following documents are incorporated by reference into this appendix and chapter.

"Beneficial Uses of Dredged Material." Department of the Army - U.S. Army Corps of Engineers 1987. Beneficial Uses of Dredged Material, Engineer Manual EM 1110-2-5026, 30 June 1987. This document is available on the web at https://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_1110-2-5026.pdf.

"Confined Disposal Guidance for Small Hydraulic Maintenance Dredging Projects - Design Procedures." Schaefer, T.E. and P.R. Schroeder 1988. "Confined Disposal Guidance for Small Hydraulic Maintenance Dredging Projects - Design Procedures." U.S. Army Corps of Engineers Waterways Experiment Station Environmental Effects of Dredging Technical Note EEDP-02-8, December, 1988. This document is available on the web at https://erdc-library.erdc.dren.mil/xmlui/handle/11681/8813.

"Confined Disposal of Dredged Material, Engineer Manual." Department of the Army - U.S. Army Corps of Engineers 1987. Confined Disposal of Dredged Material, Engineer Manual EM 1110-2-5027, September 1987. This document is available on the web at https://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_1110-2-5027.pdf.

"Contaminant Levels in Muscle and Hepatic Tissue of Lobster from the New York Bight Apex." Folk, R. 1980. Petrology of Sedimentary Rocks. Hemphill Publishing Co., Texas. 181 p. National Marine Fisheries Service. 1996. "Contaminant Levels in Muscle and Hepatic Tissue of Lobster from the New York Bight Apex." This document is available on the web at http://www.nmfs.noaa.gov/.

"Design Requirements for Capping", Dredging Research Technical Note." Palermo, M.R. 1991a. "Design Requirements for Capping", Dredging Research Technical Note DRP-5-03, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS, February 1991. This document is available on the web at https://erdc-library.erdc.dren.mil/xmlui/handle/11681/4908.

"Dredged Material Evaluation and Disposal Procedures: A Users Manual for the Puget Sound Dredged Disposal Analysis (PSSDA) Program." U.S. Army Corps of Engineers - Seattle District, U.S. Environmental Protection Agency - Region 10, Washington Department of Natural Resources, and Washington Department of Ecology 1997. Dredged Material Evaluation and Disposal Procedures: A Users Manual for the Puget Sound Dredged Disposal Analysis (PSSDA) Program, July 1, 1997. This document is available on the web at https://www.nws.usace.army.mil/Missions/CivilWorks/Dredging.

"Engineer Manual for Hydrographic Surveying." U.S. Army Corps of Engineers 2002. Engineer Manual for Hydrographic Surveying, EM 1110-2-1003, 31 January 1, 2002. This document is available on the web at https://www.publications.usace.army.mil/USACEPublications/EngineerManuals.aspx?udt_4354 4_param_page=4.

"Equipment and Placement Techniques for Capping," Dredging Research Technical Note." Palermo, M.R. 1991c. "Equipment and Placement Techniques for Capping," Dredging Research Technical Note DRP-5-05, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS, November 1991. This document is available on the web at https://erdc-library.erdc.dren.mil/xmlui/handle/11681/4910.

"Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S.-Testing Manual (Inland Testing Manual)." U.S. Environmental Protection Agency and Department of the Army-U.S. Army Corps of Engineers, 1998. Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S.-Testing Manual (Inland Testing Manual). EPA 823-B-98-004, February 1998. This document is available on the web at https://www.epa.gov/sites/production/files/2015-08/documents/inland_testing_manual_0.pdf.

"Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual." U.S. Environmental Protection Agency and Department of the Army - U.S. Army Corps of Engineers 1991. Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual, EPA-503/8-91/0001, February 1991. This document is available on the web at https://www.epa.gov/sites/production/files/2015-10/documents/green_book.pdf.

"Field Sampling Procedures Manual." New Jersey Department of Environmental Protection 2005. This document is available on the web at https://www.nj.gov/dep/srp/guidance/fspm.

"Guidance for Performing Tests on Dredged Material Proposed for Ocean Disposal," U.S. Army Corps of Engineers - New York District and Environmental Protection Agency - Region II 1992. "Guidance for Performing Tests on Dredged Material Proposed for Ocean Disposal," Draft - 18 December 1992. This document is available on the web at http://www.epa.gov/region02/water/dredge/testing.htm.

"Guidance for Preparation of Combined Work/Quality Assurance Project Plans for Environmental Monitoring." U.S. Environmental Protection Agency. "Guidance for Preparation of Combined Work/Quality Assurance Project Plans for Environmental Monitoring," OWRS QA-1, Office of Water Regulations and Standards. This document is available on the web at https://nepis.epa.gov/Exe/ZyPDF.cgi/9100PXYB.PDF?Dockey=9100PXYB.PDF.

"Handbook - Stream Sampling for Waste Load Allocation Applications." U.S. Environmental Protection Agency. This document is available on the web at https://nepis.epa.gov/Exe/ZyPDF.cgi/30004BG9.PDF?Dockey=30004BG9.PDF.

"Incidence of Adverse Biological Effects Within Ranges of Chemical Concentrations in Marine and Estuarine Sediments." Long, E.R., D.D. MacDonald, S.L. Smith, and F.D. Calder 1995. "Incidence of Adverse Biological Effects Within Ranges of Chemical Concentrations in Marine and Estuarine Sediments," Environmental Management 19(1):8l-97. This document is available on the web at https://link.springer.com/article/10.1007/BF02472006.

"Leachate Testing and Evaluation or Estuarine Sediments Technical Report." Myers, T.E. J.M. Brannon, B.A. Tardy, and D.M. Townsend 1996. "Leachate Testing and Evaluation or Estuarine Sediments", Technical Report D-96-1, U.S. Army Engineers Waterways Experiment Station, Vicksburg, MS. This document is available on the web at https://apps.dtic.mil/dtic/tr/fulltext/u2/a306421.pdf.

"Leachate Testing and Evaluation of Freshwater Sediments." Brannon, J.M., T.E. Meyers, and B.A. Tardy 1994. "Leachate Testing and Evaluation of Freshwater Sediments," Miscellaneous Paper D-94-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS, April 1994. This document is available on the web at https://erdc-library.erdc.dren.mil/xmlui/handle/11681/3049.

"Long-term Evaluation of Plants and Animals Colonizing Contaminated Estuarine Dredged Material Placed in Upland and Wetland Environments." Brandon, D.L., C.R. Lee, and J.W. Simmers 1992. "Long-term Evaluation of Plants and Animals Colonizing Contaminated Estuarine Dredged Material Placed in Upland and Wetland Environments," Environmental Effects of Dredging Information Exchange Bulletin D-92-4, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS, September 1992. This document is available on the web at https://usace.contentdm.oclc.org/digital/collection/p266001coll1/id/6885/rec/683.

"Method 1613 – Tetra- through octa-chlorinated dioxins and furans by isotope dilution HRGC/HRMS." "U.S. Environmental Protection Agency 1994. Method 1613 – Tetra- through octa-chlorinated dioxins and furans by isotope dilution HRGC/HRMS. October 1994, 89 pp. This document is available on the web at https://www.epa.gov/sites/production/files/2015-08/documents/method_1613b_1994.pdf.

"Method 8290 – Polychlorinated dibenzodioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) by high-resolution gas chromatography/high-resolution mass spectrometry (HRGC/HRMS)." U.S. Environmental Protection Agency 1994. Method 8290 – Polychlorinated dibenzodioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) by high-resolution gas chromatography/high-resolution mass spectrometry (HRGC/HRMS). September 1994, 71 pp. This document is available on the web at http://www.caslab.com/EPA-Methods/PDF/8290.pdf.

"Monitoring Considerations for Capping." Palermo, M.R., T. Fredette, and R.E. Randall 1992. "Monitoring Considerations for Capping," Dredging Research Technical Note DRP-5-07,

U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS, June 1992. This document is available on the web at https://erdc-library.erdc.dren.mil/xmlui/handle/11681/4896.

"Petrology of Sedimentary Rocks." Folk, R.L. 1980. Petrology of Sedimentary Rocks, Hemphall Publishing Co., Austin, Texas. This document is available on the web at https://repositories.lib.utexas.edu/handle/2152/22930.

"Potential Application of Geosynthetic Fabric Containers for Open-water Placement of Contaminated Dredged Material." Clausner, J. M. Palermo, D. Banks, and J. Palmerton 1996. "Potential Application of Geosynthetic Fabric Containers for Open-water Placement of Contaminated Dredged Material", Environmental Effects of Dredging Technical Note EEDP-01-39, U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS, March 1996. This document is available on the web at https://erdc-library.erdc.dren.mil/xmlui/handle/11681/8795.

"QA/QC Guidance for Sampling and Analysis of Sediments. Water. and Tissues for Dredged Material Evaluations." U.S. Environmental Protection Agency and U.S. Army Corps of Engineers. 1995. QA/QC Guidance for Sampling and Analysis of Sediments. Water. and Tissues for Dredged Material Evaluations. EPA 823-B-95-001. This document is available on the web at https://www.epa.gov/sites/production/files/2015-09/documents/qaqc.pdf.

"Sampling and Analytical Methods of the National Status and Trends Program. National Benthic Surveillance and Mussel Watch Projects 1984 - 1992."_Sloan, N.; G. Adams; R. Pearce; D. Brown; and S-L Chan. 1993. Sampling and Analytical Methods of the National Status and Trends Program. National Benthic Surveillance and Mussel Watch Projects 1984 - 1992. Volume IV Comprehensive Descriptions of Trace Organic Analytical Methods. NOAA Technical Memorandum NOS ORCA 71. 97 p. This document is available on the web at https://repository.library.noaa.gov/view/noaa/2893.

"Sediment quality of the NY/NJ Harbor system." Adams, D.A., J.S. O'Connor, and S.B. Weisberg 1998. Sediment quality of the NY/NJ Harbor system. EPA/902-R-98-001, March 1998. This document is available on the web at https://www.nj.gov/dep/passaicdocs/docs/NJDOTSupportingCosts/STUDY-EPA-NYNJHARBOR-FINAL.pdf.

"Sediment Resuspension During Clamshell Dredging, Dredged Material Research." Raymond, G.J. 1983. "Sediment Resuspension During Clamshell Dredging", Dredged Material Research D-83-1, U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS, January 1983. This document is available on the web at https://semspub.epa.gov/work/05/142783.pdf.

"Site Selection Considerations for Capping," Dredging Research Technical Note." Palermo, M.R. 1991b. "Site Selection Considerations for Capping," Dredging Research Technical Note

DRP-5-04, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS, November 1991. This document is available on the web at https://erdc-library.erdc.dren.mil/xmlui/handle/11681/4907.

"Soil Washing Potential at Confined Disposal Facilities", Environmental Effects of Dredging Information Exchange Bulletin." Olin, T.J. and D.W. Bowman 1996. "Soil Washing Potential at Confined Disposal Facilities", Environmental Effects of Dredging Information Exchange Bulletin D-96-3, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS, September 1996. This document is available on the web at https://apps.dtic.mil/dtic/tr/fulltext/u2/a316456.pdf.

"The Hydrologic Evaluation of Landfill Performance (HELP) Model: User's Guide for Version 3. Schroeder, P.R., N.M. Aziz, C.M. Lloyd, and P.A. Zappi 1994. The Hydrologic Evaluation of Landfill Performance (HELP) Model: User's Guide for Version 3. U.S. Environmental Protection Agency Office of Research and Development. Washington, D.C., EPA/600/R-94/168a. This document is available on the web at https://www.nrc.gov/docs/ML1015/ML101590180.pdf.

"Update: Evaluating Ecosystem Development at Contaminated Dredged Material Placement Sites." Brandon, D.L., C.R. Lee, and J.W. Simmers 1996. "Update: Evaluating Ecosystem Development at Contaminated Dredged Material Placement Sites," Environmental Effects of Dredging Information Exchange Bulletin D-96-2, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS, June 1996. This document is available from USACE at https://www.erdc.usace.army.mil/Library/.

"U.S. Army Corps of Engineers Waterways Experiment Station Environmental Effects of Dredging Technical Note EEDP-04-2." Palermo, M.R. 1985. Interim guidance for predicting quality of effluent discharged from confined dredge material disposal areas – test procedures. U.S. Army Corps of Engineers Waterways Experiment Station Environmental Effects of Dredging Technical Note EEDP-04-2, June 1985. This document is available on the web at https://erdc-library.erdc.dren.mil/xmlui/handle/11681/8783.

Chapter VII - Glossary

The definitions at N.J.A.C. 7:7-1.5 apply to terms used in this appendix. In addition, the following definitions are for terms used in this appendix that are not defined at N.J.A.C. 7:7-1.5.

Ambient conditions: Those physical, chemical, and biological conditions present in the immediate vicinity of the project site.

Anadromous fish: Marine or estuarine species of finfish that spawn in freshwater; fish that migrate from oceanic to coastal waters, or from salt water to fresh water.

Benthic: Occurring or living on or in the bottom of a water body; the bottom of a water body, with particular reference to sediments.

Benthos: see benthic; the organisms living on the bottom of a water body.

Best management practices (BMPs): Methods and measures (or the prohibition of practices) employed to reduce the adverse environmental impacts resulting from a dredging or dredged material management/disposal activity.

Bioaccumulation: The accumulation of contaminants in the tissues of organisms through any route, including respiration, ingestion, or direct contact with sediment or water; indicates the biological availability of contaminants.

Bioassay (test): Acute or sublethal/chronic toxicity or bioaccumulation tests using organisms representative of the water column, benthic, and terrestrial environment(s) at the dredging or dredged material disposal site.

Borrow pit: A deep hole in a bay or near-shore area remaining after borrow material has been removed.

Bulk (sediment) chemical analysis: The determination of the concentration of target analytes present in the whole sediments to be dredged.

Clamshell dredge: A dredging bucket comprised of two hinged jaws; a boat or barge equipped with such a machine.

Containment area: Any site used for the permanent disposal or temporary confinement of dredged material, and which may or may not have a permanent retaining structure, located in an open water or wetland area directly adjacent to an upland area.

Dewatering: The practice of actively or passively removing water from dredged material, usually occurring in a barge or upland confined disposal facility.

Dioxin: Commonly refers to polychlorinated dibenzo-p-dioxins (PCDD) and polychlorinated dibenzofurans (PCDF), in particular 2,3,7,8-TCDD (tetrachlorodibenzo-p-dioxin).

Effluent: A discharge of pollutants into the environment, whether untreated, partially treated, or completely treated; particular reference to the quality of water coming over a weir from a dredged material upland confined disposal facility during and after a disposal operation.

Elutriate (test): Involves mixing dredged material with dredging-site water and allowing the mixture to settle - the potential release of dissolved chemical constituents from the dredged material is determined by chemical analysis of the supernatant (elutriate) remaining after undisturbed settling.

Environmental dredging: see N.J.A.C. 7:7-12.8(a).

Flocculents: substances which, when added to dredged material, result in the aggregation of finer particles into larger particles, thus enhancing the settling properties of the suspended particles and lowering the Total Suspended Solids in the dewatering effluent.

Furans: see dioxin.

Geotextile bag/container: Tubes, bags, and other containers constructed of woven and non-woven water permeable synthetic fabrics which can be filled with dredged material.

Heavy metals: Metals which have proven to be hazardous to living organisms ingesting them in sufficient quantities; generally, cadmium, nickel, lead, zinc, copper, mercury, and chromium.

Hopper dredge: Self-propelled seagoing ships equipped with sediment containers (hoppers), dredge pumps, and other special equipment. Dredged material is raised by dredge pumps through drag arms in contact with the bay/ocean bottom and discharged into hoppers built in the vessel.

Hydraulic conductivity: Ratio of the velocity to driving force for viscous flow under saturated conditions of a specified liquid in a porous medium.

Hydraulic dredging: Use of suction equipment to remove a sediment/water slurry from the bay/ocean bottom.

Hydrogeology: The study of those factors that deal with subsurface waters and related geologic aspects of subsurface waters.

Impervious: Impassable, applies to strata such as clays, shales, etc., which will not permit the penetration of water, petroleum, or natural gas.

Leachate: A solution obtained by leaching, as in the downward penetration of water through soil or solid waste, and containing soluble substances.

Lysimeter: A structure containing a mass of soil and so designed as to permit the measurement of water drainage through the soil.

Maintenance dredging: see N.J.A.C. 7:7-12.6(a).

Mitigation: see N.J.A.C. 7:7-17.1.

Modified elutriate test: Used to predict the quality of dewatering effluent discharged from upland confined disposal facilities and similar operations; see elutriate (test).

New dredging: see N.J.A.C. 7:7-12.7(a).

Ocean: Those waters of the open seas lying seaward of the baseline from which the territorial sea is measured.

Ocean disposal: The practice of dredged material disposal via oceangoing barge into a designated disposal site in deep, open water, often miles from shore.

Open water disposal: The practice of dredged material disposal anywhere into open water, exclusive of disposal into a subaqueous disposal pit or containment area.

Permit(s): For the purposes of this appendix, an authorization, license, or equivalent control document issued by the U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, or approved State agency to implement requirements of an environmental regulation.

Physiography: The physical geography of the general region/area in the vicinity of a project site; the study of the genesis and evolution of land forms.

Pollutants: Any gaseous, chemical, or organic waste (natural or man-made) that contaminates air, soil, sediment, or water, and has the potential for harm to human health, to any aspect of human or natural ecosystems, or to environmental aesthetics or vitality.

Polychlorinated biphenyls (PCBs): Nonflammable liquids formerly used in heat exchangers, electrical condensers, hydraulic and lubricating fluids, etc. with demonstrated chronic toxicity effects.

Polynuclear aromatic hydrocarbons (PAHs): Although present in some natural products (for example, crude oil), they are generally associated with the incomplete combustion of organic materials; some have demonstrated carcinogenic effects.

Reprofiling: The leveling of sediments within a berth or reach, essentially removing small mounds on the bay bottom, by redistributing the sediments within the boundaries of the berth or reach.

Sample compositing: Mixing distinct samples, or sediment layers from distinct samples, (see stratification) collected in a berth or reach proposed to be dredge.

Sample homogenizing: Mixing an entire sediment core sample which is not stratified (see stratification).

Sand: Loose, granular particles of worn or disintegrated rock, finer than gravel, and coarser than dust; the fraction of dredged material whose grain size distribution is greater than 0.0625 mm, and less than 2.00 mm.

Sidecasting: The pumping of dredged material and the discharge of the material to the side of the dredge, out of the channel or berth area.

Stratification (of sediments): The formation of distinct layers of sediments having the same general composition (grain size, quality), arranged one on top of another.

Target analyte/compound: A hazardous substance, hazardous waste, or pollutant for which a specific analytical method is designed to detect that potential contaminant both qualitatively and quantitatively (N.J.A.C. 7:26E-1.8).

Terrestrial ecosystem: Of, pertaining to, or composed of land as distinct from air or water.

Total suspended solids (TSS): The mass per unit volume (usually expressed in units of milligrams per liter - mg/L) of solid material obtained by filtering a known volume of liquid.

Toxic/toxicity: A condition or substance that is harmful, destructive, poisonous, or deadly; the limit of intolerance of organisms to survive lethal chronic or short-term (acute) subjection to certain chemical and contaminating substances, or physical and environmental conditions.

Upland confined disposal facility: A disposal site/structure located above the mean high tide level built to hold dredged material in a confined condition. Upland CDFs are usually built to permanently hold contaminated sediments, but this term also refers to those facilities which will only contain dredged material for dewatering purposes prior to some future beneficial use or decontamination management alternative.

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

ATTACHMENT A

SAMPLING METHODOLOGY AND SAMPLING REQUIREMENTS

I. Sampling Methodology:

The sampling methodology described below has been drawn from Section 8.2.6 of the "Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual," February 1991, USEPA and the USACE(EPA503/8-91/001); the USEPA and the USACE "QA/QC Guidance for Sampling and Analysis of Sediments, Water, and Tissues for Dredged Material Evaluations," (EPA 823-B-95-001, April 1995); and the "Field Sampling Procedures Manual," New Jersey Department of Environmental Protection and Energy, May 1992.

The data reports submitted to the Department for testing and analysis of material proposed for dredging must include descriptions of the procedures used for sample handling, preservation, and storage. These procedures must conform to the following guidance:

(a) Sediment sampling:

The recommended storage and preservation procedures for sediment samples are summarized in attachment B of this appendix. The specified holding times must be adhered to or the proposed alterations to the specified holding time approved by the Department prior to analysis.

Sediment samples are subject to chemical, biological, and physical changes as soon as they are collected. Therefore, the handling, preservation, and storage techniques should minimize any changes in sample composition by retarding chemical and/or biological activity and by avoiding extraneous contamination.

A coring device should be used for sediment sample collection, in conjunction with inert plastic liners which are not to be reused. The barrel of the coring device must be rinsed between each coring; the use of site water for rinsing is acceptable. Cross-contamination of collected sediment and water samples via personnel must also be avoided.

Generally, samples to be analyzed for metals should not come into contact with metal sampling equipment, and samples to be analyzed for organic compounds should not come into contact with plastics. All sample containers should be appropriately cleaned: acid-rinsed (10% nitric acid) for metal analysis, and solvent-rinsed (acetone is preferred; however, other approved solvents such as methanol and hexane can be used as well) for organic analysis. When equipment will be used to take samples for both metal and organic compound analysis, the acid rinse must be conducted first, and the solvent rinse second.

Samples should completely fill the storage container, leaving no head space, except for expansion volume needed for potential freezing. Since the first few hours after collection are the most critical for potential changes to the sediment, preservation should begin immediately after collection onboard the collecting vessel. This would include refrigeration or freezing with dry ice. The elapsed time between sample collection and analysis must be as short as possible, and not exceed the recommended holding times listed in Attachment B.

(b) Water sampling:

The recommended storage and preservation procedures for water samples are summarized in Attachment B. The specified holding times by analyte group for water samples must be adhered to, or any proposed alteration of the specified holding time approved by the Department prior to analysis.

Water samples are subject to chemical, biological, and physical changes as soon as they are collected. Therefore, the handling, preservation, and storage techniques should minimize any changes in sample composition by retarding chemical and/or biological activity and by avoiding extraneous contamination.

Water samples should be collected with either a non-contaminating pump (peristaltic or magnetically coupled impeller design pump) or a discrete water sampler. The pump system should be flushed with 10 times the volume of the collection tubing using site water. The discrete water sampler should be made of stainless steel or acrylic plastic and be of the closed/opened/closed type. Seals should be Teflon-coated. All water sampling devices should be acid-rinsed (10% nitric acid) for metal analysis, and solvent-rinsed (acetone is preferred; however, other approved solvents such as methanol and hexane can be used as well) for organic analysis. When equipment will be used to take samples for both metal and organic compound analysis, the acid rinse must be conducted first, and the solvent rinse second.

II. Sampling Requirements:

Attachment C lists the inorganic and organic compounds for which sampling may be required under normal circumstances. See Attachment C for further details on the origins of this list.

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

ATTACHMENT B
SUMMARY OF RECOMMENDED PROCEDURES FOR SAMPLE COLLECTION, PRESERVATION, AND STORAGE

Analyses	Collection Method[a]	Sample Volume[b]	Container[c]	Preservation Technique	Storage Conditions	Holding Times[d]
Sediment Chemical/Physical Analyses						
Metals	Grab/corer	100 g	Precleaned polyethylane jar[e]	Dry ice[e] or freezer storage for extended storages; otherwise refrigerate	≤ 4°C	Hg - 28 days Others – 6 months[i]
Organic compounds (for example, PCBs, pesticides, polycyclic aromatic hydrocarbons)	Grab/corer	250 g	Solvent-rinsed glass jar with Teflon® lid[e]	Dry ice[e] or freezer storage for extended storage; otherwise refrigerate	≤ 4°C'/dark[f]	14 days[g]
Particle size	Grab/corer	100 g	Whirl-pac bag[e]	Refrigerate	< 4°C	Undetermined
Total organic carbon	Grab/corer	50 g	Heat treated glass vial with Teflon®-lined lid	Dry ice[e] or freezer storage for extended storages; otherwise refrigerate	≤ 4°C[e]	14 days
Total solids/specific gravity	Grab/corer	50 g	Whirl-pac bag	Refrigerate	< 4°C	Undetermined
Miscellaneous	Grab/corer	≥50 g	Whirl-pac bag	Refrigerate	< 4°C	Undetermined

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Analyses	Collection Method[a]	Sample Volume[b]	Container[c]	Preservation Technique	Storage Conditions	Holding Times[d]
Sediment from which elutriate is prepared	Grab/corer	Depends on tests being performed	Glass with Teflon®-lined lid	Completely fill and refrigerate	4°C/dark/airtight	14 days
Biological Tests						
Dredged material	Grab/corer	12-15 L per sample	Plastic bag or container[h]	Completely fill and refrigerate; sieve	4°C/dark/airtight	14 days[i]
Reference sediment	Grab/corer	45-50 L per test	Plastic bag or container[h]	Completely fill and refrigerate; sieve	4°C/dark/airtight	14 days[i]
Control sediment	Grab/corer	21-25 L per test	Plastic bag or container[h]	Completely fill and refrigerate; sieve	4°C/dark/airtight	14 days[i]
Water and Elutriate Chemical/Physical Analyses						
Particulate analysis	Discrete sampler or pump	500-2,000 mL	Plastic or glass	Lugols solution and refrigerate	4°C	Undetermined
Metals	Discrete sampler or pump	1 L	Acid-rinsed polyethylene or glass jar[i]	pH < 2 with HNO_3; refrigerate[j]	4°C 2°C[j]	Hg - 14 days Others - 6 months[k]
Total Kjeldahl nitrogen	Discrete sampler or pump	100-200 mL	Plastic or glass[k]	H_2SO_4 to pH < 2; refrigerate	4°C[k]	24 h[k]
Chemical oxygen demand	Discrete sampler or pump	200 mL	Plastic or glass[k]	H_2S0_4, to pH < 2; refrigerate	4°C[k]	7 days[k]
Total organic carbon	Discrete sampler or pump	100 mL	Plastic or glass[k]	H_2S0_4, to pH < 2; refrigerate	4°C[k]	<48 hours[k]

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Analyses	Collection Method[a]	Sample Volume[b]	Container[c]	Preservation Technique	Storage Conditions	Holding Times[d]
Total inorganic carbon	Discrete sampler or pump	100 mL	Plastic or glass[k]	Airtight seal; refrigerate[k]	4°C[k]	6 months[k]
Phenolic compounds	Discrete sampler or pump	1 L	Glass[k]	0.1-1.0 g $CuSO_4$; H_2S0_4, to pH < 2; refrigerate	4°C[k]	24 hours[k]
Soluble reactive phosphates	Discrete sampler— or pump		Plastic or glass[k]	Filter, refrigerate[k]	4°C[k]	24 hours[k]
Extractable organic compounds (for example, semi-volatile compounds)	Discrete sampler or pump	4 L	Amber glass bottle[j]	pH < 2, 6N HCI; airtight seal; refrigerate	4°C[j]	7 days for extraction; 40 days for sample extract analyses[j]
Volatile organic compounds	Discrete sampler or pump	80 mL	Glass vial[j]	pH < 2 with 1:1 HCL; refrigerate in airtight, completely filled container[j]	4°C[j]	14 days for sample analysis, if preserved[l]
Total phosphorus	Discrete sampler— or pump		Plastic or glass[h]	H_2SO_4 to pH < 2; refrigerate	4°C[k]	7 days[kc]
Total solids	Discrete sampler or pump	200 mL	Plastic or glass[k]	Refrigerate	4°C[k]	7 days[k]
Volatile solids	Discrete sampler or pump	200 mL	Plastic or glass[k]	Refrigerate	4°C[k]	7 days[k]

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Analyses	Collection Method[a]	Sample Volume[b]	Container[c]	Preservation Technique	Storage Conditions	Holding Times[d]
Sulfides	Discrete sampler-- or pump		Plastic or glass[k]	pH > 9 NaOH (ZnAc); refrigerate[k]	4°C[k]	24 hours[k]
Biological Tests						
Site water	Grab	Depends on tests being performed	Plastic carboy	Refrigerate	< 4°C	14 days
Dilution water	Grab or makeup	Depends on tests being performed	Plastic carboy	Refrigerate	< 4°C	14 days
Tissue						
Metals	Trawl/Teflon®-coated grab	5-10 g	Double Ziploc®[e] '	Handle with non-metallic forceps; plastic storage gloves; dry ice[e]	≤ 5 -20°C° or freezer	Hg - 28 days Others - 6 months[m]
PCBs and chlorinated pesticides	Trawl/Teflon®-coated grab	10-25 g	Hexane-rinsed double aluminum foil and double Ziploc®[e]	Handle with hexane- rinsed stainless steel forceps; dry ice	≤ -20°C[e] or freezer storage 14 days°	14 days[g]
Volatile organic compounds	Trawl/Teflon®.-coated grab	10-25 g	Heat-cleaned aluminum foil and water- tight plastic bag[l]	Covered ice chest[f]	≤ -20°C[m] or freezer storage	14 days[m]
Semivolatile organic compounds	Trawl/Teflon®-coated grab	10-25 g	Hexane-rinsed double aluminum foil and double Ziploc®[e]	Handle with hexane- rinsed stainless steel	≤ -20°C[e] or freezer storage	14 days[g]

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Analyses	Collection Method[a]	Sample Volume[b]	Container[c]	Preservation Technique	Storage Conditions	Holding Times[d]
				forceps; dry ice[e]	14 days°	
Lipids	Trawl/Teflon®-coated grab	Part of organic analyses	Hexane-rinsed aluminum foil	Handle with hexane- rinsed stainless steel forceps; quick freeze	≤ -20°C or freezer storage	14 days[g]

Note: This table contains only a summary of collection, preservation, and storage procedures for samples. The cited references should be consulted for a more detailed description of these procedures.

PCB - polychlorinated biphenyl

[a] Collection method should include appropriate liners.

[b] Amount of sample required by the laboratory to perform the analysis (wet weight or volume provided, as appropriate). Miscellaneous sample size for sediment should be increased if auxiliary analytes that cannot be included as part of the organic or metal analyses are added to the list. The amounts shown are not intended as firm values; more or less tissue may be required depending on the analytes, matrices, detection limits, and particular analytical laboratory.

[c] All containers should be certified as clean according to USEPA (1990c).

[d] These holding times are for sediment, water, and tissue based on guidance that is sometimes administrative rather than technical in nature. There are no promulgated, scientifically based holding time criteria for sediments, tissues, or elutriates. References should be consulted if holding times for sample extracts are desired. Holding times are from the time of sample collection.

[e] NOAA (1989).

[f] Tetra Tech (1986a).

[g] Sample may be held for up to one year if five to 20°C.

[h] Polypropylene should be used if phthalate bioaccumulation is of concern.

[i] Two weeks is recommended; sediments must not be held for longer than eight weeks prior to biological testing.

[j] USEPA (1987a); 40 CFR Part 136, Table Ill.

[k] Plumb (1981).

[l] If samples are not preserved to pH < 2, then aromatic compounds must be

THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

analyzed within seven days.
[m] Tetra Tech (1986b).
Excerpted from pp. 54-57 of the USEPA "QA/QC Guidance for Sampling and Analysis of Sediments, Water, and Tissue for Dredged Material Evaluations", Office of Water (EPA 823-B-95-0001, April 1995).

ATTACHMENT C

ANALYTICAL PROCEDURES AND ASSOCIATED QUALITY ASSURANCE/QUALITY CONTROL MEASURES

I. Required Target Analyte Lists and Methodologies:

(a) Target analytes:

Required bulk sediment chemistry, modified elutriate, and leaching tests must include analysis for all target analytes listed in Attachment D, excepting the volatile organic compounds list, which will be required on a case-by-case basis. Typically, volatile organic compound testing will be instituted where known or suspected discharges of such compounds have occurred. Dioxin/furan analysis is required for all projects in Region 1.

The list of target analytes in Attachment D represents the constituents common to both the USEPA Contract Laboratory Program (CLP) analytes and the much larger list of compounds evaluated under the USEPA SW-846 testing program (SW-846). This latter program specifically employs the Test Methods for Evaluating Solid Waste Physical/Chemical Methods, Publication SW-846. While the SW-846 methods are distinct from the CLP methods, they are considered to be equivalent. Attachment B also details the required quantitation limit for each target analyte. The estimated quantitation limit (EQL) specified is the higher of the quantitation limits associated with the CLP and SW-846 programs. There is no requirement to use either the CLP or SW-846 analytical methodologies; however, the method employed must achieve the required EQL and must be from a standard method from a recognized agency. Alternatively, a method with prior approval by the Department may be employed. The analysis must be done by a Department certified laboratory.

(b) Polychlorinated Biphenyls:

Polychlorinated biphenyls (PCBs) are required by the USEPA to be reported on an individual congener basis as well as a total PCB value. However, the Department anticipates that upland disposal of dredged material will be the primary type of proposal evaluated. This will increase the potential need to assess human health impacts due to PCBs.

The Department evaluates potential human health impacts of upland management and disposal activities using a Total Aroclor criterion. Therefore, it is acceptable to provide data to the Department using Aroclor based analysis methods (SW-846 Method 8081 or its equivalent) where aquatic species impacts are not anticipated. Where aquatic species impacts are a concern, the Department will require congener specific based analysis for PCBs using the Sloan method, NOAA Technical Memorandum NOS ORCA-71 or its equivalent. This is the same methodology that the USEPA employs. In order to be further consistent with the USEPA and to avoid duplicative analytical costs, the Department will also accept congener specific results if required by the USEPA or if already available. These congener specific results will be converted to a total PCB value by multiplying the sum of the 22 individual congeners by a factor of two as per Sediment quality of the NY/NJ Harbor system (Adams et al, 1998) and as per Contaminant Levels in Muscle and Hepatic Tissue of Lobster from the New York Bight Apex (National

Marine Fisheries Service 1996). That computed result will then be compared against the Total Aroclor based human health criteria. The recommended MDLs for all individual PCB congeners are one ug/kg dry weight (sediment) and 0.0005 ug/1 (water).

(c) Polychlorinated Dibenzo-p-Dioxin and Dibenzofurans

When required, analysis will be conducted for all seventeen (17) 2,3,7,8 substituted polychlorinated dibenzo-p-dioxin and polychlorinated dibenzofurans using Method 1613 Revision B. While not preferred, Method 8290 is also acceptable. The required congeners and related isotopes used for analysis are shown in Attachment E. The analytical sensitivity should be within five times that which is cited in the method for each matrix type. Testing for these analytes will be required by the Department on a case-by-case basis in Region 1 waters.

All polychlorinated dibenzo-p-dioxin and polychlorinated dibenzofuran congener results, in both sediment and water matrices, must be reported in both individual congener concentrations and summarized as 2,3,7,8-tetrachlorodibenzo(p)dioxin toxic equivalents using the Toxic Equivalent Factors, International 1988 Method in Attachment F. For those values reported as Estimated Maximum Possible Concentrations (EMPCs), the full EMPC value should be used.

(d) Grain size analysis:

The grain size analysis must be conducted according to the methods described by Folk 1980.

Results must be reported as percentages within the general size classes:

Sand: equal to or greater than 0.0625 mm diameter.

Silt: less than 0.0625 mm diameter and equal to or greater than 0.0039 mm diameter.

Clay: less than 0.0039 mm diameter.

(e) Total Organic Carbon

Total organic carbon analysis must be conducted according to the USEPA 1986 method, excerpted from the December 1992 regional manual for USEPA Region II and the New York District Corps of Engineers, entitled, "Guidance for Performing Tests on Dredged Material Proposed for Ocean Disposal."

(f) Multiple Extraction Procedure

Testing of sediments which have been modified prior to final placement may be required to undergo testing to evaluate their potential for contaminant leaching. One procedure used to accomplish this task is the Multiple Leaching Procedure (EPA Method 1320).

II. Quality Assurance/Quality Control Guidance and Reporting Requirements

The guidance described below has been drawn from the December 1992 regional manual for USEPA Region II and the USACE New York District, entitled, "Guidance for Performing Tests

on Dredged Material Proposed for Ocean Disposal"; the USEPA and the USACE "QA/QC Guidance for Sampling and Analysis of Sediments, Water, and Tissues for Dredged Material Evaluations," (EPA 823-B-95-001, April 1995); and the "Field Sampling Procedures Manual," New Jersey Department of Environmental Protection and Energy, 2005.

The following quality control samples or procedures will be required for chemical analysis of both sediment and water matrices:

1. Field blanks: One with every batch of one to 20 samples;

2. Method blanks: One with every batch of one to 20 samples or every 12 hours, whichever is less;

3. Matrix spike and matrix spike duplicate: One set with every batch of one to 20 samples;

4. Surrogate spike recovery: Each sample, organic compounds only;

5. Minimum detection limit verification within last two years for marine sediments and salt water matrices to be submitted to the Department upon request (40 CFR 136 (1994) Appendix B, Revision 1.11;

6. Duplicate analyses to be conducted as per method requirements.

All bulk sediment chemistry results must be reported on a dry weight basis. All raw data should be presented along with the appropriate criterion. Exceedances of the criterion must be highlighted in an acceptable fashion.

The need to supply either full or reduced data deliverables will be determined by the Department on a case by case basis. The need for the applicant to obtain the services of a data validation contractor will concurrently be determined by the Department at the pre-application stage.

The data reports submitted to the Department for testing and analysis of material proposed for dredging must include a description of all methods and procedures used in the field and in the laboratory, referencing established protocols or guidance, for the following:

1. Sample collection;

2. Sample preparation (including homogenizing and compositing);

3. Sample preservation methods and holding times (before and after extraction);

4. Chain of custody tracking documents;

5. Sample transport, storage, and disposal;

6. Sample analysis;

7. Data entry and data reduction;

8. Deviations from standard methods or prescribed procedures;

9. QA/QC summary and data; and

10. Narrative of analytical problems, corrective action taken, and effects on data interpretation.

ATTACHMENT D

TARGET ANALYTE LIST

TARGET ANALYTE LIST		
Analyte	Limits of Detection	
Volatiles	Water (µg/L)	Soil (µg/Kg)
Chloromethane	10	10
Bromomethane	10	10
Vinyl Chloride	10	10
Chloroethane	10	10
Methylene Chloride	10	10
Acetone	10	10
Carbon Disulfide	10	10
1,1-Dichloroethene	10	10
1,1-Dichloroethane	10	10
1,2-Dichloroethene (total)	10	10
Chloroform	10	10
1,2-Dichloroethane	10	10
2-Butanone(MEK)	10	10
1,1,1-Trichloroethane	10	10
Carbon Tetrachloride	10	10
Bromodichloromethane	10	10
1,2-Dichloropropane	10	10
cis-1 ,3-Dichloropropene	10	10
trichloroethene	10	10
Dibromochloromethane	10	10
1,1,2-Trichloroethane	10	10
Benzene	10	10
trans-1,3-Dichloropropene	10	10
Bromoform	10	10
4-Methyl-2-pentanone(MIBK)	10	10
2-Hexanone	10	10
Tetrachloroethene	10	10
1,1,2,2-Tetrachloroethane	10	10
Toluene	10	10
Chlorobenzene	10	10
Ethylbenzene	10	10
Styrene	10	10
Xylenes(total)	10	10
Semivolatiles		

Phenol	10	660
bis-(2-Chloroethyl)ether	10	660
2-Chlorophenol	10	660
1,3-Dichlorobenzene	10	660
1,4-Dichlorobenzene	10	660
1,2-Dichlorobenzene	10	660
2-Methylphenol	10	660
2,2'-oxybis(1-Chloropropane)	10	660
4-Methylphenol	10	660
N-Nitroso-di-n-propylamine	10	660
Hexachloroethane	10	660
Nitrobenzene	10	660
Isophorone	10	660
2-Nitrophenol	10	660
2,4-Dimethylphenol	10	660
bis(2-Chloroethoxy)methane	10	660
2,4-Dichlorophenol	10	660
1,2,4-Trichlorobenzene	10	660
Naphthalene	10	660
4-Chloroaniline	20	1300
Hexachlorobutadiene	10	660
4-Chloro-3-methylphenol	20	1300
2-Methylnaphthalene	10	660
Hexachlorocylcopentadiene	10	660
2,4,6-Trichlorophenol	10	660
2,4,5-Trichlorophenol	10	660
2-Chloronaphthalene	10	660
2-Nitroaniline	50	3300
Dimethylphthalate	10	660
Acenaphthylene	10	660
2,6-Dinitrotoluene	10	660
3-Nitroaniline	50	3300
Acenaphthene	10	660
2,4-Dinitrophenol	50	3300
4-Nitrophenol	50	3300
Dibenzofuran	10	660
2,4-Dinitrotoluene	10	660
Diethylphthalate	10	660
4-Chlorophenyl-phenyl ether	10	660
Fluorene	10	660
4-Nitroaniline	20	830
4,6-Dinitro-2-methylphenol	50	3300
N-Nitroso-diphenylamine	10	660
4-Bromophenyl-phenylether	10	660
Hexachlorobenzene	10	660

Pentachlorophenol	50	3300
Phenanthrene	10	660
Anthracene	10	660
Carbazole	10	330
Di-n-butylphthalate	10	330
Fluoranthene	10	660
Pyrene	10	660
Butylbenzylphthalate	10	660
3,3'-Dichlorobenzidine	20	1300
Benzo(a)anthracene	10	660
Chrysene	10	660
bis(2-Ethylhexyl)phthalate	10	660
Di-n-octlyphthalate	10	660
Benzo(b)fluoranthene	10	660
Benzo(a)pyrene	10	660
Indeno(1,2,3-cd)pyrene	10	660
Dibenzo(a,h)anthracene	10	660
Benzo(g,h,i)perylene	10	660
Pesticides/Aroclors		
alpha-BHC	0.05	1.9
beta-BHC	0.05	3.3
delta-BHC	0.05	1.7
gamma-BHC (Lindane)	0.05	2
Heptachlor	0.05	2.1
Aldrin	0.05	2
Heptachlor epoxide	0.05	2.1
Endosulfan I	0.05	2.1
Dieldrin	0.10	3.3
4,4'-DDE	0.10	4.2
Endrin	0.10	3.6
Endosulfan II	0.10	3.3
4,4'-DDD	0.10	4.2
Endosulfan sulfate	0.10	3.6
4,4'-DDT	0.10	3.6
Methoxychlor	0.50	17
Endrin ketone	0.10	3.3
Endrin aldehyde	0.10	3.3
alpha-Chlordane	0.05	1.7
gamma-Chlordane	0.05	1.7
Toxaphene	5.0	170
Aroclor-1016	1.0	33
Aroclor-1221	2.0	67
Aroclor-1232	1.0	33

Aroclor-1242	1.0	33
Aroclor-1248	1.0	33
Arodor-1254	1.0	33
Arodor-1260	1.0	33
Inorganics	µg/L	mg/Kg
Aluminum	200	40
Antimony	60	12
Arsenic	10	2
Barium	200	40
Beryllium	5	1
Cadmium	5	1
Calcium	5000	1000
Chromium	10	2
Cobalt	50	10
Copper	25	5
Iron	100	20
Lead	3	0.6
Magnesium	5000	1000
Manganese	15	3
Mercury	0.2	0.1
Nickel	40	8
Potassium	5000	1000
Selenium	5	1
Silver	10	2
Sodium	5000	1000
Thallium	10	2
Vanadium	50	10
Zinc	20	4
Cyanide	10	0.5

Retention Time References, Quantitation References, Relative Retention Times, and Minimum Levels for CDDs and CDFs

Compound	Retention Time and Quantification Reference	Relative Retention Time	Minimum Level[1] Water (pg/L; ppq)	Solid (ng/kg; ppt)	Extract (pg/µL; ppb)
Compounds using $^{13}C_{12}$-1,2,3,4-TCDD as the injection internal standard					
2,3,7,8-TCDF	$^{13}C_{12}$-2,3,7,8-TCDF	0.999-1.003	10	1	0.5
2,3,7,8-TCDD	$^{13}C_{12}$-2,3,7,8-TCDD	0.999-1.002	10	1	0.5
1,2,3,7,8-PeCDF	$^{13}C_{12}$-1,2,3,7,8-PeCDF	0.999-1.002	50	5	2.5
2,3,4,7,8-PeCDF	$^{13}C_{12}$-2,3,4,7,8-PeCDF	0.999-1.002	50	5	2.5
1,2,3,7,8-PeCDD	$^{13}C_{12}$-1,2,3, 7,8-PeCDD	0.999-1.002	50	5	2.5
Compounds using $^{13}C_{12}$-1,2,3,7,8,9-HxCDD as the injection internal standard					
1,2,3,4,7,8-HxCDF	$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	0.999-1.001	50	5	2.5
1,2,3,6,7,8- HxCDF	$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	0.997-1.005	50	5	2.5
1,2,3,7,8,9- HxCDF	$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	0.999-1.001	50	5	2.5
2,3,4,6,7,8- HxCDF	$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	0.999-1.001	50	5	2.5
1,2,3,4,7,8- HxCDD	$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	0.999-1.001	50	5	2.5
1,2,3,6,7,8- HxCDD	$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	0.998-1.004	50	5	2.5
1,2,3,7,8,9- HxCDD	-[2]	1.000-1.019	50	5	2.5
1,2,3,4,6,7,8- HpCDF	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	0.999-1.001	50	5	2.5
1,2,3,4,7,8,9- HpCDF	$^{13}C_{12}$-1,2,3,4,7,8-HpCDF	0.999-1.001	50	5	2.5
1,2,3,4,6,7,8- HpCDD	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	0.999-1.001	50	5	2.5
OCDF	$^{13}C_{12}$OCDD	0.999-1.008	100	10	5.0
OCDD	$^{13}C_{12}$OCDD	0.999-1.001	100	10	5.0

1. The Minimum Level (ML) for each analyte is defined as the level at which the entire analytical system must give a recognizable signal and acceptable calibration point. It is equivalent to the concentration of the lowest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

2. The retention time reference for 1,2 3,7,8,9-HxCDD is $^{13}C_{12}$-1,2,3,6,7,8-HxCDD, and 1,2,3,7,8,9-HxCDD is quantified using the averaged responses for $^{13}C_{12}$-1,2,3,4,7,8-HxCDD and $^{13}C_{12}$ 1,2,3,6,7,8-HxCDD.

ATTACHMENT F

TOXICITY EQUIVALENT FACTOR

This is the toxicity equivalent factor guidance. Note that CDD and CDF are acronyms for chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans. T, Pe, Hx, Hp, and O stand for tetra, penta, hexa, hepta, and octa, respectively.

Compound	Toxicity Equivalency Factor (TEF)
2,3,7,8-TCDD	1.000
1,2,3,7,8-PeCDD	0.500
1,2,3,4,7,8-HxCDD	0.100
1,2,3,6,7,8-HxCDD	0.100
1,2,3,7,8,9-HxCDD	0.100
1,2,3,4,6,7,8-HpCDD	0.010
1,2,3,4,6,7,8,9-0CDD	0.001
2,3,7,8-TCDF	0.100
1,2,3,7,8-PeCDF	0.050
2,3,4,7,8-PeCDF	0.500
1,2,3,6,7,8-HxCDF	0.100
1,2,3,7,8,9-HxCDF	0.100
1,2,3,4,7,8-HxCDF	0.100
2,3,4,6,7,8-HxCDF	0.100
1,2,3,4,6,7,8-HpCDF	0.010
1,2,3,4,7,8,9-HpCDF	0.010
1,2,3,4,6,7,8,9-0CDF	0.001

All other CDD and CDF have a TEF of zero.

ATTACHMENT G

DREDGED MATERIAL ACCEPTABLE USE DETERMINATION PROCESS

All persons producing structural or nonstructural fill, manufactured soil, or using (refer to Chapter 5 of this appendix), processing, or transferring dredged materials in New Jersey must obtain an Acceptable Use Determination (AUD) from the Department as outlined below prior to any use, processing, or transfer of the dredged material or products containing dredged material. The process for obtaining an AUD for dredged material from the tidal waters of the State of New Jersey and adjacent interstate waters is as follows:

I. GLOSSARY of TERMS

The following terms as defined herein are applicable to this attachment of the appendix.

A. "Acceptable use" means the use that is determined by the Department as appropriate for the dredged material, admixture, or product that will be protective of human health and the environment and is consistent with the requirements of Section II.C below.

B. "Acceptable use site" means the site at which the dredged material, admixture, or product is used directly as a replacement for a generally-accepted and similarly-manufactured product, or as raw material to make such a product.

C. "Acceptable use project" means the acceptable use site of dredged material, admixture, or product, or a dredged material processing facility, as authorized pursuant to an AUD.

D. "Admixture" means the materials that are blended with dredged material to produce a product.

E. "Dredged material processing facility" means the site at which dredged material is directly transferred, or is blended with admixtures and then transferred, to another facility or site for direct use or further processing.

F. "Owner/operator" means the individual, trust, firm, joint stock company, Federal agency, corporation (including a government corporation), corporate official, partnership, association, State, municipality, commission, political subdivision of a state, or any interstate body to which an AUD is issued.

G. "Product" means the manufactured soil, structural or nonstructural fill, or other material, produced by the processing of dredged material with admixtures, that meets the specifications and standards for generally-accepted and similarly-manufactured products or raw materials used in the economic mainstream, for which the product is used as a replacement.

II. AUTHORITY and CONSTRUCTION

A. The Department will issue an AUD for dredged material in conjunction with the waterfront development permit for a specific dredging project or dredged material processing facility provided the acceptable use project is designed and managed in a manner consistent with all of the environmental statutes applicable to the project including, but not limited to, the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.), the Waterfront Development Act (N.J.S.A.

12:5-3 et seq.), the Spill Compensation and Control Act (N.J.S.A. 58:10-23.11 et seq.), the Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq.), any other applicable statutes, the rules and regulations adopted thereunder, and any permits or orders issued pursuant thereto. Each AUD proposal will be evaluated on a case-by-case basis.

B. An AUD shall only be issued for acceptable use projects that use:

1. Dredged material from the tidal waters of the State of New Jersey, which shall include adjacent interstate waters.

2. Materials that are not hazardous wastes pursuant to the New Jersey Hazardous Waste Regulations at N.J.A.C. 7:26G.

3. Materials that do not contain polychlorinated biphenyls (PCB) regulated pursuant to the Toxic Substances Control Act, 15 U.S.C. §§ 2601 et seq.

C. The dredged material will be considered for an AUD provided the dredged material, and each admixture used at the acceptable use project, are used directly as a substitute for a product or as a substitute for an admixture that is incorporated into a product. The dredged material-based products and admixtures must meet the specifications and standards for a generally-accepted and similarly-manufactured product or raw material.

D. Any waste, residual material, by-product, or any material contaminated above the Department's most restrictive contaminant classification criteria, that is delivered to an acceptable use project either for incorporation into product or that is not incorporated into the product but is used in some manner at the project, must be authorized in advance for such use pursuant to the regulations for beneficial use of solid wastes at N.J.A.C. 7:26-1.7(g), or must be fully managed in transit to and at the project as solid waste pursuant to the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq.

III. APPLICATION PROCESS

A. The applicant for an AUD shall submit the following information with the waterfront development permit application, or the application for modification of said permit:

1. A description of all admixtures to be combined with the dredged material at the acceptable use project, and any products produced, including:

(a) The specific location of the site of origin of each admixture;

(b) The quantity of each admixture used, and the specific ratios of admixtures used to dredged material. The quantities of admixtures, dredged material, and products used or produced on a daily basis shall be included. Ranges of ratios and variability in production levels shall also be included;

(c) Evidence that the dredged material, and each admixture used for the acceptable use project, are used directly as a product or as a substitute for raw material that is incorporated into a product that meets the specifications and standards for a generally-accepted and similarly-

manufactured product or raw material, which shall include a thorough description of the purpose for use of any materials other than;

(d) A general description of each admixture, including its current and historical uses, the reason for generating the admixture, the date of generation, and the specific process by which the admixture was generated;

(e) A contaminant profile and an evaluation of the general quality of all dredged material, admixtures, and all products produced in accordance with the AUD including, but not limited to, the following as are necessary as determined by the Department on a case-by-case basis:

i. A contaminant profile in relation to current Department soil cleanup criteria (SCC) guidance levels and other evaluation requirements, such as those procedures specified at Attachments A and B in the appendix and as specified by the Department as dependent on the proposed acceptable use on a case-by-case basis;

ii. Physical characteristics including grain size;

iii. Total organic carbon (TOC) and total petroleum hydrocarbon (TPH);

iv. All sampling and analyses shall be conducted in accordance with a Department-approved sampling and testing plan, quality assurance, analytical, and other technical requirements of Attachments A and B of this appendix, and as otherwise specified by the Department;

v. A narrative description of the characteristics of the admixtures and all sampling conducted in relation to the admixtures. Material Safety Data Sheets (MSDS), all studies or analytical characterizations performed by any person on the admixture, results of all testing (screening, post-excavation and bulk material) collected during investigation of the area of excavation, or other generation, of the admixture, all historical analyses, and any other material specification information shall be included;

vi. The concentration limits for contaminants in the product for the proposed acceptable use, and if different at any stages of intermediate storage or processing, and the rationale for those limits, and a description of the testing and quality assurance procedures that will be used to monitor the product produced in the future;

vii. A scaled site map depicting the site of origin of all admixtures and all sample locations of admixtures and products, as applicable;

viii. A determination of the waste classification of the admixtures and the rationale used for the classifications; and

ix. A full laboratory deliverable package (chain of custody, sampling methods, and QA/QC data) used to evaluate the dredged material and admixtures;

(f) A description of any past or ongoing regulatory activity undertaken by the Department or any other agency at the site of origin for each admixture;

(g) A description of any treatment or processing of the dredged material, admixtures, and product undertaken prior to shipment to the acceptable use project;

(h) A description of the measures to be taken during all stages of the acceptable use project including handling, storage, transportation, management, and application of the dredged material, admixtures, and product to minimize or eliminate environmental and human health impacts;

(i) A description of the design capacity of the acceptable use project, setting forth the number and types of all vehicles containing admixtures, product, or other materials arriving at and leaving the project on a daily basis, stating the maximum number of vehicles per hour that will arrive at and leave the project site(s);

(j) A narrative describing the acceptable use project's operations from the receipt of dredged material and admixtures describing how those materials are contained, through processing, management, and/or transfer to the material's destination at each stage of the project. The narrative must clearly demonstrate how containers of dredged materials, admixtures, and product will be managed and that the employees, the public, or the environment will not be exposed to dredged materials, admixtures, and product except as allowed in accordance with the AUD; and

(k) The hours of operation of the acceptable use project;

2. A description of the acceptable use project including:

(a) Photocopies of documents as evidence of all authorizations and permits for siting, construction, and operation of the acceptable use project, and evidence of conformance with, or applications for authorizations from, all local, regional, State, or Federal requirements of any governmental agency, or other body with jurisdiction over any aspect of the proposed project. If all such evidence of authorizations and permits has not been obtained then evidence of applicable correspondence and records of pre-application conferences and other such evidence as shall document the securing of the necessary permits and authorizations shall be submitted;

(b) A description of the geographical location of the acceptable use project, identifying the name of the municipality in which the acceptable use project is located and the street address of the project;

(c) A copy of the tax map showing the lot and block numbers of the acceptable use project site(s) and of all adjoining properties;

(d) A description of the current use of the acceptable use project site(s) and of all adjoining properties;

(e) Three copies of a site plan where the dredged material, admixtures, and product are managed or used, plotted on a USGS topographic map. The site plan map shall be prepared, signed, and sealed by a licensed New Jersey professional engineer or surveyor. The site plan must:

i. Identify the placement of all equipment, buildings, activities, and areas related to the receipt, loading, unloading, temporary storage, and use of all dredged material, admixtures and products;

ii. Be drawn to a scale no greater than one inch equals 100 feet;

iii. Indicate the routing of vehicles between the dredging project or source of admixtures and

the acceptable use project and all nearby roadways serving the site, as well as the traffic flow within the project site. Such routing must ensure safe and efficient vehicular and pedestrian circulation, parking, and loading and unloading of containers;

iv. Delineate floodplains as defined at N.J.A.C. 7:13-1.2;

v. Indicate the location of regulated wetlands, New Jersey Pinelands, and any other environmentally sensitive areas;

vi. Identify the direction of water runoff both on site and off site and the screening and landscaping on the site;

vii. Indicate topographic contours, drawn at two-foot intervals;

viii. Indicate all site access controls to be employed at the project; and

ix. Contain an original current 7.5 minute USGS Quadrangle map with the boundary of the acceptable use project plotted thereon. The map shall delineate any public access roads to the site and any streams, ponds, or other potential sensitive receptors such as, but not limited to, hospitals, schools, shopping centers, and other areas of public or private use within a one-half-mile radius of the site;

(f) A description of the type(s) and number of any containers that will be used for the project and the type and means of storage and staging of the containers;

(g) A description of any treatment or processing of the dredged material, admixtures, and product at the acceptable use project;

(h) A copy of the deed of record establishing ownership of the acceptable use project property or, if the applicant is a person other than the landowner, a legal agreement (for example, a lease) to use the real property for the purpose of operating the acceptable use project; and

(i) A description of any past or ongoing regulatory activity at the acceptable use project;

3. The schedule for initiation and completion of the acceptable use project;

4. A thorough description of the destination of all admixtures, products, or wastes that will be moved from the site of use, the purpose for such disposition, and copies of any State or other authorizations, or applications for those authorizations, required for receipt or use of such materials at the disposition site; and

5. The Department may specify and require additional information from the applicant in order to ensure that the proposed acceptable use and all activities related to that use will meet the requirements of the AUD.

IV. OPERATING CONDITIONS

A. The AUD shall include, but not be limited to, the following provisions and conditions.

1. Any control provisions, including institutional controls such as, but not limited to, a Declaration of Environmental Restriction (DER), and engineering controls as necessary to protect human health and the environment;

2. Specific operational requirements including; hours of operation, truck routing, dust control provisions, and noise limitations;

3. Production criteria including admixture quality determination procedures, admixture quality limitations and blending ratios, and quality control procedures and criteria;

4. Product application criteria such as depth of application, application conditions, maintenance, soil erosion and sediment control requirements, and site condition monitoring provisions; and

5. Any other requirements and limitations for use of admixtures, products, or other materials, and operation of the acceptable use project as shall be determined by the Department on a case-by-case basis.

B. The owner/operator of an acceptable use project shall submit on an annual basis, but not more than 13 months from the issuance of an AUD by the Department and any 13-month anniversary of such issuance, during the operation of the acceptable use project and for the year following the last activity at the project, a report to the Department detailing the amount of all materials used, the date(s) of such use, the location(s) of the use, a summary of all violations if any local, State or Federal requirements including violations of the AUD issued by the Department, and any other information as specified by the Department in the AUD, to the address set forth at N.J.A.C. 7:7-1.6 to the attention of the Office of Dredging and Sediment Technology

C. The dredged material processing facility owner/operator shall maintain the following records at the facility site at all times and shall file reports as follows:

1. Daily records shall be maintained that shall note the vehicle plate number, material quantity, source, destination facility name, and quantity, by vehicle, of all dredged material, admixtures, and product received, transferred, and shipped at the facility. The records shall specify the source for every shipment of dredged material and admixture received and the destination of every shipment of any material and/or product out of the facility. Quantities of dredged material, admixtures, and product shall be listed in tons and cubic yards as appropriate; and

2. The daily records shall be compiled into standard quarterly reports, which shall be submitted to the address below within 20 days of the end of each calendar quarter to the Department.

D. The owner/operator shall be responsible for ensuring that its agents, including all successors and assigns involved in the use of dredged material or products produced at the acceptable use project, including, but not limited to, all brokers, transporters, end users, and owners and operators of use and management sites, are aware of, and properly manage the respective materials in strict compliance with, any conditions of specified in the AUD.

E. Access to any acceptable use project shall be restricted to project operators, vehicle operators, and authorized visitors only. Effective security procedures shall be implemented to control entry and exit at all times.

F. Dredged materials, admixtures, and products in any type of container at an acceptable use project shall not emit odors that are detectable at the project or beyond the perimeter of the project.

G. All dredged material, admixture, and product containers staged or stored at the acceptable use project shall be secured at all times in a manner that prevents unauthorized access to the containers and their contents.

H. The Department's designated representatives and inspectors shall have the right to enter and inspect any building or any other portion of any acceptable use project at reasonable times. This right to enter and inspect includes, but is not limited to:

(a) Observing and sampling any materials on site;

(b) Photographing any portion of the project, vehicles, containers, and container contents;

(c) Investigating an actual or suspected source of pollution of the environment;

(d) Ascertaining compliance or noncompliance with the statutes, rules, regulations, or policies of the Department, including conditions of the project's AUD or any other permit or certificate issued by the Department; and

(e) Reviewing and copying all applicable records described in this section, which shall be maintained at the project at all times and shall be made available on request to Department representatives and inspectors at all reasonable times for review and inspection.

I. All acceptable use projects shall comply with the requirements of the Federal Occupational Safety and Health Administration and all other applicable standards of any agency for the operation of the project and the maintenance of the health and safety of the employees or other persons.

J. Routine housekeeping and maintenance procedures shall be implemented at the acceptable use project to prevent the accumulation of dust and debris, and to maintain general cleanliness throughout the site and in the working environment.

K. Any release or discharge of any material at the acceptable use project, except for such releases as are allowed pursuant to the AUD, must be immediately reported by the project operator or its designee to the DEP Emergency Response 24-hour Hotline at (877)WARN DEP (927-6337). The report must specify the type of substance discharged in estimated quantity, the nature of the discharge, the location of the discharge, any action being taken or proposed to be taken in order to mitigate the discharge, and any other information concerning the incident the Department may request at the time of notification.

L. The acceptable use project owner/operator shall designate an on-site emergency coordinator who shall be available during all hours of operation for the purpose of handling emergency situations, such as, but not limited to, spills, discharges, or releases of materials at the project.

M. The acceptable use project owner/operator shall develop and maintain at the site an Operations and Maintenance (O&M) Manual that shall describe all operating conditions and procedures of the site operation. The O&M Manual shall be made available to all employees and personnel at the site. The O&M Manual shall be prepared in accordance with the standards applied at N.J.A.C. 7:26-2.10(b)9.

N. All dredged material processing facilities shall operate in accordance with the additional standards that follow:

1. Dredged material and admixtures shall not remain at any dredged material processing facility for more than 30 days or as otherwise specified by the Department in the AUD.

2. The Department will specify the quantities of dredged material and admixtures allowed at any dredged material processing facility in the AUD.

3. Dredged materials or admixtures received, stored, processed, and transferred at any dredged material processing facility shall be held at all times in containers that do not leak any liquids or material.

4. Dredged material products stored at a dredged material processing facility must be in compliance with the provisions of Sections III.M.1,2 and III.N of this attachment and other requirements as specified by the Department in the AUD. Storage locations must include adequate mechanisms to manage storm water, control dust generation and odors, limit access to the storage areas, and prevent the dispersal of product into the environment.

5. Dredged material, admixtures, products, wastes, or other materials leaving dredged material processing facilities, that are destined for an acceptable use site or any site out of State, must be authorized in advance for that use pursuant to the requirements and any limitations stipulated in the AUD for the dredged material processing facility.

O. Dredged material, admixtures, products, or any other materials at an acceptable use project shall be managed at all times to prevent migration in stormwater runoff, and control odors and dust generation per conditions as specified by the Department in the AUD.

P. Dredged material, admixtures, products, or any other materials that cannot be used at the acceptable use project in accordance with the AUD are solid wastes, and those wastes as well as any other specific wastes produced at the project site shall be managed as solid waste pursuant to the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. Use of these wastes at the acceptable use site or off site must be approved in advance by the Department pursuant to the Department's beneficial use regulations at N.J.A.C. 7:26-1.7(g).

V. LIMITATIONS and COMPLIANCE

A. The Department shall suspend all operations at an acceptable use project if it determines that termination is necessary to protect human health and the environment pursuant to the Coastal Zone Management Rules at N.J.A.C. 7:7, other criteria as specified by the Department in the AUD, and other environmental standards pursuant to State law.

B. The Department may revoke the AUD if the owner/operator fails to operate in strict compliance with the requirements of its AUD at all times, or any law or regulation in any way related to the AUD, or the Department determines there is sufficient cause for revocation in order to protect human health, safety, and the environment.

C. Any person that conducts any of the activities as specified herein as requiring the authorization of the Department through issuance of an AUD, or that accepts unauthorized dredged material for any purpose as shall be determined by the Department, shall be deemed to be in violation of the requirement to obtain an AUD for such activity, and shall be subject to all applicable penalties pursuant to law.

D. An AUD shall not be construed as granting permission to fill, disturb, or conduct a regulated activity in: flood-plain areas, tidelands, freshwater wetlands, flood hazard areas or coastal wetlands, tidal areas, or surface water runoff conditions. Any such activity must be conducted in accordance with all necessary advance site-specific authorizations and permits from, and as determined by, the Department and other relevant agencies.

E. An AUD shall not constitute an endorsement of, or recommendation for, the use of

dredged material or any product containing dredged material. No uses of dredged material or products produced at acceptable use projects are authorized by the AUD unless expressly stated therein.

F. Dredged material, admixtures, and products that are not managed and used in strict accordance with all of the conditions and requirements of the AUD are solid waste and shall be subject to the requirements of N.J.S.A. 13:1E-1 et seq., known as the Solid Waste Management Act, which shall include the assessments of penalties for violations thereof.

G. An AUD is not transferable to any person.

H. Any deviation in the information provided to the Department on which an AUD is based may void the AUD, at the discretion of the Department, which would require a reevaluation and may make any person subject to enforcement action pursuant to applicable laws and regulations.

I. The Department reserves the right to require or conduct testing at any time to monitor or enforce the provisions of the AUD.

J. An AUD shall be granted without prejudice and shall not affect any existing or future enforcement action the Department or any other agency may take against any person.

K. If the Department determines that dredged material, admixtures, or products are used in any manner, by any person, that violates or exceeds the scope of the conditions granted in the AUD the owner/operator shall be first responsible for the site's proper remediation, as well as for the remediation of all other media affected, and second, any other person or persons responsible in any way for the use of the material as shall be determined by the Department. Specifically, the Department may take action, and may require the owner/operator to take action, at any time if more stringent standards or other criteria are adopted, or standards or criteria were improperly applied to a use application by any person.

APPENDIX H

BOUNDARIES OF NON-MAINLAND COASTAL
CENTERS IN THE CAFRA AREA

For purposes of N.J.A.C. 7:7-13, this appendix sets forth the boundaries of the non-mainland coastal centers in the CAFRA area.

In accordance with N.J.A.C. 7:7-13.3(d), the impervious cover allowed on a site within a Department-delineated coastal center must be placed on the net land area of the site, as determined under N.J.A.C. 7:7-13.3(e). The placement of impervious cover on a site in a coastal center may be further restricted by other provisions of this chapter, including the special area rules at N.J.A.C. 7:7-9.

The appendix is organized as follows: Counties are listed alphabetically. Within each county, the municipalities are listed alphabetically. Within each municipality, the non-mainland coastal centers are listed alphabetically.

I. Atlantic County coastal centers on barrier islands, spits, and peninsulas

A. Brigantine coastal town

1. The coastal town boundary follows the municipal boundary of the City of Brigantine, but does not include any bay islands or the Absecon Wildlife Management Area.

II. Cape May County coastal centers on barrier islands, spits and peninsulas

A. Lower Township coastal centers

1. Diamond Beach coastal town

a. The coastal town boundary extends from the intersection of the Wildwood Crest/Lower Township municipal boundary and Park Boulevard thence southwest on Park Boulevard to North Station Avenue, thence southeast on North Station Avenue to Ocean Drive (County route 621), thence southwest on Ocean Drive (County route 621) to Madison Avenue, thence southeast on Madison Avenue to its end, thence southeast on the same bearing to the water's edge, thence northeast along the water's edge to the municipal boundary, and thence northwest along the municipal boundary to Park Boulevard.

B. Sea Isle City coastal town

1. The coastal town boundary follows the municipal boundary of Sea Isle City, but does not include the area north of a line that extends along 22nd Street and along the same bearing from either end of 22nd Street to the mean high water line.

III. Monmouth County coastal centers on barrier islands, spits and peninsulas

A. Monmouth Beach coastal town

1. The coastal town boundary follows the municipal boundary of the Borough of Monmouth Beach, but does not include any bay islands.

B. Sea Bright coastal town

1. The coastal town boundary follows the municipal boundary of the Borough of Sea Bright, but does not include any bay islands.

IV. Ocean County coastal centers on barrier islands, spits and peninsulas

A. Barnegat Light coastal village

1. The coastal village boundary follows the municipal boundary of Barnegat Light Borough, but does not include any bay islands or Barnegat Light State Park.

B. Bay Head coastal town

1. The coastal town boundary follows the municipal boundary of Bay Head Borough.

C. Beach Haven Borough coastal town

1. The coastal town boundary follows the municipal boundary of Beach Haven Borough, but does not include any bay islands.

D. Berkeley Township coastal town

1. The coastal town boundary circumscribes that part of Berkeley Township that is east of Barnegat Bay, north of Island Beach State Park and south of Seaside Park Borough.

E. Brick Township coastal centers

1. South Mantoloking coastal village

a. The coastal village boundary circumscribes that part of Brick Township that is east of Barnegat Bay, north of Toms River Township, and south of Mantoloking Borough, but does not include any bay islands.

F. Toms River Township coastal centers

1. Normandy Beach/Chadwick coastal town

a. The coastal town boundary circumscribes that part of Toms River Township that is east of Barnegat Bay, north of Lavallette Borough and south of Brick Township, but does not include any bay islands.

2. Ortley Beach coastal town

a. The coastal town boundary circumscribes that part of Toms River Township that is east of Barnegat Bay, north of Seaside Heights Borough, and south of Lavallette Borough, but does not include any bay islands.

G. Harvey Cedars coastal town

1. The coastal town boundary follows the municipal boundary of Harvey Cedars Borough, but does not include any bay islands.

H. Lavallette coastal town

1. The coastal town boundary follows the municipal boundary of Lavallette Borough, but does not include any bay islands.

I. Long Beach coastal town

1. The coastal town boundary circumscribes those non-contiguous parts of Long Beach Township that are east of Barnegat Bay, but does not include any bay islands or the Holgate Unit of the Edwin B. Forsythe National Wildlife Refuge.

J. Mantoloking coastal village

1. The coastal town boundary follows the municipal boundary of Mantoloking Borough, but does not include any bay islands.

K. Seaside Park coastal town

1. The coastal town boundary follows the municipal boundary of Seaside Park Borough, but does not include any bay islands.

L. Ship Bottom coastal town

1. The coastal town boundary follows the municipal boundary of Ship Bottom Borough, but does not include any bay islands.

M. Surf City coastal village

1. The coastal village boundary follows the municipal boundary of Surf City, but does not include any bay islands.

APPENDIX I

CAFRA CENTERS

This non-regulatory appendix contains the list of CAFRA centers, CAFRA cores, and CAFRA nodes, the boundaries of which have been accepted by the Department under N.J.A.C. 7:7-13.16(b), and which are incorporated into and shown on the CAFRA Planning Map. As required under N.J.A.C. 7:7-13.17(b), an applicant shall refer to the CAFRA Planning Map in order to determine the location of a site for the purposes of determining the applicable impervious cover limits under this chapter.

The Department will update the list of CAFRA centers, CAFRA cores, and CAFRA nodes in this appendix by notice of administrative change as part of the New Jersey Register notice required in N.J.A.C. 7:7-13.16(b). The appendix is organized as follows: counties are listed alphabetically. Within each county, the municipalities are listed alphabetically. Within each municipality, the CAFRA centers, CAFRA cores, and CAFRA nodes are listed alphabetically.

I. Atlantic County CAFRA centers and CAFRA cores
A. Atlantic City
1. Atlantic City CAFRA urban center

B. Galloway Township CAFRA centers and CAFRA cores
1. Galloway Downtown CAFRA core
2. Oceanville CAFRA village
3. Smithville CAFRA core
4. Smithville CAFRA town
5. Wrangleboro CAFRA town

II. Burlington County CAFRA Centers
A. Bass River Township
1.Bass River township CAFRA node.

III. Cape May County CAFRA centers
A. Avalon Borough
1. Avalon Borough CAFRA town

B. Cape May City
1. Cape May City CAFRA town

C. Cape May Point Borough
1. Cape May Point CAFRA village

D. City of Ocean City
1. Ocean City regional center

E. Middle Township
1. Cape May Court House CAFRA Regional Center

2. Del Haven CAFRA Village Center
3. Goshen CAFRA Hamlet
4. Green Creek CAFRA Village Center
5. Hildreth CAFRA Village Center
6. Rio-Grand-Whitesboro-Burleigh CAFRA Regional Center
7. Swainton CAFRA Village Center

F. Stone Harbor Borough
1. Stone Harbor Borough CAFRA town

G. Upper Township
1. Seaville CAFRA Town
2. Marmora CAFRA Town
3. Petersburg CAFRA Village
4. Tuckahoe CAFRA Village

H. Wildwood City/North Wildwood City/Wildwood Crest Borough/West Wildwood Borough
1. The Wildwoods CAFRA regional center

IV. Cumberland County CAFRA centers
A. Bridgeton City
1. Bridgeton CAFRA Regional Center

B. Commercial Township CAFRA centers
1. Mauricetown-Haleyville CAFRA village

C. Lawrence Township
1. Cedarville CAFRA Village

D. Maurice River Township
1. Mauricetown Station CAFRA hamlet

E. Millville City/Vineland City
1. Millville-Vineland CAFRA regional center

V. Monmouth County CAFRA centers
A. Asbury Park City
1. Asbury Park CAFRA urban center

B. Atlantic Highlands Borough
1. Atlantic Highlands Borough CAFRA town

C. Long Branch City
1. Long Branch CAFRA regional center

D. Manasquan Borough
1. Manasquan Borough CAFRA town

E. Red Bank Borough
1. Red Bank CAFRA regional center

VI. Ocean County CAFRA centers
A. Brick Township
1. Brick CAFRA town

B. Berkeley Township
1. Berkeley CAFRA Town Center
2. Berkeley CAFRA Core
3. Berkeley CAFRA Node

C. Barnegat Township
1. Barnegat CAFRA Town Center
2. Barnegat CAFRA Core

D. Lacey Township
1. Lacey CAFRA Town Center
2. Lacey Business Center CAFRA Node
3. Oyster Creek CAFRA Node

E. Lakewood Township
1.Cedarbridge Core
2. Cross Street and Prospect Avenue Core
3. East New Jersey Route 70 Core
4. James and Prospect Streets Industrial Park Node
5. Lakewood Downtown Regional Center
6. Lakewood Industrial Park and Campus Node
7. Oak Street Core
8. U.S. Route 9Core

F. Little Egg Harbor Township
1. Mystic Island CAFRA town
2. Parkertown CAFRA village

G. Little Egg Harbor Township/Tuckerton Borough
1. Tuckerton CAFRA town

H. Ocean Township
1. Waretown CAFRA Town Center

I. Seaside Heights Borough
1. Seaside Heights CAFRA Town

J. Stafford Township
1. Stafford/Manahawkin CAFRA regional center

K. Toms River Township
1. Toms River CAFRA Downtown Regional Center, East and West
2. Toms River CAFRA Industrial Regional Center
3. Route 37 West Highway Core
4. Route 37 East Highway Core
5. Hooper Avenue Highway Core
6. Fischer Boulevard Highway Core
7. Route 9 Highway Core
8. Route 70 Highway Core

VII. Salem County CAFRA centers and CAFRA nodes
A. Lower Alloways Township CAFRA centers
1. PSE & G Energy Facility node

B. Salem City
1. Salem City CAFRA regional center

APPENDIX J

BOUNDARIES OF MAINLAND COASTAL CENTERS IN THE CAFRA AREA RE-ESTABLISHED UNDER THE PERMIT EXTENSION ACT OF 2008 AS AMENDED JANUARY 18, 2010, SEPTEMBER 19, 2012, AND DECEMBER 26, 2014

For purposes of N.J.A.C. 7:7-13, this appendix sets forth the boundary descriptions of the mainland coastal centers whose March 15, 2007, expiration has been extended under the Permit Extension Act of 2008, N.J.S.A. 40:55D-136.1 et seq. and the January 18, 2010, September 19, 2012, and December 26, 2014, amendments to that Act. The areas listed at N.J.A.C. 7:7-13.19(d) shall not be considered part of a mainland coastal center. In addition, the areas that are within the "environmentally sensitive area" defined by the Permit Extension Act of 2008, as amended, at N.J.S.A. 40:55D-136.3, were not extended by the Act and, therefore, are not part of the mainland coastal center. Further information on the Permit Extension Act and environmentally sensitive areas is described on the Department's webpage at https://www.nj.gov/dep/landuse/pea.html.

In accordance with N.J.A.C. 7:7-13.3(d), the impervious cover allowed on a site within a mainland coastal center must be placed on the net land area of the site, as determined under N.J.A.C. 7:7-13.3(e). The placement of impervious cover on a site in a mainland coastal center may be further restricted by other provisions of this chapter, including the special area rules at N.J.A.C. 7:7-9.

The appendix is organized as follows: counties are listed alphabetically. Within each county, the municipalities are listed alphabetically. Within each municipality, the non-mainland coastal centers are listed alphabetically.

I. Atlantic County coastal centers

A. Egg Harbor Township coastal centers

1. Egg Harbor coastal town

a. The coastal town boundary extends from the intersection of English Creek Avenue and Schoolhouse Lane, thence south on Schoolhouse Lane to Mays Landinomers Point Road (County Route 559), thence southeast on Mays Landinomers Point Road (County Route 559) to Steelmanville Road (County Route 651), thence east on Steelmanville Road (County Route 651) to Robert Best Road, thence northeast on Robert Best Road to a point that is a perpendicular distance of 2,000 feet west of Ocean Heights Avenue, thence south along a line that is parallel to and 2,000 feet west of Ocean Heights Avenue to Steelmanville Road (County Route 651), thence west on Steelmanville Road (County Route 651) to a point that is a perpendicular distance of 3,000 feet west of Ocean Heights Avenue, thence south along a line that is parallel to and 3,000 feet west of Ocean Heights Avenue to the Garden State Parkway, thence northeast on the Garden State Parkway to Ocean Heights Avenue, thence northwest on Ocean Heights Avenue to a point that is a perpendicular distance of 2,000 feet north of English Creek Avenue, thence west along a line that is parallel to and 2,000 feet north of English Creek Avenue to Evergreen Avenue, thence south on Evergreen Avenue to English Creek Avenue, and thence west on English Creek Avenue to Schoolhouse Lane.

II. Cape May County coastal centers

A. Lower Township coastal centers

1. Town Bank/North Cape May coastal town

a. The coastal town boundary extends from the intersection of Shore Drive and Pinewood Road, thence east on Pinewood Road to Clubhouse Drive, thence south on Clubhouse Drive to Fernwood Road, thence east on Fernwood Road to Norwood Road, thence south on Norwood Road to Brookdale Road, thence west on Brookdale Road to Clubhouse Drive, thence south on Clubhouse Drive to Delair, thence east on Delair to Oxford, thence south on Oxford to Racetrack, thence south on Racetrack to Town Bank Road, thence southeast on Town Bank Road to Beachhurst Drive, thence north on Beachhurst Drive to Clearwater Drive, thence north on Clearwater Drive to Linda Anne Drive, thence east on Linda Anne Drive to Margaret Drive, thence north on Margaret Drive to Heidi Drive, thence east on Heidi Drive to Bayshore Road (County Route 603), thence southwest on Bayshore Road (County Route 603) to Fire Lane, thence southeast on Fire Lane to Apple Blossom Drive, thence east on Apple Blossom Drive to Sunnyside Drive, thence south on Sunnyside Drive to a point 200 feet north of Town Bank Road, thence southeast along a line parallel to and 200 feet north of Town Bank Road to Shunpike Road, thence south on Shunpike Road to U.S. Route 9, thence west on U.S. Route 9 to Adriatic Road, thence south on the same bearing as Adriatic Road to the mean high water line of the Cape May Canal, thence west along the mean high water line to Beach Drive, thence north on Beach Drive, which becomes Shore Drive, and thence north on Shore Drive to Pinewood Road.

III. Ocean County coastal centers

A. Lakewood coastal centers

1. Lakewood regional center

a. The coastal regional center boundary extends from the intersection of the Conrail railroad right of way and County Line Road (County Route 526), thence east on County Line Road to Brook Road, thence south on Brook Road to Ridge Avenue, thence southwest on Ridge Avenue to Somerset Avenue, thence south on Somerset Avenue to Bergen Avenue, thence west on Bergen Avenue to Linden Avenue, thence south on Linden Avenue to Ocean Avenue (State Route 88), thence east on Ocean Avenue (State Route 88) to Chambers Bridge Road (County Route 549), thence south on Chambers Bridge Road to the Garden State Parkway, thence south on the Garden State Parkway to State Route 70, thence west on State Route 70 to the Lakewood-Dover Township boundary line, thence northwest along the Lakewood-Dover Township boundary line to the Lakewood-Jackson Township boundary line, thence north along the Lakewood-Jackson Township boundary line to the Conrail railroad right of way, and thence northeast along the Conrail railroad right of way to County Line Road.