
INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN (2013 – 2017)

**NEW JERSEY ARMY NATIONAL GUARD
SEA GIRT NATIONAL GUARD JOINT TRAINING
CENTER**

March 2013



**NEW JERSEY DEPARTMENT OF MILITARY AND VETERANS AFFAIRS
NEW JERSEY ARMY NATIONAL GUARD
OFFICE ENVIRONMENTAL COMPLIANCE
LAWRENCEVILLE, NEW JERSEY**

INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN (2013 – 2017)
NEW JERSEY ARMY NATIONAL GUARD
SEA GIRT NATIONAL GUARD JOINT TRAINING CENTER
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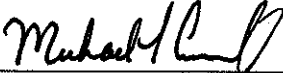

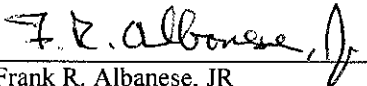
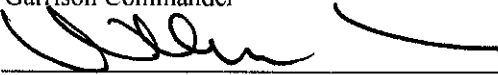
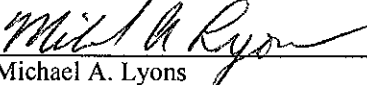

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**INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN (2013 – 2017)
NEW JERSEY ARMY NATIONAL GUARD
SEA GIRT NATIONAL GUARD JOINT TRAINING CENTER
MARCH 2013**

The U.S. Fish and Wildlife Service and New Jersey Army National Guard are in mutual agreement with regard to the contents of this Integrated Natural Resources Management Plan:

25 March 2013
Date



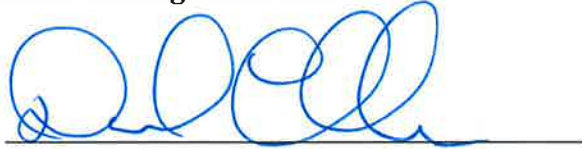
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**INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN (2013 – 2017)
NEW JERSEY ARMY NATIONAL GUARD
SEA GIRT NATIONAL GUARD JOINT TRAINING CENTER
MARCH 2013**

**The New Jersey Department of Environmental Protection, Division of Fish and Wildlife
and New Jersey Army National Guard are in mutual agreement with regard to the
contents of this Integrated Natural Resources Management Plan:**

6-3-2013

Date



Dave Chanda

Director, Division of Fish and Wildlife

New Jersey Department of Environmental Protection

EXECUTIVE SUMMARY

This Integrated Natural Resources Management Plan (INRMP) for Sea Girt National Guard Joint Training Center (NGJTC) has been prepared by the New Jersey Army National Guard (NJARNG) and the New Jersey Department of Military and Veterans Affairs (NJDMAVA) in accordance with Department of Defense, Department of the Army, and Army National Guard Bureau policy and guidance. The purpose of this INRMP is to document the policies, practices, and desired future direction of NJARNG's natural resource programs that are consistent with military training and use at Sea Girt NGJTC. The INRMP was first developed and implemented in 2006 (NJDMAVA, 2006a) and has been updated for the next five-years (2013 – 2017). This plan and subsequent revisions have been developed in cooperation with the U.S. Fish and Wildlife Service and New Jersey Department of Environmental Protection, Division of Fish and Wildlife, Endangered and Nongame Species Program. This INRMP reflects a mutual agreement among the parties concerning conservation, protection, and management of fish and wildlife resources at the installation.

Sea Girt NGJTC is located at the south end of the Borough of Sea Girt along the Atlantic Ocean in southern Monmouth County, New Jersey. The installation encompasses 171 acres of land owned by NJDMAVA that is surrounded by residential communities on its north, south, and west sides. Stockton Lake, a tributary of the Manasquan River, is located adjacent to the southern boundary and the Atlantic Ocean is located adjacent to the eastern boundary. The NJARNG mission is to provide trained and ready forces for federal military requirements and for state contingencies as determined by the Governor. The mission of Sea Girt NGJTC is to provide facilities to support the stationing, training, and support of regional National Guard units, and facilities to support the academic training of soldiers, airmen, sailors, and federal, state, and local law enforcement agencies in the region. The installation has been used for military training since 1885.

Five natural resources management program areas (land and watershed management, fish and wildlife management, rare species management, outdoor recreation, and information management) have been established to address relevant issues at Sea Girt NGJTC. This INRMP identifies management issues and establishes management goals, responsibilities, implementation schedules, and funding requirements for each of these program areas. Despite its location in a highly developed coastal community, Sea Girt NGJTC provides important habitat for five rare species, including a federally-listed bird (piping plover), a federally-listed plant (seabeach amaranth), two state-listed birds (least tern and osprey), and a state-listed plant

(seabeach knotweed). Management of these species is addressed in an Endangered Species Management Plan contained in Section 6.

**INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN SEA GIRT
NATIONAL GUARD JOINT TRAINING CENTER**

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LIST OF ACRONYMS

AMSL	Above Mean Sea Level
AR	Army Regulation
ADT	Active Duty Training
AGL	Above Ground Level
AT	Annual Training
BASH	Bird-aircraft Strike Hazard
BECP	Beach Erosion Control Project
BMPs	Best Management Practices
BR	Breeding Population Only
CAFRA	Coastal Area Facility Review Act
CFMO	Construction Facilities Management Office
CFMO-EMB	CFMO – Environmental Management Bureau
CWA	Clean Water Act
DA	Department of the Army
DDT	Dichloro-diphenyl-trichloroethane
DoD	Department of Defense
DCA	Department of Community Affairs
DLUR	Division of Land Use Regulation
EFH	Essential Fish Habitat
ENSP	Endangered and Nongame Species Program
EO	Executive Order
EQCC	Environmental Quality Control Committee
ESA	Endangered Species Act
ESMP	Endangered Species Management Plan
ESRI	Environmental Systems Research Institute
°F	Degrees Fahrenheit
FAC	Facultative Species
FACU	Facultative Upland Species
FACW	Facultative Wetland Species
FEMA	Federal Emergency Management Agency
FGS	Final Governing Standards
FIRM	Flood Insurance Rate Map
FNSI	Finding of No Significant Impact
GIS	Geographic Information System
HUC	Hydrologic Unit Code
ICRMP	Integrated Cultural Resources Management Plan
IDT	Inactive Duty Training
INRMP	Integrated Natural Resources Management Plan
ITAM	Integrated Training Area Management
IRP	Installation Restoration Program
ISAC	Invasive Species Advisory Council
NEPA	National Environmental Policy Act
NFA	No Further Action

NGB	National Guard Bureau
NGJTC	National Guard Joint Training Center
NISC	National Invasive Species Council
NJARNG	New Jersey Army National Guard
NJDEP	New Jersey Department of Environmental Protection
NJDMAVA	New Jersey Department of Military and Veterans Affairs
NJDMVC	New Jersey Department of Motor Vehicles Commission
NJPDES	New Jersey Pollutant Discharge Elimination System
NL	Not Listed Species
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPA	Northern Protection Area
NIS	Not Identified to Species (No Indicator Status)
OEBGD	Overseas Environmental Baseline Guidance Document
OMS	Organizational Maintenance Shop
ONLM	Office of Natural Lands Management
POC	Point of Contact
RTI	Regional Training Institute
SHPO	State Historic Preservation Office
SPA	Southern Protection Area
STEP	Status Tool for the Environmental Program
TAG	The Adjutant General
TRI	Toxic Release Inventory Reporting
UPL	Upland Species
UST	Underground Storage Tank
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
WPWA	Wreck Pond Watershed Association

SECTION 1 INTRODUCTION

1.1 AUTHORITY

This Integrated Natural Resources Management Plan (INRMP) for Sea Girt National Guard Joint Training Center (NGJTC) has been prepared by the New Jersey Army National Guard (NJARNG) and the New Jersey Department of Military and Veterans Affairs (NJDMAVA) in accordance with requirements specified by the following: Department of Defense (DoD) guidance set forth in the 10 October 2002 memorandum entitled *Implementation of the Sikes Act Improvement Act: Updated Guidance*; DoD 1 November 2004 memorandum entitled *Implementation of Sikes Act Improvement Act, Supplemental Guidance Regarding INRMP Reviews*; Department of the Army (DA) policy set forth in the 25 May 2006 memorandum entitled *Guidance for Implementation of the Sikes Act Improvement Act*; Army National Guard Bureau (NGB) policy set forth in the 9 April 2012 memorandum entitled *Guidance for the Creation, Implementation, review, and Revision and Update of INRMPs*; DoD Directive 4700.4, *Natural Resources Management Program*; and Army Regulation (AR) 200-1, *Environmental Protection and Enhancement*. This document has also been prepared to be consistent with INRMP criteria specified by the Sikes Act Improvement Act of 1997 (Sikes Act, 16 U.S.C. 670a et. seq.), which requires preparation of INRMPs for military installations where there is a federal property interest. No federal property interest exists at Sea Girt NGJTC because the NJDMAVA owns the property. However, many of the buildings are managed using federal funds and the facility supports the federal mission of the NJARNG. NGB policy specifies that all INRMPs will be consistent with Sikes Act criteria.

1.2 MANAGEMENT PHILOSOPHY

This INRMP was developed under the following five concepts:

- No net loss to training capacity;
- Sustained use of lands for military training;
- Natural resources stewardship;
- Biodiversity protection; and
- Ecosystem management.

In order to fully support and sustain its military mission at Sea Girt NGJTC, the NJARNG must manage, protect, and enhance the biological integrity of its lands. The NJARNG mission includes both federal and state components. The primary federal mission of the NJARNG is to train and equip units capable of immediate expansion to war strength. These units must be available for service in time of war or national emergency, or when

appropriated to augment the active Army. The primary state mission is to support and train civil authorities in the protection of life and property. In order to accomplish these missions, the NJARNG requires sufficient training lands. Therefore, the training lands at Sea Girt NGJTC are some of the most valuable assets of the NJARNG. Sustainable use of these lands can be achieved by integrating sound natural resources management programs into installation mission activities.

Natural resources stewardship is the management of natural resources with the goal of maintaining or increasing the resource's value indefinitely into the future. The stewardship goal of the NJARNG is to sustain multiple uses of natural resources over the long-term, while promoting the health of the ecosystems in which these activities occur. While NJARNG training lands are primarily used for mission activities, other uses include outdoor recreation, aesthetics, and ecosystem preservation.

Biodiversity is defined as the variety of life and its processes, including living organisms, the differences among them, and the communities and ecosystems in which they occur. Protecting and enhancing biodiversity is an overall goal of the NJARNG. Biodiversity consists of many elements of the natural environment including indigenous ecological communities, native species, and their associations, as well as ecosystem functions such as predation, grazing, nutrient cycling, and fire. Biodiversity is best measured or defined in terms of the variety of natural communities or ecosystems and the various natural functions that occur within and among these communities or ecosystems, rather than simply by the numbers of species present. Management for biodiversity helps to ensure ecosystem health, which in turn ensures sustainable use of lands to accomplish military missions.

Ecosystem management is a tool for the NJARNG to use not only in its efforts to protect and enhance biodiversity, but also to sustain the use of its military lands. This tool encourages management decisions to focus on natural resources at a community or ecosystem level rather than at a single species level. By maintaining or improving the quality, integrity, and connectivity of the ecosystem, individual species should prosper. However, individual rare species are not neglected by this management approach. Consideration must be given to rare species during land use and construction project planning because these species contribute to ecosystem health and to biodiversity, and, in many instances, are provided legal protection.

The INRMP is a tool that can be used for future land use and project planning.

In accordance with the DA and NGB policy, the major components of the INRMP include managing natural resources to support the military mission and to provide for

sustainable use of training lands; identifying natural resources inventory and monitoring needs; protecting, enhancing, and restoring fish and wildlife habitat, including wetlands; and enforcing natural resources laws and regulations. Each of these components is essential to the success of an INRMP that aims to achieve sustainable military use and promote biodiversity.

1.3 PURPOSE OF PLAN

The purpose of this INRMP is to document the policies, practices, and desired future direction of NJARNG's natural resource programs that are consistent with military training and use at Sea Girt NGJTC. The plan should:

- Provide a comprehensive planning document that allows the NJARNG to carry out its mission, promote ecosystem health, and maximize biodiversity at its installations and in the surrounding region;
- Ensure no net loss of training capacity;
- Establish the framework for the implementation of natural resources programs and ecosystem management;
- Provide a centralized source of information on the status of natural resources programs;
- Identify mission-related impacts and options for conflict resolution of competing interests;
- Serve as a source of information for National Environmental Policy Act (NEPA) documents;
- Provide a source of guidance for compliance with environmental regulations; and
- Identify, prioritize, and schedule long-term budget requirements.

1.4 ORGANIZATION OF PLAN

This plan is divided into nine sections. Sections 1 through 3 provide introductory information, a description of the military mission and environmental setting, and an explanation of the natural resources planning structure. Sections 4 through 8 describe resource-specific management programs at the installation, including management issues and goals. Section 9 includes an implementation plan for each program and Section 10 contains references.

SECTION 2

MILITARY MISSION AND ENVIRONMENTAL SETTING

2.1 GEOGRAPHIC LOCATION AND SIZE

Sea Girt NGJTC is located at the south end of the Borough of Sea Girt along the Atlantic Ocean in southern Monmouth County, New Jersey (Figure 2-1). The installation encompasses 171 acres of land surrounded by residential communities on its north, south, and west sides. Stockton Lake, a tributary of the Manasquan River, is located adjacent to the southern boundary and the Atlantic Ocean is located adjacent to the eastern boundary.

2.2 MILITARY MISSION

2.2.1 Statement of Mission

The NJARNG mission is to provide trained and ready forces for federal military requirements and for state contingencies as determined by the Governor. The mission of Sea Girt NGJTC is to provide facilities to support the stationing, training, and support of regional National Guard units, and facilities to support the academic and physical training of soldiers, airmen, and sailors in the region. The installation facilities and grounds, including beachfront have been used for military training since 1885. The vision for Sea Girt NGJTC is to continue its stationing, training, and support mission for the National Guard, while preserving its surrounding community and environmental integrity. Land and facility resource collaboration with common-interest "partners in education", such as the New Jersey State Police, further supports this vision.

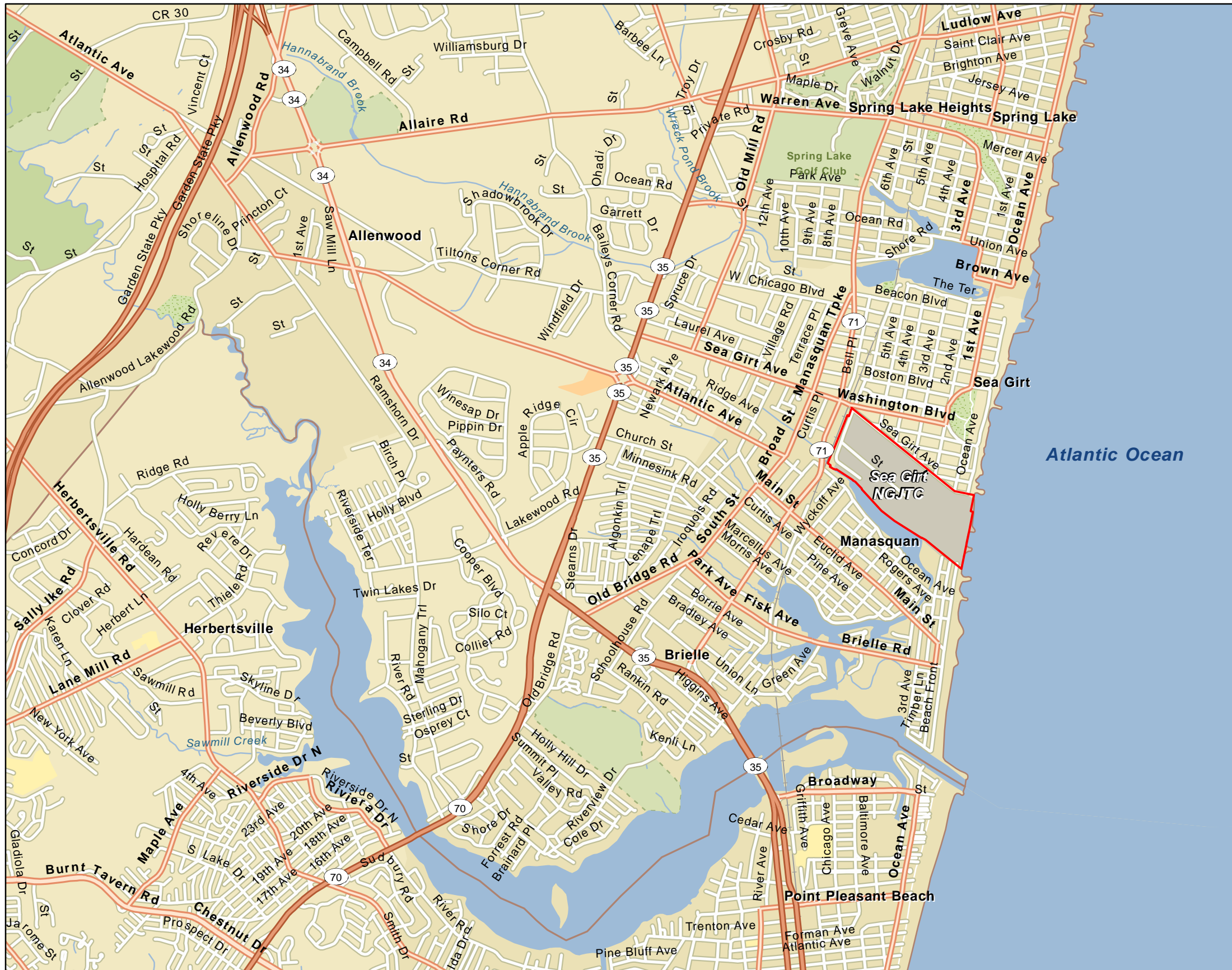
2.2.2 Facility Uses and Users

Sea Girt NGJTC supports a variety of military and non-military users. The installation serves as home station for the 254th Regiment Regional Training Institute (RTI). Their mission is to provide Combat Arms training under the Regional Training Institute (RTI) concept to Active Army, Army National Guard, Army Reserve, and DA civilian personnel. Sea Girt NGJTC is also home station for the Recruiting and Retention Battalion, 154th Water Command, the 63rd Army Band, and the State Medical Command. In addition, Facilities Maintenance Shop (FMS) #2 and the New Jersey National Guard Militia Museum are located at the installation. Additional Active Duty and Reserve units from the region use the facilities at Sea Girt NGJTC for inactive duty training (IDT), annual training (AT), and various classes/schools.

Tenant organizations with a permanent presence at Sea Girt NGJTC include:

- New Jersey State Police Academy and Regional Laboratory;
- New Jersey Department of Corrections Academy;
- Division of Criminal Justice Academy;
- Juvenile Justice Commission Academy;
- Drug Enforcement Administration;
- Sprint;
- World Com;
- Protection Plus Security;
- New Jersey National Guard Militia Museum; and
- Various NJARNG Units.


Approximately 226 full time personnel, including tenants, are located at Sea Girt NGJTC. Additional military personnel and tenant students use the installation's facilities year round. The student housing capacity is 685. Authorized individuals use outdoor recreation areas (e.g., beach and campground) seasonally (see Section 7 – Outdoor Recreation). In addition, local schools, communities, and sports leagues frequently use the parade grounds for organized sports (e.g., soccer, lacrosse, and croquet) under lease agreements. NJDMAVA sponsors a National Guard Youth Camp one week each summer for approximately 120 children. The New Jersey State Police conduct a Trooper Youth program three to four times per summer. Each one-week program includes approximately 80 pending high school seniors. Starting in 2004 and occurring every 3 to 4 years thereafter, the Sea Girt NGJTC hosts a Boy Scouts of America camporee. The next event is scheduled to occur in 2014. Attendance has increased from 4,000 scouts and leaders and was capped at 10,000. The camporee lasts 2 days, with 2 additional days for set up prior to scout arrival and features camping on the Parade Grounds, demonstrations by the New Jersey State Police and NJARNG, and classes and activities for the Scouts so they can earn their merit badges.

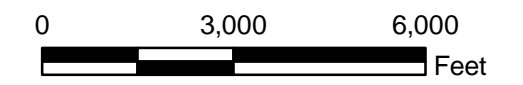
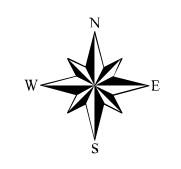


**Figure 2-1
Sea Girt NGJTC
Location Map**

New Jersey Army National Guard

Legend

 Sea Girt NGJTC Boundary



Data Source: ESRI Street Map North America, published by ESRI, Redlands, California, 2010.

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2.2.3 Planned Improvements

The NJARNG is planning upgrades to its Sea Girt NGJTC in order to better support National Guard troops during training and execution of United States based and overseas missions. A Master Plan, which was finalized in 2010, was developed to provide a 25 year development strategy for the Sea Girt NGJTC during this installation upgrade period. Implementation of this plan will enable the NJARNG to maintain its troops and equipment at the necessary level of readiness in order to complete its mission.

The Master Plan identifies a number of activities including the demolition of several pre-existing buildings, construction of multiple new structures to support the construction of a new RTI Educational Complex to replace existing substandard classroom and training facilities, the construction of a new Administration and barracks buildings, medical clinic, MOUT (Military Operations on Urban Terrain) site, and the upgrade of existing utility infrastructures. The Master Plan also includes plans for the installation of a 1.5 MW wind turbine which is no longer proposed. The Master Plan will be implemented to continue to serve the existing 30 NJARNG and 175 State law enforcement personnel and accommodate temporary fluctuations in student populations. The proposed activities will be undertaken in three primary phases: RTI Educational Complex, infrastructure and utilities upgrades, Administration and demolition of some existing buildings - 1 to 5 years; medical clinic - 5 to 10 years; further demolitions, and a Readiness Center - 10 to 20 years. The utility upgrades are currently underway.

2.3 TRAINING FACILITIES AND ACTIVITIES

Sea Girt NGJTC supports academic training in classrooms and field training. The installation has 51 buildings with over 310,000 square feet, which include administration, classroom, food service, barracks, armory, military vehicle maintenance, tear gas training, storage, and other support facilities. The installation has 22 classrooms with seating capacity for 1,113 students and can house 685 students in its billeting facilities. The RTI course schedule for the 2012 training year includes 31 different courses (See Table 2-1). Typically, an individual course may occur over several weekends for IDT, up to a nine week long duration for Active Duty Training (ADT). Maximum scheduled class sizes are 50 students, averaging 31 students per class. All IDT courses will be taught in ADT status once the new RTI Educational Complex is completed. Similar training to that identified in Table 2-1 is expected throughout the implementation period for this INRMP.

Field training areas include open parade grounds (approximately 91 acres), a bivouac area, a driver/motorcycle training area, small arms ranges, and the beach area (Figure 2-2). Military units and law enforcement tenant agencies use these training areas. A majority of the military field training occurs during IDT on the weekends (typically three weekends per month). Law enforcement training occurs throughout the week. Field training activities conducted at Sea Girt NGJTC include the following:

- The parade grounds are primarily used for unit assemblies, Governor Reviews, Boy Scout Camporees, ceremonies, and physical training; as well as soccer, field hockey and football for local schools and private organizations.
- Areas east of the parade grounds and west of the dunes are used for bivouac and signal training.
- The small arms ranges are used for weapons qualification training by military units and law enforcement tenant agencies. Sea Girt NGJTC has five outdoor ranges. The outdoor ranges are located in the eastern portion of the installation, immediately west of the dunes (Figure 2-2). Ranges 1, 2, and 5 are currently inactive. Range 1 is a practice hand grenade range while 2 and 5 are small arms ranges. Ranges 3 and 4 are active, 25-meter baffle ranges. Range 5 is being developed into a MOUT site.
- A driver/motorcycle training area is located southeast of the parade grounds and consists of a 0.3-acre asphalt pad. Historically this area was primarily used by the New Jersey Motor Vehicle Commission (NJMVC) to conduct motorcycle driver training classes for military and civilians. However, the NJMVC lost funding to continue this training and subsequently was discontinued, but may be reinitiated in the future. Military units and law enforcement tenant agencies occasionally use the area for driver training. Driver training is also conducted on existing roadways throughout the post by law enforcement agencies. No off-road vehicle maneuver training or tracked vehicle training occurs at the installation.
- The Sea Girt NGJTC beach is used for physical training and water rescue/ocean survival training. Training is limited to areas outside the rare species protection areas described in Section 6. Water rescue training includes limited vehicle use on the beach to launch small watercraft.
- The military conducts combat medical training activities on weekends in between the dunes and range areas.
- Law enforcement tenant agencies conduct crime scene investigation training throughout the installation.

As noted above, no off-road vehicle maneuver training or tracked vehicle training is conducted at the installation. Consequently, training activities at the installation result in minimal disturbance to the land.

**TABLE 2-1
TYPICAL COURSE SCHEDULE FOR SEA GIRT NGJTC RTI**

Course	Maximum Capacity	IDT/ ADT
OFFICER CANDIDATE SCHOOL #55	30	IDT
081-68W10 HEALTHCARE SPECIALIST (MOS-T) #001	30	ADT
5K-SI5K/012-SQI8 ARMY BASIC INSTRUCTOR #101	16	IDT
081-68W10 HEALTHCARE SPECIALIST (MOS-T) #001	36	ADT
081-68W10 HEALTHCARE SPECIALIST (MOS-T) #001	36	ADT
071-5K-F30/570-F17 TACTICAL CERT COURSE #301	18	ADT
CLC-06 COMBAT LIFESAVER COURSE 301	40	ADT
131-F13, SGITC #001	12	IDT
964-68W10 (S) SUSTAINMENT #001	36	ADT
CLC-06 COMBAT LIFESAVER COURSE 302	40	ADT
PRE-OCS #56	30	IDT
MTC-005, SQUAD DESIGNATED MARKSMAN #301	12	ADT
071-F5, LIGHT LEADER #100	36	ADT
081-68W10 HEALTHCARE SPECIALIST (MOS-T) #002	30	ADT
MTC-003, SMALL ARMS MASTER GUNNER #301	36	ADT
5K-SI5K/012-SQI8 ARMY BASIC INSTRUCTOR #102	16	IDT
071-F5, LIGHT LEADER #301	36	ADT
081-68W10 HEALTHCARE SPECIALIST (MOS-T) #002	36	ADT
CLC-06 COMBAT LIFESAVER COURSE 303	40	ADT
071-11B30-C45 INFANTRYMAN ADVANCED LDR #001	50	ADT
081-68W10 HEALTHCARE SPECIALIST (MOS-T) #002	36	ADT
071-11B30-C45 INFANTRYMAN ADVANCED LDR #103	50	ADT
MTC-005, SQUAD DESIGNATED MARKSMAN #302	12	ADT
131-F13, SGITC #002	12	IDT
071-11B30-C45 INFANTRYMAN ADVANCED LDR #002	50	ADT
MTC-003, SMALL ARMS MASTER GUNNER #302	36	ADT
CLC-06 COMBAT LIFESAVER COURSE 304	40	ADT
CLC-06 COMBAT LIFESAVER COURSE 305	40	ADT
OCS #56	30	IDT
MTC-005, SQUAD DESIGNATED MARKSMAN #303	12	ADT
071-11B30-C45 INFANTRYMAN ADVANCED LDR #104	18	ADT

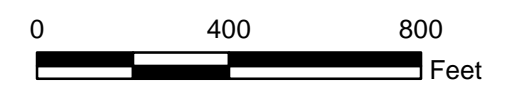
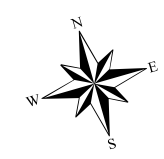


**Figure 2-2
Sea Girt NGJTC
Facility Map**

New Jersey Army National Guard

Legend

- Sea Girt NGJTC Boundary
- Fire Range (3 and 4 - active;
1, 2, and 5 - inactive)
- Driver / Motorcycle Training Area
- Helipad
- Campground



*Data Source: Sea Girt NGJTC Site Facilities taken from
Sea Girt INRMP Figure created by Parsons, September 2004.*

Scale:	As Shown
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File:	M:\3435_NGJTC_2011_Fig_2_2_Facility.mxd
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Figure Number:	2-2

2.4 LAND USE

2.4.1 Historic Land Use

The property on which Sea Girt NGJTC is located has been used for military training since 1885. Prior to that time, the property consisted of farmland and residences. Additional information on the history of Sea Girt NGJTC is contained in Siegel et al. (2004) and the Master Plan (2010).

2.4.2 Current Land Use

The installation consists of approximately 86 percent improved grounds, 13 percent unimproved grounds, and 1 percent semi-improved grounds. Lands uses can be generally characterized as administrative/academic training, equipment/vehicle maintenance/storage, field training, live fire training (small arms), recreation, and open space.

2.4.3 Surrounding Land Use/Encroachment

The aerial photograph in Figure 2-2 depicts surrounding land use. Virtually all of the developable lands surrounding Sea Girt NGJTC are currently developed. The installation is bordered by the Atlantic Ocean to the east and Stockton Lake to the south, both of which are used for water-dependent recreation. Baseball fields and residences/vacation homes are located along the southeastern boundary. Dense residential development is also located south of Stockton Lake and along the northern installation boundary. Dense commercial and residential development is located west of the installation.

2.5 CLIMATE

Located in the Outer Coastal Plain of New Jersey, the climate at Sea Girt is influenced by its proximity to the Atlantic Ocean. This maritime influence tends to have a moderating effect on coastal temperatures, causing them to be slightly cooler than inland temperatures in the summer and slightly warmer than inland temperatures in the winter. The Office of the New Jersey State Climatologist reports temperature and precipitation monthly averages from 1895 to 2011 and 30-year averages “normals” recorded at several stations throughout coastal NJ (ONJSC, 2012). See Table 2-2 below.

TABLE 2-2
CLIMATOLOGICAL DATA SUMMARY FOR SEA GIRT NGJTC

Month	Temperature (°F)			Precipitation (inches)		
	Mean (1895-2011)	Normal (1971-2000)	Preliminary New Normal (1981 -2010)	Mean (1895-2011)	Normal (1971-2000)	Preliminary New Normal (1981 - 2010)
January	33.3	33.4	34.1	3.49	3.84	3.35
February	33.5	35	36	3.28	3.04	2.91
March	40.8	42	42.3	3.91	4.04	4.1
April	49.8	50.5	51.2	3.43	3.06	3.75
May	59.5	59.9	60.4	3.19	3.79	3.49
June	68.8	69	70	3.18	2.94	3.14
July	74.3	74.7	75.4	3.93	3.86	3.87
August	73.5	73.8	74.6	4.35	4.26	4.06
September	66.8	67.7	68.5	3.35	3.43	3.37
October	57.2	56.9	57.8	3.31	3.33	3.57
November	47	47.6	48.4	3.18	3.28	3.33
December	37.2	38.5	38.9	3.56	3.51	3.66
Total	-	-	-	42.17	42.91	42.59

Source: Office of the New Jersey State Climatologist. Available at <http://climate.rutgers.edu/stateclim/>. Accessed on May 8, 2012
Values are calculated from an average of monthly temperature and precipitation totals recorded at several stations throughout coastal NJ and represent inches of liquid equivalent precipitation.

2.6 GEOLOGICAL RESOURCES

2.6.1 Geology

Sea Girt is located in the Coastal Plain physiographic province and bedrock geology is mapped as part of the Lower Member Kirkwood Formation. Soils at the installation are formed from the unconsolidated sediments of Mesozoic and Cenozoic age. Of marine and continental origin, these sediments consist mainly of sand, clay, greensand (glauconite), and interspaced gravel beds. Sand, clay, and gravel deposits from the Quaternary age, deposited by outwash or melt water from a glacier that once covered northern New Jersey, form a thin layer over the Coastal Plain sediments.

2.6.2 Soils

The following four types of soils are found at Sea Girt NGJTC (Figure 2-3) (SSURGO, 2004):

- Downer sandy loam-Urban land complex, 0 to 10 percent slopes. This map unit covers approximately 70 percent (120 acres) of the installation and consists of nearly level and gently sloping, well-drained Downer sandy loam and Urban

land. The areas of each are in such an intricate pattern that it is not practical to map them separately.

- Udorthents-Urban land complex, 0 to 3 percent slopes. This map unit covers approximately 19 percent (33 acres) of the installation and consists of nearly level and gently sloping soils that have been altered by excavation and filling.
- Hooksan sand, 0 to 5 percent slopes. This map unit covers approximately 10 percent (17 acres) of the installation and consists of nearly level to gently sloping, excessively drained soil on dunes adjacent to coastal beaches.
- Humaquepts, frequently flooded. This map unit covers less than 1 percent (1 acre) of the installation and consists of nearly level, somewhat poorly drained to very poorly drained soils. These soils occur on floodplains along perennial and intermittent streams.

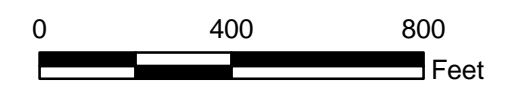
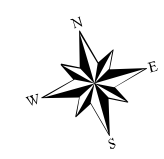


**Figure 2-3
Sea Girt NGJTC
SSURGO Soils Map**

New Jersey Army National Guard

Legend

- Sea Girt NGJTC Boundary
- Soil Classifications:**
- Downer-Urban land complex, 0 to 5% slopes
- Evesboro-Urban land complex, 0 to 5% slopes
- Hooksan sand, 0 to 5% slopes, rarely flooded
- Humaquepts, frequently flooded
- Udorthents, 0 to 8% slopes
- Udorthents-Urban land complex, 0 to 5% slopes
- WATER



Data Source: Soil Survey Geographic (SSURGO) Database for Monmouth County, New Jersey, USDA, Natural Resources Conservation Service, Fort Worth, Texas, December 2004.

Scale:	As Shown
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File:	M:\3435_NGJTC_2011_Fig_2_3_Soils.mxd
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Figure Number:	2-3



2.6.3 Topography


The topography at Sea Girt NGJTC is relatively flat, and averages less than 10 feet above mean sea level (AMSL) in elevation (Figure 2-4). The maximum elevation reaches 20 to 25 feet AMSL in the dunes where sand has accumulated against the sea wall and other structures in the eastern part of the installation. See Section 6.3.2.1 for additional data collected on beach topography.

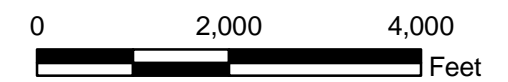
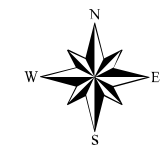


**Figure 2-4
Sea Girt NGJTC
USGS Topographic Map**

New Jersey Army National Guard

Legend

 Sea Girt NGJTC Boundary



Data Source: USGS Color Topographic Maps of New Jersey (7.5 Minute) Web Map Service, a seamless copy of Digital Raster Graphics of U.S. Geological Survey (USGS) 7.5 minute topographic quadrangle maps, prepared and distributed by N.J. Office of Information Technology, Office of Geographic Information Systems, Trenton, NJ, June 2010.

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Figure Number:	2-4




2.7 WATER RESOURCES

2.7.1 Watershed and Surface Water

Sea Girt NGJTC is located in the Atlantic Coast water region, Monmouth watershed management area, Manasquan River watershed (hydrologic unit code [HUC11] 02030104100), and Manasquan River (below Route 70 bridge) sub-watershed (HUC14 02030104100100). No state open waters are located within the installation boundaries. However, the Atlantic Ocean is adjacent to the eastern boundary, Judas Creek to the northwest, and Watson Creek and Stockton Lake are adjacent to the southern boundary (Figure 2-4).

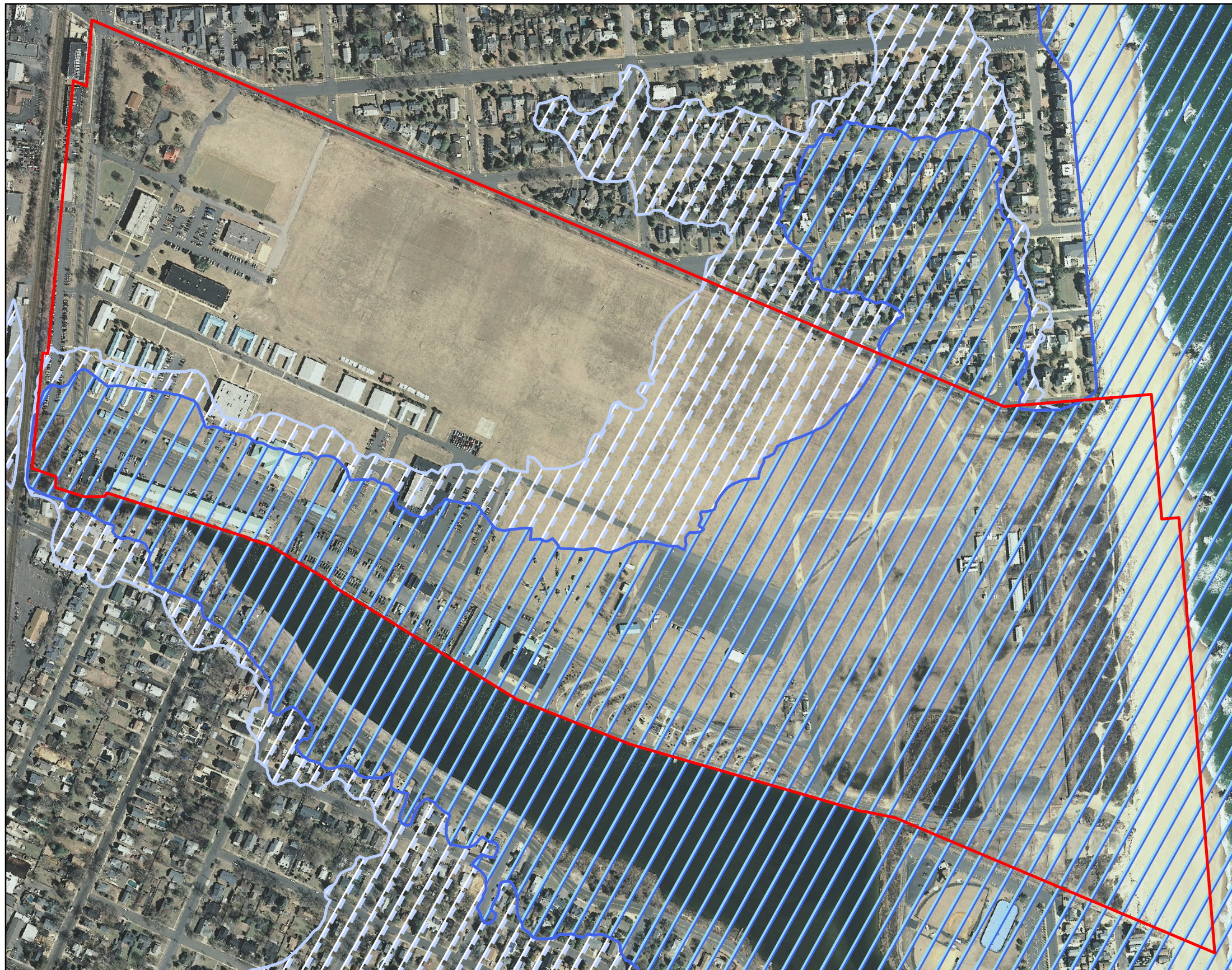
Judas Creek is a non-tidal freshwater stream in its upper reaches and becomes tidally influenced and saline as it flows into Stockton Lake near the southwestern boundary of Sea Girt NGJTC. Judas Creek and Stockton Lake are tributaries to Watson Creek, which is a tributary to the Manasquan River. Both Judas and Watson Creek are classified as FW2-NT/SE1 (freshwater, non-trout waters/saline waters of estuaries) by the New Jersey Water Quality Standards. Watson Creek, Stockton Lake, and Judas Creek are not classified as Category 1 waters (Debra Hammonds, New Jersey Department of Environmental Protection, personal communication, August 5, 2004). A steel bulkhead runs along a majority boundary between the installation and Stockton Lake.

2.7.2 Groundwater

Groundwater at Sea Girt NGJTC is associated with the Kirkwood-Cohansey aquifer system. No potable groundwater wells are located on the installation. However, irrigation wells for the croquet field, several monitoring wells for the regional groundwater contamination studies, and one U.S. Geological Survey Monitoring well exist on-site. Temporary monitoring wells developed in 2002 encountered groundwater at a depth of six feet.

2.7.3 Floodplains

Figure 2-5 depicts floodplain data based on the Flood Insurance Rate Map (FIRM) for the Borough of Sea Girt, created by the Federal Emergency Management Agency (FEMA). This FIRM indicates that approximately 97 and 20 acres of the installation are within the 100- and 500-year floodplains, respectively.

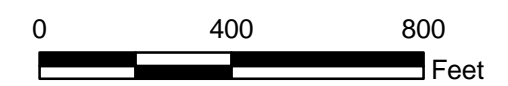
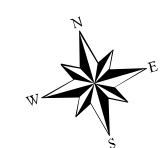


**Figure 2-5
Sea Girt NGJTC
FEMA Floodplains Map**

New Jersey Army National Guard

Legend

- Sea Girt NGJTC Boundary
- FEMA Floodplain**
- 500-year Floodplain
- 100-year Floodplain



Data Source: National Flood Hazard Layer, Federal Emergency Management Agency (FEMA), a compilation of all Digital Flood Insurance Rate Map databases published by FEMA, distributed by FEMA Map Service Center, Washington DC, November 2011.

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2.8 BIOLOGICAL RESOURCES

2.8.1 Historic Natural Vegetation

Significant changes to the vegetation of Sea Girt NGJTC were made prior to and during the military use of this property. Historically, the property consisted of farmland with a few residences prior to becoming a military installation in 1885 (Siegel et al., 2004). No records of the vegetation that existed prior to development are available; however, it is likely that vegetative communities would have resembled the coastal vegetation complex found on Sandy Hook to the north or Island Beach to the south. The primary dune would have been dominated by American beachgrass (*Ammophila breviligulata*), while the secondary dune would have supported northern bayberry (*Morrela pennsylvanica*), eastern red cedar (*Juniperus virginiana*), black cherry (*Prunus serotina*), and beach plum (*Prunus maritima*). The transitional area between the dunes may have supported a community of beach heather (*Hudsonia tomentosa*) similar to that found at nearby Island Beach State Park. The pine/oak forests typical of the New Jersey coastal plain would also have likely occurred onsite. This forest canopy typically includes white oak, (*Quercus alba*), red oak (*Quercus rubra*) and pitch pine (*Pinus rigida*). Prior to the construction of the bulkhead wall along the installation's southern boundary, a natural salt marsh community most likely thrived at the edge of Stockton Lake. Saltmarsh cordgrass (*Spartina alterniflora*) and saltmeadow cordgrass (*Spartina patens*) would have been the dominant species in the salt marsh. Other species such as hightide bush (*Iva frutescens*) and groundsel tree (*Baccharis halimifolia*) may have occurred on the landward edges of this community.

2.8.2 Existing Vegetation/Ecological Communities

2.8.2.1 Overview

Ecological community and flora surveys were conducted at Sea Girt NGJTC in 1998 and 1999 (Parsons, 1999). Additional plants have been added to the list based on multiple field investigations conducted by ASGECI between 2007 and 2011 (ASGECI, 2011). During the fall of 1998 and the spring of 1999, 105 vascular plants were identified at Sea Girt NGJTC. An additional 49 vascular plants have been identified by ASGECI between 2007 and 2011. The complete list of plants identified onsite between 1998 and 2011 and the ecological community affiliation of each is included in Appendix A.

The following section provides 6 general categories (dunes, non-dune successional, built environments, palustrine, estuarine, and marine systems) divided into 15 ecological/vegetation communities and other cover types at the Sea Girt NGJTC (Table 2-3 and Figure 2-6). These communities could be further categorized based on composition and

species dominance; however, these basic divisions are effective at describing and prioritizing onsite vegetation characteristics.

**TABLE 2-3
ECOLOGICAL COMMUNITIES AT SEA GIRT NGJTC**

Ecological Community	Acres	Percent of Installation
Dunes		
Coastal Dunegrass	7.78	4.53
Coastal Dune Shrubland	3.45	2.01
Successional Dune	2.36	1.37
Disturbed Successional Dune	3.29	1.92
Total Dunes =	16.88	9.83
Non-Dune Successional Communities		
Disturbed Successional Communities	3.08	1.79
Secondary Successional Forest	0.22	0.12
Total Non-Dune Successional =	3.30	1.91
Built Environments		
Hedgerow/Planted Trees	3.76	1.90
Maintained Lawn/Landscaping	95.37	55.52
Bare Ground	8.24	4.8
Buildings	8.24	4.8
Pavement	26.0	15.13
Total Built Environments =	141.61	82.15
Palustrine		
Herbaceous and Deciduous Scrub-Shrub Wetland	2.69	1.56
Modified Herbaceous Wetland	2.08	1.20
Total Palustrine =	4.77	2.76
Estuarine		
Salt marsh	<0.01	<0.01
Marine		
Unconsolidated Shore/Intertidal	4.92	2.86















**Figure 2-6
Sea Girt NGJTC
Ecological and
Vegetation Communities**

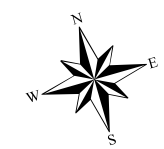
New Jersey Army National Guard

Legend

 Sea Girt NGJTC Boundary

Ecological & Vegetation Communities:

-  Coastal Dune Grass
-  Coastal Dune Shrubland
-  Disturbed Successional Dune
-  Successional Dune
-  Disturbed Successional
-  Modified Herbaceous Wetland
-  Herbaceous & Deciduous Scrub-Shrub Wetland
-  Hedgerow / Planted Trees
-  Secondary Successional Forest
-  Intertidal Unconsolidated Shore
-  Building
-  Bare Ground
-  Maintained Lawn / Landscaping
-  Pavement



0 400 800
Feet

Data Source: Ecological & Vegetation Communities provided by Amy S. Greene Environmental Consultants, Inc., based on fieldwork and aerial interpretation conducted during the 2011 monitoring season.

Scale: As Shown
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2.8.2.2 Dunes

Sand dunes occupy over 16 acres of the eastern part of the installation, primarily between the small arms ranges and the beach. The dunes reach a maximum elevation of approximately 20 feet. The seaward side of the dunes has been reinforced with a concrete seawall. Other structures including jetties and wooden bulkheads are found in portions of the dunegrass community adjacent to the coastal dune shrub community. Portions of the seawall and other structures are exposed or partially covered with sand. The small arms range backstops are located adjacent to the landward side of the dunes.

The dunegrass community on the seaward side of the seawall and adjacent American beachgrass dominant areas, and portions of the unconsolidated shore/intertidal area is referred to as the “primary dune” (see Figure 6-1). This portion of the dune is most heavily influenced by salt spray, wind, erosion, sand accretion, and tide influences and, as a result, has minor yet distinctive differences in vegetation from more sheltered portions of the dunegrass community. The marine influences on the primary dune result in the most ideal conditions for the piping plover (*Charadrius melodes*), seabeach amaranth (*Amaranthus pumulis*) and other rare species that utilize littoral zones.

The sand dunes on the landward side of the seawall and jetties contain the coastal shrub community, dune successional areas and sheltered coastal dunegrass areas. These communities are collectively referred to as “secondary dune” in annual reports at NGJTC. The secondary dune is generally dominated by various woody shrubs and vines and is partially sheltered from salt spray, wind, erosion and other marine influences. Successional dune and the disturbed successional dune communities both retain some coastal dune vegetation but have greater proportions of invasive species such as Oriental bittersweet (*Celastrus orbiculatus*), Japanese knotweed (*Polygonum cuspidatum*) and Japanese honeysuckle (*Lonicera japonica*) respectively.

The dune communities provide several important ecological and protective functions including range safety, flood protection, land stabilization, wildlife habitat, and visual/noise buffering. In addition to being important habitat for the piping plover and seabeach amaranth, the Sea Girt NGJTC primary dune has previously provided nesting habitat for the state-endangered least tern (*Sterna antillarum*). Numerous additional shorebirds including the American oystercatcher (*Haematopus palliatus*), semipalmated sandpiper (*Calidris pusilla*) and sanderling use the edge of this community and the adjacent unconsolidated shore habitats for foraging and resting. State-listed threatened, endangered, or Special Concern raptors including peregrine falcon (*Falco peregrinus*), Cooper’s hawk (*Accipiter cooperii*), northern

harrier (*Circus cyaneus*), and short-eared owl (*Asio flammeus*) have all been observed utilizing primary dune areas onsite for foraging or resting.

In addition, the secondary dune provides wildlife habitat for a variety nesting and migrant passerines and other birds. Key species potentially nesting within these communities include yellow warbler (*Dendroica petechia*), willow flycatcher (*Empidonax traillii*), brown thrasher (*Toxostoma rufum*), gray catbird (*Dumetella carolinensis*), Northern mockingbird (*Mimus polyglottos*), song sparrow (*Melospiza melodia*), and eastern towhee (*Pipilo erythrophthalmus*). Migratory birds, particularly yellow-rumped warbler (*Dendroica coronata*) and tree swallow (*Tachycineta bicolor*) rely heavily on fruiting poison ivy (*Toxicodendron radicans*) and northern bayberry bushes for foraging. Additional information on the wildlife at the Sea Girt NGJTC may be found in Wildlife portion of the INRMP in Section 2.8.4.

From an ecological perspective, the Sea Girt NGJTC dunes are an important component of the regional landscape. The dunes at the installation represent the only remaining habitat of this type in the immediate vicinity of the facility. As shown in Figure 2-2, the historic dune zone in the vicinity of Sea Girt NGJTC has been completely developed with residences or vacation homes. The closest dune habitat of similar quality is located at Wreck Pond, which is approximately one mile north of the Sea Girt NGJTC Facility. Dune habitat can be further classified into four ecological community types; coastal dune grass, coastal dune shrubland, successional dune, and disturbed successional dune.

Coastal Dune Grass Community: Coastal dune grass communities are found along the eastern portion of the property and dominated by American beachgrass, which typically comprises approximately 80% of the vegetation composition of this community, and typically in excess of 50% cover (ASGEI, 2010b). Other commonly occurring species include coastal panicgrass (*Panicum amarum*; particularly near the facility's northern boundary), seaside goldenrod (*Solidago sempervirens*), purple sandgrass (*Triplasis purpurea*), rough cocklebur (*Xanthium strumarium*), beach pea (*Lathyrus maritimus*), spoonleaf yucca (*Yucca filamentosa*), horseweed (*Conyza canadensis*), and saltmeadow cordgrass. Portions of this community adjacent to the unconsolidated shore habitats that receive marine influences including salt spray, accretion and occasional storm overwash contain substantial amounts of sea rocket (*Cakile edentula*) and seaside spurge (*Chamaesyce polygonifolia*) and lesser amounts of saltwort (*Salsola kali*) during the growing season. Northern bayberry (*Morella pennsylvanica*) and rugosa rose (*Rosa rugosa*) occur in minor (generally under 5% cover) amounts in the western portion of this community (ASGEI, 2010b). Asiatic sand sedge

(*Carex kobomugi*) is an exotic invasive of concern identified in a single location in the NGJTC coastal dunegrass community since 2007.

As discussed in Section 6.0, of the INRMP, this community and the its associated intertidal unconsolidated shore habitats described below are of particular ecological significance and a priority habitat at NGJTC due to the documented presence of federally-threatened piping plover and the seabeach amaranth.

Coastal Dune Shrubland: This 3.45-acre area is buffered by dune mounds and receives less exposure to salt spray and other conditions associated with the primary dune portions of the coastal dunegrass community. The three major woody components of this community are poison ivy shrubs and vines, northern bayberry, and rugosa rose, which grow in a patchwork. It generally contains less exotic invasive species than other successional communities within the secondary dune. American beachgrass and seaside goldenrod both grow along the edges of this community or are interspersed within less dense patches of shrubs.

Additional species within this community include winged sumac (*Rhus copallinum*), eastern red cedar, black cherry, Virginia creeper (*Parthenocissus quinquefolia*), *Rubus* sp. blackberries and coastal panic grass. This community in conjunction with other dune habitats provides coastal nesting and/or foraging habitat for a variety of bird species.

Successional Dune: This community occupies approximately 2.36 acres in the eastern part of the installation on a generally lower and flatter trough of the secondary dune (see Figure 2-6). It is similar to portions of the dune shrubland community and contains northern bayberry, winged sumac and poison ivy (vines and shrubs). It differs primarily from the dune shrub community by the greater variety of generalist successional and exotic species present, some of which are associated with past disturbance. Additional dominant native species include blackberry, Virginia creeper, winged sumac, Eastern red cedar, and black cherry. Dominant exotic invasive species include Japanese knotweed, spotted knapweed (*Centurea stoebe*), common reed (*Phragmites australis*) and Japanese honeysuckle. Oriental bittersweet is among the most aggressive invasive species within this community. This species tends to colonize rock and debris piles from historic disturbance, and smothers adjacent bayberry and poison ivy shrubs. Herbaceous dominant portions of this community contain a mix of grasses and forbs such as *Solidago* spp. goldenrods, poorjoe (*Diodia teres*), sanddune sandbur (*Cenchrus tribuloides*), saltmeadow cordgrass, beach pea, trailing wild bean (*Strophostyles helvola*), (crabgrass *Digitaria* spp), horseweed, and rough cocklebur.

Disturbed Successional Dune: This community occupies approximately 3.29 acres of the NGJTC facility, primarily along the elevated edge of the secondary dune community within the vicinity of the small arms firing range (see Ecological and Vegetation Communities Map, Figure 2-6). This highly disturbed community is similar to the successional dune and retains minor remnants of native dune community vegetation; however, it is defined by a greater proportion (>50%) of generalist exotic invasive species monoculture patches (see Invasive Plants Map, Figure 4-2). Dominant species within this community include Japanese knotweed, common reed, poison ivy, mugwort (*Artemisia vulgaris*), spotted knapweed, and Japanese honeysuckle. Porcelainberry (*Ampelopsis brevipedunculata*), privet (*Ligustrum* sp.) and autumn olive (*Elaeagnus umbellata*) have also been identified within this community. In addition to poison ivy, native species identified within this community include hightide bush, winged sumac and native rose species (*Rosa* spp). A number of passerines utilize this community due to its proximity to other dune habitats. The most common species include red-winged blackbird (*Agelaius phoeniceus*), American robin (*Turdus migratorius*) and northern mockingbird.

2.8.2.3 Non-Dune Successional

Two non-dune successional communities exist at the Sea Girt NGJTC: disturbed successional community and secondary successional forest.

Disturbed Successional Community: These non-dune successional communities vary within the NGJTC facility and generally contain mixes of herbaceous and shrub vegetation. Disturbed successional communities are scattered throughout the NGJTC property, particularly along the edges of buildings or around historic structures, parking lots, supply piles, camp sites or active work areas.

These disturbed areas are infrequently maintained and vary greatly in composition and stages of succession. These areas generally have a high density of opportunistic and invasive species. Some of the species that are dominant in portions of this community at NGJTC include mugwort, Oriental bittersweet, Japanese honeysuckle, Autumn olive, poison ivy vines, common reed, English ivy (*Hedera helix*), multiflora rose (*Rosa multiflora*), Japanese knotweed, immature black locust (*Robina pseudoacacia*), black cherry, goldenrods and Virginia creeper.

This community shares many of the exotic species identified in the present and historic dune areas, but lacks the soils, topography and remnant vegetation of a dune community. This community often occurs as monocultures of invasive species and is frequently encountered along fences, debris piles, work areas, building and land use edges, and other infrequently

maintained upland vegetated areas throughout the facility. It also occurs as a component of secondary successional forest and as an understory or intermittent canopy within hedgerow areas, particularly along the eastern end of the facility's northern fence.

Secondary Successional Forest: A very small (approximately 0.22 acre) area in the southwest portion of the facility contains a disturbed successional forest with mature trees in excess of 40 feet (see Figure 2-6). The forest contains a mix of exotic and native trees. Norway maple (*Acer platanoides*), white mulberry (*Morus alba*), silver maple (*Acer saccharinum*) and hackberry (*Celtis occidentalis*) occur within the canopy of this forest. This forest is adjacent to the common reed dominant wetlands described in this section. The understory of the secondary forest is dominated by exotic invasive and opportunistic species typical of the onsite disturbed successional areas. Dominant species include oriental bittersweet, poison ivy, box elder (*Acer negundo*) Virginia creeper and Japanese knotweed. Multiflora rose is also present in this understory.

2.8.2.4 Built Environments

Five groups have been classified within built environments: hedgerows and planted trees, maintained lawn, bare ground, pavement, and buildings.

Hedgerows and Planted Trees: This community primarily contains areas of planted conifer or deciduous trees in canopies in excess of 60% cover. Much of this community is maintained as linear hedgerows. Common trees in this community include Japanese black pine (*Pinus thumbergii*), Norway maple, black cherry, Norway spruce (*Picea abies*) and London plane tree (*Platanus acerifolia*). Many of the hedgerows have components of disturbed successional edge habitats (see previous section) as part of the canopy or as an understory component. Although heavily disturbed and considered low priority habitats at NGJTC, hedgerows planted tree areas and associated disturbed successional areas support a number of common wildlife species including red tailed hawk (*Buteo jamaicensis*), Northern cardinal (*Cardinalis cardinalis*), Carolina chickadee (*Poecile carolinensis*), and Carolina wren (*Thryothorus ludovicianus*).

Maintained Lawn/Landscaping: Occupying approximately 95 acres, maintained lawn is the dominant vegetation community at the NGJTC. Maintained lawn includes fields and landscaped areas that are regularly mowed, lack dense tree cover, and are dominated by various grass species and a variety of exotic and disturbance tolerant forbs. Maintained lawn may be found throughout the property and are used as parade grounds, sports fields, and other recreational activities. Common grasses include fescues (*Festuca* spp.) The most common

dominant forbs include English plantain (*Plantago lanceolata*) and black knapweed (*Centaurea nigra*). Other common species include common plantain (*Plantago major*), crabgrass, bracted plantain (*Plantago aristata*), sheep sorrel (*Rumex acetosella*), blue toadflax (*Linaria canadensis*), yarrow (*Achillea millefolium*), wild strawberry (*Fragaria virginiana*), wild carrot (*Daucus carota*), mouse ear (*Hieracium pilosella*), chicory (*Cichorium intybus*), field hawkweed (*Hieracium pratense*), common dandelion (*Taraxacum officinale*), dwarf cinquefoil (*Potentilla canadensis*), and mugwort. Landscaped trees sparsely occur within this community, particularly around buildings, which includes London plane tree, Norway spruce, eastern white pine (*Pinus strobus*), Japanese black pine, Norway maple, silver maple, and pin oak (*Quercus palustris*). Additional exotic plantings including Chinese silvergrass (*Miscanthus sinensis*), yew (*Taxus* sp.) and winged euonymus (*Euonymus alatus*) are found within the western portions of the facility.

The maintained lawn, with an open landscape in excess of 50 acres and close proximity to the ocean, is uncommon within the regional landscape. The central and eastern portions, in particular, provide open habitat to migratory and wintering bird species in spite of the disturbed vegetation conditions. Bird species periodically identified in the fields include black bellied plover (*Pluvialis squatarola*), Atlantic brant (*Branta bernicla*) horned lark (*Eremophila alpestris*) and nesting killdeer (*Charadrius vociferous*). Many other species including Eastern meadowlark (*Sturnella magna*) and savannah sparrow (*Passerculus sandwichensis*) have been occasionally observed utilizing the open fields and adjacent freshwater wetlands at the NGJTC. The fields are sometimes utilized by foraging state-listed raptors, including the American kestrel (*Falco sparverius*) and peregrine falcon. Resident and large concentrations of migratory Canada geese (*Branta canadensis*) utilize the maintained lawns during varying times of the year.

Bare Ground: This cover type comprises approximately 8.23 acres of the NGJTC facility. This classification includes unpaved roads and paths, gravel or sandy parking areas, and other large areas of unconsolidated and exposed soils and sparse vegetation (under 25% cover). Vegetation within these areas is generally herbaceous forbs and grasses similar to those found in the maintained lawn. This category does not include the unconsolidated shore and intertidal areas seaward of the coastal dunegrass community. Many smaller patches of bare ground are interspersed within the maintained lawn and dune communities. Some of these bare ground areas, particularly those adjacent to maintained lawn, serve as foraging habitat for bird species such as killdeer and horned lark.

Pavement: Although this category is not an ecological community, the approximate 26 acres of paved area represent a substantial portion of the cover at the Sea Girt NGJTC. This category includes asphalt roads, paved lots, and some smaller interspersed areas of compacted material that may function as partially or fully impervious surfaces. These paved roads and lots collectively occupy a significant portion of the installation and link the buildings and other facilities onsite. The majority of the paved roads and lots are concentrated on the western and southern portion of the installation.

Buildings: This category includes most large structures at the facility and represents approximately 8.3 acres of the land cover at NGJTC (see Figure 2-6). Most large structures are located in the western portion of the facility. The buildings and adjacent maintained areas and successional edges are of low ecological value and provide nesting and foraging habitat for disturbance tolerant generalist species such as house sparrow (*Passer domesticus*), house finch (*Carpodacus mexicanus*), starling (*Sturnus vulgaris*), rock dove (*Columba livia*), and eastern gray squirrel (*Sciurus carolinensis*).

2.8.2.5 Palustrine System

The palustrine system consists of non-tidal wetlands, swamps, peatlands, and marshes. Emergent vegetation, shrubs, or trees characterize palustrine habitats. Two palustrine communities occur at the installation: herbaceous and deciduous scrub/shrub wetland and modified herbaceous wetland.

Herbaceous and Deciduous Scrub-Shrub Wetlands: Approximately 2.69 acres of freshwater wetlands containing a mix of herbaceous and scrub-shrub components occur at NGJTC. This wetland type is primarily represented by a large complex of herbaceous and shrub wetlands near the eastern end of the facility in close proximity to the beach area parking (see Figure 2-6). Portions of this complex have been identified as managed wetland (Sea Girt INRMP, 2006) and are maintained as wildlife habitat. Most of the shrub portions of this wetland are fenced and educational signage explaining the wetland's ecological significance is posted for public viewing. The herbaceous portion of this community is occasionally mowed and retains a greater variety of less disturbed hydrophytic vegetation than the onsite modified herbaceous wetlands.

Species within this wetland complex include Canada rush (*Juncus canadensis*), curly dock (*Rumex crispus*), yellow-fruited sedge (*Carex annectens*), soft rush (*Juncus effusus*), chickweed *sp.*, forget-me-not *sp.*, showy goldenrod (*Solidago speciosa*) and path rush (*Juncus tenuis*) and three square (*Scirpus americanus*). Non-maintained portions of the wetland are

primarily dominated by poison ivy, purple loosestrife (*Lythrum salicaria*), spike rush (*Eleocharis sp.*), path rush, Canada rush, rough cocklebur, panic grass (*Panicum vergatum*), hightide bush, black willow (*Salix nigra*), red maple (*Acer rubrum*), northern bayberry and groundsel tree.

A relatively large patch of nearly 100% cover of common reed exists within the fenced portion of this wetland (see Invasive Species, Figure 4-2). It is a key dominant invasive in all areas characterized as shrub and herbaceous wetlands onsite.

The large scrub-shrub and herbaceous wetland periodically floods and contains standing water or exposed mud habitats for several weeks during the course of a year. This wetland, in conjunction with adjacent modified wetlands, provides very important foraging habitat for numerous species of resident and migratory shorebirds. Least sandpiper (*Calidris minutilla*), greater (*Tringa melanoleuca*) and lesser yellowlegs (*Tringa flavipes*), semipalmated sandpiper, black bellied plover, semipalmated plover, killdeer, common snipe (*Gallinago gallinago*), short billed dowitcher (*Plegadis falcinellus*) and glossy ibis (*Plegadis falcinellus*) are among the shore and wading birds that periodically forage in these wetlands. Raptors including peregrine falcon and northern harrier have also regularly been identified utilizing this area or adjacent areas for foraging.

Remaining patches of herbaceous and deciduous scrub-shrub wetlands exist at the southwest corner of the installation and interface with the estuarine conditions of Stockton Lake. Common reed is the dominant species within this wetland. Smaller proportions of shrub or tree species include box elder, red maple, black gum (*Nyssa sylvatica*), black cherry, tree-of-heaven (*Ailanthus altissima*) and northern arrowwood (*Viburnum recognitum*). These wetlands, while providing some ecological function, are heavily impacted and lack the diversity of the other shrub wetlands onsite.

Modified Herbaceous Wetlands: Embedded within the maintained lawn areas and along roadsides at NGJTC are approximately 2.08 acres of modified herbaceous wetland. Most of these areas have been historically disturbed. These wetlands typically appear as subtle depressions within the landscape. These areas may retain several inches of water or contain patches of mud during the wetter parts of the year. At drier times of the year, these wetlands are most easily identified by their hydric soils and varying amounts of hydrophytic vegetation. In addition to cool season grasses; field paspalum (*Paspalum laeve*), yellow nutsedge (*Cyperus esculentus*), lady's thumb (*Polygonum persicaria*), pasture spikesedge (*Kyllinga gracillima*), water pepper (*Polygonum hydropiper*), path rush and ricefield flatsedge (*Cyperus iria*) occur within these wetlands. Some migratory shorebirds such as least sandpipers and waterfowl

such as mallard ducks (*Anas platyrhynchos*) and Canada geese occasionally occur in the larger modified herbaceous wetlands when inundated.

2.8.2.6 Marine System

The marine system consists of the open ocean overlying the continental shelf and its associated high-energy coastline. Marine habitats are exposed to the waves and currents of the open ocean and have salinities exceeding 30 ppt, with minimal or no freshwater dilution. One ecological community in the marine system is present at Sea Girt and is described below. The Atlantic Ocean is also located along the eastern property boundary.

Intertidal Unconsolidated Shore: This community occupies about 4.92 acres of Sea Girt NGJTC, along the facility's eastern boundary. The intertidal consolidated shore includes the sand and the lower edge of the vegetative communities forming on the sandy beach area from mean low water to the extreme high water of spring tides. The vegetation is sparse due to heavy wave action and wind erosion. Vegetation within this area includes sea-rocket, seaside spurge, American beachgrass in the lower densities and common saltwort.

The unconsolidated shore is adjacent to the easternmost portions of the coastal dunegrass community, which generally contains higher densities of American beachgrass. The coastal dunegrass community at NGJTC has developed and expanded onsite over the last 15 years, while erosion has reduced the eastward extent of the unconsolidated sand and intertidal zone (see Section 6.0). As a result of these changes in vegetation cover and erosion, the unconsolidated shore acreage determination is substantially less than in the previous 2006 INRMP estimation. Since 2001, individual seabeach amaranth plants, which are federally listed as threatened, have been periodically documented in these areas, and on the edges of the adjacent coastal dunegrass community. This community type is also used by foraging and/or nesting piping plover which are infrequently observed at the Sea Girt NGJTC.

2.8.2.7 Estuarine System

The estuarine system consists of deepwater tidal habitats and adjacent tidal wetlands. Typically, these tidal wetlands are partially enclosed by land, so that they have regular or sporadic access to ocean water. Freshwater runoff from the land dilutes the ocean water at least occasionally. This system extends from upstream habitats where salinity measures less than 0.5 ppt to the invisible boundary at the mouth of a river, bay, or sound, including wetland emergents in seaward areas (Breden, 1989). No estuarine communities are located within the installation boundaries. However, a salt marsh community is found adjacent to the Sea Girt

NGJTC property, to the south extending from the outer portions of Wetlands K and J (see Figure 4-1).

Salt Marsh: A salt marsh community occurs along the fringes of Stockton Lake south of the installation. Although it is not mapped within the boundaries of NGJTC, it is in extremely close proximity to the facility and is regularly utilized by wildlife moving to and from onsite communities. This community is predominantly vegetated by salt marsh cordgrass and common reed. The salt marsh and its associated exposed tidal mud flats and open waters provide habitat for various shore birds including semipalmated plover, semipalmated sandpiper, willet (*Tringa semipalmata*), greater and lesser yellowlegs, and short-billed dowitcher. Key wading birds and allies observed within this community include black-crowned night heron (*Nycticorax nycticorax*) yellow-crowned night heron (*Nyctanassa violacea*), great egret (*Egretta alba*) snowy egret (*Egretta thula*), great blue heron (*Ardea herodias*), and clapper rail (*Rallus longirostris*). Least terns, Forster's tern (*Sterna forsteri*) and common tern (*Sterna herundo*) all utilize the edges of this habitat for resting and foraging. Wintering waterfowl, particularly gadwall (*Anas strepera*), Atlantic brant, American widgeon (*Anas americana*), and hooded merganser (*Lophodytes cucullatus*) utilize the edges of the salt marsh and adjacent open water.

2.8.3 Wetland Characteristics

2.8.3.1 Overview

A detailed wetland delineation was conducted by ASGECI in 2011 for the entire facility which identified 12 individual wetlands. The boundaries of these wetlands were verified in a NJDEP Wetlands Letter of Interpretation- Regulatory Line Verification issued on August 3, 2012. This section describes wetland characteristics identified during the field investigation. See Section 4.2.4 for regulated boundary information.

As discussed above, there are four general wetland community types that occur within or adjacent to the Sea Girt NGJTC facility boundaries: palustrine herbaceous wetlands, palustrine deciduous scrub-shrub wetlands, modified herbaceous wetlands, and estuarine salt marsh wetlands. In addition to these wetlands, the Sea Girt NGJTC facility borders open waters of the Atlantic Ocean, Stockton Lake, and Judas Creek.

The largest onsite wetlands are complexes of palustrine herbaceous and deciduous scrub-shrub wetlands. While much of the herbaceous scrub/shrub complex are monocultures of common reed, portions of the large managed wetland on the eastern end of the facility contain a good diversity of herbaceous and shrub wetland.

Embedded within the maintained lawn areas on the eastern half of the Sea Girt NGJTC are palustrine modified herbaceous wetlands. These wetlands retain some of the emergent vegetation associated with the herbaceous scrub-shrub complexes; however, these wetlands have been historically mowed during the growing season and show much greater signs of vegetation disturbance. These modified wetlands typically contain greater amounts of cool season grasses and other disturbance tolerant or exotic species.

Small offsite portions of wetlands adjacent to the tidal Stockton Lake on the western end of the facility contain distinct estuarine characteristics most evident by the presence of saltmarsh cordgrass. Offsite estuarine marshes and adjacent tidal mudflats containing common reed and cordgrass are also found on the eastern end of Stockton Lake.

2.8.3.2 Wetland Soils

The wetland soils at Sea Girt tend to be fairly sandy, highly disturbed soils on slopes of less than 5%. The two mapped SSURGO soils considered hydric or that have hydric components are Hooksan sand, 0 to 5 % slopes, rarely flooded (HorBr) and Humaquepts, frequently flooded (HumAt). The two additional mapped NGJTC soils, Downer-urban land and Udorthent-urban land complexes, are disturbed non-hydric soils. Wetland soil borings of 1 to 24 inches taken onsite occasionally show historic disturbance and typically contain portions with very strong hydric characteristics. These soils retain strong oxidation and reduction characteristics including low chroma matrix and mottling of 10% or more.

2.8.3.3 Wetland Hydrology

Evidence of wetland hydrology varies in many of the wetlands during the course of the year at NGJTC. During the wetter parts of the season, the large onsite managed wetland and many of the adjacent modified wetland depressions contain ponded water and exposed mud. These wetlands clearly receive surface water sheet flow and some groundwater influence during parts of the season. Wetlands in the southwest corner of the facility receive consistent and direct hydrological influence from the non-tidal portions of Judas Creek, which feeds Stockton Lake from its western end. The head of tide has been identified with the vicinity of these wetlands and offsite portions of these wetlands receive heavier estuarine influence from the tidal portions of Stockton Lake. All palustrine wetlands on the southern half of the NGJTC are occasionally exposed to flooding during rare extreme high tide events, primarily when they are coupled with coastal storms.

2.8.3.4 Wetland Vegetation

The vegetation characteristics of the wetlands identified at the NGJTC facility are described below and wetland locations are presented in Figure 4-1. The vegetation in the descriptions below includes the species Northeastern United States Hydrophytic Classification (USFWS-Region 1). The categories are assigned based on the species' frequency within wetlands. Categories include obligate wetland (OB), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), upland (UPL), not listed (NL) or not identified to species (NIS). The wetlands listed below and their resource values have been verified by NJDEP in a Letter of Interpretation -Line Verification issued to the NGJTC on August 3, 2012 (File Number 1300-11-0004.1). All intermediate resource value wetlands are subject to a 50 foot transition area (buffer). The remaining wetlands onsite are ordinary resource value wetlands and not subject to transition areas. Additional information of wetlands management and transition areas may be found in Section 4.2.4.

Wetland Area A

Wetland A is partially modified, emergent and scrub-shrub wetlands dominated by common switchgrass (FAC), seaside goldenrod (FACW). A scrub-shrub wetland component contains groundsel tree (FACW), rugosa rose (FACU), and northern bayberry (NL). This wetland is of intermediate resource value.

Wetland Area B

Wetland B is a shrub and herbaceous drainage feature dominated by common reed (FACW) with smaller amounts of poison ivy (FAC) and oriental bittersweet (UPL). Offsite wetlands adjacent to this wetland are estuarine emergent marsh associated with Stockton Lake. This wetland is of ordinary resource value.

Wetland Area C

Wetland C is a partially managed wetland with scrub-shrub, emergent and modified components. Modified herbaceous portions are dominated by Canada rush (OBL), curly dock (FACU), yellow-fruited sedge (FACW), soft rush (FACW), chickweed *sp.*, forget-me-not *sp.*, showy goldenrod (UPL) and path rush (FAC).

Non-maintained portions of Wetland C are fenced and allowed to succeed for wildlife purposes. These areas are primarily dominated by common reed, poison ivy, purple loosestrife (FACW+), spike rush (NIS), path rush, Canada rush, rough cocklebur (FAC), panic grass

(*Panicum sp.*, NIS), hightide bush (FACW+), groundsel tree (FACW), black willow (FACW+), red maple (FAC), and northern bayberry (FAC). This wetland is of intermediate resource value.

Wetland Areas D, E and F

Wetlands D, E and F are isolated modified/emergent wetland depressions within maintained upland fields. These areas are dominated by Canada rush, path rush, slender-leaved goldenrod (*Solidago tenuifolia*, FACU), panic grass (*Panicum sp.*, NIS), curly dock, yellow-fruited sedge, English plantain (UPL), soft rush with lesser amounts of sheep sorrel (UPL) and field hawkweed (UPL). These wetlands are of ordinary resource value.

Wetland G

Wetland G is a modified herbaceous wetland dominated by red sandspurry (*Spergularia rubra*, FACU), path rush, Pennsylvania smartweed (FACW), spike rush (NIS), water pepper (OBL), yellow nutsedge (FACW), crabgrass (NIS) and poorjoe (UPL), ricefield flatsedge (FACW) lady's thumb (FACW). This wetland is of ordinary resource value.

Wetland I and Q

These modified herbaceous wetlands are linear roadside features is dominated by path rush, Pennsylvania sedge (*Carex pensylvanica* NI), water pepper, yellow nutsedge and a species of spike rush (NIS). This wetland is of ordinary resource value.

Wetland J

Wetland J is an emergent wetland with a shrub component that contains some estuarine influences and extends offsite onto Stockton Lake is dominated by hightide bush, common reed and saltmarsh cordgrass (OBL). This wetland is of ordinary resource value.

Wetland K

Wetland K is an emergent wetland bordering Stockton Lake and Judas Creek that contains both palustrine and estuarine influences. Portions within the NGJTC complex are dominated common reed. Some offsite portions adjacent to Stockton Lake contain some saltmarsh cordgrass (OBL). Landward edges of this wetland contain disturbance tolerant shrubs such as poison ivy and oriental bittersweet. This wetland is of intermediate resource value. The eastern portion of this wetland (points K8 to K14) transitions into a State Open Water and does not contain a transition area.

Wetland L

Wetland L is a palustrine herbaceous and scrub-shrub wetland near Judas Creek primarily dominated by common reed. Other species within this wetland include skunk cabbage (*Symplocarpus foetidus*, OBL) and poison ivy. A fringe of hackberry (FACU), silver maple (FACW), box elder (FAC) and Japanese knotweed (FACU) occurs on its upland edge. This wetland is of intermediate resource value.

2.8.4 Wildlife

The Sea Girt NGJTC provides resources to a diverse wildlife community as a result of several terrestrial and aquatic ecological communities onsite (further described in Section 2.8.2 above). The installation is also located within the coastal portion of the Atlantic Flyway. The Atlantic Flyway is the migratory path of waterfowl, shorebirds, pelagic birds, songbirds and other migratory birds of the North American East Coast. The fauna observed at Sea Girt NGJTC is generally consistent with species typical of coastal and suburban areas. Appendix B provides a complete list of wildlife observed at the installation from surveys conducted at the installation as early as 1993 through 2011. See Section 2.8.2 for discussion on species associations within ecological communities present at the Sea Girt NGJTC.

An extensive avian and bat study was conducted during 2009 and 2010 as a result of a 1.5MW wind turbine which was previously proposed as part of the 2010 Master Plan at the Sea Girt NGJTC. The turbine was deemed not feasible following completion of pre-construction avian and bat surveys. Survey techniques included an avian behavioral study, area search and breeding bird point count surveys, acoustic and radar monitoring. Inventory information is presented from unpublished data collected as part of the one-year study. A total of 175 avian species were identified at the Sea Girt NGJTC and the adjacent area around Stockton Lake, 97 of which were recorded as a part of studies conducted for the turbine project (See Appendix B).

For several years, piping plovers (federally-listed as threatened) and least terns (state-listed as endangered) have attempted to nest on the beach. Most attempts have been unsuccessful. *For the purpose of this discussion a nest is the production of one or more eggs.* Piping plovers nested in 2002 and 2007, while least terns produced nests in 2000, 2001, 2002, 2003, and 2005. No piping plover chicks were successfully fledged from these nests. However, several least tern chicks were fledged in 2001, 2002, and 2003. Additionally, since 2004 a pair of ospreys (state-listed threatened) has nested on a cellular phone tower at the installation. See Section 2.8.5 and Section 6 for more information on rare species.

Mammals observed during surveys conducted by ASGECI between 2007 and 2011 included bottlenose dolphin (*Tursiops truncatus*), harbor seal (*Phoca vitulina*), red fox (*Vulpes vulpes*), eastern cottontail (*Sylvilagus floridanus*), domestic cat (*Felis silvestris*), groundhog (*Marmotta monax*), muskrat (*Ondatra zibethicus*) and eastern gray squirrel (ASGECI 2011). Surveys in previous years also documented opossum (*Didelphis virginiana*), white-footed mouse (*Peromyscus leucopus easti*), star-nosed mole (*Condylura cristata*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*) and little brown bat (*Myotis lucifugus*) (Humanetrics, Inc., 1993). Also, as a result of the acoustic survey component of the turbine project, two additional species of bats were positively identified: eastern red bat (*Lasiurus borealis*) and hoary bat (*Lasiurus cinereus*). Other bat species are expected to occur onsite; however survey results could not distinguished beyond a categorized frequency group. Additionally, the red fox population was reduced by six and cat population by one as a result of predator control efforts in 2010 to accommodate the security of endangered nesting bird species. See Section 6.3.11 for additional information.

Amphibians and commonly observed invertebrates including Fowler's toad (*Anaxyrus* [formerly *Bufo*] *fowleri*), scuds (*Amphipoda spp.*), sand wasp (*Bembix sp.*), European caterpillar hunter (*Calosoma scrutator*), 9 spotted ladybeetle (*Coccinella novemnotata*), cow killer (*Dasymitilla occidentalis*), mole crab (*Emerita talpoida*), Atlantic ghost crab (*Ocypode quadrata*), mud dauber wasps (*Sphecidea*), Chinese mantis (*Tenodera aridifolia*), and seaside grasshopper (*Trimerotropis maritime*) were also documented during surveys conducted from 2007 through 2011.

2.8.5 Rare Species

As summarized in Table 2-4, the Sea Girt NGJTC provides important habitat for five rare species, including a federally-listed bird (piping plover), a federally-listed plant (seabeach amaranth), two state-listed birds (least tern and osprey - *Pandion haliaetus*), and a state-listed plant (seabeach knotweed - *Polygonum glaucum*). An additional 14 state-listed threatened or endangered avian species and one federally-listed avian species (roseate tern - *Sterna dougallii*) have been documented throughout the course of several recent surveys. These state-listed threatened or endangered species include Henslow's sparrow (*Ammodramus henslowii*), grasshopper sparrow (*Ammodramus savannarum*), short-eared owl, cattle egret (*Bubullcus ibis*), northern harrier, horned lark (*Eremophila alpestris*), peregrine falcon, American kestrel, bald eagle (*Haliaeetus leucocephalus*), yellow-crowned night heron, black-crowned night heron, savannah sparrow, vesper sparrow (*Pooecetes gramineus*), and black skimmer (*Rynchops niger*). These species have not nested onsite but have been observed soaring over

the site, foraging or roosting onsite (or in/adjacent to Stockton Lake) or documented passing through during seasonal migration periods.

A transient roseate tern was observed foraging offshore of the NGJTC in 2007 (ASGECI, 2008). A short-eared owl was documented in 2010 as it rested in the primary dunes (ASGECI, 2011). Northern harrier has been documented one to two times annually, typically flying low over the dunes or marsh habitat at the Sea Girt NGJTC (ASGECI 2008-2011 and unpublished data from wind turbine avian studies 2009/2010). Bald eagles have been observed on a few occasions primarily soaring over the site and adjacent communities (ASGECI 2010-2011 and unpublished data from wind turbine avian studies 2009/2010). Peregrine falcon and American kestrel were seen on several occasions foraging primarily over the eastern half of the site (ASGECI 2011 and unpublished data from wind turbine avian studies 2009/2010). Savannah sparrow was documented on three occasions (two individuals and one pair) in the maintained lawn, herbaceous/deciduous scrub-shrub wetland, and primary dune during spring surveys conducted in 2010 (unpublished data from wind turbine avian studies 2009/2010). A flock of as many as 26 horned larks were documented roosting on the eastern half of the maintained lawn between December 2009 and March 2010 (unpublished data from wind turbine avian studies 2009/2010). Yellow and black-crowned night herons occasionally foraging at Stockton Lake or are seen passing over the installation (unpublished data from wind turbine avian studies 2009/2010). Black skimmers were documented once in 2007 as a single transient foraging near shore, and twice in 2010 as a pair foraging near shore and also an individual flying towards Stockton Lake (ASGECI 2008 and unpublished data from wind turbine avian studies 2009/2010). Additionally, cattle egret, Henslow's sparrow, grasshopper sparrow, and vesper sparrow were each captured during nocturnal acoustic bird surveys conducted during migration periods in spring and fall of 2009 and 2010 (unpublished data from wind turbine avian studies 2009/2010).

In addition to federally and state-listed threatened or endangered species, 30 state Species of Special Concern have been documented during the course of surveys conducted at the Sea Girt NGJTC; a majority (17 of 30) of which were documented during the 2009/2010 wind turbine avian studies. A complete list of wildlife species observed at the Sea Girt NGJTC (1993 through 2011) including all federal or state-listed species and Species of Special Concern is presented in Appendix B.

No critical habitat has been designated under the Endangered Species Act for the three federally-listed species identified in Table 2-4. With the exception of osprey, rare nesting birds and rare plant species have been limited to the Sea Girt NGJTC beach and primary dune area.

The documented occurrences of rare species at the installation are relatively recent (i.e., since 2000). As mentioned in Section 6.2.1 below, the recent occurrences of rare species is suspected to have occurred due to the beach nourishment project at the Sea Girt NGJTC. Prior to the beach nourishment project, the beach was too narrow to support suitable breeding habitat. Nesting least terns were first documented in 2000, followed by seabeach amaranth in 2001, nesting piping plovers in 2002, seabeach knotweed in 2003, and nesting ospreys in 2004. Although American oystercatchers (State Special Concern) have not nested onsite, in 2011 a pair initiated nest building activities on the Sea Girt NGJTC beach, but did not produce a nest (ASGEI, 2012a). The remaining state or federally-listed threatened or endangered species were documented as part of surveys conducted from 2007 through 2011. Additional information on rare species is provided in Section 6.

The New Jersey Landscape Project (version 3.1) also identifies potential rare species habitat at the Sea Girt NGJTC (see Figure 2-7 and Table 2-5). Habitat is identified based on species occurrence records, species-specific habitat associations, and land use/land cover data. Portions of habitat (or habitat patches) are ranked 1 through 5. Rank 5 is assigned to those species-specific habitat patches containing one or more occurrences of wildlife listed as endangered and threatened pursuant to the Federal Endangered Species Act of 1973. Rank 4 is assigned to species-specific habitat patches with one or more occurrences of state endangered species. Rank 3 is assigned to species-specific patches containing one or more occurrences of state threatened species. Rank 2 is assigned to species-specific habitat patches containing one or more occurrences of species considered to be species of special concern. Rank 1 is assigned to species-specific habitat patches that meet habitat-specific suitability requirements for endangered, threatened or special concern wildlife species, but that do not intersect with any confirmed occurrences of such species and is used for planning purposes, such as targeting areas for future wildlife surveys (NJDFW, 2012a).

Fifteen (15) species were listed (Ranks 2 through 5) among 28 habitat patches identified in association with (on or adjacent to) the Sea Girt NGJTC. These include five federal, six state threatened or endangered, and four state Species of Special Concern (See Table 2-5 below). Four (4) of the federally listed species are marine species (three whales and one sea turtle). Marine species are not expected to be impacted by activities occurring at the NGJTC and therefore are not addressed herein. See Section 6 for additional discussion of rare species found at the Sea Girt NGJTC.

TABLE 2-4
FEDERALLY OR STATE-LISTED THREATENED OR ENDANGERED SPECIES
DOCUMENTED AT SEA GIRT NGJTC

Scientific Name	Common Name	Federal Status	State Status	Current or Historically Known Reproductive Habitat Onsite
<i>Amaranthus pumilus</i>	Seabeach amaranth	T	E	Yes (Beach)
<i>Ammodramus henslowii</i>	Henslow's sparrow	NL	E	No
<i>Ammodramus savannarum</i>	Grasshopper sparrow	NL	T (BR), SC (NB)	No
<i>Asio flammeus</i>	Short-eared owl	NL	E (BR), SC (NB)	No
<i>Bubullcus ibis</i>	Cattle egret	NL	T (BR), SC (NB)	No
<i>Charadrius melodus</i>	Piping plover	T	E	Yes (Beach)
<i>Circus cyaneus</i>	Northern harrier	NL	E (BR), SC (NB)	No
<i>Eremophila alpestris</i>	Horned lark	NL	T (BR), SC (NB)	No
<i>Falco peregrinus</i>	Peregrine falcon	NL	E (BR), SC (NB)	No
<i>Falco sparverius</i>	American kestrel	NL	T	No
<i>Haliaeetus leucocephalus</i>	Bald eagle	NL	E (BR)/T(NB)	No
<i>Nyctanassa violacea</i>	Yellow-crowned night heron	NL	T	No
<i>Nycticorax nycticorax</i>	Black-crowned night heron	NL	T (BR), SC (NB)	No
<i>Pandion haliaetus</i>	Osprey	NL	T (BR)	Yes (Adjacent to Stockton Lake)
<i>Passerculus sandwichensis</i>	Savannah sparrow	NL	T (BR)	No
<i>Polygonum glaucum</i>	Seabeach knotweed	NL	E	Yes (Beach)
<i>Poocetes gramineus</i>	Vesper sparrow		E (BR)/SC (NB)	No
<i>Rynchops niger</i>	Black skimmer	NL	E	No
<i>Sterna antillarum</i>	Least tern	NL	E	Yes (Beach)
<i>Sterna dougallii</i>	Roseate tern	E	E	No

T=threatened, E=endangered, SC=Special Concern, NL=not listed, BR=breeding population, NB=non-breeding population.

**TABLE 2-5
NEW JERSEY LANDSCAPE PROJECT
SPECIES BASED HABITAT AT SEA GIRT NGJTC**

Species	Rank	ID	Habitat Use	Habitat Description	Comments
Piping plover	5	01_28643	Nesting	Beach	
	5	01_18239	Nesting	Dune	
Least tern	4	01_28643	Foraging	Beach	
	4	01_28643	Nesting	Beach	
	4	01_24893	Foraging	Beach south of site	
	4	01_18239	Foraging	Dune	
	4	01_28642	Foraging	Beach north of site	
	4	01_18238	Foraging	Dune on south end of site	
	4	01_4085	Foraging	Beach Parking area	Travel corridor only
	4	01_4087	Foraging	Firing range footprint	Travel corridor only
	4	01_21939	Foraging	Freshwater wetland, south	Travel corridor only
	4	01_4086	Foraging	Out-buildings, north half	Travel corridor only
	4	01_4122	Foraging	Out-buildings, south half	Travel corridor only
	4	01_4088	Foraging	Out-buildings and paved lot	Travel corridor only
	4	01_4124	Foraging	Buildings and paved areas	Travel corridor only
	4	01_4123	Foraging	Paved lot	Travel corridor only
	4	01_4090	Foraging	Buildings, roads, parking lots, landscaping	Travel corridor only
4	01_4089	Foraging	Buildings	Travel corridor only	
4	01_21940	Foraging	Judas Creek Wetlands		
4	01_28500	Foraging	Stockton Lake, north half		
4	01_28501	Foraging	Stockton Lake, south half		
4	06_871	Foraging	Marine		
4	06_872	Foraging	Marine		
4	06_876	Foraging	Marine		
4	06_877	Foraging	Marine		

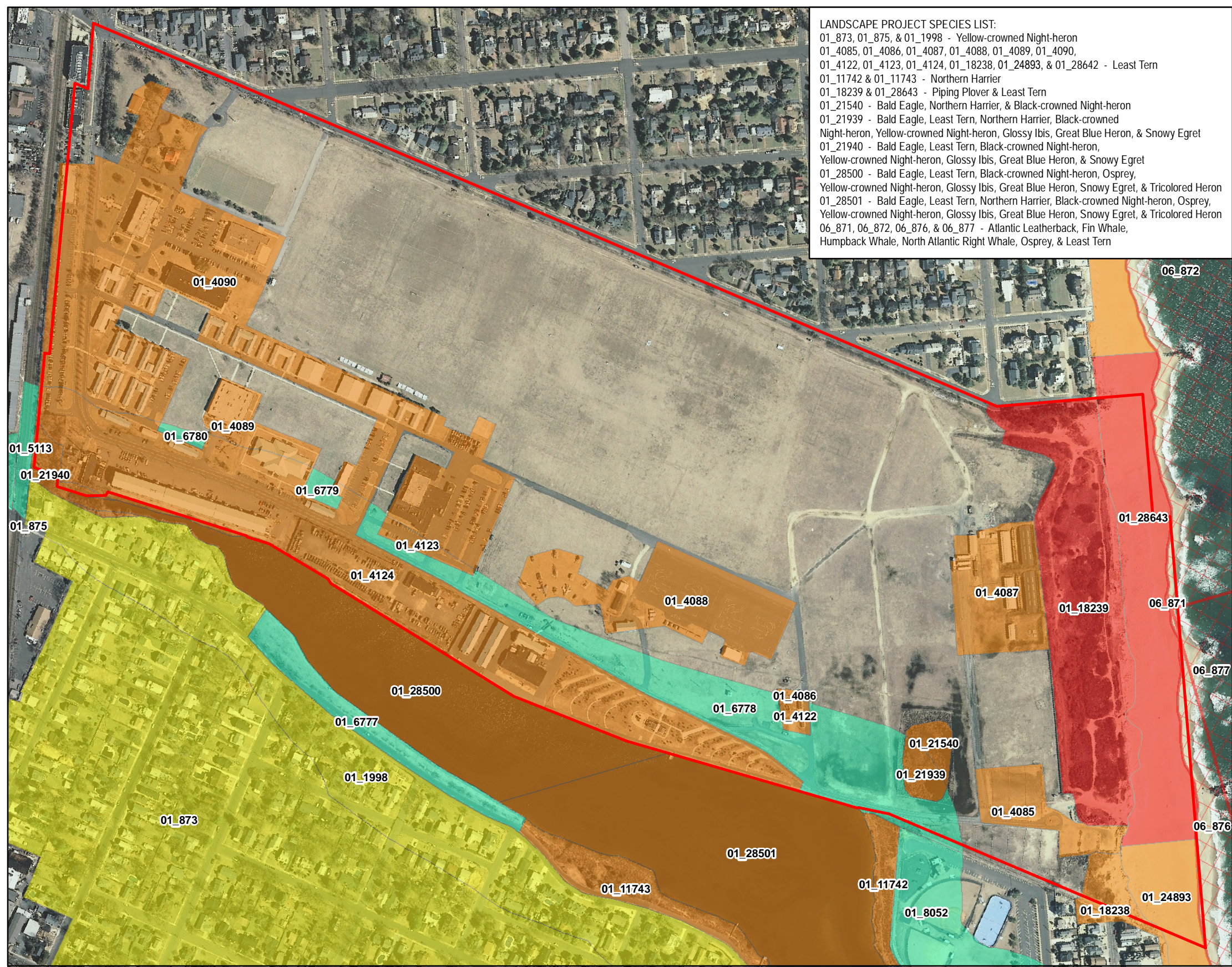
Species	Rank	ID	Habitat Use	Habitat Description	Comments
Bald eagle	4	01_21540	Foraging	Freshwater wetland, north	
	4	01_21939	Foraging	Freshwater wetland, south	
	4	01_21940	Foraging	Judas Creek Wetlands	
	4	01_28500	Foraging	Stockton Lake, north half	
	4	01_28501	Foraging	Stockton Lake, south half	
Northern harrier	4	01_21540	Breeding sighting	Freshwater wetland, north	Not known to breed onsite
	4	01_21939	Breeding sighting	Freshwater wetland, south	Not known to breed onsite
	4	01_28501	Breeding sighting	Stockton Lake, south half	Not known to breed onsite
	4	01_11742	Breeding sighting	Stockton, fringing wetland	Not known to breed onsite
	4	01_11743	Breeding sighting	Stockton, fringing wetland	Not known to breed onsite
Osprey	3	01_28500	Foraging	Stockton Lake, north half	
	3	01_28500	Nesting	Stockton Lake, north half	
	3	01_28501	Foraging	Stockton Lake, south half	
	3	06_871	Foraging	Marine	
	3	06_872	Foraging	Marine	
	3	06_876	Foraging	Marine	
	3	06_877	Foraging	Marine	
Black-crowned night heron	3	01_21540	Foraging	Freshwater wetland, north	
	3	01_21939	Foraging	Freshwater wetland, south	
	3	01_21940	Foraging	Judas Creek Wetlands	
	3	01_28500	Foraging	Stockton Lake, north half	
	3	01_28501	Foraging	Stockton Lake, south half	
Yellow-crowned night heron	3	01_21939	Foraging	Freshwater wetland, south	
	3	01_21940	Foraging	Judas Creek Wetlands	
	3	01_21940	Nesting colony	Judas Creek Wetlands	
	3	01_28500	Foraging	Stockton Lake, north half	
	3	01_28501	Foraging	Stockton Lake, south half	
	3	01_1998	Nesting colony	Residential area	
	3	01_873	Nesting	Residential area	

Species	Rank	ID	Habitat Use	Habitat Description	Comments
			colony		
Glossy ibis (SC - BR)	2	01_21939	Foraging	Freshwater wetland, south	
	2	01_21940	Foraging	Judas Creek Wetlands	
	2	01_28500	Foraging	Stockton Lake, north half	
	2	01_28501	Foraging	Stockton Lake, south half	
Great blue heron (SC - BR)	2	01_21939	Foraging	Freshwater wetland, south	
	2	01_21940	Foraging	Judas Creek Wetlands	
	2	01_28500	Foraging	Stockton Lake, north half	
	2	01_28501	Foraging	Stockton Lake, south half	
Snowy egret (SC - BR)	2	01_21939	Foraging	Freshwater wetland, south	
	2	01_21940	Foraging	Judas Creek Wetlands	
	2	01_28500	Foraging	Stockton Lake, north half	
	2	01_28501	Foraging	Stockton Lake, south half	
Tricolored heron (SC)	2	01_28500	Foraging	Stockton Lake, north half	
	2	01_28501	Foraging	Stockton Lake, south half	
Atlantic leatherback (<i>Dermochelys coriacea</i> - SE/FE)	5	06_871	Occupied habitat	Marine	
	5	06_872	Occupied habitat	Marine	
	5	06_876	Occupied habitat	Marine	
	5	06_877	Occupied habitat	Marine	
	5			Marine	
Fin whale (<i>Balaenoptera physalus</i> - SE/FE)	5	06_871	Individual live sighting	Marine	
	5	06_872	Individual live sighting	Marine	
	5	06_876	Individual live sighting	Marine	
	5	06_877	Individual live sighting	Marine	
Humpback whale	5	06_871	Individual	Marine	

Species	Rank	ID	Habitat Use	Habitat Description	Comments
<i>(Megaptera novaeangliae – SE/FE)</i>			live sighting		
	5	06_872	Individual live sighting	Marine	
	5	06_876	Individual live sighting	Marine	
North Atlantic right whale (<i>Eubalaena glacialis – SE/FE</i>)	5	06_877	Individual live sighting	Marine	
	5	06_871	Individual live sighting	Marine	
	5	06_872	Individual live sighting	Marine	
	5	06_876	Individual live sighting	Marine	
	5	06_877	Individual live sighting	Marine	

Data Source: NJDEP Landscape Project, Species Based Habitat, Atlantic Coastal and Piedmont Plains Regions (Version 3.1, 20120221). SC=Special Concern, BR=breeding population

LANDSCAPE PROJECT SPECIES LIST:
 01_873, 01_875, & 01_1998 - Yellow-crowned Night-heron
 01_4085, 01_4086, 01_4087, 01_4088, 01_4089, 01_4090,
 01_4122, 01_4123, 01_4124, 01_18238, 01_24893, & 01_28642 - Least Tern
 01_11742 & 01_11743 - Northern Harrier
 01_18239 & 01_28643 - Piping Plover & Least Tern
 01_21540 - Bald Eagle, Northern Harrier, & Black-crowned Night-heron
 01_21939 - Bald Eagle, Least Tern, Northern Harrier, Black-crowned
 Night-heron, Yellow-crowned Night-heron, Glossy Ibis, Great Blue Heron, & Snowy Egret
 01_21940 - Bald Eagle, Least Tern, Black-crowned Night-heron,
 Yellow-crowned Night-heron, Glossy Ibis, Great Blue Heron, & Snowy Egret
 01_28500 - Bald Eagle, Least Tern, Black-crowned Night-heron, Osprey,
 Yellow-crowned Night-heron, Glossy Ibis, Great Blue Heron, Snowy Egret, & Tricolored Heron
 01_28501 - Bald Eagle, Least Tern, Northern Harrier, Black-crowned Night-heron, Osprey,
 Yellow-crowned Night-heron, Glossy Ibis, Great Blue Heron, Snowy Egret, & Tricolored Heron
 06_871, 06_872, 06_876, & 06_877 - Atlantic Leatherback, Fin Whale,
 Humpback Whale, North Atlantic Right Whale, Osprey, & Least Tern

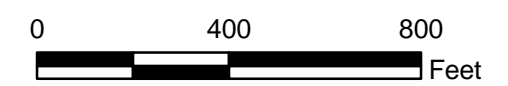
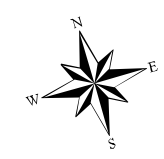


**Figure 2-7
 Sea Girt NGJTC
 NJ Landscape Project Data**

New Jersey Army National Guard

Legend

- Sea Girt NGJTC Boundary
- Species-Based Habitat - Atlantic Coastal**
- Rank 1 Habitat
- Rank 2 Habitat
- Rank 3 Habitat
- Rank 4 Habitat
- Rank 5 Habitat
- Species-Based Habitat - Marine**
- Rank 4 Marine Habitat
- Rank 5 Marine Habitat



Data Source: New Jersey Department of Environmental Protection (NJDEP) Landscape Project, Species Based Habitat, Atlantic Coastal Plain and Marine Regions (Version 3.1, 20120221).

Scale:	As Shown
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Figure Number:	2-7



2.8.6 Invasive Plant Species

The NJDMAVA conducted invasive plant surveys and prepared an invasive plant management plan for 25 NJARNG facilities, including Sea Girt NGJTC, in 2004 and 2005 (Parsons, 2005). ASGECI updated the field data at Sea Girt NGJTC in 2011 and prepared a subsequent invasive species report (ASGECI, 2012b). During these surveys a list of invasive plants occurring at the installation was developed and potential control measures were reevaluated (See Section 4.2.6 for Invasive Plant Management). All of the dominant invasive plants identified in 2005 were again identified in 2011, with some additional priority species. ASGECI also identified a number of additional noxious species considered potentially invasive in New Jersey (NJISC, 2009). Some other noxious or invasive species were not captured in the data, such as field garlic (*Allium vineale*), have been previously identified Sea Girt NGJTC. It is unlikely that any of these species are impacting sensitive habitats onsite. Overall, the investigation in 2011 reported an approximate 0.58 acre increase in invasive species monocultures from the results reported in 2005.

Table 2-6 lists the dominant onsite invasive species and acreage recorded in 2011 and compares with the results of the 2005 survey. Table 2-7 lists additional invasive and potentially invasive species found onsite during the 2011 investigation.

**TABLE 2-6
INVASIVE PLANT MONOCULTURES AT SEA GIRT NGJTC**

Scientific Name	Common Name	Approx. Acres Monoculture 2011 ¹	Approx. Acres Monoculture 2005 ²
<i>Toxicodendron radicans</i>	Poison ivy	2.41	3.4
<i>Phragmites australis</i>	Common reed	0.98	1.02
<i>Artemisia vulgaris</i>	Mugwort	0.49	-
<i>Polygonum cuspidatum</i>	Japanese knotweed	0.44	0.12
<i>Celastrus orbiculatus</i>	Oriental bittersweet	0.31	0.04
<i>Plantago lanceolata</i>	English plantain	0.22	0.01
<i>Rosa rugosa</i>	Rugosa rose	0.18	-
<i>Centurea maculosa</i>	Spotted knapweed	0.15	-
<i>Lonicera japonica</i>	Japanese honeysuckle	0.02	0.11
<i>Eleganus umbellata</i>	Autumn olive	0.05	0.01
<i>Lythrum saiclaria</i>	Purple loosestrife	0.04	0.01
<i>Acer platanoides</i>	Norway maple	0.04	0.06
<i>Rosa multiflora</i>	Multiflora rose	0.02	-
<i>Ampelopsis brevipedunculata</i>	Porcelainberry	0.0016	-
<i>Carex kobomugi</i>	Asiatic Sedge	0.0019	-
Total		5.3535	4.772

Sources: 1- ASGECI, 2012b; 2 - Parsons, 2005

TABLE 2-7
ADDITIONAL INVASIVE OR NOXIOUS SPECIES* IDENTIFIED IN 2011 AT
SEA GIRT NGJTC

Scientific Name	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Ailanthus altissima</i>	Tree-of-heaven
<i>Centurea nigra</i>	Black knapweed
<i>Cichorium intybus</i>	Chickory
<i>Daucus carota</i>	Wild carrot
<i>Euonymus alata</i>	Winged euonymus
<i>Hedera helix</i>	English ivy
<i>Ligustrum sp.</i>	Privet
<i>Lotus corniculatus</i>	Birds-foot trefoil
<i>Miscanthus sinensis</i>	Chinese silvergrass
<i>Morus alba.</i>	White mulberry
<i>Robina psuedoacacia</i>	Black locust
<i>Rumex acetosella</i>	Sheep's sorrel
<i>Salisola kali</i>	Saltwort
<i>Verbascum Thapsus</i>	Common mullein

*Determinations of invasive or noxious potential based on 2009 Invasive Species Management Plan - Invasive Species and the NJ Invasive Species Council, and the USDA Plants Database; species included are those identified during the 2011 invasive species survey

2.9 CULTURAL RESOURCES

2.9.1 Cultural Resources Management and Native American Consultation

The NJARNG has prepared an Integrated Cultural Resources Management Plan (ICRMP), which includes Sea Girt NGJTC (NJDMAVA, 2006b). The ICRMP serves as NJARNG's comprehensive plan for managing cultural resources and includes detailed information regarding applicable cultural resources management laws, regulations, and NJARNG management procedures, as well as descriptions of known and potential resources present. The ICRMP was developed in consultation with the State Historic Preservation Office (SHPO) and Indian tribal governments and is currently being updated

The United States has a unique legal relationship with Indian tribal governments as set forth in the Constitution of the United States, treaties, statues, executive orders, and court decisions. Since the formation of the Union, the United States has recognized Indian tribes as domestic dependant nations under its protection. Executive Order (EO) 13175 *Consultation and Coordination with Indian Tribal Governments* (January 5, 2001) and the October 27, 1999 *Annotated Policy Document for the DoD American Indian and Alaska Native Policy* establish regular and meaningful consultation and coordination with federally recognized Indian tribal governments. The NJARNG ICRMP provides procedures that permit elected officials and other representatives of Indian tribal governments to provide meaningful and timely input on actions or policies that might be of tribal interest, such as those that affect scared or Indian cultural sites. In accordance with EO 13175 and DoD policy, the NJARNG initiated consultation with federally recognized Indian Tribes during preparation of the ICRMP. There are presently three federally recognized Indian tribes with known lineal descent from the aboriginal occupants of New Jersey: the Delaware Tribe in Bartlesville, Oklahoma; the Delaware Tribe of Western Oklahoma in Anadarko; and the Stockbridge Munsee Community of Wisconsin.

Cultural resources could present constraints to various natural resources management activities at Sea Girt NGJTC. Ground disturbing activities associated with the INRMP could require National Historic Preservation Act Section 106 consultation. When necessary, the NJARNG would initiate the Section 106 process with the SHPO to ensure that impacts to cultural resources are avoided. In addition, the 2006 Draft INRMP and Draft EA for the INRMP were submitted to the SHPO for review. The SHPO indicated the INRMP had no effect on cultural resources since no cultural resources had been identified onsite, however at that time, Phase 1B archeological investigations were underway (See Section 2.9.3 below). Specific procedures for Section 106 consultation and procedures for inadvertent discovery are

specified in the ICRMP and these procedures are incorporated into this INRMP by reference. In addition, the NJARNG would consult with appropriate Indian tribal governments for any INRMP activities that may have a potential to significantly affect protected tribal resources, tribal rights, or Indian land. The ICRMP includes contact information for the tribes and consultation procedures.

2.9.2 Historic Architectural Resources

Quarters One is the only building at Sea Girt NGJTC that has been identified as being eligible for listing on the National Register of Historic Places. The NJDMAVA is currently contracting an architect specializing in historic structures to develop a stabilization and maintenance plan for this building.

2.9.3 Archaeological Resources

John Milner Associates, Inc. completed a Phase I archaeological survey at Sea Girt NGJTC in 2004 (Siegel et al., 2004). The survey included a pedestrian survey and limited subsurface excavation (i.e., shovel tests) in undisturbed areas of the installation (i.e., the parade grounds). Fifty-one shovel tests were excavated, resulting in 84 artifacts. Many of these were recent items, which were noted in the inventory and discarded. Artifacts were relatively evenly dispersed across the property and represent general field scatter. No prehistoric artifacts were recovered and no archeological sites were identified. Based on the results of the Phase I investigation, a more comprehensive archaeological survey was recommended.

In 2005, the NJARNG contracted John Milner Associates, Inc. to conduct a Phase IB archeological survey (Siegel and Baldwin, 2005). An additional 1,217 shovel tests were excavated, resulting in 369 historic artifacts distributed relatively evenly across the site, and represent general field scatter, mostly dating to various periods of the installation's history, which were collected and processed. Similar to the previous investigation, many additional items identified were recent, therefore noted and discarded. Two prehistoric artifacts, both isolated finds, were recovered. No archeological resources were identified on the property. However, the Phase IB study revealed an area of archaeological sensitivity east of the croquet fields that appeared to contain evidence for an 18th through 19th century historic period archaeological site. Any construction proposed for this location would require a Phase II archaeological survey. Activities proposed by the implementation of the Sea Girt Master Plan were reviewed by the SHPO and determined to require additional investigation in this location. The NJDMAVA is currently contracting an archeologist to conduct a Phase II archaeology survey in this area.

2.10 INSTALLATION RESTORATION PROGRAM

Sea Girt NGJTC has several current Installation Restoration Program (IRP) sites at the installation, including those associated with underground storage tanks (USTs), with a contaminated groundwater plume originating offsite, and with asbestos containing debris areas.

Several USTs have been removed from the Sea Girt NGJTC. The New Jersey Department of Environmental Protection (NJDEP) required the NJARNG to perform additional investigation work to adequately remediate various gasoline, heating oil, and diesel fuel USTs at the facility. Each of these former UST sites has received a No Further Action (NFA) determination. However, ground penetrating radar surveys conducted in 2011 revealed three additional USTs onsite. Currently, the NJARNG has plans to remove the USTs and conduct required follow-up investigations.

A carbon tetrachloride contaminated groundwater plume has been found to have migrated beneath the site from an off-site commercial property (White Swan Laundry and Cleaners). The USEPA is currently conducting a remedial investigation at the White Swan Laundry and Cleaners, (EPA ID: NJSFN0204241- 1322 Sea Girt Ave). Groundwater samples are collected from wells installed onsite in 2010 to monitor the extent of contamination.

Asbestos containing building materials originating from onsite sewer pipe improvements have been mixed with soil stockpiles and inadvertently spread across four areas encompassing a total of 2.4 acres of the Sea Girt NGJTC. The limits of which may intersect recently identified freshwater wetlands (See Sections 2.8.3 and 4.2.4). A preliminary site investigation of the asbestos debris areas was initiated in early 2012. Results are expected to be submitted to NJDMAVA in late 2012. Any activities proposed in an identified freshwater wetland or transition area are regulated under the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.) (See Section 4.2.4).

SECTION 3

NATURAL RESOURCES PLANNING STRUCTURE

3.1 INTRODUCTION

This section presents the framework for natural resources planning and INRMP development and implementation at Sea Girt NGJTC. The key steps to developing an effective INRMP include:

- Forming a planning team and identifying stakeholders;
- Assessing current natural resources programs;
- Identifying management issues and concerns;
- Developing overall natural resources program goals and project-specific goals;
- Identifying staffing and funding requirements;
- Developing a schedule for implementation of the project-specific goals; and
- Evaluating potential environmental consequences of propose management activities and providing opportunities for public review.

Section 2 of this INRMP includes descriptions of existing natural resources at Sea Girt NGJTC. The status of existing programs, management issues, and management goals are provided in Sections 4 through 8 of this INRMP. Five natural resources management program areas (land and watershed management, fish and wildlife management, rare species management, outdoor recreation, and information management) have been established to address relevant issues at Sea Girt NGJTC. The program structure has been developed to facilitate issue identification and prioritization, as well as project funding, implementation, and tracking. Because of the inherent interaction of natural resources, overlap exists among programs. Therefore, all programs are integrated with each other, as well as with the overall land use and mission planning processes. The following management program areas are included in this INRMP:

- Section 4 – Land and Watershed Management;
- Section 5 – Fish and Wildlife Management;
- Section 6 – Rare Species Management;
- Section 7 – Outdoor Recreation Management; and
- Section 8 – Information Management.

Some program areas that are typically addressed in Army INRMPs are not included in this INRMP because they are not applicable to Sea Girt NGJTC. Specifically, the Integrated Training Area Management (ITAM) Program and Forest Management are not addressed. Sea Girt NGJTC is not currently classified as an ITAM installation based on its size and the type

and magnitude of military field training that occurs. The installation lacks forested areas; therefore, forest management is not applicable.

The following subsections provide additional information about the overall natural resources planning process including responsibilities, stakeholder involvement, NEPA integration, staffing, funding, and the INRMP review and update process.

3.2 RESPONSIBILITIES

The Adjutant General (TAG) of the NJARNG has overall responsibility for the preparation and implementation of an INRMP that fulfills both stewardship and legal requirements. The Construction Facilities Management Office – Environmental Management Bureau (CFMO-EMB) within NJDMAVA is assigned day-to-day responsibility for development and implementation of the INRMP. The Director, Sea Girt NGJTC is responsible for providing input to the plan and implementing specific elements of the plan.

3.3 ENVIRONMENTAL QUALITY CONTROL COMMITTEE

In accordance with AR 200-1 (Chapter 15), the NJDMAVA Environmental Quality Control Committee (EQCC) has been established to advise the TAG on all NJARNG environmental issues, priorities, policies, strategies, and programs. The EQCC is a multidisciplinary group that represents military land use needs and subject matter expertise. Membership includes the following:

- Construction and Facilities Management Office
- Construction and Facilities Management Installation/Contracting Office
- Construction and Facilities Management Office, Environmental Management Bureau
- Director, Sea Girt NGJTC
- G3, G4, G6 – T Representatives
- Joint Training and Training Development Center
- Judge Advocate General
- Medical Command
- Public Affairs Office
- Recruiting and Retention Board
- State Army Aviation Officer (SAAO)
- SAAO Safety and Occupational Health Manager
- Surface Maintenance Manager
- 254th Regiment (Combat Arms)
- 42nd Division Support Command
- 50th Infantry Brigade Combat Team
- 57th Troop Command

Specific EQCC responsibilities with respect to the INRMP include the following:

- Identifying military training and land use needs;
- Identifying and evaluating management issues and concerns;
- Providing policy, guidance, and oversight for development of goals and objectives;
- Identifying staffing and funding resources for implementing the INRMP;
- Overseeing development, implementation, and revision of the INRMP; and
- Fostering environmental awareness and good stewardship at Sea Girt NGJTC.

3.4 STAKEHOLDERS

In addition to the NJDMAVA EQCC, internal and external stakeholders are involved in the natural resources planning process. Internal stakeholders include the military users of the installation. External stakeholders include tenants, various government agencies, and nonprofit groups. These stakeholders have a vested interest in how the natural resources at the installation are managed. External stakeholders include:

- Sea Girt NGJTC tenants;
- U.S. Fish and Wildlife Service (USFWS);
- NJDEP, Division of Fish and Wildlife, Endangered and Nongame Species Program (ENSP);
- Wreck Pond Watershed Association (WPWA);
- Monmouth County;
- Borough of Sea Girt; and
- Borough of Manasquan.

3.5 AGENCY INVOLVEMENT

In accordance with DA and NGB policy, this updated INRMP has been prepared in cooperation with the USFWS and ENSP. NJDMAVA formally requested that these agencies and representatives for the WPWA and local and county representatives, participate in the INRMP preparation process and a planning meeting was held at Sea Girt NGJTC on January 10, 2012. A copy of the Draft INRMP was provided to these representatives for review and input to the Final INRMP. The Final INRMP has been submitted to regulatory agencies involved for concurrence and to establish a mutual agreement of the parties concerning conservation, protection, and management of fish and wildlife resources. Copies of agency correspondence are provided in Appendix C.

3.6 NATIONAL ENVIRONMENTAL POLICY ACT AND PUBLIC REVIEW

The NGB Office of General Counsel has determined that Sikes Act requirements for INRMP implementation necessitate the preparation of NEPA documentation prior to plan approval. In addition, the Sikes Act requires that INRMPs be made available to the public for review. NEPA requires federal agencies to consider the potential environmental consequences in their decision making process. The intent of NEPA is to protect, restore, and enhance the environment through well-informed federal decisions.

An EA was prepared and made available for public review on August 11, 2005 for the previous (2006 through 2010) version of the INRMP in accordance with NEPA, 32 CFR Part 651 (Environmental Analysis of Army Actions; Final Rule; March 29, 2002), and the National Guard Bureau NEPA Handbook (Guidance on Preparing Environmental Documentation for Army National Guard Actions in Compliance with NEPA, March 2002) to analyze the potential environmental consequences of implementing the Sea Girt NGJTC INRMP. The environmental impacts of the actions involved in the implementation of this updated INRMP for the implementation period of 2013 through 2017 were assessed and it was determined that a Record of Environmental Consideration (Appendix F) was sufficient review and analysis to meet the requirements of the NEPA. INRMP updates that are not expected to result in biophysical consequences materially different from those anticipated in the existing INRMP must be supported by a REC that tiers off the original INRMP EA (FNSI must be attached to the REC), but do not require public comment per the National Guard Bureau Memorandum (Guidance for the Creation, Implementation, Review, and Revision and Update of INRMPs [Section 16c], April 9, 2012).

3.7 STAFFING

Primary staffing for developing and implementing the INRMP comes from NJDMAVA CFMO-EMB in Lawrenceville. The Chief, CFMO-EMB has overall responsibility and the Natural Resources Manager has day-to-day responsibility. The Natural Resources Manager also has responsibility for several other program areas that encompass 41 NJARNG facilities statewide. Therefore, only a small percentage (approximately 5 to 10%) of the Natural Resources Manager's time is allocated to natural resources management at Sea Girt NGJTC. The Director, Sea Girt NGJTC and the installation facilities management staff provide logistical and on-site support for implementation of the plan. The Natural Resources Manager at NGB-ARE provides technical guidance and support to implement various aspects of the INRMP. Biologists from the ENSP and USFWS also provide substantial staffing support for rare species management at Sea Girt. Other possible staffing sources for natural

resources programs at Sea Girt NGJTC include: various NJARNG units, temporary NJDMAVA staff (military mandays and students/interns), contractors, and WPWA volunteers. Estimated staffing requirements for implementing specific INRMP goals and programs are presented in Section 9.

3.8 FUNDING

Estimated funding requirements for implementing specific INRMP goals and programs are presented in Sections 9. The primary funding source for implementing specific management activities and projects contained in the INRMP is the DA Conservation Program. The Status Tool for the Environmental Program (STEP) is the standard Army budgeting process that is used to identify programming, budgeting, and resource allocation needs to execute the Army Environmental Program. Project-specific goals contained in this INRMP will be programmed through the STEP. Other potential funding sources for implementing the INRMP include: Real Property, Moral Welfare, and Recreation, Sustainment, Readiness, and Maintenance, and DoD Legacy Program funds. Fees collected for use of the beach, campground, and cottages at Sea Girt NGJTC are used for maintenance of these facilities, but are not available for general natural resources management activities.

3.9 PRIORITIZING GOALS

Project-specific management goals and objectives have been established to address management issues, where appropriate, to provide a clear direction and concrete approach to natural resources planning. These project-specific goals are defined as project-level activities that NJDMAVA intends to implement in an effort to fulfill the overall natural resources program goals. Project-specific goals are prioritized for implementation using the following criteria:

- **Compliance/Class 0 – Recurring Natural and Cultural Resources Conservation Management Requirements.** This includes activities needed to cover the recurring administrative, personnel and other costs associated with managing environmental programs that are necessary to meet applicable compliance requirements (federal, state, and local laws, regulations, Executive Orders (EOs), DoD policies, and Final Governing Standards (FGS) overseas or the Overseas Environmental Baseline Guidance Document (OEBGD)) which are in direct support of the military mission. Class 0 also includes environmental management activities associated with the operation of facilities, installations and deployed weapon systems. Recurring costs consist of manpower, training, supplies, hazardous waste disposal, operating recycling activities, permits, fees, testing and monitoring and/or sampling and analysis, reporting and record

keeping (e.g., Toxic Release Inventory (TRI) reporting), maintenance of environmental equipment, and compliance self-assessments.

- **Compliance/Class 1 – Current Compliance.** This includes projects and activities needed that are currently out of compliance; have received an enforcement action from a duly authorized federal, state, or local authority; have a signed compliance agreement or received a consent order; and/or have not met requirements based on applicable federal, state, and local laws, regulations, EOs, DoD policies, and FGS overseas or the OEBGD. This class also includes projects and activities needed that are not currently out of compliance (deadlines or requirements have been established by applicable requirements, but deadlines have not passed or requirements are not in force) but shall be if projects or activities are not implemented within the current program year. Those activities include the preparation of plans (e.g., NEPA, 42 U.S.C. 4321-4370(d), documentation, master plans, emergency response plans, INRMPs, ICRMPs, P2 plans; etc.), opportunity assessments and inventories. The preferred approach is to use P2 projects or activities, if cost effective, to bring a facility into compliance.
- **Maintenance/Class 2 – Maintenance requirements.** This includes those projects and activities that are not currently out of compliance (deadlines or requirements have been established by applicable federal, state, and local laws, regulations, E.O.s, DoD policies and FGS overseas or the OEBGD, but deadlines have not passed or requirements are not in force) but shall be if projects or activities are not implemented in time to meet an established deadline beyond the current program year. The preferred approach is to use P2 projects or activities, if cost effective, as the means of maintaining or bringing a facility into compliance.
- **Stewardship/Class 3 – Enhancement Actions, Beyond Compliance.** This includes those projects and activities that are not explicitly required by law but are needed to address overall environmental goals and objectives.

3.10 INRMP EVALUATION AND REVISION

This INRMP covers a five-year planning period (2013 through 2017). Section 101(b)(2) of the Sikes Act requires that INRMPs be reviewed as to operation and effect by the parties thereto on a regular basis, but not less often than every five years. The DoD requires INRMPs to be reviewed annually by the DoD installation with the cooperation of the federal and state fish and wildlife agencies.

The CFMO-EMB will continue to review the plan annually (at a minimum) in consultation with the EQCC, USFWS, and ENSP. The CFMO-EMB, USFWS, and ENSP

holds annual planning meetings or conference calls in February to review the INRMP and coordinate specific implementation aspects for the coming season. The need for revisions or updates to the INRMP is discussed at these meetings/conference calls. In addition, the CFMO-EMB will continue to formally request a comprehensive review of the plan by USFWS and ENSP not less often than every five years. The CFMO-EMB documents all INRMP reviews in a Memorandum for the Record and NGB plans to initiate an annual review tracking database in the future.

The INRMP will continue to be updated, as needed, based on various factors such as changes in conditions and the effectiveness of ongoing management practices. Revisions will be submitted to the USFWS and ENSP for review and concurrence. The CFMO-EMB evaluates all proposed INRMP revisions to determine if public review and NEPA documentation are appropriate and necessary. Generally, any INRMP revisions that would result in materially different biophysical consequences than previously considered would be subject to public review and the NEPA process.

SECTION 4

LAND AND WATERSHED MANAGEMENT

4.1 PROGRAM DESCRIPTION AND OVERALL MANAGEMENT GOALS

The Land and Watershed Management Program provides a foundation for the conservation of all other natural resources components, and serves as a basic land use and conservation management guide. Sound land and water management practices that conserve soil and water are paramount to the overall natural resources conservation program. Soil and water resources form the basis for supporting the remaining components of the system.

This program is integrated with other mission, land use, and environmental planning processes at the installation, as well as all other natural resources management programs. Issues addressed under the Land and Watershed Management Program includes:

- Coastal Zone Management;
- Erosion and sediment control;
- Stormwater management;
- Wetlands management;
- Shoreline management; and
- Invasive plant management.

Overall management goals for the Land and Watershed Management Program include the following:

- Conserve, develop, manage, and maintain all land and water resources in accordance with proven scientific methods, procedures, and techniques to facilitate the military mission;
- Avoid, reduce, or eliminate any contribution of pollution due to erosion and sedimentation;
- Maintain no net loss of installation wetlands and protect the biodiversity, functions, and values of wetland communities;
- Prevent the introduction of invasive species and control populations of such species in a cost-effective and timely manner;
- Comply with all applicable federal and state laws and regulations, as well as DoD policies that mandate land and water conservation; and
- Implement ecosystem management practices to achieve program goals.

4.2 PROGRAM STATUS AND MANAGEMENT ISSUES

4.2.1 Coastal Zone Management

Sea Girt NGJTC is located adjacent to the Atlantic Ocean and is within New Jersey's Coastal Area Facility Review Act (CAFRA) zone. New Jersey protects coastal waters and the land adjacent to them under a variety of laws, including the following:

- Coastal Area Facility Review Act (N.J.S.A. 13:19). The CAFRA law regulates almost all development activities, including construction, relocation, and enlargement of buildings or structures; and all related work, such as excavation, grading, shore protection structures, and site preparation in the coastal zone.
- Waterfront Development Law (N.J.S.A. 12:5-3). The Waterfront Development Law is a very old law, passed in 1914, that seeks to limit problems that new development could cause for existing navigation channels, marinas, moorings, other existing uses, and the environment. A Waterfront Development Permit is required for any development in a tidally flowed waterway anywhere in New Jersey. Examples of projects that need a Waterfront Development Permit include docks, piers, pilings, bulkheads, marinas, bridges, pipelines, cables, and dredging.
- Wetlands Act of 1970 (N.J.S.A. 13:9A). The Wetlands Act of 1970 requires the NJDEP to regulate development in coastal wetlands. Regulated coastal wetlands are delineated on maps prepared by the NJDEP. These maps are available for public inspection at each county clerks office. A coastal wetlands permit is required to excavate, dredge, fill or place a structure on any coastal wetland shown on the maps. The wetlands at Sea Girt NGJTC are not regulated under the Wetlands Act of 1970. However, they are regulated under the Freshwater Wetlands Protection Act, as discussed below in Section 4.2.4.
- Tidelands Act (N.J.S.A. 12:3) – Tidelands are lands now or formerly flowed by the tide of a natural waterway, including lands that were previously flowed by the tide but have been filled and are no longer flowed by the tide. The people of the State of New Jersey own tidelands. Therefore, a tidelands license, lease, or grant must be obtained from the NJDEP, Bureau of Tidelands Management prior to using these lands.

The NJDEP Division of Land Use Regulation (DLUR) issues permits for activities regulated under the CAFRA, Waterfront Development Act, and Wetlands Act of 1970 in accordance with the New Jersey Coastal Permit Program Rules (N.J.A.C. 7:7) and the Coastal Zone Management Rules (N.J.A.C. 7:7E). These laws and rules, as well as application forms and additional information about the permitting process, are available on the Land Use Regulation Program web site (<http://www.state.nj.us/dep/landuse/index.html>).

All actions at Sea Girt NGJTC including construction, excavation, grading, shore protection, site preparation, and other ground disturbing activities must be reviewed to determine the applicability of the laws and rules discussed above. The proponent is responsible for notifying the CFMO-EMB of the action early in the planning processing. The CFMO-EMB is responsible for reviewing the action, determining the permitting requirements either in house, or in consultation with the NJDEP through the CAFRA Jurisdictional Determination process, and preparing the appropriate permit application for submission to NJDEP.

4.2.2 Erosion and Sediment Control

Military training activities at Sea Girt NGJTC result in minimal ground disturbance and no training related soil erosion problems currently exist. Consequently, potential erosion and sediment control issues would primarily be related to future construction activities. Soil erosion and stormwater discharges from construction activities are regulated in New Jersey by:

- The Soil Erosion and Sediment Control Act Chapter 251 requires certification of a soil erosion and sediment control plan for any construction project disturbing more than 5,000 square feet. The soil erosion and sediment control plan must conform to the *Standards for Soil Erosion and Sediment Control in New Jersey*. The plan is submitted to the Freehold Soil Conservation District for certification. Application forms and additional information about the process are available on the Freehold Soil Conservation District web site (<http://www.freeholdscd.org/>).
- The New Jersey Pollutant Discharge Elimination System (NJPDES) rules require coverage under General Permit Number NJG0088323 (Stormwater Discharge Associated with Construction and Mining Activity) for construction, grading, and excavating activities that disturb one acre or more. Coverage under the general permit is obtained by submitting a Request for Authorization and payment electronically online utilizing the NJDEP's Stormwater Construction Activity E-Permitting System, or via paper application to the NJDEP's Bureau of Permits Management. The General Permit conditions include requirements for development and implementation of a certified soil erosion and sediment control plan, as described above. The Request for Authorization Form and additional information are available on the NJDEP web site (<http://www.nj.gov/dep/stormwater/>).

The proponent of the construction activity is responsible for ensuring that soil erosion and sediment control plans are developed and implemented, and that coverage is obtained under the General Permit. Generally, the design or construction firm will prepare soil erosion and sediment control plans and necessary applications. The CFMO-EMB supports the plan and application preparation process, as needed.

4.2.3 Stormwater Management

A majority of the stormwater from the installation discharges to the onsite and municipal storm sewer system through storm drains located in developed areas. Stormwater from the southeastern portion of the installation flows into Stockton Lake via a stormwater ditch. An application for a NJDEP Freshwater Wetlands General Permit for Maintenance and Repair of an Existing Feature (GP1) was issued on October 27, 2011 (DLUR File No. 1344-03-0001.1 FWW110001) to conduct maintenance to clear the ditch to reduce ponding during heavy rains and improve drainage in this portion of the installation. Maintenance was previously conducted under a GP1 issued in 2005; however the ditch has again become clogged with sediment, vegetation and debris. Initial clearing of vegetation, debris, and sediment under the re-issued permit is anticipated to occur sometime in 2012. Additional activities required to maintain proper drainage will occur, as needed, throughout the lifetime of the permit. A stormwater management plan is not required for Sea Girt NGJTC. However, stormwater infrastructure mapping is currently being conducted as part of an ongoing Master Plan project.

Stormwater management issues and regulatory programs related to construction activities are discussed above in Section 4.2.2. New Jersey DEP issued Phase II NJPDES Stormwater Regulation Program Rules (N.J.A.C. 7:14A) on February 2, 2004, to address and reduce pollutants associated with existing stormwater discharges from small municipal separate storm sewers and public complexes, including large publicly owned or operated military bases. The CFMO-EMB reviewed the new rules and determined that they are not applicable to Sea NGJTC, based on the number of full time personnel and installation users.

New Jersey DEP also issued Stormwater Management Rules (N.J.A.C. 7:8) on February 2, 2004. The rules set forth the stormwater management design and performance standards for proposed "major development", which is defined as disturbing one or more acres of land or increasing impervious surface by one-quarter acre or more. Disturbance for the purpose of this rule is the placement of impervious surface or exposure and/or movement of soil or bedrock or clearing, cutting, or removing of vegetation. The rules emphasize the use of non-structural stormwater management techniques including minimizing disturbance, minimizing impervious surfaces, minimizing the use of stormwater pipes, preserving natural drainage features, etc. The rules also set forth requirements for groundwater recharge, stormwater runoff quantity control, stormwater runoff quality control, and a buffer adjacent to Category One waters and their immediate tributaries. Details of the performance standards can be found in Subchapter 5 of the Stormwater Management Rules

(<http://www.state.nj.us/dep/watershedmgt/rules.htm>). No Category One waters are located on or adjacent to the installation. Therefore, the buffer requirements are not applicable.

The design and performance standards specified by the Stormwater Management Rules will be incorporated during the design process for any future development at Sea Girt NGJTC that would result in disturbance of one or more acres of land or increasing impervious surface by one-quarter acre or more. The proponent of the action is responsible for ensuring that the design conforms to the rules. NJDEP reviews compliance with the rules as part of the CAFRA permitting process. The CFMO-EMB supports the CAFRA permitting process, as needed.

Additionally, on October 31, 2011 NJDEP issued new NJPDES rules in accordance with N.J.A.C. 7:14A authorizing a General Permit (No. NJ0178217) for pesticide application discharge to surface waters. This permit authorizes the applications of biological and chemical pesticides in water when such applications are made in, over, or near surface waters of the State and in the following pesticide use patterns: a) Nuisance Insect Control (i.e. mosquito and fly control), b) Aquatic Pest Control (i.e. weeds, algae), c) Aquatic Nuisance Animal control, d) Aerial Treatment of Forest Canopy and e) Aquatic Agricultural Activities. Pesticide application is occasionally conducted at the Sea Girt NGJTC. Any spraying that may occur in areas including ditches adjacent to surface water such as Stockton Lake requires this authorization. The Request For Authorization (RFA) form can be found on the Division of Water Quality web site (http://www.nj.gov/dep/dwq/gp_surfacewater.htm).

4.2.4 Wetlands Management

The focus of wetland management at Sea Girt NGJTC is to ensure compliance with Federal and State regulations, EO 11990, and DA policy. This involves obtaining accurate information regarding the presence of wetlands and integrating this information into the overall planning processes at the installation to ensure that potential impacts to wetlands are avoided. The wetland data contained in the NJARNG GIS are available to a variety of users to ensure that wetland issues are integrated into the mission and land use planning processes. Actions at Sea Girt NGJTC including construction, excavation, grading, shore protection, site preparation, and other ground disturbing activities are reviewed to determine the applicability of the Freshwater Wetlands Protection Act and Section 404 of the Clean Water Act. The proponent is responsible for notifying the CFMO-EMB of the action early in the planning process. The CFMO-EMB is responsible for reviewing the action, determining the permitting requirements, and preparing the appropriate permit application for submission to NJDEP and/or the U.S. Army Corps of Engineers (Corps).

Activities in wetlands are regulated under Section 404 of the Clean Water Act (CWA), the Wetlands Act of 1970 (N.J.S.A. 13:9A), and the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.). Activities in mapped Coastal Wetlands are regulated by NJDEP under the Coastal Wetlands Act of 1970. As noted above in Section 4.2.1, no coastal wetlands that are regulated under the Coastal Wetlands Act of 1970 are present at Sea Girt NGJTC.

The NJDEP DLUR regulates activities in and implements the permitting program for freshwater wetlands and associated transition areas (see description below). The Freshwater Wetlands Protection Act and associated rules, application forms, and additional information about the permitting process, are available on the DLUR web site (http://www.nj.gov/dep/landuse/njsa_njac.html).

In addition, the Corps has permitting authority for actions that take place in non-delegable waters, which include waters that are presently used, or are susceptible to use in their natural condition or by reasonable ordinary high water mark. This term includes all waters that are subject to the ebb and flow of the tide, shoreward to their mean high water mark, including wetlands that are partially or entirely located within 1,000 feet of their ordinary high water mark or mean high tide. All of the wetlands at Sea Girt NGJTC are non-delegable because they are within 1,000 feet of mean high tide. Therefore, the Corps (New York District) would regulate certain activities onsite. Additional information about the Corps permitting process and application forms are available on the Corps' web site (<http://www.nan.usace.army.mil/business/buslinks/regulat/index.php>).

The Freshwater Wetlands Protection Act applies to all wetlands at the installation, as well as transition areas for wetlands on the installation and adjacent properties. Wetlands are classified according to their resource value as determined by the NJ Freshwater Wetlands Protection Act Rules. The width of the regulated upland transition area or buffer around the wetland area is based on the resource value of the wetland. A transition area is defined as an area of upland adjacent to a freshwater wetland that minimizes adverse impacts on the wetland or serves as an integral component of the wetland. The width of the transition area is based on the resource value of the wetland, which is determined as follows:

Exceptional resource value wetland – (1) discharges into FW1 or FW2 trout production waters or their tributaries, (2) is a present habitat for threatened or endangered species, or (3) is a documented habitat for threatened or endangered species and remains suitable for breeding, resting, or feeding by these species. The NJDEP identifies present or documented habitat for threatened and

endangered species using the Landscape Project method. The standard width of a transition area for these wetlands is 150 feet.

Ordinary resource value wetland – is a freshwater wetland that does not exhibit any of the characteristics of an exceptional resource value wetland, is isolated, is less than 5,000 square feet, and meets other criteria specified at N.J.A.C. 7:7A-2.4. Transition areas are not required for ordinary resource value wetlands or adjacent to State open waters.

Intermediate resource value wetland – is any freshwater wetland not defined as exceptional or ordinary resource value. The standard width of a transition area for these wetlands is 50 feet.

A key component of wetland management is having accurate and accessible information about the location of wetlands and associated regulated transition areas at the installation. To facilitate in wetlands and transition area protection and management, NGJTC submitted an application for a NJDEP Freshwater Wetlands Letter of Interpretation (LOI) in December of 2011. The LOI was issued from NJDEP on August 3, 2012. The LOI verified the location and resource value (transition areas width) of wetlands onsite.

As part of the LOI application process, a survey and detailed wetland delineation was conducted for the entire facility. Figure 4-1 shows the 12 delineated wetlands identified during the LOI process and their associated transition areas. See Section 2.8.3 for detailed wetland descriptions. The onsite wetland delineation data is also included in the NJARNG GIS database. Approximately 4.77 acres of wetlands and 3.73 acres of upland transition area are located within the installation boundaries.

Transition areas consist of the following vegetation communities: secondary growth forest, maintained fields, disturbed successional, and maintained lawn and landscaped areas. The secondary growth forest can be found in the southwest corner of the property. This community consists of species such as Norway maple (UPL), tree-of-heaven (NI), hackberry (FACU), winged sumac (NI), Japanese knotweed, oriental bittersweet and poison ivy. Maintained fields can be found throughout the property and generally consists of various grass species, common plantain (FACU), English plantain, crabgrass (NIS), bracted plantain (UPL), sheep sorrel, blue toadflax (UPL), yarrow (FACU), wild strawberry (FACU), mouse ear (UPL) and field hawkweed (UPL).

Wetlands on the property drain to Judas Creek and Stockton Lake, which have NJDEP Surface Water Quality Classifications of freshwater, non-trout/saline estuarine and Category Two (FW2-NT/SE1, C2). Therefore, no wetlands onsite are classified as exceptional resource value for reason of draining to FW1 or trout-production waters. None of the NGJTC wetlands

contain the necessary habitat requirements required for wetland-dependent threatened and endangered species.




The 2012 NJDEP LOI correspondence confirmed that there are four wetlands (Wetlands A, C, K and L) with an intermediate resource value and an associated 50 foot buffer. The remaining eight delineated wetlands are ordinary resource value (no buffer). No exceptional resource value wetlands were identified onsite.

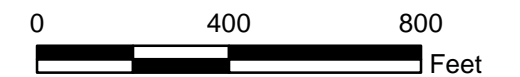
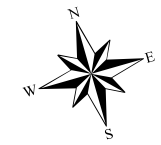


**Figure 4-1
Sea Girt NGJTC
Delineated Wetlands**

New Jersey Army National Guard

Legend

-  Sea Girt NGJTC Boundary
-  Delineated Wetlands (surveyed)
-  50-foot Wetland Transition Area



Data Source: Delineated Wetlands and Transition Areas provided by Amy S. Greene Environmental Consultants, Inc., based on field delineation conducted December 2010 and July 2011, which were subsequently surveyed by VS Land Data, August 2011. The wetlands have subsequently been reviewed and verified by the New Jersey Department of Environmental Protection which has determined resource value classifications (transition area) for them as noted in LOI File No. 1300-11-0004.1 dated August 3, 2012.

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4.2.5 Shoreline Management

The installation includes approximately 2,800 feet of shoreline along Stockton Lake and 1,980 feet of shoreline along the Atlantic Ocean. The Stockton Lake shoreline previously consisted of a deteriorating wooden bulkhead, which in 2011 was reconstructed as a steel bulkhead. The NJDEP Bureau of Coastal Engineering provided permitting and construction for the bulkhead replacement.

The Sea Girt NGJTC beach has been part of the Atlantic Coast of New Jersey Sandy Hook to Barnegat Inlet Beach Erosion Control Project (BECP), which is implemented by the U.S. Army Corps of Engineers, New York District and NJDEP. The project included beach nourishment along 21 miles of Atlantic Ocean shoreline in Monmouth County. Beach nourishment for the project section that includes the Sea Girt NGJTC beach was completed in August 1999. Re-nourishment is dependent upon the severity of annual erosion of the beach, and is usually several years between cycles for a duration of approximately 50 years.

4.2.6 Invasive Plant Management

Executive Order 13112 identifies invasive species as “an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Invasive species present a major threat to ecological and economic systems globally and within the United States. Invasive species generally lower wildlife production, reduce diversity of native species, and cause significant economic and quality of life impacts (NJISC, 2009). Quality of life and economic impacts from invasive species may include introduced human disease or associated hazards, impacts to agriculture, and damage to resource-dependent recreational activities such as boating, hunting, fishing and wildlife viewing.

In February 1999, EO 13112 was enacted and as a result, the National Invasive Species Council (NISC) was established. The NISC was charged with providing coordination, planning and overall leadership for federal invasive species programs, as well as reaching out to State, tribal, local and private partners. EO 13112 also required the Secretary of the Interior to establish the Invasive Species Advisory Committee (ISAC) to advise NISC on invasive species issues and called on NISC to prepare and issue the first national plan to deal with invasive species. Finally, EO 13112 requires that federal agencies coordinate complimentary, cost-effective activities concerning invasive species including the following subject to the availability of funds and administration budgetary limits:

-
1. Prevent the introduction of invasive species.
 2. Detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner.
 3. Monitor invasive species populations accurately and reliably.
 4. Provide for restoration of native species and habitat conditions in ecosystems that have been invaded; conduct research on invasive species and develop technologies to prevent introduction and provide for environmentally sound control of invasive species.
 5. Promote public education on invasive species and the means to address them.

Additionally, in June 2000, the Plant Protection Act was enacted which consolidated all previous major statutes pertaining to plant protection and quarantine. It superseded and repealed a majority of the Federal Noxious Weed Act of 1974; however, it left intact section 15, "Management of undesirable plants on federal lands" (7 U.S.C. 2814). Section 15 requires federal land management agencies to develop and establish a management program for control of undesirable plants that are classified under state or federal law as undesirable, noxious, harmful, injurious, or poisonous, on federal lands under the agency's jurisdiction (7 U.S.C. 2814).

In accordance with EO 13112 and section 15 of the Federal Noxious Weed Act, the NJARNG will control populations of invasive plants in a cost-effective and environmentally sound manner. When practicable, control efforts will be coordinated with other local or regional control programs. A variety of control measures will be employed based on species-specific and site-specific requirements. In some cases, a combination of control measures may be appropriate.

4.2.6.1 Invasive Species Management Priorities

Although several invasive animals occur at Sea Girt NGJTC including house sparrow, starling, and European green crab (*Carcinus maenas*), the primary invasive species management concern at Sea Girt NGJTC is invasive plants. Proper invasive vegetation management is essential to maintain suitable onsite habitat for the onsite federally-listed threatened species (i.e. seabeach amaranth and piping plover) and numerous state-listed endangered, threatened and Special Concern Species that utilize the facility vegetation communities.

As discussed in Section 2.8.6, in 2011 ASGECI updated the invasive plant survey field data previously collected by Parsons in 2004 and 2005 at Sea Girt NGJTC (ASGECI, 2012b). In cases where monoculture invasions of species were identified or the species was considered a serious threat to sensitive habitats, monoculture polygons were recorded via GPS. Figure 4-2 shows the location of the invasive species monocultures identified in the field in 2011. See Section 2.8.6, Tables 2-5 and 2-6 for invasive species identified by ASGECI.

As shown in Figure 4-2, the invasive plants often occur in unmaintained areas along the installation boundary, within wetlands, and on the small arms range berms and adjacent secondary dune areas. A majority of the installation is subjected to routine mowing and, as a result, the impact of invasive or noxious plants is somewhat suppressed in those disturbed areas. Other areas, including small work areas and along facility boundary fences, support fragmented and disturbed communities with a mix of native and invasive species. These areas have lesser wildlife value and invasive control would be limited due to offsite influences.

The highest priority for control of invasive plants at Sea Girt NGJTC is those onsite native communities that provide unique and significant habitat to rare wildlife. These habitats include the primary dune (dunegrass communities and adjacent intertidal areas), the secondary dune (dune shrubland and successional dune habitats), and the large onsite freshwater wetland habitats (see Figure 2-6 Ecological and Vegetation Communities). The primary dune has been documented to support nesting birds considered state- threatened or endangered, while the secondary dune has been documented to support migratory birds considered state- threatened or endangered.

Primary Dune: Small amounts (under 1% - ASGECI, 2010b) of noxious or potentially invasive species such as rugosa rose or saltwort occur in the primary dune habitats at NGJTC. However, the most serious invasive species threat identified in this community is the Asiatic sand sedge. This highly invasive dune species was first identified onsite in 2007 and removed by hand. It has subsequently reestablished itself in the same approx. 50 sq. ft. location each season. It has not, however, produced fruiting bodies or shown signs of aggressive expansion at the facility since first observation.

Secondary Dune: Within the successional portions of the secondary dune habitat, patchwork monocultures of Japanese knotweed and common reed, spotted knapweed, and oriental bittersweet are present and quite dominant in this community. Japanese honeysuckle, while not often represented as a monoculture onsite, is also a substantial component of the successional dune community as well. An additional common native

plant of the secondary dune, poison ivy, is extremely dominant in this area. Poison ivy can display invasive characteristics and contains toxin that causes an irritating skin reaction on many people. As a result of the potential human harm it can inflict, poison ivy is monitored as an invasive and considered for management at NGJTC. While poison ivy is a nuisance to people, it also has ecological value in the dune community. The white, waxy berries are a popular food for songbirds during fall migration and in winter when other foods are scarce. Birds also feed on insects hiding in the tangled vines. Small mammals browse on poison ivy foliage, twigs, and berries. The dense root system of poison ivy also helps to control dune erosion at Sea Girt NGJTC.

Freshwater Wetlands: The herbaceous and scrub-shrub freshwater wetland complex on the eastern end of the facility is primarily impacted by two highly invasive wetland species: common reed and purple loosestrife. Other invasive species, including oriental bittersweet, have also been recorded within this wetland complex. Within this wetland, common reed grows in an approximate 0.30 acre monoculture. Common reed is also found in both freshwater and estuarine wetlands along the facility's southern boundaries as well as in a variety of upland habitats. Although mapped as a monoculture in one location (see Figure 4-2, Invasive Species Locations), purple loosestrife occurs within the herbaceous eastern boundary of the freshwater wetland complex and nowhere else onsite.

**Figure 4-2
Sea Girt NGJTC
Invasive Species Locations**

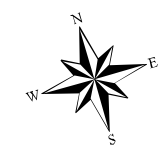
New Jersey Army National Guard

Legend

 Sea Girt NGJTC Boundary

Invasive Species Classifications:

-  Asiatic Sedge [*Carex kobomugi* Ohwi]
-  Common Reed [*Phragmites australis* (Cav)]
-  Japanese Honeysuckle [*Lonicera japonica*]
-  Japanese Knotweed [*Polygonum cuspidatum*]
-  Lanceleaf Plantain [*Plantago lanceolata*]
-  Mugwort [*Artemisia vulgaris* L.]
-  Multiflora Rose [*Rosa multiflora* Thunb.]
-  Norway Maple [*Acer platanoides* L.]
-  Oriental Bittersweet [*Celastrus orbicul*]
-  Poison Ivy [*Toxicodendron radicans* (L.)]
-  Porcelainberry [*Ampelopsis brevipedunc.*]
-  Purple Loosestrife [*Lythrum salicaria*]
-  Rugosa Rose [*Rosa rugosa* Thunb.]
-  Autumn Olive [*Elaeagnus umbellata* Thunb.]
-  Spotted Knapweed [*Centaurea Stoebe* L.]



Data Source: Invasive Species Locations provided by Amy S. Greene Environmental Consultants, Inc. using GPS data taken during fieldwork conducted during the 2011 monitoring season.

Scale:	As Shown
Created By:	ASGECI
File:	M:\3435_NGJTC_2011_Fig_4_2_Inv_Plants.mxd
Date:	5/31/12
Figure Number:	4-2



4.2.6.2 Management Options

Various options for invasive plant control methodologies have been considered at the Sea Girt NGJTC. The following section discusses these primary management options:

Avoidance Measures

Avoidance of the introduction or reintroduction of invasive species is the most cost effective and least intrusive way to control invasive species infestation, and therefore is the preferred method of control. Prevention of invasive species reestablishment or spreading requires basic onsite measures including: regular invasive species monitoring and early detection; education of staff and visitors; proper storage and disposal of plant materials; proper clothing and equipment decontamination measures; and general best management practices (BMPs) for onsite activities. BMPs include containment and limited transport of soils, and minimization of impacts in and around wetlands and other sensitive habitats.

There are currently several invasive species that have been recently or historically planted onsite including Norway maple, winged euonymus and English ivy. There is currently no evidence of any planted invasive species onsite impacting sensitive habitat areas at NGJTC; however planting of any exotic invasive should be avoided. Over time existing non-native plantings should be phased out, where feasible. The avoidance of invasive species plantings will prevent infestations or reinfestations of these species and if native substitutes are included, enhance the quality of wildlife habitat. Several guides produced by agencies, including the USFWS, have created conservation planting guides that include information on native substitutes for popular exotic plantings.

Mechanical or Manual Removal

Once an invasive species is established, mechanical removal is the preferred methodology for removal at NGJTC, particularly with small infestations. For the smaller infestations in the most sensitive habitats, such as purple loosestrife in the freshwater wetland, initial manual (by hand) removal is the least intrusive and most appropriate measure. In other areas, such as shrubs along the edge habitats, cutting and/or mechanical removal with aid from machines may be feasible. Although the option of manual or mechanical control is always theoretically preferred; it could be extremely labor intensive and nearly impossible to effectively control most onsite invasive species exclusively through mechanical means. For cost, ecological, and safety reasons, limited use of herbicides (discussed below) is likely

required in combination with mechanical or manual removal to contain larger onsite infestations and suppress reestablishment.

Chemical Controls - Herbicide Use

Within this document, several general systemic non-persistent herbicides are recommended for control of invasive species, typically in conjunction with mechanical or manual removal. Due to the persistence of invasive regeneration from remaining root systems and other remnant parts (e.g. Asiatic sand sedge and oriental bittersweet) as well as persistent annual seed banks (e.g. spotted knapweed), seasonally repeated application of herbicide may be unavoidable to initially suppress an infestation. Herbicides most commonly considered for control of onsite invasives include brands of glyphosate, imazapyr, triclopyr, and dicamba. Herbicides may be used as a foliar spray or direct application to a cut stem depending on the species and the specific site conditions.

Each of these herbicides is sold under a variety of brand names at different levels of active ingredient and for various applications (e.g. wet site, dry site, etc.). Additional research should be conducted and careful selection of the brand should be made based on its specifications for use.

At Sea Girt NGJTC, herbicide use will be extremely targeted and minimized to the greatest extent practicable. Strict safety and protective protocols for pesticide use will be established, reviewed, and followed onsite. This will include rules for application, education of users, and required personal protective gear (gloves, eye protection, masks, long sleeves, etc.). Herbicides will be used sparingly and wisely, particularly in the sensitive and permeable dune and wetland habitats of the installation.

NJDEP NJPDES Rules (N.J.A.C. 7:14A) contain a General Permit (No. NJ0178217) for pesticide discharges to surface waters for the purposes of nuisance species control (see Section 4.2.3). The NGJTC is required to receive this authorization for any pesticide/herbicide use in and around surface waters and wetlands onsite. Additional consultation with the appropriate agencies and professionals including USFWS, NJDEP ENSP, and NJ Department of Agriculture must occur before any pesticide/herbicide is utilized onsite.

Other Measures

Biological controls, or the use of one living organism to control another, are sometimes used to control invasive infestations. Local examples include use of the herbivorous loosestrife beetle to control purple loosestrife or goat grazing to control common reed and

woody invasive plants in some wetlands. Although both of these and other biological methods have been successful at sites within New Jersey, they are currently not appropriate for the scale of control at NGJTC. Biological controls can be complicated by inadvertent impacts caused by the release of exotic control species.

Prescribed burning may be used to quickly and effectively suppress by removing much of the biomass before subsequent control such as herbicide application. This methodology requires highly trained personnel and burning permits. This method is not necessary and impractical for Sea Girt NGJTC for a number of ecological and logistical reasons. The largest concentration of invasive species is located in close proximity to rare species habitat. The timing of a controlled burning is often most effective when conducted in late spring or early fall, which is when rare beach nesting birds or seabeach amaranth could be present onsite. Burning in the vicinity of rare species habitat could pose a significant risk to these non-target species. Even if conducted outside of the sensitive time period, destruction of suitable rare species habitat could occur. Additionally, prescribed burning is also impractical due to the size of the treatment area and its location within a developed suburban community that is highly sensitive to public safety and other associated concerns.

General Management Summary

To effectively implement invasive species management onsite, a treatment, restoration, and prevention plan will be established for the Sea Girt NGJTC. This plan will provide site prioritization, schedule of activities, and protocols on methods of invasive species control and prevention and native species restoration.

Project Management goals and objectives have been created to implement invasive species management onsite (see Section 4.3). Habitat management goals include the control of invasive plants in primary dunes, secondary dune areas, and freshwater wetland habitats through a combination of chemical, manual, and/or mechanical treatments. Once initial invasive species removal is complete, managed areas will be restored with native species and monitored and retreated as needed.

The most highly invasive species threatening sensitive habitats will be considered a priority for treatment. These priority species include: Asiatic sand sedge, common reed, oriental bittersweet, Japanese honeysuckle, spotted knapweed, purple loosestrife and Japanese knotweed. Other species in small amounts close to sensitive habitat areas such as porcelainberry and privet should also be removed and closely monitored. Treatment of poison ivy will be limited to areas on and around the small arms range berms, public paths, parking

lots, and other high traffic areas where people may regularly be exposed to the plant. Poison ivy will be left uncontrolled on the upper back dunes to retain its wildlife and erosion control benefits.

Possible coastal species for dune planting include American beachgrass, coastal panicgrass, bayberry, beach plum, and other *Prunus* spp. cherries. Shrub species are most appropriate for the back dune areas. Tree planting on either side of the dunes will be prohibited because trees provide perches for avian predators that could impact beach-nesting bird activity. Due to the proximity to rare species habitat, all invasive plant treatments and restoration plantings will be conducted in coordination with the USFWS and ENSP. The Sea Girt NGJTC Invasive Species Survey Report (ASGEI, 2012b) provides additional species-specific invasive plant treatment information.

4.3 PROJECT-SPECIFIC MANAGEMENT GOALS

Project-specific management goals which include ongoing and/or planned management measures for achieving goals for the Land and Watershed Management Program are presented below and implementation information (e.g., staffing, funding, and schedule) is provided in Section 9. Land and Watershed Management Goal #1 was identified for the previous planning period, however was not implemented. Additional field investigation conducted in 2011 has further developed management objectives to guide implementation during the current planning period (2013 through 2017) and in addition, has led to identifying Land and Watershed Management Goal #2 and #3.

Land and Watershed Management Goal #1 –Protect and rehabilitate sensitive wildlife habitats that support threatened and endangered species by controlling invasive plants.

Priority Classification: Compliance – Class 1

1. Within 2 years, prepare a treatment, restoration, and prevention plan for invasive species management to implement the INRMP invasive species goals, objectives and strategies. Specific strategies to be employed include:
 - 1.1. Secure appropriate permitting for pesticide use in wetlands and coastal habitats.
 - 1.2. Provide detailed protocols and information on selected and approved herbicide and other treatments.
 - 1.3. Provide required detailed information on replanting and future habitat monitoring and management.
 - 1.4. Provide information on safety measures, education, onsite infestation prevention, and other BMPs by the facility.

Priority Classification: Compliance – Class 1

2. Within 2 years, eliminate Asiatic sedge (0% observed cover) from the primary dune areas and prevent reinfestation of this species. Specific strategies to be employed include:
 - 2.1. Remove by hand or mechanical means.
 - 2.2. Treat with appropriate herbicide as needed with appropriate approvals.
 - 2.3. Conduct regular monitoring and respond quickly if identified.

Priority Classification: Compliance – Class 2

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3. Within 5 years, reduce and maintain levels of common reed and purple loosestrife dominance of less than 5% total vegetation cover in the palustrine freshwater wetland complex (managed wetland and adjacent wetlands). Specific strategies to be employed include:
 - 3.1. Cut common reed monoculture low through mechanical means. Treat common reed with an appropriate and approved foliar herbicide after cutting.
 - 3.2. Remove purple loosestrife stems and root systems by hand before flowering. Upon approval spot treat remaining purple loosestrife with an appropriate and approved foliar herbicide.
 - 3.3. Replant wetland areas with an appropriate mix of native herbaceous and shrub species that may include *Panicum* spp., hightide bush or northern bayberry.
 - 3.4. Monitor on a regular seasonal basis for reoccurrence and repeat measures above if reinfestation occurs.

Priority Classification: Compliance – Class 2

4. Within 3 years, eliminate all highly invasive shrubs, trees or vines that have limited occurrence (single or less than 10 trees) within the secondary dune habitats. Species include autumn olive, privet sp., tree-of-heaven, and porcelainberry. Specific strategies to be employed include:
 - 4.1. Cut trunks or mechanically remove stumps or vines (before fruiting) as necessary from successional and disturbed successional dune habitats.
 - 4.2. Spot treat shrubs and trees with an approved and appropriate direct stem herbicide. Treat vines with an approved and appropriate foliar or stem herbicide.
 - 4.3. Monitor on a regular seasonal basis for reoccurrence and respond quickly if reinfestation occurs.

Priority Classification: Compliance – Class 2

5. Within 5 years, reduce and maintain established high priority invasive shrubs, vines and herbs in coastal dune shrubland and adjacent dune successional habitat (this may or may not include the disturbed dune successional areas) to dominance levels of less than 5% cover. Target species include Oriental bittersweet, Japanese honeysuckle, Japanese knotweed, and spotted knapweed. Specific strategies to be employed include:
 - 5.1. Same as objective 1.3 with monitored replanting of appropriate native shrubs, which may include northern bayberry, *Prunus* spp, cherries, native *Rosa* spp. roses or smooth sumac.

Land and Watershed Management Goal #2 – Minimize visitor and staff exposure to poison ivy through education and management means.

Priority Classification: Compliance – Class 0

1. Within 2 years, control poison ivy vines or shrubs in high traffic areas while maintaining current levels (80 to 100%) of shrubs within coastal dune shrub and interior portions of successional dune habitats. Specific strategies to be employed include:
 - 1.1. Eliminate poison ivy in disturbed non-dune successional areas around buildings, material piles, and maintenance areas using an appropriate and approved foliar herbicide and/or by mechanical means.
 - 1.2. Prevent poison ivy on edges of dune successional habitats from encroaching on bare ground paths and lots using an appropriate and approved foliar herbicide and/or by mechanical means.
 - 1.3. Maintain paths and work areas and repeat treatment as necessary for safety needs.
2. Within 2 years, make most beach visitors (greater than 50%) and all staff aware of poison ivy habitat presence, benefits and potential health hazards. Specific strategies to be employed include:
 - 2.1. Post at least four signs in and around paths and public beach areas warning individuals about the presence of poison ivy – include an illustration.
 - 2.2. Brief staff on the safe removal of poison ivy and prevention of rashes.
 - 2.3. Provide literature: Through distribution of the NGJTC wildlife habitat guide, make individuals aware of the benefits and concerns of poison ivy onsite.

Land and Watershed Management Goal #3 – Prevent introduction and spread of invasive species.

Priority Classification: Compliance – Class 2

1. Implement periodic inspections for early detection of invasive species.
2. Implement procedures for storage and disposal of plant materials.
3. Implement procedures for clothing and equipment decontamination.
4. Implement additional BMPs as identified in the treatment, restoration, and prevention plan.
5. Educate staff and visitors.

Land and Watershed Management Goal #4 – Manage and protect onsite wetlands.

Priority Classification: Compliance – Class 2

1. Within 2 years, expand existing split rail fence around the perimeter of the modified herbaceous portion of wetland C.

SECTION 5

FISH AND WILDLIFE MANAGEMENT

5.1 PROGRAM DESCRIPTION AND OVERALL MANAGEMENT GOALS

The Fish and Wildlife Management at Sea Girt NGJTC addresses a variety of topics including the following:

- Habitat management;
- Wildlife management;
- Nuisance wildlife management;
- Fisheries management; and
- Natural resources law enforcement.

In accordance with the overall natural resources management approach of the NJARNG, fish and wildlife management focuses on protecting and enhancing biodiversity through ecosystem management. Virtually all natural resources management activities at Sea Girt NGJTC affect fish and wildlife resources. Accordingly, fish and wildlife management issues and concepts have been integrated into all of the other management programs and there is significant interaction among programs.

The overall goal of the program is to manage fish and wildlife resources to maintain and enhance ecosystem functions and values in a manner that supports and is consistent with the military mission. Additional overall program goals include the following:

- Maintain healthy fish and wildlife populations;
- Maintain and enhance biodiversity;
- Use ecosystem management practices to achieve program goals; and
- Ensure that wildlife populations do not conflict with the military mission of the NJARNG.

5.2 PROGRAM STATUS AND MANAGEMENT ISSUES

5.2.1 Wildlife and Habitat Management

As described in Section 2, Sea Girt NGJTC is relatively developed and natural wildlife habitats are primarily limited to the beach and dune areas, small wetland areas, and areas adjacent to Stockton Lake. Nonetheless, undeveloped portions of the installation provide important habitat, including habitat for federal and state listed species. Specific habitat management practices and protection measures are discussed in more detail in Section 6 – Rare Species Management and Section 4 – Land and Watershed Management.

Because of the developed nature and proximity to residential areas, the installation supports few game species and is not capable of supporting a recreational hunting program. Therefore, game management is not discussed further in this INRMP. Management of non-game species is addressed in Section 6 – Rare Species Management.

5.2.2 Nuisance Wildlife Management

Resident Canada geese are those Canada geese nesting within the lower 48 states in the months of March through June, and reside within the lower 48 states in the months of April through August. They are currently the only wildlife species that is considered a potential nuisance at Sea Girt NGJTC. Resident Canada goose populations have increased significantly over the last 20 years throughout the eastern United States and New Jersey. Resident geese, as their name implies, spend most of their lives in one area, although some travel hundreds of miles to wintering areas. As shown by banding studies, resident geese are distinct from migratory populations that breed in northern Canada. Resident birds are long-lived and have a relatively high reproductive capacity, especially in suburban settings, allowing flocks to grow rapidly and spread to other areas. In suburban areas throughout New Jersey, abundant suitable habitat, lack of natural predators, limited hunting, and supplemental feeding have created an explosion in the resident goose population.

While Canada geese are a valuable natural resource enjoyed by many, the recent population increases of resident birds have caused significant problems. General problems have been well documented by various federal and state natural resources management agencies and include: over-grazing of lawns and natural vegetation, accumulations of fecal matter and feathers in public areas (a goose produces a pound of fecal matter per day), nutrient loading to surface waters, competition with and displacement of other birds, public health concerns, aggressive behavior by nesting birds, and safety hazards near roads and airports.

At Sea Girt NGJTC, large numbers of geese sometimes congregate in and around the cantonment area, especially on the parade grounds. Flocks have increased in size and have begun nesting at the installation. Resident Canada geese are considered a potential nuisance at the installation and warrant active management based on the following reasons:

- Resident Canada geese could negatively impact mission activities and create a significant bird-aircraft strike hazard (BASH) by congregating in the immediate vicinity of the helicopter landing pad. This increases the potential for loss of life and property. The NJARNG's policy is to minimize all aviation risks.

-
- Geese sometimes congregate on and around the small arms ranges at the installation and create a potential distraction and safety hazard for personnel training on the ranges.
 - Maintained open areas at the installation can be littered with goose fecal matter, which can degrade water quality and increase the potential for transmission of human and avian diseases.

Primary management authority for all migratory birds, including Canada geese, lies with the USFWS Division of Migratory Bird Management with secondary involvement by the states. Many states, including New Jersey, have implemented several federal depredation orders allowed under USFWS regulations, to allow citizens increased flexibility to deal with Resident Canada goose damage. Canada goose damage abatement strategies and depredation orders, as well as registration and permit requirements that can be employed are found at <https://epermits.fws.gov/eRCGR/geSI.aspx>.

Management techniques that can be used to reduce resident Canada goose populations or deter them from using a specific area include goose removal, hunting, reproduction control, hazing, and altering habitat (e.g., shoreline vegetative buffer or barrier fencing). Hazing of Canada geese refers to simply scaring or harassing them into leaving an area. Hazing is allowed without a permit provided the birds are not actually handled by a person or attacked by a dog. Hazing techniques include the use of laser harassment, pyrotechnics, audible distress sounds, effigies or other visual frightening devices, habitat management, dogs and falcons, and repellents.

The Sea Girt NGJTC facilities management staff has used several techniques such as decoys, vehicle flushing, reproductive controls, and hazing by trained dog or laser to discourage resident Canada geese from using portions of the installation. Additionally, the feeding of Canada geese is strictly prohibited at the Sea Girt NGJTC. The NJDMAVA on behalf of the Sea Girt NGJTC has previously contracted Goose Control Technology of New Jersey and is currently contracting services from ASGECI to implement the goose control program. The NJDMAVA may continue to contract as needed to assist in the eradication of Canada geese onsite.

In 2011, the *Sea Girt NGJTC Health & Safety Goose Control Program Standard Operating Guide (SOG)* was issued outlining current management procedures (Appendix D).

Hazing, the primary means of goose control used onsite, is conducted in accordance with the following guidelines:

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- Hazing by dog is conducted by trained personnel and is limited to developed portions of the installation west of the dunes. Limiting the area in which trained dogs may access avoids potential impacts to non-target species such as the piping plover and least tern.
 - Laser harassment includes the use of a hand held laser to scare resident geese from roosting, feeding or drinking sites. Laser use procedures are outline in the *Sea Girt NGJTC Health & Safety Goose Control Program Standard Operating Guide* (Appendix D). Laser hazing is only conducted by trained Sea Girt NGJTC staff and is restricted from use on Stockton Lake.
 - Hazing is only conducted from April 1 through August 31 to avoid potential impacts to migratory Canada geese and other migratory birds such as the Atlantic brant.
 - Hazing is not conducted during the molting period for humane reasons. During molting, which typically occurs in June, adults undergo a replacement of their feathers and are unable to fly.

Currently, management techniques that have been implemented thus far have had limited success in reducing resident Canada goose conflicts at Sea Girt NGJTC to an acceptable level. Potential conflicts will continue to be monitored and management practices discussed above will continue to be implemented, as necessary. Additional alternatives to discourage resident Canada geese from using the installation may also be considered. These may include habitat management techniques such as altering mowing regimes or planting alternative ground covers. The Sea Girt NGJTC may also consider the use of eagle kite decoys as a means to deter geese from using the site. Eagle kites can be used to simulate a natural predator as a three-dimensional eagle with a wingspan of seven feet. The kite turns in a prey seeking circular motion that geese perceive as real and react by flushing the area, and with continual harassment will avoid the area all together. As with other means of harassment noted above, the eagle kite deterrent would only be conducted from April 1 through August 31 and not during the molting period. Decoy use would be limited to the parade grounds north and west of the eastern extent of the motorcycle training area (see Figure 2-2) to avoid impact to sensitive habitat (beach, dunes, wetlands, and Stockton Lake).

See Section 5.3 which further describes ongoing and planned Canada goose management measures to support the overall management goal of deterring resident geese from using the installation.

5.2.3 Fisheries Management

No fisheries resources exist within the Sea Girt NGJTC boundaries. Fisheries adjacent to the installation (Atlantic Ocean and Stockton Lake) are under the jurisdiction of the

National Oceanic and Atmospheric Administration (NOAA) Fisheries Service (formerly National Marine Fisheries Service [NMFS]), Atlantic States Marine Fisheries Commission, and New Jersey Marine Fisheries Council.

The NOAA Fisheries Service is responsible for managing Essential Fish Habitat (EFH) identified in the Magnuson –Stevens Fishery Conservation and Management Act. EFH is defined as “...those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” EFH for several species at various life stages is known to occur in the coastal waters of the Atlantic Ocean off of New Jersey. Though present adjacent to the NGJTC, no marine or fisheries resources exist within the boundaries of the facility. As such, these species are not expected to be impacted by activities occurring at the facility, therefore are not specifically addressed as part of this INRMP. However, habitat protection measures implemented under Land and Watershed Management (Section 4) and Rare Species Management (Section 6) support overall fisheries management goals. Additionally, Section 7 discusses recreational fishing which is permitted to authorized users at designated locations at the installation in accordance with federal and state regulations.

5.2.4 Natural Resources Law Enforcement

The NJARNG and/or NJDMAVA do not have in-house staffing assigned to or specifically trained for natural resources law enforcement. The property is fenced and posted against trespass. Any trespassers or others suspected of natural resources law violations are reported to local law enforcement and/or NJDEP.

5.3 PROJECT-SPECIFIC MANAGEMENT GOALS

Project-specific management goals which include ongoing and/or planned management measures for achieving goals for Fish and Wildlife Management are presented below and implementation information (e.g., staffing, funding, and schedule) is provided in Section 9. Fish and Wildlife Goal #1 is ongoing; however management measures developed to successfully reach this goal have been expanded on for the current implementation period.

Fish and Wildlife Goal #1 – Deter resident Canada geese from using the installation.

Priority Classification: Stewardship – Class 3

1. Within 5 years, reduce the number of resident Canada geese to no more than 20 and eliminate nesting onsite.
 - 1.1. Develop an annual resident Canada goose hazing plan including population survey protocol, management techniques and acquire permits for direct population controls.
 - 1.2. Conduct nest/population survey.
 - 1.3. Conduct resident Canada goose hazing/population controls as described in hazing plan. Continue hazing by laser harassment (conducted by trained personnel only) or trained dog and handler. Consider implementing use of eagle kite decoys as an additional hazing technique. Hazing may only be conducted during the period of April 1 through August 31, except during the molting period (typically June).
 - 1.4. Prepare annual summary report to evaluate Canada goose control measures.

SECTION 6

RARE SPECIES MANAGEMENT

6.1 PROGRAM DESCRIPTION AND OVERALL MANAGEMENT GOALS

For the purposes of this INRMP, the term "rare species" is used to refer to various plants and animals that warrant special management concern and are protected by law in some cases. Rare species include the following:

- Species listed or proposed as endangered or threatened, or designated as candidates for listing, by the USFWS under the Endangered Species Act (ESA) of 1973 (Public Law 93-205);
- Wildlife species listed as endangered or threatened by the NJDEP Division of Fish and Wildlife, ENSP under the New Jersey Endangered and Nongame Species Conservation Act of 1973 (N.J.S.A. 23:2A et seq.);
- Wildlife or plant species designated as a state species of concern by the ENSP or the New Jersey Natural Heritage Program, respectively; and
- Plants listed as endangered by the NJDEP Division of Parks and Forestry under the New Jersey Endangered Plant Species List Act (N.J.S.A. 13:1B-15.151 et seq.).

The overall rare species management goal for Sea Girt NGJTC is to conserve listed species in accordance with the ESA, Endangered Species Recovery Plans, U.S. Army regulations and guidance, and approved site-specific management plans, including Endangered Species Management Plans (ESMPs). The ESA requires that all federal agencies conserve listed species. Conservation, as defined by the ESA, means the use of all methods and procedures necessary to bring any listed species to the point where protection pursuant to the ESA is no longer necessary. The ESA specifically requires agencies not to "take" or "jeopardize" the continued existence of any endangered or threatened species, or to destroy or adversely modify habitat critical to any endangered or threatened species. Under Section 9 of the ESA, "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or expected to reduce appreciably the likelihood of the survival and recovery of a listed species by reducing its reproduction, numbers, or distribution.

Army policy on listed species includes the following elements: balancing mission requirements with endangered species protection, cooperating with regulatory agencies, and conserving biological diversity within the context of the military mission. As required by AR 200-1, the Army must ensure that it carries out mission requirements in harmony with the requirements of the ESA. All Army land uses, including military training and recreation, are subject to the ESA requirements for the protection of listed species and critical habitat. In

fulfilling its conservation responsibilities, the Army is required to work closely and cooperatively with USFWS, which is the federal agency responsible for enforcing the ESA for those listed species found at the Sea Girt NGJTC. Installations are encouraged to engage in informal consultation with USFWS while planning projects or activities to ensure ESA compliance. In conserving biological diversity, installation commanders and Army natural resource managers are required to develop and implement policies and strategies to maintain viable populations of native plants and animals, maintain natural genetic variability within and among populations, maintain functioning representations of the full spectrum of ecosystems and biological communities, and integrate human activities with the conservation of biological diversity.

AR 200-1 requires installations to prepare and implement an Endangered Species Management Component (ESMC) to the INRMP to address federally listed, proposed, or critical habitat designated or proposed on the installation(AR 200-1). The ESMC must establish specific goals and measurable objectives for the subject species and critical habitats. In addition, an ESMP is required at Sea Girt NGJTC by the USFWS' 2002 Programmatic Biological Opinion regarding the BECP and by the Coastal Area Facility Review Act permit issued by the NJDEP DLUR for beach raking. This INRMP serves as the ESMP for federal and state-listed species at Sea Girt NGJTC.

In accordance with AR 200-1, NJDMAVA will engage in informal Section 7 consultations at the earliest opportunity with the USFWS to ensure that proposed actions that may affect listed species or critical habitat are consistent with the requirements of the ESA. The CFMO-EMB is responsible for identifying actions at Sea Girt NGJTC that require ESA consultation and initiating the consultation process. The informal Section 7 consultation process is typically initiated by sending a written description of the proposed action and a map showing the location of the proposed action to the USFWS New Jersey Ecological Services Field Office in Pleasantville. Contact information for the USFWS is provided in Appendix C and a more detailed description of the ESA coordination/consultation process is provided in Chapter 4 of AR 200-1, which can be accessed on the Internet at the U.S. Army Publishing Agency Home Page (<http://www.apd.army.mil/>).

In addition to terrestrial wildlife, aquatic species are also provided federal protection. The National Oceanic Atmospheric Administration (NOAA) Fisheries Service is responsible for managing; marine mammals protected under the Marine Mammal Protection Act of 1972, marine or anadromous species protected under the Endangered Species Act (ESA), in addition to EFH (discussed in Section 5.2.3)

All marine mammals are protected under the Marine Mammal protection Act of 1972, therefore any occurring in coastal waters off the NGJTC such as bottlenose dolphin and harbor seal (previously observed in waters near the NGJTC) are afforded this protected. There are also four federally listed marine species that may occur in the coastal waters of Atlantic Ocean adjacent to the NGJTC; Atlantic leatherback sea turtle, fin whale, humpback whale, and northern right whale (as identified in Section 2). Though present adjacent to the NGJTC, no protected marine or fisheries resources exist within the boundaries of the facility. These species are not expected to be impacted by activities occurring at the facility, therefore are not specifically addressed as part of this INRMP. However, habitat protection measures implemented under Land and Watershed Management (Section 4) and Rare Species Management (Section 6) support overall marine species and fisheries management goals.

Species that are state-listed as threatened or endangered are not protected under the ESA. However, AR 200-1 also specifies that installations should cooperate with state authorities in efforts to conserve state listed species as a matter of responsible stewardship, when feasible. In addition, the installation has regulatory obligations to avoid take of State-listed species under provisions of the New Jersey Endangered and Nongame Species Conservation Act and Coastal Zone Management Rules. Species designated as state Species of Special Concern are not afforded regulatory protection and would be given a relatively lower management priority, if they were to occur at Sea Girt NGJTC. A summary of New Jersey agencies involved in rare species conservation is provided below:

- The NJDEP Division of Fish and Wildlife, ENSP is responsible for actively conserving New Jersey's biological diversity by maintaining and enhancing endangered and nongame wildlife populations within healthy, functioning ecosystems. The program is responsible for the protection and management of nearly 500 wildlife species, including the 83 species currently listed as endangered or threatened under the New Jersey Endangered and Nongame Species Conservation Act of 1973 (N.J.S.A. 23:2A et seq.).
- The NJDEP Division of Parks and Forestry, Natural Heritage Program is responsible for maintaining New Jersey's list of Endangered and Special Concern plants. The Natural Heritage Program also maintains the Natural Heritage Database, which is a continuously updated inventory of rare plants and animal species and representative ecological communities in New Jersey.
- Impacts to state-listed species that are associated with development and other activities are addressed during review and issuance of various environmental permits by the NJDEP DLUR (See Section 4 – Land and Watershed Management for descriptions of environmental permitting requirements).

The CFMO-EMB will engage in informal consultations at the earliest opportunity with these state agencies to ensure that the conservation of state-listed species is addressed during the planning process for proposed actions. In addition, this INRMP serves as an ESMP for federal and state-listed species. Appendix C provides contact information and Internet addresses for these agencies.

6.2 PROGRAM STATUS AND MANAGEMENT ISSUES

6.2.1 Overview

As summarized in Table 6-1, two federally-listed species (seabeach amaranth and piping plover) and three state-listed species (osprey, seabeach knotweed, and least tern) have been documented inhabiting (breeding/reproducing at) Sea Girt NGJTC. An additional 14 state-listed threatened or endangered birds and one federally-listed bird (see Table 2-4) have recently been identified onsite as a result of surveys conducted between 2007 and 2011. These include roseate tern (federally endangered), Henslow's sparrow, grasshopper sparrow, short-eared owl, cattle egret, northern harrier, horned lark, peregrine falcon, American kestrel, bald eagle, yellow-crowned night heron, black-crowned night heron, savannah sparrow, vesper sparrow, and black skimmer. None of these 15 species or the 30 Species of Special Concern identified in Appendix B have been documented as breeding at the Sea Girt NGJTC; however portions of the site do provide ecologically significant resources by supplying foraging, staging, and migratory stop-over sites to local or migrant species. Additionally, in 2011 a pair of American oystercatchers (State Species of Special Concern) initiated early nesting activities on the Sea Girt NGJTC beach within the historic piping plover nesting area. Two nest scrapes were identified and an individual from the breeding pair was observed sitting on one of the scrapes, however a nest was not produced and the pair eventually moved offsite (ASGECI, 2012a). Habitat management and species protections established in this INRMP are expected to collectively benefit all of these species and the habitat they utilize onsite. Should any of these species become established at the Sea Girt NGJTC, NJDMAVA will coordinate with USFWS and ENSP to determine the need for implementation of future species-specific management measures.

NJDMAVA has been working cooperatively with the USFWS and ENSP to monitor and manage listed species on the Sea Girt NGJTC beach since 2000. Prior to the development of the INRMP in 2006, interim management procedures and protection measures were developed and implemented through the informal consultation process with the USFWS and significant support from ENSP. In 2006, the management procedures set forth in the INRMP were formally adopted. In 2007, NJDMAVA contracted ASGECI to provide services

necessary to implement the INRMP during 2007 through 2013. Activities conducted for rare species management include a combination of site monitoring and onsite protection for the federally threatened target species piping plover and seabeach amaranth; and surveying or monitoring of state-listed species including least tern (state-endangered); seabeach knotweed (state-endangered); and osprey (state-threatened); maintenance and enforcement of rare species protection areas and; enforcement of endangered and threatened species policies; and education and awareness briefings for stakeholders utilizing the Sea Girt NGJTC.

Additionally, in 2009 A Draft Memorandum of Understanding (MOU) between NJARNG, NJDMAVA, NGB, and the WPWA was created under provisions of the INRMP for the Sea Girt NGJTC to cooperatively monitor beach-nesting birds (Appendix D). The WPWA is a charitable, non-profit organization whose focus is on the resources in and around Wreck Pond from the headwaters in Wall Township through Spring Lake Heights, Sea Girt, Spring Lake, and ultimately, the ocean. The WPWA has provided voluntary monitoring of rare species onsite since 2004. The purpose of the MOU is to provide the foundation for a formal monitoring and management partnership among members of the WPWA and NJDMAVA for rare species on the Sea Girt NGJTC. The Draft MOU has not yet been finalized. See Section 6.3.10 Rare Species Monitoring and Data Sharing for further detail.

No critical habitat has been designated under the ESA for the two federally-listed species. With the exception of osprey, threatened or endangered nesting bird and plant species have been limited to the Sea Girt NGJTC beach and foredune areas. The documented occurrences of rare species at the installation are relatively recent (i.e., since 2000). Nesting least terns were first documented in 2000, followed by seabeach amaranth in 2001, nesting piping plovers in 2002, seabeach knotweed in 2003, and nesting ospreys in 2004.

The occurrence of beach-nesting birds and beach plants at the installation generally corresponds to increases in populations of these species that have been observed along the Monmouth County shore since 1997. In 1994, the Corps initiated construction on the Atlantic Coast of New Jersey Sandy Hook to Barnegat Inlet BECP. The project included beach nourishment along 21 miles of shoreline in Monmouth County. Beach nourishment for the project section that included the Sea Girt NGJTC beach was completed in August 1999. Prior to initial beach nourishment, there were no known records of piping plovers nesting on beaches between Sea Bright and Manasquan inlet, and the likelihood of plovers colonizing this area was low due to the narrow width of the beaches. In addition, seabeach amaranth had been considered extirpated from New Jersey since 1913 and from Monmouth County since 1899 (USFWS, 2004).

From experience with similar beach nourishment projects in other parts of New Jersey, the USFWS began advising the Corps in 1995 that piping plovers might nest in the BECP area if beach nourishment created suitable habitat. In response, the Corps, USFWS, and ENSP have partnered since 1996 to conduct annual endangered species surveys in the project area (USFWS, 2004). The rare beach species at Sea Girt NGJTC have been documented during these surveys conducted by USFWS and ENSP. The following subsections provide additional information about each of the rare nesting birds and plants that have been documented at the installation.

**TABLE 6-1
RARE NESTING BIRDS AND PLANTS AT SEA GIRT NGJTC**

Scientific Name	Common Name	Federal Status	State Status	General Location
<i>Amaranthus pumilus</i>	Seabeach amaranth	T	E	Beach
<i>Charadrius melodus</i>	Piping plover	T	E	Beach
<i>Pandion haliaetus</i>	Osprey	NL	T (BR)	Adjacent to Stockton Lake
<i>Polygonum glaucum</i>	Seabeach knotweed	NL	E	Beach
<i>Sterna antillarum</i>	Least tern	NL	E	Beach

Source: Various unpublished USFWS, ENSP, and ONLM reports.

T=threatened, E=endangered, NL=not listed, BR=breeding population only.

Note – Table does not include species such as transient or migrant species that are not known to breed or reproduce onsite.

6.2.2 Piping Plover

Piping plovers are small, migratory, territorial shorebirds present on the New Jersey shore between March and August. This species nests above the high tide line on sandy ocean beaches and barrier islands within gently sloping foredunes, blowout areas behind primary dunes, washover areas cut into or between dunes, the ends of sandspits, and deposits of suitable dredged or pumped sand. Although piping plovers are territorial toward their own species, they often nest in the vicinity of least tern colonies, benefiting from the terns' aggressive predator defenses. Piping plover nests consist of a shallow scrape in the sand, frequently lined with shell fragments and often located near clumps of vegetation. Piping plovers usually lay four eggs, which hatch in approximately 27 to 30 days. After hatching, the precocial chicks are led by their parents to feed on marine invertebrates such as worms, fly larvae, beetles, and crustaceans. Feeding areas include intertidal zones of ocean beaches, ocean washover areas, mudflats, sandflats, wrack lines (organic ocean material left by high tide), and

the shorelines of coastal ponds, lagoons, and salt marshes. Chicks fledge after about 25 to 35 days (USFWS, 2004 and USFWS, 1996a).

Threats to the piping plover include habitat loss, human disturbance of nesting birds, predation, oil spills, and other contaminants. Habitat loss results from development, as well as beach stabilization and other physical alterations to the beach ecosystem. Development along the Atlantic shoreline for residential and commercial uses, and the subsequent stabilization of the once shifting and dynamic beach ecosystem via seawalls, breakwaters, jetties, and groins, have resulted in the destruction and alteration of natural beaches to such an extent that many beaches no longer provide suitable piping plover habitat. Human disturbance of nesting birds includes foot traffic, sunbathing, kite flying, pets, fireworks displays, beach raking, construction, and vehicle use. These disturbances can result in nest abandonment, crushing of eggs, failure of eggs to hatch, and reduced survival of chicks. Predation on piping plover chicks and eggs is intensified by development because predators such as foxes, crows, gulls, and raccoons thrive in developed areas, and are attracted to beaches by food scraps and trash. Unleashed and feral dogs and cats also prey on piping plover chicks and eggs (USFWS, 2004 and USFWS, 1996a).

Data from piping plover surveys conducted at Sea Girt NGJTC by cooperating parties including the ENSP, ASGECI, and the WPWA from 2000 through 2011 are summarized in Table 6-2. A pair of piping plovers nested on the Sea Girt NGJTC beach in 2002. However, the pair's nest of four eggs never hatched. Individual, unpaired adults were observed in 2000, 2002, and 2003. A pair of piping plovers was observed during the week of April 19, 2004, but they did not establish a nest at Sea Girt NGJTC. Unpaired adults were observed onsite during the 2005 and 2006 breeding season, however no courtship or nesting behavior was observed. The 2007 season was the first season in which a nest was successfully hatched at the Sea Girt NGJTC. One chick of the four egg nest hatched but expired shortly after. A necropsy coordinated by the USFWS revealed that the chick died from pneumonia and its stomach was empty. Piping plovers have been documented onsite during the early spring of 2008 through 2011; however no nests or potential breeding activity has been observed onsite since 2007.

During the 2009 breeding season, a pair of piping plovers and a single chick that had originated from the Wreck Pond beach (located approximately one mile north) migrated to the Sea Girt NGJTC. The chick moved several times between Wreck Pond and the Sea Girt NGJTC using the site as an alternate foraging habitat and refuge before fledging which is estimated to have occurred on July 16, 2009.

Piping plover habitat use at NGJTC may be limited in part, by a combination of dense vegetation cover, erosion, and the presence of foxes. Seasonal vegetation data between 2008 and 2010 shows a trend toward increasingly dense American beachgrass population within much of the Study Area (See Section 6.3.2.1). In spite of its compromised quality, the Sea Girt NGJTC beach remains important habitat for piping plover, as illustrated in 2009.

TABLE 6-2
SUMMARY OF PIPING PLOVER SURVEY DATA FOR SEA GIRT NGJTC, 2000 – 2011

Year	Pairs¹	Unpaired Adults Observed	Nests	Eggs Laid	Chicks Hatched	Chicks Fledged
2000	0	Yes	0	0	0	0
2001	0	Yes	0	0	0	0
2002	1	Yes	1	4	0	0
2003	0	Yes	0	0	0	0
2004	1	No	0	0	0	0
2005	0	Yes	0	0	0	0
2006	0	Yes	0	0	0	0
2007	1	Yes	1	4	1	0
2008	0	Yes	0	0	0	0
2009	0	Yes	0	0	0	0 ²
2010	0	Yes	0	0	0	0
2011	0	Yes	0	0	0	0

1. Pairs refer to a male and female that display courtship or nesting behavior.

2. On June 25, 2009, a pair piping plovers and a single chick had migrated from the Wreck Pond beach (approximately one mile north), where it had hatched, to the southern portion of the NPA at the NGJTC. The chick moved several times between Wreck Pond and NGJTC before fledging around July 16, 2009. The chick was considered to have fledged from the Wreck Pond beach.

6.2.3 Seabeach Amaranth

Seabeach amaranth is an annual plant endemic to Atlantic Coast beaches and barrier islands, and usually grows on a pure sand substrate. The plant's primary habitats include overwash flats at accreting ends of islands, lower foredunes, and upper strands of non-eroding beaches (landward of the wrack line). Seabeach amaranth occupies a terrestrial upper beach habitat; between eight inches and five feet above mean high tide. The plant is intolerant of even occasional flooding during the growing season, May through late fall. The habitat of seabeach amaranth is sparsely vegetated with annual herbs, and less commonly, perennial herbs (mostly grasses) and scattered shrubs. Vegetative associates of seabeach amaranth include sea rocket, seaside spurge, and other species of open, sandy beaches. Seabeach

amaranth is a species of early successional beach habitats, and is intolerant of competition. It does not occur on well-vegetated sites, especially where perennials have become established. The species shows a particularly strong negative association with American beachgrass. Seabeach amaranth is often associated with beaches managed for protection of beach-nesting birds. As an annual plant that relies on seed production, dispersion, and germination to reproduce, population size and locations of individual plants within suitable habitat can vary substantially from year to year. Threats to seabeach amaranth include beach stabilization (particularly the use of beach armoring, such as sea walls and riprap), intensive recreational use, and herbivory by moth caterpillars such as webworms (*Pyralidae*) (USFWS, 2004 and USFWS, 1996b). Data from seabeach amaranth surveys conducted at Sea Girt NGJTC by the NJDEP Division of Parks and Forestry, Office of Natural Lands Management (ONLM) and ASGECI from 2001 through 2011 are summarized in Table 6-3.

Seabeach amaranth surveys conducted by the NJDEP revealed the presence of seabeach amaranth between 2001 through 2006. ASGECI had assisted in surveys conducted from 2007 through 2011. The greatest number of plants at Sea Girt NGJTC occurred in 2002 with 18 plants identified. During 2005, 12 plants were identified and during 2006, four plants were identified. After two consecutive years without an observation, three plants were identified during the 2009 season. No seabeach amaranth plants were identified in 2010 or 2011.

Populations of seabeach amaranth are declining regionally since an initial explosion in population from around 2000 to 2004. New Jersey plant numbers dropped from 6,522 in 2006 to 2,185 in 2007 (ASGECI 2011). Diseases may be responsible for some population loss; however, habitat loss and lack of beach nourishment projects that may have deposited old seed from off shore onto the beaches is suspected as the primary reason for major population decline. Seabeach amaranth was expatriated from New Jersey from around 1913 until it was rediscovered in 2000. Its return roughly corresponds with the onset of beach nourishment projects conducted by the Corps and several large storms that have occurred locally.

TABLE 6-3
SUMMARY OF SEABEACH AMARANTH SURVEY DATA FOR SEA GIRT NGJTC,
2001 - 2011

Year	Plants
2001	1
2002	18
2003	6
2004	9
2005	12
2006	4
2007	0
2008	0
2009	3
2010	0
2011	0

6.2.4 Least Tern

Present on New Jersey beaches from early May through early September, least terns nest in colonies on sandy beaches above the high tide line, and occasionally on sandy fill on bay islands. The birds lay one to three eggs in a nest scraped in the sand. Eggs hatch after about 21 days. Adult birds feed a diet of fish to the chicks, which remain in the colony for two to three weeks, until they fledge, usually between mid-July to mid-August. All adults in the colony participate in defending eggs and chicks against predators and human disturbance. Threats to the least tern include habitat loss, human disturbance of nesting birds, predation, flooding, oil spills, and other contaminants (USFWS, 2004, USFWS and ENSP, undated). Data from least tern surveys conducted at Sea Girt NGJTC by the ENSP from 2000 through 2011 are summarized in Table 6-4. Specific causes of the least tern population and nesting success fluctuations observed at Sea Girt NGJTC since 2000 are unknown. However, several factors could be contributing to the observed fluctuations, including changes in habitat suitability due to beach erosion, dune plant succession, or other influences and disturbance by predators.

TABLE 6-4
SUMMARY OF LEAST TERN SURVEY DATA
FOR SEA GIRT NGJTC, 2000 - 2011

Year	Adults	Nests	Chicks Fledged
2000	15	4	15
2001	197	101	14
2002	48	12	9
2003	26	4	0
2004	0	0	0
2005	2	1	0
2006	0	0	0
2007	0	0	0
2008	0	0	0
2009	0	0	0
2010	0	0	0
2011	0	0	0

6.2.5 Seabeach Knotweed

Seabeach knotweed occurs along the Atlantic Coast on sandy beaches, dunes, dune-hollows, coastal pond shores, and margins of saline marshes. Most seabeach knotweed occurrences in New Jersey are on sandy beaches where the plants generally occur above the limit of the tide. Seabeach knotweed is a pioneer species of unstable habitats created by washovers and active sand deposition. Flowering and fruiting take place from May to November. Vegetative associates include American beachgrass and seabeach spurge. The species is considered rare throughout most of its range. Threats include off-road vehicles, mechanical beach raking, and beach reclamation projects (Schuyler, 1990). Seabeach knotweed was first documented at Sea Girt NGJTC by the USFWS during a site visit conducted on July 23, 2003. Two plants were identified by USFWS in 2004, one in 2005, and five in 2006. No plants were found during surveys conducted from 2007 to 2011 by both USFWS and surveys conducted by ASGECI.

6.2.6 Osprey

The osprey is a large raptor with a wingspan of four and one-half to six feet. As a fish-eating species, the osprey is strictly associated with bodies of water that support adequate fish populations. Consequently, ospreys inhabit coastal rivers, marshes, bays, and inlets, as well as inland rivers, lakes, and reservoirs. Ospreys nest on live or dead trees, man-made nesting platforms, light poles, cellular phone towers, channel markers, abandoned duck blinds, or other artificial structures that are in proximity to fishing areas and offer an unobstructed view of the

surrounding landscape. Territories typically contain poles, snags, or structures near the nest on which the osprey perch. Ospreys generally return to New Jersey in late March, and take up nesting in April.

Osprey populations in New Jersey experienced substantial population declines in the late 1800s and early 1900s due to habitat loss, eradication of nest trees, egg collecting, and shooting. Further declines attributable to the pesticide dichloro-diphenyl-trichloroethane (DDT) and other contaminants occurred from approximately 1946 through 1975. However, populations have been increasing in New Jersey and elsewhere due to the ban of DDT, reintroduction of healthy eggs, construction of nesting structures, and the osprey's acceptance of artificial nest sites. The New Jersey population grew from a low of 68 pairs in 1975 to 366 pairs in 2003, the majority of which were located along the Atlantic Coast (NJDEP, 2004 and Todd Pover, personal communication).

A pair of ospreys nested at Sea Girt NGJTC for the first time during 2004 and successfully fledged two chicks. The nest was located along Stockton Lake in a temporary cellular phone tower owned and operated by a private company. The company constructed a permanent cellular phone tower on the installation and removed the temporary equipment following the 2004 nesting season. A second nest was established on the permanent tower during 2005 and in multiple seasons since.

The presence of a large nest in the cellular phone tower could lead to operational and maintenance issues. Cellular phone companies are permitted to disturb an osprey nest to conduct operation and maintenance activities when conducted outside of the nesting period of April 1st to August 31st (NJDFW, 2012b). However, companies often opt for providing and encouraging use of an alternative nest site to resolve such issues and avoid future timing restrictions. Attempts to deter osprey from nesting at a chosen site without providing an alternative nesting platform are rarely successful because ospreys have tenacious nest site fidelity. However, ospreys readily accept alternative nesting platforms, especially if a few armloads of sticks from the old nest are scattered on the new platform. Effective nest deterrent devices are a vital component of any nesting relocation project and are used to encourage nesting pairs to accept the alternative platform.

In August of 2008, Sea Girt NCTC received approval from the NJDEP for a Coastal General Permit #22 for Avian Nesting Structures to erect an alternate nest platform. The pole and platform were installed adjacent to Stockton Lake on September 16, 2008. The pole and platform was constructed by ASGECI and is approximately 25 feet above ground and set 5

feet below ground. Some branch material was attached with strings to the base of the platform to encourage nesting.

Currently, there are no deterrents on the cellular tower to encourage nest movement to the platform and the breeding pair continues to use the cellular tower. The Sea Girt NGJTC and the cellular tower owner, in consultation with ENSP, are considering various deterrents that would prevent the ospreys from nesting on the tower. The CFMO-EMB Natural Resources Manager will continue to monitor the nesting activity and report the findings to the ENSP annually.

6.2.7 Rare Species with Potential to Occur at Sea Girt NGJTC

Although the following rare nesting bird and plant species have not been documented nesting/growing at Sea Girt NGJTC, they might colonize the beach in the future, based on the availability of potentially suitable habitat. Each of the rare bird species have been documented onsite, however are not known to have nested at the installation:

- American oystercatcher (*Haematopus palliatus*) – beach-nesting shorebird, state Species of Special Concern;
- Black skimmer (*Rynchops niger*) – colonial beach-nesting sea bird, state-listed as endangered;
- Common tern (*Sterna hirund*) - beach-nesting sea bird, state Species of Special Concern
- Seabeach evening primrose (*Oenothera humifusa*) – beach and dune habitats, state-listed as endangered;
- Sea-milkwort (*Glaux maritima*) – beach and salt marsh habitats, state-listed as endangered;
- Seabeach sandwort (*Honckenya peploides*) – beach and dune habitats, state Species of Special Concern; and
- Seabeach purslane (*Sesuvium maritimum*) – beach habitats, state Species of Special Concern.

The habitat management and species protections established in this INRMP are expected to be sufficient to protect these species if they should become established. The NJDMAVA would work cooperatively with the USFWS, ENSP, and ONLM to manage the state-listed endangered species, if they colonize the Sea Girt NGJTC beach.

6.3 BEACH MANAGEMENT

6.3.1 Introduction

This section discusses specific management issues and defines management practices for rare nesting bird and plant species that occur in the beach area at Sea Girt NGJTC. These species include piping plover, seabeach amaranth, least tern, and seabeach knotweed. Management practices for these species are integrated because they share common habitats and management issues.

6.3.2 Description of Beach

6.3.2.1 Physical Attributes

The Sea Girt NGJTC beach consists of approximately 12.4 acres from the foredune to mean high tide. The beach is approximately 1,980 feet long by 270 feet wide. Three riprap groins are located along the installation's shoreline and additional groins are located to the north and south. The seaward side of the dunes has been reinforced with a concrete seawall, portions of which are exposed or partially covered with sand.

Beach Topography

ASGECI analysis of Sea Girt NGJTC beach topography during each fall between 2008 and 2010 revealed seasonal intertidal decreases in elevation of 3 to 6 feet. Other portions of the beach, including much of the primary dune community, generally underwent increases or decreases in elevation of approximately one foot during the study period. Many areas accumulated one foot or more of sand as a result of fall and winter storm overwash. Generally dune peaks remained at elevations of 15-17 ft. AMSL. Higher elevations occurred along the westernmost portions of the primary dunes where sand accumulated against the sea wall and other structures. Elevations in these areas reached 20-25 ft. AMSL. Similar maximum dune elevations were identified in the 2006 INRMP.

Since 2007, ASGECI typically observed a partial replenishment, leveling and stabilization of beach sand along the dune toe and intertidal zone each spring. This seasonal replenishment tempers some of the storm-driven fluctuations from the previous fall/winter storm season. This leveling effect varied each spring and in some seasons was less apparent and habitat appeared less suitable for nesting piping plover. Hurricane Irene in August of 2011 eroded portions of the primary dunes at levels that appear greater than storms evaluated during the topographic study period, however elevation data was not taken after this event.

Due to the seasonal influence of storm intensity and frequency on the Sea Girt NGJTC beach topography, periodic seasonal topographic analysis would be required in the future determine long term topographic trends. It would be expected that continued sea level rise due to global warming may ultimately lead to greater erosion in decades to come, particularly without any future artificial beach replenishment.

Dune Vegetation

The dunes are well vegetated and include areas classified as coastal dune grass (primary dune), coast dune shrubland (secondary dune), and successional/disturbed dune. The foredune areas are also vegetated with American beachgrass. Vegetation in the foredune area increased substantially following beach nourishment by the Corps in 1999. Areas north and south of the Sea Girt NGJTC installation generally lack well-established dunes. However, approximately one-mile to the north a vegetated dune system approximately 250 meters in length exists at the Wreck Pond beach.

Between 2008 and 2010, ASGECI collected vegetation and topographic data from the coastal dune grass (primary dune) community. For this study, multiple qualitative and quantitative vegetation assessment parameters and observations of abiotic conditions were incorporated to create a profile of beach habitat conditions. The three year dataset indicates that American beachgrass represents approximately 80% of all beach vegetation cover and composition at the height of the growing season (ASGECI, 2010b). Mean beachgrass cover levels within the entire study area range from approximately 40-50%. Several other species contribute to cover and composition in significantly smaller amounts. These species include seaside goldenrod which is typically under 10%; as well as sea rocket, salt meadow cordgrass, and northern bayberry, which each represent under 5% of total of beach vegetation species cover during the peak of the growing season. About 20 other species have represented one percent or less of cover and composition (ASGECI, 2010b) during various study seasons.

Over much of the primary dune, the distribution of vegetation cover is somewhat patchy. The primary dune contains extremely dense patches of American beachgrass (80-100% cover) interrupted by occasional bare sandy areas that generally contain greater amounts of beachgrass community associates. These sparse areas contain greater amounts of sea rocket, purple sandgrass or seaside spurge.

The Sea Girt NGJTC primary dune toe and adjacent intertidal areas, are topographically dynamic and vegetation cover fluctuates substantially from season to season depending on the frequency and severity of large storms, high tides and high wind. American

beachgrass responds positively to this dynamic environment and tends to rapidly recover disturbed areas, particularly those areas where seasonal sand accretion of around one foot has occurred.

6.3.2.2 Beach Management Responsibility

The NJDMAVA owns Sea Girt NGJTC. The boundary extends east to the mean high tide line. Areas between mean high tide and mean low tide are considered tidelands and are owned by the State of New Jersey. The Adjutant General has overall management responsibility for all NJDMAVA-owned property and the Director, Sea Girt NGJTC has responsibility for day-to-day management of the installation. The Borough of Sea Girt provides lifeguard and beach raking services for the Sea Girt NGJTC beach via agreements with NJDMAVA. The Sea Girt NGJTC beach has been part of the Atlantic Coast of New Jersey Sandy Hook to Barnegat Inlet BECP, which is sponsored by the Corps and NJDEP.

6.3.2.3 Beach Access and Use

The beach can be accessed by authorized personnel from the installation via two sand roadways located on the northern and southern ends of the beach (Figure 6-1). The southern end serves as the primary access point for recreational use and includes a pedestrian walkway for authorized recreational users. General public access to the beach is not provided through the installation. However, the general public can access the area from the north and south via the beach. Military training conducted on the beach and recreational uses of the beach are described in Sections 6.3.8 and 7.2, respectively.

6.3.3 Restricted Areas

Restricted areas referred to in this INRMP include the northern and southern rare species protection areas, the no rake zone, the 100-meter vehicle buffer around the northern protection area, and any additional area that may be established as necessary to protect any rare plant.

6.3.3.1 Northern and Southern Rare Species Protection Areas

Two rare species protection areas (northern and southern) have been established at the Sea Girt NGJTC beach to protect rare species habitat and minimize human disturbance. The rare species protection area boundaries are depicted in Figure 6-1 and are based on previously identified beach-nesting bird and seabeach amaranth locations. The boundaries have been mapped and the data are contained in the NJARNG GIS. The northern rare species protection area (NPA) is approximately 870 feet long by 180 feet wide, covers 3.3 acres. The NPA has been established in the same general location since 2001. The southern rare species protection

area (SPA) covers approximately 1.3 acres. The SPA was established for the first time in 2005. Perimeters of the protection areas change slightly each season based on site conditions including dune vegetation expansion or beach erosion. All piping plover and least tern nesting activity to date has occurred within the NPA. All but one documented seabeach amaranth locations to date have been within the NPA or SPA boundary established for that season. Figure 6-1 depicts the location of those rare species where GIS locations were collected. GIS data for the 2002 piping plover nest and all least tern nests documented onsite were not available.

Symbolic fencing, which consists of posts, string, and signage, is used to delineate the rare species protection areas in the field. The signage notes that the area is closed to protect rare species and provides information about prohibited activities. The rare species protection areas will generally be maintained as an off-limits area year round. However, the period in which the string fencing will be installed officially begins March 15 through December 1, but pending conditions may be installed as late as the first week in April. These dates include the period when beach-nesting birds and/or rare beach plants might be present. ENSP/NJDMAVA staff will install the protection area fencing each year and cooperatively maintain the fencing through August 31. Sea Girt NGJTC, CFMO-EMB, and ENSP staff will maintain the fencing from September 1 through December 1, and will remove the fencing after December 1. At the discretion of ENSP, protection area fencing may be removed earlier than December 1 based on rare species activity level or in anticipation of severe weather conditions. The NJDMAVA will provide fencing materials and signs for the SPA, while the ENSP will provide materials for the NPA. NJDMAVA materials and signs are stored at Sea Girt NGJTC. Several management practices, which are described in the following subsections, are applicable to the rare species protection areas.

Future distributions of rare species on the Sea Girt NGJTC beach are expected to be limited to the two established protection areas based on historic data and current habitat suitability. Nonetheless, habitat conditions are expected to change over time based on several factors including beach erosion and planned Army Corps of Engineers beach re-nourishment cycles. Additionally, once piping plover chicks hatch they become highly mobile. Therefore, rare species may occur outside the protection areas. Accordingly, the following management practices have been established to ensure protection of species that might occur outside the established protection areas:

- Surveys and monitoring are conducted as described in Section 6.3.10 to identify rare species that might occur outside the protection areas.

-
- Boundaries of the existing rare species protection areas are evaluated annually and modified accordingly by the NJDMAVA, USFWS, and ENSP based on survey results, beach erosion, and beach re-nourishment.
 - Any piping plover and/or least tern nests found outside the rare species protection areas will be fenced immediately by the ENSP and NJDMAVA, providing a sufficient buffer to prevent disturbance of nesting birds. In addition, protection area fencing will be extended as needed upon detection of territorial birds, courting birds, or highly mobile chicks moving outside the protection areas. The ENSP, NJDMAVA, and WPWA will continue to monitoring nests and enforce buffers. The protection measures outlined in this section, including those for unfledged chicks, will be implemented in coordination with the USFWS and ENSP. The protection measures will be implemented in a manner that affords adequate protection to the species, while minimizing impacts to the military mission, including recreational use of the beach.

6.3.3.2 No Rake Zone

A "no rake zone" has been established in front (seaward) of the NPA* (Figure 6-1). Beach rake operation is prohibited in the "no rake zone" from March 15th through December 1st. This habitat is important feeding area for unfledged piping plover chicks. Beach raking removes natural substrate which piping plovers forage upon. As with other vehicles, beach rakes also have the potential to inadvertently run over unfledged chicks foraging seaward of the NPA. Additional discussion on vehicle usage and beach raking restrictions can be found below (Sections 6.3.3.3, 6.3.5, and 6.3.6).

**The "no rake zone" shall extend from the eastern limit of the NPA to the western limit of the Atlantic Ocean, however in the event of natural processes that may result in changes to the boundaries of the NPA or current dune area; the "no rake zone" shall extend westward to the base of the concrete seawall.*

6.3.3.3 100-meter Vehicle Buffer

This buffer is established around the NPA when piping plover nests, unfledged piping plovers, and/or least tern chicks are present. The purpose of this protection measure is to prevent the unintentional crushing of chicks and/or eggs. Detailed discussion of implementation of vehicle restrictions can be found in Section 6.3.5.

6.3.3.4 Rare Plant Protection Area

This area(s) is established if seabeach amaranth and/or seabeach knotweed are identified outside the NPA and/or SPA. The purpose of establishing this area is to prevent vehicular and/or pedestrian traffic from trampling the plant. String and post symbolic fencing

shall be erected by NJDMAVA around the limits of the plant or group of plants to include a 3 meter buffer. Alternatives to this approach will be implemented in coordination with USFWS, if such fencing restricts routine use of the beach.



Management Practices

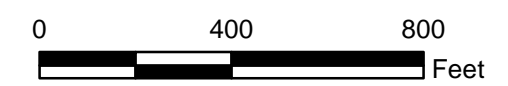
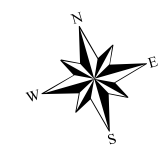
- Entire Beach
- No privately owned vehicle use year round.
 - No pets year round.
- Protection Areas (March 15 - December 1)
- No pedestrian access.
 - No beach raking.
 - Emergency vehicles only.
- No Rake Zone (March 15 - December 1)
- No mechanical beach raking.
 - No watercraft launching.
- No Rake Zone (Eggs or Unfledged Chicks Present)
- Emergency vehicles only.
 - Other authorized vehicles use alternative vehicle route.
- 100-Meter Vehicle Free Zone
- No vehicles when eggs or chicks present.

Figure 6-1
Sea Girt NGJTC
Rare Species Protection Areas
and E&T Species Locations

New Jersey Army National Guard

Legend

- Sea Girt NGJTC Boundary
- Northern Protection Area
- Southern Protection Area
- 100-m Vehicle Buffer Boundary
- No Rake Zone
- Primary Dune
- Alternative Vehicle Route
- Physical Training Area
- Piping Plover Nest Location (2007)
- Osprey Nest Location
- Sea Beach Amaranth Location (2001)
- Sea Beach Amaranth Location (2002)
- Sea Beach Amaranth Location (2003)
- Sea Beach Amaranth Location (2004)
- Sea Beach Amaranth Location (2005)
- Sea Beach Amaranth Location (2006)
- Sea Beach Amaranth Location (2009)



Data Source: Facility Areas provided by Amy S. Greene Environmental Consultants, Inc., based on 2010 topographic survey and fieldwork conducted during the 2011 monitoring season. Piping Plover Nest and Sea Beach Amaranth Locations from the 2010 NJARNG geodatabase which incorporates E&T reporting from previous years.

Scale:	As Shown
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Figure Number:	6-1



6.3.4 Pedestrian Traffic and Pets

General pedestrian beach use is prohibited in the rare species protection areas at all times. Entrance in the protection areas (when plovers are not present) is limited to designated rare species monitors or by others if required for a bona-fide emergency. The Sea Girt NGJTC parking lot is open to visitors from March 15 through December 1. Residents and others accessing the Sea Girt NGJTC beach from the Sea Girt and Manasquan Borough beaches are allowed to travel on foot through the beach area year round. Most recreational activity on the beaches occurs during the summer months and peaks during summer weekends and holidays. Crowds and pedestrian traffic during peak activity times are typically most concentrated on the Sea Girt NGJTC beach south of the NPA.

Physical training activities also occur on the Sea Girt NGJTC beachfront such as beach runs and group exercises. These activities are limited to a designated Physical Training Area whenever piping plover chicks are present onsite (see Figure 6-1). When implementation of the Physical Training Area occurs, all other portions of the Sea Girt NGJTC beach will be closed to physical training activities. After chicks have fledged, activities such as running are permitted to enter through the “no rake zone” and other portions of the beach so long as individuals remain outside the limits of the rare species protection areas. See section 6.3.10.1 for additional pedestrian considerations and restrictions when beach nesting birds are present.

Pets are not allowed on Sea Girt NGJTC property, including the beach, year round. K-9 units may access the beach when actively responding to a bona-fide emergency; however at all other times they must be kept on a leash and kept at least 50 meters from the rare species protection areas. Trained goose control dogs may access portions of the property, but at no time are they allowed on the dunes and beach, or within the rare species protection areas. See Section 6.3.11 Predator Control for additional information on pet controls measures.

6.3.5 Vehicle Use

Vehicle use on the Sea Girt NGJTC is limited to access for military training activities, municipal law enforcement patrols, lifeguards, and beach maintenance activities (i.e., beach raking). Beach raking (see Section 6.3.6) and lifeguard patrols comprise a majority of the vehicle use on the Sea Girt NGJTC beach. The Borough of Sea Girt guards the beach daily during the season (approximately late May through early September) to provide emergency response and identify hazards so that emergencies can be avoided. Lifeguards conduct routine vehicle patrols of the entire beach several times each day to ensure that beach surveillance is accomplished in areas that cannot be viewed from the lifeguard stands. During these patrols,

equipment (e.g., life rafts, wheelchairs, etc.) and personnel are transported to the lifeguard stands, and necessary coordination and supervision is provided to the lifeguards staffing the stands. The following management practices apply to vehicle use at the Sea Girt NGJTC beach:

- Privately owned vehicle use is prohibited on the entire beach year round. A parking lot for authorized recreational beach users is provided near the southern beach access.
- With the exception of emergency vehicles actively responding to a bona-fide emergency, vehicle use is prohibited within the rare species protection areas (Figure 6-1) from March 15 through December 1. Emergency vehicles are defined as military vehicles, ambulances, fire apparatus, and other emergency response equipment responding to an emergency call. Emergency vehicles do not include routine lifeguard traffic, vehicular law enforcement patrols, military vehicles conducting routine training, or routine facility maintenance activities. However, routine lifeguard patrols may drive through the “no rake zone” in front of the NPA as long as no piping plover and/or least tern chicks are present and/or no adult piping plover/least terns are exhibiting mating behavior and/or constructing a nest scrape as identified by the USFWS and ENSP in consultation with the NJDMAVA.
- In an effort to minimize overall vehicle use on the Sea Girt NGJTC beach, the beach rake will always access the southern portion of the beach via either the installation's main entrance and the southern beach access point or by exiting at the northern beach access, following the alternate vehicle access route, and re-entering at the southern beach access. See Section 6.3.6 for additional information on beach raking.
- Additional protection measures are implemented as soon as piping plover or least tern eggs or unfledged chicks are identified on the Sea Girt NGJTC beach. These management practices are necessary to avoid crushing chicks or creating tire ruts, which can trap chicks moving towards the water to feed. Beginning vehicle access restrictions at the onset of egg-laying will allow natural processes to smooth out deep tire ruts and allow for additional undisturbed feeding and breeding activities of the nesting birds. The presence of nests/unfledged chicks will be determined and communicated to appropriate individuals (including Borough of Sea Girt personnel) in accordance with the monitoring/communication procedures described in Section 6.3.10. The additional protection measures continue until chicks have fledged. For the purposes of vehicle management, plover chicks are considered fledged at 35 days of age or when observed in sustained flight for at least 15 meters, whichever comes first. The following protection measures will be implemented if and when piping plover nests, unfledged piping plover, and/or least tern chicks are present:

-
1. All routine vehicle use will be immediately restricted within the “no rake zone” (Figure 6-1) and within the 100-meter protection area buffer (see number 2 below) when **eggs or unfledged chicks** are present. Routine vehicle use includes routine lifeguard traffic, vehicular law enforcement patrols, military vehicles conducting routine training, and routine facility maintenance activities. Sea Girt NGJTC or CFMO-EMB staff will install detour signs at the northern and southern limits of the no rake zone. Vehicles will access the southern portion of the beach, when necessary, by exiting at the northern beach access, following the alternate vehicle access route, and reentering at the southern beach access (Figure 6-1).
 2. A 100-meter vehicle-free zone will be established around the NPA (Figure 6-1). Signs installed by Sea Girt NGJTC or CFMO-EMB staff will mark this zone.
 3. An agency responding to a bonafide emergency (i.e. Lifeguards, police, and/or fire departments) which requires them to enter the NPA, SPA, no rake zone, and/or 100-meter vehicle-free buffer shall report each incident to the CFMO-EMB Natural Resources Manager no later than 24 hours after responding to the emergency. The report shall include each vehicle use, date, time, operator, responding agency, agency point of contact, and the purpose of the emergency response.
 4. Upon hatching or notification by ENSP or USFWS of the date which is two days prior to a predicted hatch date, whichever is sooner, until notification of fledging or mortality, all non-emergency essential use of motorized vehicles **outside of the restricted areas**, including non-emergency use of lifeguard ATVs, lifeguard trucks, Sea Girt Department of Public Works motorized vehicles such as beach rakes, military vehicles, and Sea Girt NGJTC maintenance vehicles must adhere to the following protection measures:
 - Vehicle use on the beach will be limited to during daylight hours only. Vehicle speeds will not exceed five miles per hour.
 - Every vehicle will contain a map of non-emergency vehicle restricted areas.
 - A pedestrian escort will always precede each moving vehicle walking approximately 10 feet ahead of each vehicle.
 - The agency conducting the vehicle operation shall notify the CFMO-EMB Natural Resources Manager, Sea Girt NGJTC, ENSP, and USFWS no later than 48 hours prior to conducting vehicle operation. The agency conducting the vehicle operation will log each vehicle use, date, time, operator, escort, and purpose for each vehicle pass and shall

report each incident to the CFMO-EMB Natural Resources Manager no later than 24 hours after concluding the activity.

- A Qualified Monitor (as identified by ENSP, USFWS, and WPWA) will locate the plover chicks in the early morning prior to the use of the vehicle and notify the Sea Girt NGJTC and CFMO-EMB Natural Resources Manager of chick location(s). A “Qualified Monitor” is a person who has the skills, knowledge, and ability to accurately observe and record data on shorebird breeding activities without causing disturbance to the birds under observation. A training session shall be conducted annually by the CFMO-EMB Natural Resources Manager in coordination with ENSP, USFWS, and WPWA to train one primary and one back-up staff member at the NGJTC to become “Qualified Monitors”.
 - A plover observer will locate the chick(s) in the afternoon, prior to the use of vehicle and notify the Sea Girt NGJTC and CFMO-EMB Natural Resources manager of chick locations. If the observer cannot locate, either a qualified monitor may be used or an escort in front of every vehicle on the Sea Girt NGJTC beach.
 - If the vehicle operation will occur regularly during the brooding period, the agency may develop an agreement with the qualified monitor to have the monitor onsite at specified dates and times to ensure compliance with these requirements.
2. The ENSP, USFWS, NJDMAVA, and WPWA have developed a partnership for monitoring beach-nesting birds at the Sea Girt NGJTC and will coordinate efforts to monitor all broods during the chick-rearing phase of the breeding season to reliably determine brood mobility. Initially, the minimum monitoring frequency will be five days per week, but may be reduced to three days per week based on the ENSP biologist's professional judgment (see Section 6.3.10 for additional details on monitoring).
 3. If the brood monitoring indicates that highly mobile broods are present and chicks are moving outside the NPA, no rake zone, and 100-meter vehicle-free zone, then all vehicles will be guided by a qualified monitor who has first determined the location of all unfledged chicks. The monitor will ensure that a minimum 100-meter vehicle-free zone is maintained around the chicks. In addition, NJDMAVA will coordinate with USFWS and ENSP to determine if any additional protection measures are necessary if highly mobile broods are present. The Sea Girt NGJTC beach may be closed to all non-emergency traffic including raking if it is deemed necessary by ENSP or USFWS to protect a mobile chick.

All additional vehicle restriction protection measures remain in place until the ENSP or USFWS have determined that the chick has fledged. For the purposes of vehicle management, plover chicks are considered fledged at 35 days of age or when observed in sustained flight for at least 15 meters, whichever comes first. Only ENSP or USFWS can lift vehicle restrictions.

6.3.6 Beach Raking

NJDMAVA has an agreement with the Borough of Sea Girt to rake portions of the Sea Girt NGJTC beach. The purpose of beach raking is to remove debris to protect the health and safety of beach users. Raking generally takes place from late May to early September. The NJDEP DLUR has re-issued NJDMAVA a CAFRA General Permit authorization for beach and dune maintenance activities (DLUR File No. 1344-03-0001.3 CAF 080001). The permit authorizes beach raking in accordance with standard permit conditions, project specific conditions, and Best Management Practices (BMPs) as found in the Rules on Coastal Zone Management (N.J.A.C. 7:7E-3A). The permit was re-issued on March 13, 2009, and is valid for a term not to exceed five years (i.e., through March 13, 2014). A copy of the permit is provided in Appendix D.

The following management practices apply to beach raking at the Sea Girt NGJTC beach:

- In an effort to minimize overall vehicle use on the Sea Girt NGJTC beach, the beach rake will always access the southern portion of the beach via the installation's main entrance and the southern beach access point or by exiting at the northern beach access, following the alternate vehicle access route, and re-entering at the southern beach access.
- Beach raking is prohibited within the rare species protection areas (Figure 6-1) from March 15 through December 1.
- A "no rake zone" has been established in front (seaward) of the NPA (Figure 6-1). Mechanical raking is prohibited in this area from March 15 through December 1. Signs installed by CFMO-EMB staff mark the northern and southern limits of the no rake zone, which includes approximately 770 linear feet of beach. The area may be cleaned by hand during the restricted season.
 - *The "no rake zone" shall extend from the eastern limit of the NPA to the western limit of the Atlantic Ocean, however in the event of natural processes that may result in changes to the boundaries of the NPA or current dune area; the "no rake zone" shall extend westward to the base of the concrete seawall.*

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- The frequency of beach raking will be minimized to the extent possible if and when unfledged chicks are present. The beach rake will not be permitted within 100-meter vehicle-free zone described in Section 6.3.5 if unfledged chicks are present. If highly mobile broods are present, beach raking may cease for short periods of time or a qualified monitor will guide the beach rake, as described in Section 6.3.5. Individuals responsible for beach maintenance will be provided annual environmental awareness training as specified in Section 6.3.8.
 - If a significant amount of debris becomes deposited in the no rake zone during the restricted season, NJDMAVA will consult with the USFWS and NJDEP for one-time mechanical raking events. A "significant amount of debris" includes conditions where hand removal would not be practicable and conditions where the debris represents a human health hazard. The USFWS and NJDEP will handle such consultation in an expedited manner, and will consider the situation an emergency consultation if the debris represents a human health hazard.

6.3.7 Sand Scraping

Sand scraping is defined as the mechanical distribution of sand from one area of the beach to another. Sand scraping will be prohibited within the rare species protection areas and no rake zone year round unless otherwise part of a permitted habitat enhancement project done in consultation with USFWS and ENSP. Sand scraping will only be permitted on other portions of the beach as stipulated in the installations CAFRA permit for routine beach maintenance.

6.3.8 Military Training

During the summer months, various military units use the beach for ocean survival training. During the training, instructors refresh students on water survival issues including reviewing a 20-person life raft's operational checklist, inflating the raft, and riding the raft back to shore. During these water exercises, members of the U.S. Coast Guard or other military lifesaving units are present to assist in the training or render assistance if an emergency develops. These units may use personal watercraft (i.e., jet skis) during the training exercises. The watercrafts are trailered by government vehicles to the southern beach access and are launched from the southern shoreline. The U.S. Coast Guard may use a helicopter as part of the ocean survival training and/or to render emergency assistance. Helicopter operations shall remain approximately 450 feet lateral distance east of the rare species protection areas at an altitude of 25 feet above ground level (AGL), retrieving trainees from the water, returning trainees to the water, and flying back to Atlantic City International Airport. These training events take place once or twice a year and the duration is two to three

hours. The helicopters do not fly over the beach or land at Sea Girt NGJTC during these training events.

The following management practices apply to military training use at the Sea Girt NGJTC beach that occurs from March 15 through December 1:

- Units using the beach for training shall comply with the general protective measures described above, including those for vehicle use and pedestrian traffic.
- Any military vehicles participating in training shall be parked near the southern beach access when not in use (Figure 6-1). Parking on the beach is strictly prohibited.
- Watercraft and rafts shall not be launched from or landed in the no rake zone (Figure 6-1) from March 15 through August 31. This management practice does not apply after July 1 if no piping plover or least tern nesting activity has been observed by that date. During strong off shore currents, rip tides, or other emergency situations, watercraft and rafts may be landed in the no rake zone and military vehicles may access the area to provide emergency response and retrieve equipment used during the emergency.
- With the exception of emergency situations, during training events helicopters shall remain 300 feet off shore (a minimum of 450 feet lateral distance east of the northern rare species protection areas) from March 15 through August 31. This management practice does not apply after July 1 if no piping plover or least tern nesting activity has been observed by that date. If landings or take off are necessary, the guidelines specified in Section 6.3.9 will be followed.
- During the initial scheduling/advance planning of the training exercise, the unit commander shall designate a "rare species monitor," responsible for ensuring that the unit complies with the protection measures for listed species. The Sea Girt NGJTC Director or CFMO-EMB staff (or designated contractor) shall conduct an environmental awareness briefing and provide a handout to the unit requesting use of the beach. The handout shall describe the protection measures with which the unit is expected to comply during training, and a map showing locations of the rare species protection areas and no rake zone.
- The CFMO-EMB staff or contractor will conduct a second briefing for the unit rare species monitor immediately prior to the training event (i.e., within one week) to review the protection measures and identify current locations of listed species. The ENSP and/or USFWS shall participate in these briefings, as necessary, to identify current locations of listed species.

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- The unit's rare species monitor shall brief all students and instructors regarding the protection measures at the start of the training event. In addition, the monitor will attempt to minimize adverse effects to listed species during emergency entry into the no rake zone or rare species protection areas, to the extent possible without hindering emergency response. If the unit responds to an emergency within the rare species protection areas, the rare species monitor shall report the incident to the CFMO-EMB Natural Resources manager as stated in Section 6.3.5 no later than 24 hours after the incident. The report shall include each vehicle use, date, time, operator, responding agency, agency point of contact, and the purpose of the emergency response.

Other activities including beach runs or group exercises are not considered military training and as such are not given a brief. However, as discussed in Section 6.3.4, adaptive management measures may be used including implementing the designated Physical Training Area when highly mobile chicks are present (See Figure 6-1). When implemented, other portions of the Sea Girt NGJTC beach will be closed to physical training activities.

6.3.9 Other Helicopter Operations

In addition to helicopter operations associated with water survival training exercises (Section 6.3.8), the NJARNG and New Jersey State Police occasionally operate helicopters at Sea Girt NGJTC. These operations include landings and takeoffs at the helipad and the landing zone near Quarters 1. Both the NJARNG and New Jersey State Police make approximately one flight per month (i.e. total of two landings and two takeoffs per month). The flight paths are shown in Figure 6-2 and are based on safety and operational constraints, which include prevailing winds, location of the small arms ranges, and location of residential areas. None of the flight paths cross over the NPA, where all beach-nesting bird activity has occurred to date. The closest flight path is approximately 475 lateral feet north of the NPA. The helicopters make a steep decent/accident out of/into the landing site, and are at an altitude of approximately 500 to 800 feet when they are closest to the NPA.

General management guidelines have been developed to avoid helicopter-related disturbance of beach-nesting birds at Sea Girt NGJTC. These guidelines shall be implemented to the maximum extent possible, at the pilot's discretion, based on existing conditions during the helicopter operation (e.g., wind, visibility, weather, and other factors). The following guidelines apply from March 15 through August 31, but are not applicable if they compromise safety:

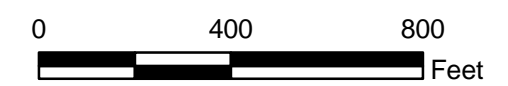
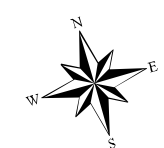
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- Helicopters shall not fly over or within 475 lateral feet of the NPA.
 - Helicopters shall achieve a minimum altitude of approximately 500 feet when within 475 lateral feet of the NPA.



**Figure 6-2
Sea Girt NGJTC
Helicopter Flight Paths**

New Jersey Army National Guard

- Legend**
- Sea Girt NGJTC Boundary
 - Flightpath**
 - NJARNG
 - NJSP



Data Source: Sea Girt NGJTC Helicopter Flight Paths taken from Sea Girt INRMP Figure created by Parsons, July 2005.

Scale:	As Shown
Created By:	ASGECI
File:	M:\3435_NGJTC_2011_Fig_6_2_Flightpaths.mxd
Date:	5/31/12
Figure Number:	6-2

**AMY S. GREENE
ENVIRONMENTAL
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6.3.10 Rare Species Monitoring and Data Sharing

6.3.10.1 Beach-Nesting Birds

Monitoring and timely communication of monitoring data is an integral part of the rare species management program for Sea Girt NGJTC that allows for adaptive management. The ENSP, WPWA, and the NJDMAVA have partnered in conducting beach-nesting bird monitoring at Sea Girt NGJTC. The ENSP in coordination with the USFWS conducts monitoring as part of ongoing statewide surveys. ASGECI (contracted by the NJDMAVA) and the WPWA have supplemented agency monitoring efforts through the majority of the 2006 - 2010 INRMP implementation period (See Section 6.3.10.3). Currently, it is anticipated that these statewide surveys will continue for the next five-year planning period (2013 – 2017) covered by this INRMP.

To facilitate the process of endangered species coordination, monitoring and management, a set of procedures have been developed and carried out each active season that guides the process of identification and protection of endangered species at the Sea Girt NGJTC. The procedures include the following:

- Representatives from Sea Girt NGJTC, CFMO-EMB, USFWS, ENSP and designated biological consultants hold annual meetings or conference calls in February to review and coordinate monitoring and management activities planned for the upcoming season. At this time, issues from previous seasons are discussed and protocol and management improvements are considered.
- The ENSP staff and/or WPWA volunteers conduct beach-nesting bird surveys at Sea Girt NGJTC during the nesting season. Typically, the site will be monitored three to five days per week starting the week of March 15. The actual survey effort will vary based on observed nesting activity. Monitoring frequency will be highest when actual nesting activity is observed and when eggs and unfledged chicks are present. The ENSP will conduct monitoring at a sufficient frequency to reliably determine anticipated hatch dates and brood mobility.
- The ENSP will provide brief, weekly monitoring reports via fax and/or e-mail to the CFMO-EMB Natural Resources Manager and the Sea Girt NGJTC Director. Reports may be transmitted more or less frequently based on the level of bird activity observed at the installation. Key information triggering special protection measures (e.g., the presence of eggs, chicks, or nesting outside the established rare species protection areas) will be transmitted as soon as possible, usually within 24 hours.
- The CFMO-EMB Natural Resources Manager or designee will be responsible for notifying other individuals of key information and special protection measures. These individuals include the Sea Girt NGJTC Facility Manager, the rare species

monitor for military units scheduled to conduct training on the beach, and the Borough of Sea Girt lifeguard staff, beach raking staff, and law enforcement staff that patrol the beach.

- The ENSP will provide copies of all written annual survey reports that include data for Sea Girt NGJTC to the CFMO-EMB Natural Resources Manager. If available, GPS data for individual nest locations will be provided in electronic format for incorporation into the NJARNG GIS.

6.3.10.2 Seabeach Amaranth and Other Plant Monitoring

The ONLM conducted seabeach amaranth surveys between 2001 and 2006 from Long Branch to Cape May, including the Sea Girt NGJTC beach. To support this effort and meet requirements of the INRMP, the Sea Girt NGJTC contracted ASGECI to conduct rare plant surveys at the Sea Girt NGJTC facility. The survey area includes the entire beach area between the high tide line and the landward limit of the beach e.g., dune line or seawall (including protection areas), Surveys performed in conjunction with the biweekly rare bird survey. Surveys were conducted from 2007 through 2011 and followed agency approved protocols. Targeted rare species included seabeach amaranth, seabeach knotweed and several other rare beach or dune plant species potentially occurring on Sea Girt NGJTC property.

During surveys, the dune community is slowly walked in a grid like fashion by one or more surveyors. Plant surveys typically take one to three hours at each visit. Surveys are suspended in the protection area and the buffer if nesting birds are identified. Survey areas may also be limited for other circumstances such as excessive storm damage.

In addition to the regular biweekly surveys, three interagency rare plant surveys are coordinated with the USFWS, ENSP, and the CFMO-EMB Natural Resources Manager during the last week of June, third week of July, and between August 15 and September 15. Typically these interagency surveys take a maximum of two hours to complete. The timing and frequency of interagency surveys typically depends on availability of staff, site conditions, and previous plant survey coverage of the beach.

The exotic invasive plant Asiatic sand sedge, and other threats to seabeach amaranth are also monitored during all surveys. A specific survey sheet for plant monitoring activity is completed and sent along with the general monitoring report after each visit.

Once rare, threatened or endangered plants are identified, all relevant data is recorded, such as plant size, condition, potential threats, and any additional protection needed. All rare plants are photographed and GPS locations are taken. Surveyors are required to fence any

plants outside of the designated protection areas with a 3 meter buffer. After identification, plants are regularly monitored and documented at each regular site visit.

The NJDMAVA intends to continue conducting rare plant surveys at Sea Girt NGJTC during the 2013 through 2017 implementation period. The objective is to identify the number and locations of rare plants on the Sea Girt NGJTC beach, both inside and outside of the established rare species protection areas. Plants identified outside of the established protection areas will be fenced as specified in Section 6.3.3. Survey protocol will be submitted for USFWS review and input each year prior to May 1. The survey procedures utilized from 2007 to 2011 are summarized in Section 6.3.10.3 below. Protocol may vary from year to year based on changing conditions and available funding.

6.3.10.3 Rare Species Monitoring Services

Since 2007, NJARNG has contracted a biological consultant to provide an array of INRMP mandated rare species protection services including supplemental monitoring services of the Sea Girt NGJTC beach area for threatened and endangered plants and animals. NJDMAVA anticipates continuing the same monitoring program with the cooperation of ENSP and USFWS. The contracted rare species monitoring services that have occurred between 2007 and 2011 are summarized here:

- Public education and awareness including preparation of materials and completion of annual awareness, youth camp, and military training briefs; creation of a site specific field guide and regular informal education with the visiting public. The contractor also prepares and sends out pet policy letters as needed.
- Installation, monitoring and maintenance of protective fencing and signage as well as regular removal of trash accumulated in the protection and buffer areas
- Collection and preparation of GIS and photographic data, and preparation and maintenance of the GIS database. This includes all GPS and resource data collected onsite for various features including topography, vegetation communities and resource locations, rare plant and nest (once inactive) location data, and management areas. Photos are taken after each visit and their details are incorporated into all reports and the GIS data base.
- The annual revision of site protocols and submission to USFWS, ENSP, and Natural Resources Point of Contact (POC) occurs no later than 1 May of each year. The protocol outlines the methods for biweekly surveying, procedures when beach-nesting species or plants are identified, study methods, enforcement, and

other planned management actions. Protocols also include thresholds for exiting protection areas when beach nesting birds are observed. Observations that require immediate exit from a protection areas include plovers, least terns or other beach-nesting birds resting within or near dune areas, chicks or eggs, observation of plovers scraping nests, observed copulation, and observed courtship rituals or territorial behaviors (i.e. “plover marching”, chasing, plover’s circular courtship flights and calls, stone/shell tossing or any other behavior that might indicate onsite nesting interest).

- Standard biweekly monitoring for rare birds and plants occurs between March 15 and December 15. If required, the contractor adjusts the frequency of these surveys in consultation with POCs (ie. more during nesting plover season, extra visits after storms, etc.). The surveyor(s) scans (via scope and binocular) and walks the beach at varying times of the day. Contractors note all rare species and general wildlife, take necessary photographs and GIS, and identify issues and threats such as onsite dog walkers.
- Summary monitoring reports and photographs are submitted within 5 days of a visit to the facility POC, NJDMAVA, WPWA, USFWS and ENSP. Reports include rare species and wildlife observations, threats, and other activities completed by the contractor. Additionally, the contractor may submit reports to the police, animal control or boroughs as special conditions require.
- Communication to the CFMO-EMB Natural Resources Manager and Sea Girt NGJTC facility POCs within 24 hours of beach-nesting bird observations. The contractor begins enforcement of special protection measures. The contractor coordinates with WPWA and ENSP to allow for the most efficient and least disruptive coverage and enforcement. Contractors are always careful not to cause harm or injury either by accident or on purpose to any rare species present at the facility.
- Increased coverage when birds are present. Contractor coverage may be three to five days per week, based on the agency coordination and availability of resources. Coverage includes non-disruptive monitoring of adults and young and enforcement of all protection measures. The contractor carefully observes behaviors and condition of all beach-nesting birds while present on the beach. The contractor may consult with the CFMO-EMB Natural Resources Manager, Sea Girt NGJTC facility POC and agencies for additional enforcement measures as needed, such as additional fishing restrictions. Nest survey frequency remains high until the last chick is fledged which is typically 35 days after the last egg hatches and clearance has been given by ENSP and USFWS.

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- Monitoring, including interagency monitoring, for rare plants occurs between the high tide line and the landward limit of the beach e.g., dune line or seawall (including protection areas) in conjunction with the biweekly bird surveys. (see Section 6.3.10.2)
 - Preparation and distribution of an annual summary report to the CFMO-EMB Natural Resources Manager that includes discussions of all services and issues. NJDEP Natural Heritage Rare Species reporting forms for any rare species identified at the Sea Girt NGJTC are submitted to the New Jersey Natural Heritage Program. The annual report also includes copies of additional reports and permits that have been prepared that season.
 - Preparation of an annual primary dune vegetation community and topographic study (prepared between 2008 and 2010). This study involved the quantitative and qualitative assessment of the primary dune community and relevant abiotic factors. Parameters measured included plant cover, density, frequency, vigor, and composition. Various methods of data collection included quadrat cover estimations and point intercept transect sampling. Transects were created in 2008 and maintained throughout the study to facilitate seasonal comparisons. The study also included analysis of soil, tides, weather and an annual survey of beach topography conducted by a licensed surveyor. Data from the study was used to create a set of beach habitat management recommendations related to cover and topography (see Section 6.3.12).

In addition to monitoring conducted by the ENSP and ASGECI, the WPWA has also provided beach-nesting bird monitoring services on the Sea Girt NGJTC and as of 2009 is part of a Draft Memorandum Of Understanding (MOU) with NJANG, NJDMAVA, and NGB (Appendix D) outlining roles, responsibilities, and agreement conditions. The agreement has not yet been finalized; however once finalized all parties would operate under the provisions of the MOU. The WPWA provides volunteers to conduct beach-nesting bird monitoring at the Sea Girt NGJTC. Monitoring services occur between the months of March to September. Frequency is dependent on volunteer availability and beach-nesting bird activity. Surveys are limited to the beach and dune areas and do not enter any of the rare species protection areas unless authorized by the NJARNG, NJDMAVA, Sea Girt NGJTC, ENSP, and USFWS. The WPWA provides regular monitoring reports and photos at a minimum of once a week to the NJARNG Natural Resources Manager POC, but as soon as possible when nesting activity is identified.

6.3.11 Predator Control

Beach-nesting bird eggs and chicks are highly susceptible to predators. In addition, predators can disturb birds that are attempting to nest and cause them to seek alternative nesting sites. Potential predators at Sea Girt NGJTC include foxes, raccoons, crows, gulls, and feral/domestic cats and dogs. A resident fox population with a den site between the dunes and small arms ranges was first documented at Sea Girt NGJTC in 1998 (Parsons, 1999). Dens have recently been identified in the secondary dune areas west of both the NPA and SPA onsite (ASGECI 2011). Although further detailed predator population surveys have not been conducted at the installation, the den site still appears to be active based on general observations. The ENSP biologists have frequently noted fox and dog tracks within the rare species protection area, and predators have been suggested as a possible cause of poor piping plover and least tern nesting success. While dogs and foxes appear to be the primary predator concerns, specific impacts from predators are unknown. However, the potential for successful nesting would likely increase in the absence of predators. Options for controlling predators include the use of nest exclosures and population reduction, as well as public awareness and policy/law enforcement, in the case of domestic predators or pets.

The ENSP plans to continue predator monitoring during its annual beach-nesting bird surveys. In addition, the ENSP will consider the use predator exclosures for all piping plover nest attempts at Sea Girt NGJTC. Exclosures consist of staked wire fencing that encircles a nest as a barrier to predators, while permitting passage of plover adults and chicks. Netting is normally installed on the top of the structure to prevent entry by avian predators. The ENSP has successfully used exclosures at other piping plover nesting sites in Monmouth County. However, exclosures are only useful after a nest has been established and are not practical for reducing predator disturbance prior to nesting. Furthermore, exclosures do not protect chicks from predators such as foxes once the nest hatches.

Population reduction involves physically removing predators from a site. The typical course of action involves live capture and humane euthanasia. Options such as live capture and relocation are not viable due to lack of relocation sites, the potential for creating predator problems elsewhere, and the risk of spreading diseases to wildlife or domestic stock in other areas. Population reduction is often a controversial management practice. In addition, measurable results are often difficult to achieve because predators from surrounding areas can quickly repopulate the controlled area. Nonetheless, the ENSP has implemented targeted predator population reductions at other beach-nesting bird sites in New Jersey and such controls have generally resulted in improved nesting success.

One predator control event was conducted at the Sea Girt NGJTC in 2009 by the ENSP which resulted in capture of six foxes and one cat utilizing snare and bait traps. However, the amount of evidence including direct observation, tracks, foraging signs and scat, reported in the 2010 Rare Species Summary report, indicate foxes appear to remain abundant in the dune habitats (ASGECI 2011). Local populations may also migrate between Sea Girt NGJTC and other den sites in the vicinity. The Sea Girt NGJTC will seek to implement predator control measures through conducting a predator population survey and conducting additional predator removal measures in coordination with ENSP, USFWS, and the United States Department of Agriculture – Animal and Plant Health Inspection Services. The population survey may include both invasive and non-invasive methods such as snow tracking, camera traps, spotlights and infrared cameras, sand plots and tack plates, scat sampling, scent based survey, licensed pet survey, and radio collar home range tracking. Predator control methods may include baited traps or snares to capture target predators or use of a scent based red fox control program. Trapping will occur in accordance with best management practices that will be developed for predator management at the Sea Girt NGJTC and will be implemented just prior to or at the early stages of the beach-nesting bird nesting season. Capturing and handling of any species will be conducted in consultation with the NJDEP wildlife control staff, USDA, ENSP, and USFWS and in accordance with all federal and state regulations regarding animal capture and required permits.

Sea Girt NGJTC has a "no pet" policy for the entire installation. Authorized beach users are prohibited from bringing pets onto the installation or beach. The Boroughs of Sea Girt and Manasquan have leash laws requiring all pets to be leashed when in public areas. The Borough of Sea Girt prohibits pets on the beach from March 15th through September 30th. The Borough of Manasquan prohibits pets on the beach from April 1st through October 31st with the exception of Fisherman's Cove where leashed pets are permitted year round. Additionally, signs are posted around the rare species protection area that state "No Pets Allowed". The frequent presence of dog tracks within the rare species protection area suggests that local pet owners are not abiding by the installation's no pet policy and are allowing dogs onto the beach from the north and south. Leashed and unleashed dogs, inside and outside of the rare species protection area can disturb nesting birds and reduce nesting success. NJDMAVA addresses this issue through the following management practices:

- NJDMAVA posts no pet signs on the beach at the northern and southern property boundaries to reinforce the no pet policy.

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- Letters are issued by the Sea Girt NGJTC, no later than one month prior to the start of each monitoring season, to the Monmouth County Animal Control and Sea Girt and Manasquan Police Departments as a reminder of the policy currently in place at the Sea Girt NGJTC. Additionally, an open letter to pet owners in the Boroughs of Sea Girt and Manasquan is posted annually on the borough websites and in a locally distributed newspaper informing pet owners of Sea Girt NGJTCs “no pet policy”.
 - Sea Girt NGJTC staff that observe dogs on the beach will attempt to contact the owner and explain to them the no pet policy. Persistent problems will be referred to the Borough of Sea Girt and/or Manasquan Police Department. NJDMAVA will also request that Borough of Sea Girt lifeguards working the Sea Girt NGJTC beach follow this same procedure.
 - Any observation of unattended domestic or feral dogs or cats on the beach will be referred to Monmouth County Animal Control.

Sea Girt NGJTC has also installed recycling trash cans with predator resistant lids at the boardwalk to the southern beach access to ensure that cans do not overflow and attract raccoons, gulls, or crows that may threaten beach-nesting birds. The Sea Girt NGJTC staff continually monitors to identify the need for additional trash disposal.

6.3.12 Dune and Vegetation Management

Currently, the NJDMAVA has no specific plans for dune stabilization or enlargement activities on the Sea Girt NGJTC beach and does not anticipate the need for such activities over the next five years. Any required future repairs or maintenance to the existing stabilized dune and/or seawall would be designed and carried out in coordination with the USFWS, ENSP, DLUR, and the Corps.

As discussed in Section 4.2.6, invasive plant issues have been identified on the landward side of the dune. The NJDMAVA may implement invasive plant treatments and restore infested areas with appropriate native plants. These activities would be limited to the landward side of the primary dune and would be carried out in coordination with the USFWS and ENSP. Planting of trees on either side of the dune is prohibited because trees provide perches for avian predators that could impact beach-nesting birds.

The suitability of habitat on the Sea Girt NGJTC beach for beach-nesting birds and seabeach amaranth is based in part on existing vegetative cover. Therefore, habitat suitability is expected to change over time as ecological succession, storms, beach erosion, and beach re-nourishment affect vegetative cover.

American beach grass is the dominant plant on the Sea Girt NGTC beach. American beachgrass forms a dense mat of intertwining rhizomes and roots that allows it to spread relatively rapidly. While this species provides important sand stabilization functions, its rapid spread could limit beach-nesting bird and seabeach amaranth habitat. Seabeach amaranth shows a particularly strong negative association with American beachgrass.

Vegetative cover requirements for piping plovers, least terns, and seabeach amaranth are not well defined, and the ideal percent vegetative cover is likely to be different for each species. Approximately 50% vegetative cover appears to be appropriate for piping plovers, and considering the needs of seabeach amaranth and terns, a range of 20 to 70% vegetative cover might be appropriate when all three species are present on a beach (Wendy Walsh, USFWS, personal communication). This target range applies to the section of beach immediately seaward of the toe of the dune, with lower densities closer to the ocean.

Vegetative cover (particularly American beachgrass) appears to have increased substantially since 1998, based on review of photographs and observations from NGJTC staff. The dune vegetation and topography study conducted between 2008 and 2010 illustrated a consistent late summer cover level of $42.98\% \pm 6.24$ in 2010 which did not differ significantly from the previous seasons results (2009 $48.64\% \pm 5.79$ and 2008 $42.69\% \pm 5.67$) (ASGEI, 2010b). Although the mean cover of American beachgrass trended around 50% within the study areas, the vegetation is often distributed in large dense patches. Central portions of the frontal edges of the NPA, for instance, were typically barren or sparsely vegetated. Other areas of the NPA contained American beachgrass cover levels in excess of 70%.

The USFWS has suggested that thinning might be an appropriate management practice at Sea Girt NGJTC if beach vegetation becomes too dense in the rare species protection areas to provide suitable habitat for listed species. The vegetation and topographic study conducted between 2008 and 2010 identified high management priority areas or “management units” within the NPA. These areas generally contain high densities and cover levels of American beachgrass and could be targeted for management. The SPA has been ruled out for vegetation management due to its proximity to private residences. The vegetation and topography study (2010) presented two habitat management strategies for consideration:

The less invasive methodology involves the (non-mechanized) thinning of vegetation. Topographic manipulation is limited to minor grading by using non-mechanized equipment such as grading rakes. This method will allow for natural adjustments to the topography based upon vegetation removal.

A second less targeted and more complex management technique has been put forward by ENSP and USFWS for consideration. This method involves the use of mechanized equipment to significantly alter topographic conditions across large portions of the NPA. This management includes the redistribution of accumulated sand from along the bulkhead across the NPA to the edge of the intertidal zone. More precise hand removal would be used to better achieve refined microhabitat goals for the target species. Machinery such as bulldozers and bobcats may also be used to remove some vegetation.

The need for beach vegetation management will continue to be evaluated in coordination with USFWS and ENSP. Possible management practices include raking, disking, herbicide treatments, and saltwater irrigation. Any vegetation management practices will need to consider potential adverse effects to listed species and will need to occur outside the seabeach amaranth growing and beach-nesting bird nesting seasons. If appropriate, any vegetation management would be implemented in coordination with USFWS, ENSP, DLUR, and the Corps.

Both strategies would be expected to require an NJDEP Coastal General Permit for Habitat Enhancement (CAFGP29) and possibly permitting from Corps. However, hand pulling of vegetation (as opposed to machine use) may facilitate this permitting process by more easily demonstrating minimization of unintended impacts.

The US Army Corps of Engineers (1967) indicates that American beachgrass may recover fully from thinning within one season (Cohen et al 2008). The periodic post-management collection of topographic and vegetation data would likely be required to determine the short term management success and longer term vegetation and sand displacement trends, particularly those related to global sea level rise.

6.3.13 Environmental Awareness Training

In addition to the awareness training provided to military units training on the beach, the CFMO-EMB conducts annual environmental awareness briefings to educate Sea Girt NGJTC staff and users about the installation's rare species management program. The briefings are conducted in early March, following the annual meetings with USFWS and ENSP in February. The briefings include the Sea Girt NGJTC facilities management staff, on-site military unit representatives, the 1-150th Assault Helicopter Battalion, the NJARNG State Aviation Officer, and other tenant agency representatives. In addition, representatives from the Borough of Sea Girt are invited to attend the briefings, including beach raking staff, lifeguard staff, and law enforcement personnel. In addition, an interpretive sign has been installed at the

southern beach access to increase awareness of recreational beach users. The USFWS has expressed a willingness to provide assistance with environmental awareness training efforts upon request and pending available staff.

A site specific Field Guide for visitors (updated 2011) has been produced to facilitate identification of common and rare species and habitats on the Sea Girt NGJTC beach. The Field Guide is also designed to make the visitors aware of the protected resources at Sea Girt NGJTC and the role of the NJDMAVA in their protection. The Field Guide is available online at <http://www.nj.gov/military/installations/index.html>.

6.3.14 Special Events

The NJARNG and NJDMAVA occasionally host special events at Sea Girt NGJTC that could result in short-term increases in beach use and disturbance to rare species. Examples of such events include the Annual Military Review of the troops, family appreciation days or other organized celebrations, fireworks displays, music concerts, youth camps, and Irish festivals sponsored by the Ancient Order of the Hibernians. These activities have the potential to effect rare species through increased human disturbance and other disturbances such as noise, if they occur during the beach-nesting bird season. The circumstances of each special event could vary considerably. Therefore, each event will be addressed on a case-by-case basis. Event planners will notify the CFMO-EMB early in the planning process for such events. The CFMO-EMB will evaluate potential effects of the special event on rare species, develop event-specific protection measures, and initiate informal consultation with USFWS and ENSP, as appropriate. The objective is to provide input early in the process to ensure that special events take place as planned, without adversely effecting rare species.

The NJ Department of Community Affairs (DCA), Division of Fire Safety may conduct its annual fireworks safety training at the Sea Girt NGJTC which provides a sufficiently large open area to meet the DCA's 210 foot building set back safety standards. The fireworks training event occurred once in 2009 by the DCA and has not occurred since. According to the DCA, the Sea Girt NGJTC is a suitable site for this training given its wide open fields in an urbanized area where participants can experience the type of winds DCA inspectors may encounter while overseeing professional fireworks display at the shore. The training has been included in this version of the INRMP to demonstrate to the USFWS and NJDEP that the Sea Girt NGJTC is complying with the various restrictions imposed on fireworks that are launched proximate to rare species in the event DCA needs to conduct this type of training again.

The training consists of launching fireworks to display proper handling techniques for approximately 30 fire inspectors. The USFWS issued *Guidelines for Managing Fireworks in*

the Vicinity of Piping Plovers and Seabeach Amaranth on the U.S. Atlantic Coast. Fireworks are highly disturbing to beach-nesting birds and in the early breeding season may cause territory or nest abandonment. USFWS recommends a ¾ mile (3,960 ft) buffer from the nearest plover nesting and/or foraging area and fireworks launch point. The Sea Girt NGJTC does not provide sufficient open space to maintain the ¾ mile buffer from designated rare species protection areas and meet minimum building set back requirements. Therefore additional protection measures are provided below.

- The launch site will be located on the western end of the parade grounds maintaining a minimum distance of 900 meters (2,953 ft) from the designated rare species protection areas while also providing for the required 210 foot building set back distance (see Figure 6-3). CFMO-EMB will provide a map to DCA identifying the approved launch site.
- Training will occur on a non-holiday week day during daylight hours to prevent drawing spectators onto the Sea Girt NGJTC beach who may pose a threat to beach-nesting birds or protected habitat (NPA and SPA).
- The DCA must contact the CFMO-EMB natural resources manager no later than 30 calendar days, 15 calendar days, 7 calendar days, and the day prior to the training to determine beach-nesting bird status. If chicks are present during any of the status check dates and it appears they will not be fledged by the training date, the training will not be permitted.
- Notification via email or fax by the CFMO-EMB will be provided to ENSP and USFWS at least two weeks in advance of the scheduled event.

Management Practices

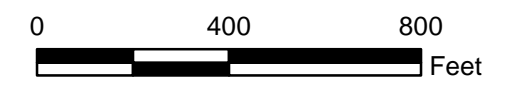
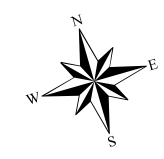
- Maintain a minimum of 900 meters (2,953 feet) from NPA and SPA.
- Maintain a 210 feet building setback.
- Must be conducted on a non-holiday weekday during daylight hours.
- Notify CFMO-EMB no later than 30 days, 15 days, 7 days, and the day prior to training to determine beach nesting bird status.
- CFMO-EMB to notify agencies at least 2 weeks in advance.

Figure 6-3
Sea Girt NGJTC
Fireworks Launch Site

New Jersey Army National Guard

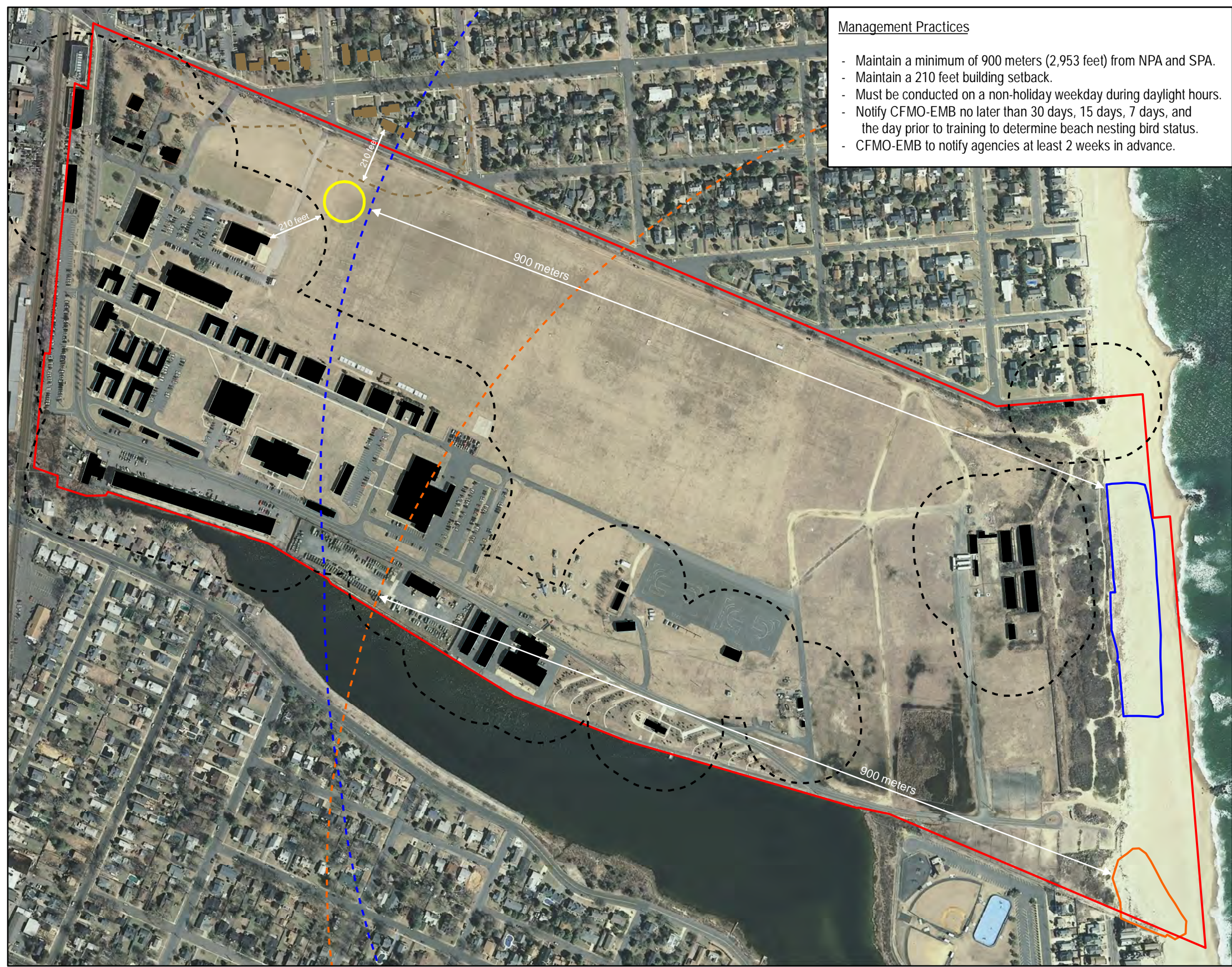
Legend

- ▭ Sea Girt NGJTC Boundary
- ▭ Possible Fireworks Launch Site
- ▭ Northern Protection Area
- ▭ Southern Protection Area
- - - 900-meter Buffer Northern Protection Area
- - - 900-meter Buffer Southern Protection Area
- ▭ Building
- ▭ Off-site Building
- ▭ 210-foot Building Setback
- ▭ 210-foot Off-site Building Setback



Data Source: Fireworks Launch Site, Buffers, and Setbacks provided by Amy S. Greene Environmental Consultants Inc. based on Protection Areas and Buildings surveyed during the 2010 and 2011 monitoring seasons.

Scale:	As Shown
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File:	M:\3435_NGJTC_2011_Fig_6_3_Fireworks.mxd
Date:	5/31/12
Figure Number:	6-3



6.4 PROJECT-SPECIFIC MANAGEMENT GOALS

Project-specific management goals which include ongoing and/or planned management measures to achieve goals for Rare Species Management are presented below and implementation information (e.g., staffing, funding, and schedule) is provided in Section 9. Rare Species Goals #1 through #4 are ongoing, while Rare Species Goals #5 and #6 have been developed for this implementation period (2013 through 2017).

Rare Species Goal #1 – Implement beach management practices and protection measures for rare beach species in accordance with the INRMP, and in cooperation with the USFWS and ENSP.

Priority Classification: Compliance – Class 0

1. Hold annual meetings or conference calls with the USFWS and ENSP.
2. Conduct annual environmental awareness briefings and annual “Qualified Monitor” training for Sea Girt NGJTC staff and users.
3. Install rare species protection area fencing (ENSP/NJDMAVA) and no rake zone signs (NJDMAVA) by March 15. Maintain fencing and signs (March 15 through August 31 – ENSP/NJDMAVA, September 1 through December 1 – NJDMAVA). At the discretion of ENSP installation may occur no later than the first week in April and may be removed prior to December 1.
4. Communicate with ENSP and USFWS biologists and WPWA regarding rare species monitoring results. Disseminate information to beach users and maintenance staff, as appropriate.

Implement special management procedures based on monitoring data (e.g., install detour signs at no rake zone and no vehicle signs when piping plover eggs and/or least tern chicks are present, predator control, and vegetation control).

Rare Species Goal #2 – Conduct annual beach-nesting bird surveys (ENSP/WPWA/NJDMAVA or contractor).

Priority Classification: Compliance – Class 0

1. Conduct beach-nesting bird surveys from April 1 through August 31.
2. Incorporate data into NJARNG GIS.

Rare Species Goal #3 – Conduct annual seabeach amaranth and seabeach knotweed surveys, and implement protection measures.

Priority Classification: Compliance – Class 0

1. Prepare annual survey work plan in coordination with USFWS.

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2. Conduct surveys during the last week of June, third week of July, and between August 15 and September 15.
 3. Install and maintain fencing and signs around plants that are found outside the existing rare species protection areas. Report findings of seabeach amaranth plants outside the protection areas to USFWS immediately.
 4. Incorporate survey data into NJARNG GIS, prepare annual survey report, and submit report to USFWS.
 5. Continue to evaluate the possibility of partnering with the USFWS to conduct long-term seabeach amaranth surveys.

Rare Species Goal #4 – Maintain, and monitor osprey nesting platform in cooperation with ENSP and phone company.

Priority Classification: Compliance – Class 1

1. Coordinate with ENSP and phone company regarding design of nesting deterrent for cellular phone tower.
2. Within 2 year, coordinate removal of existing nesting materials from the cellular phone tower and installation of nesting deterrent with the phone company and ENSP.
3. Monitor nesting activity and report findings to ENSP annually.
4. Inspect and maintain nesting platform annually prior to March 1.

Rare Species Goal #5 – Implement a predator control program for target species in coordination with ENSP, USFWS and NJDEP wildlife control staff.

Priority Classification: Compliance – Class 1

1. Within 5 years, reduce the predator population to a sustainable level as determined by the predatory population management plan and continue annual maintenance/control as necessary.
 - 1.1. Develop protocol for a predator population survey.
 - 1.2. Conduct an annual predator population survey targeting foxes, cats, and raccoons. The annual survey shall also include a query of the Boroughs of Sea Girt and Manasquan to ascertain the number of licensed pets (cats and dogs).
 - 1.3. Develop a predator population management plan including target species reduction rates.
 - 1.4. Conduct predator control in coordination with ENSP, USFWS, and NJDEP wildlife control staff. Trapping will be implemented just prior to or at the early stages of the beach-nesting bird nesting season.

Rare Species Goal #6 – Implement habitat enhancement for rare beach species in cooperation with the USFWS and ENSP.

Priority Classification: Compliance – Class 1

1. Within 3 years, implement dune habitat enhancement measures.
 - 1.1. Coordinate with ENSP and USFWS to develop dune vegetation and grading plan to improve topography and attain required permits.
 - 1.2. Implement habitat enhancement measures by creating a ½ acre area beginning at the northern extent of the NPA. All work would be conducted between December 1st and March 14th to protect potential beach nesting bird and seabeach amaranth populations.
 - 1.3. Conduct follow-up vegetation density and topography monitoring to evaluate enhancement measure.

SECTION 7
OUTDOOR RECREATION

7.1 PROGRAM DESCRIPTION AND OVERALL MANAGEMENT GOALS

The Outdoor Recreation program addresses consumptive and non-consumptive natural resources-based recreation at Sea Girt NGJTC. The program emphasizes natural resources-based activities, and does not address outdoor sports such as golf. Recreational opportunities at the installation include fishing, camping, wildlife viewing, and general use of the beach. The overall goal of the Outdoor Recreation program is to allow maximum use of Sea Girt NGJTC for natural resources-based activities in a manner that does not interfere with mission activities or impact rare species. Providing recreational opportunities provides quality of life benefits to military personnel and their families, which ultimately supports military recruiting objectives. In addition, participation in these activities tends to increase natural resources awareness and foster good stewardship of the land.

7.2 PROGRAM STATUS AND MANAGEMENT ISSUES

7.2.1 Access for Outdoor Recreation

In accordance with the Sikes Act, public access to the installation for natural resources-based outdoor recreation is allowed to the extent that:

- The use is not inconsistent with the needs of fish and wildlife resources; and
- The use is subject to requirements necessary to ensure safety and military security.

Access to Sea Girt NGJTC for outdoor recreation is controlled and limited due to safety issues associated with the small arms ranges and to ensure that recreational activities do not interfere with the military mission. The installation is generally closed to public entry. Military personnel, retired military personnel, NJDMAVA employees, and tenant employees may access the installation with proper identification.

7.2.2 Outdoor Recreation Areas and Uses

Designated outdoor recreation areas at the installation include the beach, campground, and fishing area. The beach area is open to beach pass holders from Memorial Day until the week after Labor Day. Military, retired military, NJDMAVA, and tenant employees can access the beach year round. In a letter dated March 10, 2011, a beach pass policy memorandum was issued to provide guidance and procedures for requesting and issuing beach pass access to the

Sea Girt NGJTC (Appendix D). The following individuals are granted access with valid identification:

1. Active duty and reserve component military personnel based in New Jersey including NJ National Guard members (current and retired); Active duty (current only) Army, Marines, Air Force, Coast Guard; and dependents of current NJ National Guard and retired NJ National Guard members, reserve component members, and active duty members.
2. NJDMAVA employees, current and retired.
3. All New Jersey State Police (current and retired).
4. All current law enforcement officers based at the Sea Girt NGJTC.
5. All current police, fire, rescue squad/Emergency Medical Services located in the municipalities of Sea Girt, Manasquan, Spring Lake, Spring Lake Heights, and Wall.

In addition, courtesy beach passes are provided to the following for distribution to extended family and friends of the following:

- NJ Army and National Guard members (current and retired) – maximum of five passes
- NJDMAVA employees (current and retired) – maximum of two passes
- NJ State Police (current and retired) – maximum of two passes
- Other law enforcement based at the Sea Girt NGJTC – maximum of two passes
- TAG/DAG/Director, Sea Girt NGJTC discretion/determination for supporters of the NJ National Guard (civic groups, veterans' organizations, donors, etc) – no limit.

Security personnel at the main entrance gate keep a daily car count of beach users during the season. An annual average of 76,409 visitors accessed the Sea Girt NGJTC beach from 2006 through 2011 (excluding 2010 figures that were incorrectly reported). Estimates have steadily increased from 57,972 in 2006 to 95,419 in 2011. Estimates are based on each car passing through the security gate with three passengers. Beach parking fees of \$3/day, \$15/week, and \$50/season apply to those personnel identified in 1. through 5. above. All others are required to pay \$5/day, \$20/week, \$60/season. Lifeguard and beach raking services are provided during the season through an agreement with the Borough of Sea Girt. The rare species protection area described in Section 6 is off-limits to all recreational use. Routine beach maintenance, including beach raking is conducted in accordance with the rare species protection measures specified in Section 6 of this INRMP and the CAFRA permit.

The Sea Girt NGJTC campground is located along Stockton Lake in the southeastern portion of the installation. The campground is typically open from Memorial Day through October. Facilities include a bathhouse and nine sites with water, electric, and sewer hookups. No tents, pets, or open flames are allowed. The Director's office takes reservations for campsites from 9:00 a.m. to 1:00 p.m. on Wednesdays only. Preference for reservations is given to military and retired military personnel. NJDMAVA employees may reserve sites if the campground is not full. Nightly rates are \$25 for pop-up campers and \$30 for other units. User fees go into the installation's billeting fund and are used for maintenance of the facilities. The installation also has three cottages that are available seasonally for \$45 to \$55 per night to military and retired military personnel through a lottery. Campers are provided informational flyers identifying camp site rules, beach and fishing rules, and identifying firing range and environmental area restrictions.

Non-consumptive outdoor recreation activities at the installation include general use of the beach and wildlife viewing. Consumptive uses include recreational fishing from the beach and in Stockton Lake. Surf fishing for species such as striped bass, bluefish, and weakfish is popular at the installation. Fishing in Stockton Lake is less popular because areas near the shoreline are relatively shallow and the dock previously used for fishing, adjacent to NGJTC's campground, was removed during reconstruction of the bulkhead in 2011. Stockton Lake is considered a Special Restricted Shellfish Growing Water, as indicated by the NJDEP Bureau of Marine Water Monitoring's 2011 Shellfish Classification Map. "Special Restricted" means the shellfish can only be harvested under an NJDEP permit and must be further purified or processed prior to being sold. Based on this restriction, recreational shellfish harvesting is not allowed at Sea Girt NGJTC. No hunting or trapping is allowed on the installation.

In the summer of 2007, the Sea Girt NGJTC first identified a portion of the beach in front of the NPA as a designated fishing area to limit bathing and ocean recreation activities area which can be detrimental to rare species utilizing the protection area, while giving fisherman a safe place to fish. Signs are erected and brochures (included in Appendix D) are distributed identifying the extent of the designated fishing area (2nd jetty north area during the summer season) and informing fishermen that unused bait and fish scraps will be taken with the fisherman, and not disposed of on the beach or in trash containers. Access to the fishing area may be temporarily restricted if piping plover chicks are present at the Sea Girt NGJTC.

7.3 PROJECT-SPECIFIC MANAGEMENT GOALS

Project-specific management goals which include ongoing and/or planned management measures or activities to achieve goals for Outdoor Recreation are presented below and implementation information (e.g., staffing, funding, and schedule) is provided in Section 9. Outdoor Recreation Goal #1 is ongoing; however has been amended to include implementing the designated fishing area program.

Outdoor Recreation Goal #1 – Continue to implement beach access, fishing area, and campground programs for natural resources-based outdoor recreation.

Priority Classification: Stewardship – Class 3

1. Administer beach access program.
2. Enforce designated fishing area and trash/bait management procedures.
3. Administer campground access program.
4. Update Camp Site Guidance flyer and Fishing Area brochure.

SECTION 8

INFORMATION MANAGEMENT PROGRAM

8.1 PROGRAM DESCRIPTION AND OVERALL MANAGEMENT GOALS

The CFMO-EMB has developed a Geographic Information System (GIS) that covers all 41 NJARNG facilities, including Sea Girt NGJTC. The GIS was first developed in 1998 and 1999 as part of the statewide natural resource planning level survey project. Since that time, CFMO-EMB has made several additions and upgrades to the GIS. The GIS serves as an integral part of the overall natural resources management program. The GIS is designed to manage spatially referenced data related to the physical infrastructure, mission activities, natural resources, and other environmental management activities. The program addresses data development, hardware, software, and training needs, as well as general system administration. This program enhances the efficiency with which the NJDMAVA manages its property and natural resources, thereby providing essential support to the military mission.

The overall goal of the program is to support the military mission and Natural Resources Program by providing easy access to accurate information for both management and decision making. Other overall management goals include the following:

- Facilitate access to a multitude of datasets for management and program guidance;
- Provide complete and reliable sources of data for each natural resources program;
- Define, develop, and implement an automated process for maintaining and updating spatial and tabular data; and
- Promote data sharing with other NJARNG/NJDMAVA users and partnering agencies.

8.2 PROGRAM STATUS AND MANAGEMENT ISSUES

8.2.1 Available Resources

The NJARNG GIS contains data for 41 NJARNG facilities and 7 veterans facilities. The data are stored on the NJDMAVA server. Users access the data from their personal computers. Currently, the CFMO-EMB does not have a full time GIS analyst. Management of the GIS is an additional duty for the Natural Resources Manager.

Available data layers for Sea Girt NGJTC include: boundary, roads, buildings, streams, lakes, freshwater wetlands, contours, soils, ecological communities, digital orthophotography (color infrared 1995 and 2010), rare species protection area, noise receptors, storm drains,

oil/water separators, secondary containment pads, hazardous waste/materials storage, monitoring wells, and above ground storage tanks. Complete metadata are included electronically as part of the GIS. The GIS data were developed from various existing sources of GIS data and site surveys in accordance with the following standards:

- Software Platform – Environmental Systems Research Institute (ESRI) ArcGIS version 10 sp3;
- Coordinate System – UTM, Zone 18;
- Datum – WGS84 and NAVD88;
- File Naming Conventions - Spatial Data Standards for Facilities Infrastructure and the Environment version 2.60; and
- Metadata Format – Federal Geographic Data Committee-compliant.

8.2.2 Future Data Development

Future natural resources GIS data development for Sea Girt NGJTC will primarily focus on updating rare species information annually. Annual updates will include the following:

- Any changes to the rare species protection area described in Section 6;
- New nesting location for piping plover and least tern;
- Locations of individual seabeach amaranth and seabeach knotweed plants; and
- Integration of invasive plant survey data and invasive plant control efforts.

8.3 PROJECT-SPECIFIC MANAGEMENT GOALS

Project-specific goals for the information management program have been integrated into the goals of the resource-specific management program. Therefore, no project-specific goals are presented for this program.

SECTION 9
PLAN IMPLEMENTATION SUMMARY

9.1 OVERVIEW

This section presents estimated staffing and funding requirements for implementation of the Sea Girt NGJTC INRMP, as well as the implementation schedule. The NJARNG intends to implement the overall management approach and project-specific goals contained in this INRMP based on authorized funding, resource availability, and time constraints. The NJARNG recognizes the need for an adaptive management approach to address changing land use requirements, natural resources conditions, and other unforeseen factors. Consequently, unforeseen factors might prohibit the NJARNG from implementing some or all of the project-specific goals in accordance with the implementation schedule. In addition, implementation of project-specific goals is contingent upon the availability of funding and other project funding priorities within the DA, NGB, and NJARNG. As discussed in Section 3, the INRMP will be routinely reviewed and updated to address changing conditions.

9.2 STAFFING REQUIREMENTS

9.2.1 NJDMAVA Staff

Table 9-1 and Appendix E summarize NJDMAVA staffing estimates for implementation of project-specific goals contained in the INRMP. Estimated labor hours range from approximately 700 to 800 per year for the five-year planning period. It should be recognized that these estimates only include project-specific labor to assist in the prioritization and implementation processes. Labor for routine activities and program administration is not included. Therefore, actual staffing requirements are greater than those presented in Table 9.1.

TABLE 9-1
NEW JERSEY ARMY NATIONAL GUARD SEA GIRT NGJTC STAFFING
REQUIREMENTS FOR PROJECT-SPECIFIC INRMP GOALS

Program	Labor Sources	Estimated NJDMAVA Labor Hours					
		2013	2014	2015	2016	2017	5-yr
INRMP Management	CMFO-EMB	120	120	120	120	120	600
Land and Watershed	CFMO-EMB	174	194	114	114	114	710
Fish and Wildlife	Facilities	80	80	80	80	80	400
Rare Species	CFMO- EMB/Facilities	120	134	96	96	96	542
Outdoor Recreation	Facilities	280	296	280	280	280	1,416
Totals =		774	824	690	690	690	3,668

Currently, the Natural Resources Manager within the CFMO-EMB has contracted services to implement most project-specific INRMP activities. However, the Natural Resources Manager is responsible for routine coordination of INRMP activities, program administration, and other conservation related activities at Sea Girt NGJTC and other NJARNG facilities, which are not reflected in the project-specific labor estimates provided in Table 9-1. These activities include, but are not limited to, the following: providing input to the EPR Report; coordinating efforts with cooperating agencies, contractors, installation personnel, and the general public; maintaining the NJARNG GIS; providing technical support to internal stakeholders; providing natural resources subject matter expertise and input to the real property and mission planning processes; supporting the NEPA process; and obtaining environmental permits, when necessary. The Natural Resources Manager also has responsibility for several other program areas that encompass 41 NJARNG facilities statewide. Therefore, only a small percentage (approximately 5 to 10%) of the Natural Resources Manager's time is allocated natural resources management at Sea Girt NGJTC. The Director of the Sea Girt NGJTC and the installation facilities management staff provides logistical and on-site support for implementation of the plan, and as such, is incorporated in estimated NJDMAVA labor hours (Table 9-1).

9.2.2 Contractors and Cooperating Agencies/Organizations

The need for support from contractors and cooperating agencies/organizations has been identified for the following INRMP goals:

- Land and Watershed Management Goal #1 –Protect and rehabilitate sensitive wildlife habitats that support threatened and endangered species by controlling invasive plants.
- Land and Watershed Management Goal #2 – Minimize visitor and staff exposure to poison ivy through education and management means.
- Land and Watershed Management Goal #3 – Prevent introduction and spread of invasive species.
- Land and Watershed Management Goal #4 – Manage and protect onsite wetlands.
- Fish and Wildlife Goal #1 – Deter resident Canada geese from using the installation.
- Rare Species Goal #1 – Implement beach management practices and protection measures for rare beach species in accordance with the INRMP, and in cooperation with the USFWS and ENSP.
- Rare Species Goal #2 – Conduct annual beach-nesting bird surveys.
- Rare species Goal #3 – Conduct annual seabeach amaranth and seabeach knotweed surveys, and implement protection measures.

- Rare species Goal #4 – Maintain and monitor osprey nesting platform in cooperation with ENSP and phone company.
- Rare species Goal #5 – Implement a predator survey and control program for target species in coordination with ENSP, USFWS, and NJDEP wildlife control staff.
- Rare species Goal #6 – Implement habitat enhancement for rare beach species in cooperation with USFWS and ENSP.

9.3 FUNDING REQUIREMENTS

A summary of funding requirements for project-specific INRMP goals is presented in Table 9-2 and Appendix E. Table 9-2 presents total funding requirements (i.e., equipment and supplies plus contractor support) by program, while Appendix E provides a more detailed breakdown by goal. Project-specific goals requiring significant contractor support generally incorporates supply and equipment funding within contractor funding requirements. Currently, funding requirements for equipment, supplies, and contractors totaling \$1,926,900 for the five year operational period have been identified for the project-specific INRMP goals. Primary funding sources include the Conservation Program and Real Property Operations and Maintenance.

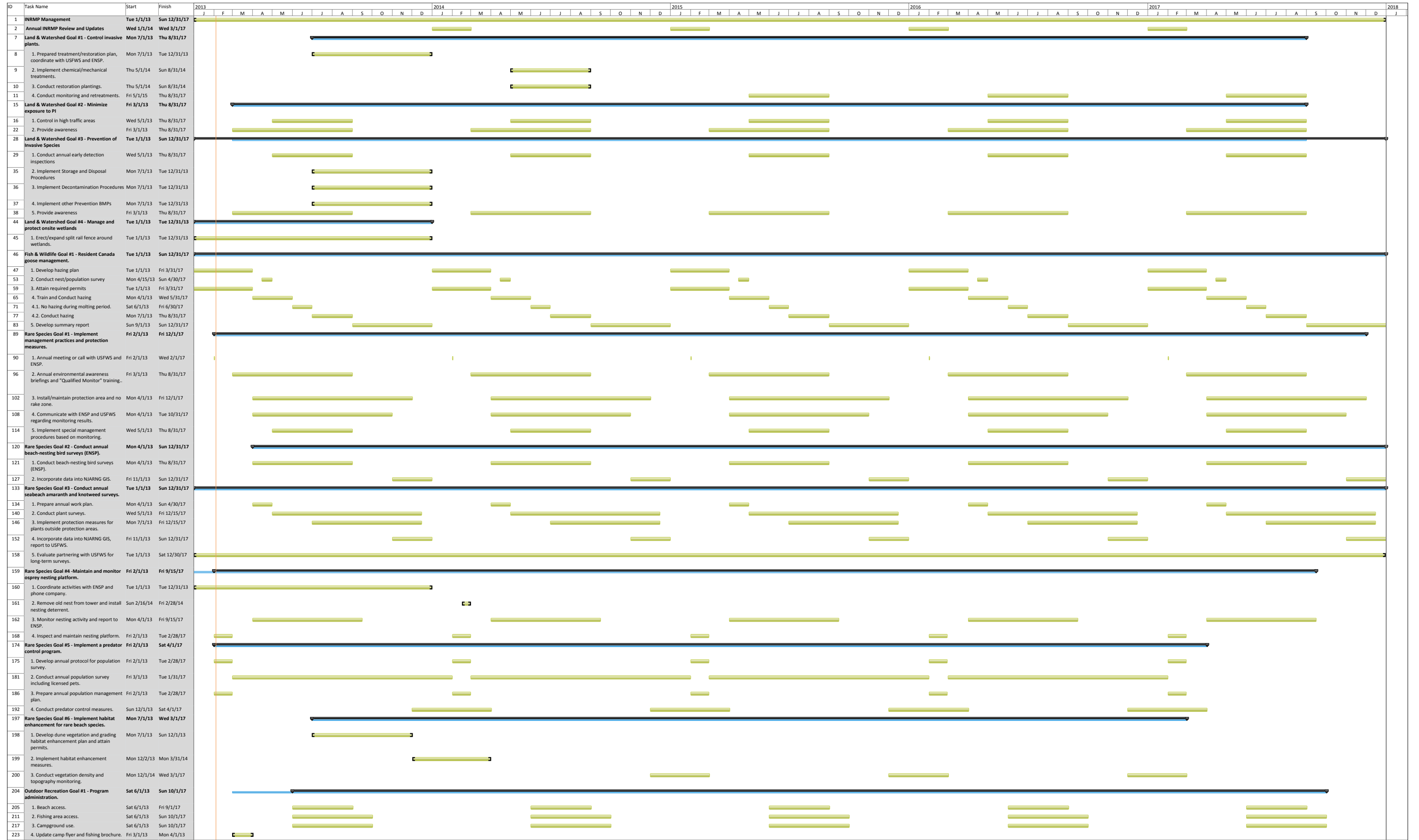
**TABLE 9-2
NEW JERSEY ARMY NATIONAL GUARD SEA GIRL NGJTC FUNDING
REQUIREMENTS FOR PROJECT-SPECIFIC INRMP GOALS**

Program	Funding Sources	Estimated Total Funding Requirements					
		2013	2014	2015	2016	2017	5-yr
INRMP Management	STEP	\$52,000	\$7,000	\$7,000	\$7,000	\$52,000	\$125,000
Land and Watershed	STEP	\$26,000	\$30,000	\$12,000	\$12,000	\$12,000	\$92,000
Fish and Wildlife	STEP	\$38,000	\$38,500	\$39,000	\$39,500	\$40,000	\$195,000
Rare Species	STEP	\$295,500	\$297,700	\$300,000	\$306,700	\$314,000	\$1,513,900
Outdoor Recreation	User Fees	\$0	\$1,000	\$0	\$0	\$0	\$1,000
Totals =		\$411,500	\$374,200	\$358,000	\$365,200	\$418,000	\$1,926,900

9.4 INRMP IMPLEMENTATION SCHEDULE

The overall INRMP implementation schedule is presented in Figure 9-1.

Figure 9-1 Sea Girt NGJTC INRMP Implementation Schedule



SECTION 10
REFERENCES

- 32 CFR Part 651. 2002. Environmental Analysis of Army Actions; Final Rule. March 29, 2002. Amy S Greene Environmental Consultants Inc. (ASGECI) 2008. *Final Summary Report for the 2007 Rare Species Monitoring Services. NJ Army National Guard Training Center (NGJTC) at Sea Girt*. Unpublished report prepared for the New Jersey Department of Military and Veterans Affairs.
- Amy S Greene Environmental Consultants Inc. (ASGECI) 2009. *Final Summary Report for the 2008 Rare Species Monitoring Services. NJ Army National Guard Training Center (NGJTC) at Sea Girt*. Unpublished report prepared for the New Jersey Department of Military and Veterans Affairs.
- Amy S Greene Environmental Consultants Inc. (ASGECI) 2010a. *Final Summary Report for the 2009 Rare Species Monitoring Services. NJ Army National Guard Training Center (NGJTC) at Sea Girt*. Unpublished report prepared for the New Jersey Department of Military and Veterans Affairs.
- Amy S Greene Environmental Consultants Inc. (ASGECI) 2010b. *Vegetation Survey Report Prepared For the NJ Army National Guard Sea Girt Training Facility (NGJTC)*. Unpublished report prepared for the New Jersey Department of Military and Veterans Affairs.
- Amy S Greene Environmental Consultants Inc. (ASGECI) 2011. *Final Summary Report for the 2010 Rare Species Monitoring Services. NJ Army National Guard Training Center (NGJTC) at Sea Girt*. Unpublished report prepared for the New Jersey Department of Military and Veterans Affairs.
- Amy S Greene Environmental Consultants Inc. (ASGECI) 2012a. *Final Summary Report for the 2011 Rare Species Monitoring Services. NJ Army National Guard Training Center (NGJTC) at Sea Girt*. Unpublished report prepared for the New Jersey Department of Military and Veterans Affairs.
- Amy S Greene Environmental Consultants Inc. (ASGECI) 2012b. *Draft Invasive Species Report prepared For the NJ Army National Guard Joint Training Center (NGJTC) at Sea Girt*. Unpublished report prepared for the New Jersey Department of Military and Veterans Affairs.
- Army Regulation (AR) 200-1, *Environmental Protection and Enhancement*, 13 December 2007.
- Breden, T. 1989. *A Preliminary Natural Community Classification for New Jersey*. From E. F. Karlin (ed.). 1989. *New Jersey's Rare and Endangered Plants and Animals*. Institute for Environmental Studies, Ramapo College, Mahwah, NJ. 280 p.

-
- Cohen, J.B., E.H. Wunker, and J.D. Fraser. 2008. Substrate and vegetation selection by nesting piping plovers (*Charadrius melodus*) in New York. *Wilson Journal of Ornithology*. 122 (3):578–582
- Environmental Systems Research Institute (ESRI) and Federal Emergency Management Agency (FEMA). 2004. *ESRI/FEMA Project Hazard Awareness Site*. <http://www.esri.com/hazards/makemap.html>.
- Executive Order 13112 of February 3, 1999 Invasive Species Federal Register: Feb 8, 1999 (Volume 64, Number 25)
- Humanetrics, Inc. 1993. *Natural Resource Inventory and Biological Study of National Guard Training Center at Sea Girt*. Prepared for New Jersey Army National Guard by Humanetrics, Inc.
- Jacobs Associates. 2010. *Sea Girt NGJTC Master Plan*, Final Report. 2010.
- National Guard Bureau (NGB). 2002. *Guidance on Preparing Environmental Documentation for Army National Guard Actions in Compliance with NEPA*. National Guard Bureau Environmental Programs Division.
- National Guard Bureau (NGB). 2012. *Guidance for Creation, Implementation, Review, and Revision and Update of Integrated Natural Resource Management Plans*. National Guard Bureau, Environmental Programs Division.
- New Jersey Department of Environmental Protection (NJDEP). 2004. *Osprey Fact Sheet*. New Jersey Department of Environmental Protection, Division of Fish and Wildlife, Endangered and Non-game Species Program. <http://www.state.nj.us/dep/fgw/ensp/pdf/end-thrtened/osprey.pdf>.
- New Jersey Division of Fish and Wildlife. 2012a. *New Jersey Landscape Project, Version 3.1*. New Jersey Department of Environmental Protection, Division of Fish and Wildlife, Endangered and Nongame Species Program. pp. 36.
- New Jersey Division of Fish and Wildlife. 2012b. Email communication with K. Clark (NJDFW) regarding Osprey nest timing restrictions. March 30, 2012.
- New Jersey Department of Military and Veterans Affairs (NJDMAVA). 2006a. *Integrated Natural Resources Management Plan for the New Jersey Army National Guard Installations, 2006 – 2010*. Prepared for the New Jersey Department of Military and Veterans Affairs by Parsons, Fairfax, Virginia.
- New Jersey Department of Military and Veterans Affairs (NJDMAVA). 2006b. *Integrated Cultural Resources Management Plan for the New Jersey Army National Guard Installations, 2005 – 2009*. Prepared for the New Jersey Department of Military and Veterans Affairs by the Center for Archaeological Research, Southwest Missouri State University.

New Jersey Invasive Species Council (NJSIC) 2009. *New Jersey Strategic Management Plan for Invasive Species*. Trenton, NJ. 110 pages.

Office of the New Jersey State Climatologist. Available at <http://climate.rutgers.edu/stateclim/>
Accessed on May 8, 2012

Parsons. 1999. *Final Report for Natural Resources Planning Level Surveys and Geographic Information System Development*. Prepared for the New Jersey Department of Military and Veterans Affairs by Parsons.

Parsons. 2005. *Invasive Plant Survey Report and Management Plan for 25 New Jersey Army National Guard Installations*. Prepared for the New Jersey Department of Military and Veterans Affairs by Parsons.

Schuyler, A.E. 1990. *Element Stewardship Abstract for Polygonum glaucum (Stewardship Abstract No. 014)*. New Jersey Department of Environmental Protection, Division of Parks and Forestry, Office of Natural Lands Management.

Siegel, P.E., D.C. McVarish, and M.A. Tobias. 2004. *Archaeological Investigations for the New Jersey Army National Guard, Phase I Archaeological Surveys: Sea Girt and Morristown Armories, Phase IA Sensitivity Assessments: Fort Dix, Picatinny, Lawrenceville, Vineland, and West Orange Installations*. Prepared for U.S. Army Corps of Engineers St. Louis District and New Jersey Department of Military and Veterans Affairs Office of Environmental Compliance by John Milner Associates, Inc.

Siegel, P.E. and G.E. Baldwin. 2005. *Addendum Report, Archeological Investigations for the New Jersey Army National Guard Phase Ib Archeological Surveys: West Orange Armory and Sea Girt National Guard Training Center*. Prepared for U.S. Army Corps of Engineers St. Louis District and New Jersey Department of Military and Veterans Affairs Office of Environmental Compliance by John Milner Associates, Inc.

Soil Survey Geographic (SSURGO) Database for Monmouth County, New Jersey, USDA, Natural Resources Conservation Service, Fort Worth, Texas, December 2004.

United States Congress. 1974. Federal Noxious Weed Act [7 USC 2814], as amended by the Plant Protection Act, 2000.

Unpublished data collected as part of the previously proposed wind turbine project avian/bat survey conducted in 2009 through 2010 at the Sea Girt National Guard Joint Training Center, Sea Girt, New Jersey.

U.S. Fish and Wildlife Service (USFWS). 2004. *Endangered Species Management Program, 2003 Year-end Report, Sea Bright to Manasquan, Monmouth County, New Jersey*. U.S. Fish and Wildlife Service, Ecological Services, Region 5, New Jersey Field Office, Pleasantville, NJ.

USFWS. 1996a. *Piping Plover (Charadrius melodus), Atlantic Coast Population, Revised Recovery Plan*. U.S. Department of Interior, Fish and Wildlife Service. Hadley, MA.

USFWS. 1996b. *Recovery Plan for Seabeach Amaranth (Amaranthus pumilius) Rafinesque*.
U.S. Department of Interior, Fish and Wildlife Service. Atlanta, GA.

APPENDIX A
ECOLOGICAL COMMUNITY AFFILIATIONS OF PLANTS OBSERVED AT
SEA GIRT NGJTC

APPENDIX A

ECOLOGICAL COMMUNITY AFFILIATIONS OF PLANTS OBSERVED AT SEA GIRT NATIONAL GUARD TRAINING CENTER

Ecological Community														
Code	Scientific Name	Common Name	Native Status(1)	Coastal Dune Grass	Coastal Dune Shrubland	Disturbed Successional Dune	Disturbed Successional /	Maintained Lawn /	Hedgerow / Planted Trees	Successional Dune	Herbaceous / Scrub/Shrub	Modified Wetland	Managed Shrub Wetland	Salt Marsh
ACNE2	<i>Acer negundo</i>	Box elder	N								•			
ACPL	<i>Acer platanoides</i>	Norway maple	A, I				•	•	•					
ACRU	<i>Acer rubrum</i>	Red maple	N								•			
ACSA2	<i>Acer saccharinum</i>	Silver maple	N				•	•			•			
ACMI2	<i>Achillea millefolium</i>	Common yarrow	A					•		•				
AIAL	<i>Ailanthus altissima</i>	Tree of heaven	A, I		•	•	•							
ALVI	<i>Allium vineale</i>	Field garlic	A, I				•	•	•	•				
AMAR2	<i>Ambrosia artemisiifolia</i>	Ragweed	N	•										
AMMA	<i>Ammannia</i>	Ammannia	N	•	•									
AMBR	<i>Ammophila breviligulata</i>	American beachgrass	N	•	•					•				
ANDRO	<i>Andropogon sp.</i>	Broom-straw	N					•		•				
AMBR7	<i>Ampelopsis brevipedunculata</i>	Porcelainberry	A, I			•								
APME	<i>Apocynum medium</i>	Intermediate dogbane	N							•				
ARVUV	<i>Artemisia vulgaris</i>	Mugwort				•	•	•	•					
ASSY	<i>Asclepias syriaca</i>	Common milkweed	N		•	•	•			•				
ASTU	<i>Asclepias tuberosa</i>	Butterfly weed	N			•								
AZALE	<i>Azalea sp.</i>	Azalea	N, A					•						
BAHA	<i>Baccharis halimifolia</i>	Groundsel tree	N		•	•					•			
BAVU	<i>Barbarea vulgaris</i>	Winter cress	A					•		•				
BRCI2	<i>Bromus ciliatus</i>	Fringed brome	N	•						•				
CAED	<i>Cakile edentula</i>	Sea rocket	N	•										
CAKO2	<i>Carex kobomugi</i>	Asiatic sand sedge	A, I	•										
CAAN6	<i>Carex annectens</i>	Yellow-fruited sedge	N					•			•	•		
CAPE6	<i>Carex pensylvanica</i>	Pennsylvania sedge	N									•		
CAVU2	<i>Carex vulpinoidea</i>	Fox sedge	N								•			
CATO6	<i>Carya tomentosa</i>	Mockernut hickory	N					•						
CEOR7	<i>Celastrus orbiculatus</i>	Oriental bittersweet	A, I		•	•	•	•	•	•	•	•		
CEOC	<i>Celtis occidentalis</i>	Hackberry	N								•			
CETR	<i>Cenchrus tribuloides</i>	Sanddune sandbur	N	•						•				

CENI2	<i>Centaurea nigra</i>	Black knapweed	A, I				•	•	•								
CEST8	<i>Centaurea stoebe</i>	Spotted knapweed	A, I			•	•	•	•	•							
CHPO6	<i>Chamaesyce polygonifolia</i>	Seaside spurge	N	•													
CHLE80	<i>Chrysanthemum leucanthemum</i>	Oxeye daisy	A							•							
CIIN	<i>Cichorium intybus</i>	Chicory	A		•		•	•		•	•						
CIAR4	<i>Cirsium arvense</i>	Canada thistle	A, I							•							
CALA5	<i>Cirsium vulgare</i>	Bull thistle	A							•							
COSE	<i>Convolvulus sepium</i>	Hedge bindweed	N							•							
COCA5	<i>Conyza canadensis</i>	Horseweed	N	•						•							
COVA2	<i>Coronilla varia</i>	Crown vetch	A					•		•							
CYES	<i>Cyperus esculentus</i>	Yellow nutsedge	N									•	•				
CYGR2	<i>Cyperus grayi</i>	Gray's flatsedge	N	•													
CYIR	<i>Cyperus iria</i>	Ricefield flatsedge	A												•		
DACA6	<i>Daucus carota</i>	Wild carrot	A, I				•	•	•								
DISA	<i>Digitaria sanguinalis</i>	Hairy crabgrass	A	•				•									
DISE	<i>Digitaria serotina</i>	Crabgrass	A					•									
DITET	<i>Diodia teres</i>	Poorjoe	N	•		•		•							•		
ELUM	<i>Elaeagnus umbellata</i>	Autumn olive	A, I			•			•	•							
ELOC	<i>Eleocharis</i> sp.	Spike Rush sp.										•	•				
ERPEP2	<i>Eragrostis pectinacea</i>	Tufted lovegrass	N	•													
EUAL13	<i>Euonymus alatus</i>	Winged euonymus	A, I					•									
EUCY2	<i>Euphorbia cyparissias</i>	Cypress spurge	A							•							
EUTE7	<i>Euthamia tenuifolia</i>	Slender-leaved	N							•			•				
FEEL	<i>Festuca elatior</i>	Meadow fescue	A							•							
FEOV	<i>Festuca ovina</i>	Sheep fescue	A							•							
FORSY	<i>Forsythia</i> sp.	Forsythia	A, I					•									
FRVI	<i>Fragaria virginiana</i>	Common strawberry	N				•	•									
GALIU	<i>Galium</i> sp.	Bedstraw	N	•						•							
HEHE	<i>Hedera helix</i>	English ivy	A, I				•	•	•								
HIPIP	<i>Hieracium pilosella</i>	Mouse ear	A				•	•									
HICA10	<i>Hieracium pratense</i>	Field hawkweed	A					•						•			
ILOP	<i>Ilex opaca</i>	American holly	N					•									
IVFR	<i>Iva frutescens</i>	Hightide bush	N									•					•
JUCA3	<i>Juncus canadensis</i>	Canada rush	N							•	•	•					
JUEF	<i>Juncus effusus</i>	Common rush	N									•	•				
JUTE	<i>Juncus tenuis</i>	Path rush	N									•	•				
JUVI	<i>Juniperus virginiana</i>	Eastern red cedar	N		•	•		•	•	•							
KYGR	<i>Kyllinga gracillima</i>	Pasture spikesedge	N											•			
LAAM	<i>Lamium amplexicaule</i>	Henbit	A							•							
LAJA	<i>Lathyrus japonicus</i>	Beach pea	N	•	•					•							
LEMA	<i>Lechea maritima</i>	Beach pinweed	N	•						•							
LEVI3	<i>Lepidium virginicum</i>	Peppergrass	N							•							
LIGUS2	<i>Ligustrum</i> sp.	Privet sp.	A, I			•											

LICA6	<i>Linaria canadensis</i>	Blue toadflax	N	•															
LIST2	<i>Liquidambar styraciflua</i>	Sweetgum	N						•										
LOJA	<i>Lonicera japonica</i>	Japanese honeysuckle	A, I		•	•	•	•	•	•	•	•							
LOCO6	<i>Lotus corniculatus</i>	Birdsfoot trefoil	A					•	•		•								
LUNAR	<i>Lunaria</i> sp.	Honesty	N	•															
LYSA2	<i>Lythrum salicaria</i>	Purple loosestrife	A, I															•	
MIVI	<i>Microstegium vinineum</i>	Japanese stiltgrass	A, I															•	
MISI	<i>Miscanthus sinensis</i>	Chinese silvergrass	A, I						•										
MOVE	<i>Mollugo verticillata</i>	Green carpetweed	N	•														•	
MOAL	<i>Morus alba</i>	White mulberry	A, I					•											
MYCE	<i>Morella pensylvanica</i>	Northern bayberry	N	•	•													•	
OEOA	<i>Oenothera oakesiana</i>	Oake's evening	N	•	•													•	
PAAM2	<i>Panicum amarum</i>	Bitter panicgrass	N	•														•	
PAVI2	<i>Panicum virgatum</i>	Switchgrass	N															•	•
PAQU2	<i>Parthenocissus quinquefolia</i>	Virginia creeper	N			•	•	•	•	•	•	•	•						
PALA10	<i>Paspalum laeve</i>	Field paspalum	N																•
PHAU7	<i>Phragmites australis</i>	Common reed	N, I				•	•	•			•	•	•					•
PHAM4	<i>Phytolacca americana</i>	Pokeweed	N				•	•		•									
PIAB	<i>Picea abies</i>	Norway spruce	A						•										
PIRE	<i>Pinus resinosa</i>	Red pine	N						•										
PIST	<i>Pinus strobus</i>	Eastern white pine	N						•	•									
PITH3	<i>Pinus thunbergii</i>	Japanese black pine	A						•	•									
PLAR3	<i>Plantago aristata</i>	Bracted plantain	N						•										
PLLA	<i>Plantago lanceolata</i>	English plantain	A, I	•			•	•	•										•
PLMA2	<i>Plantago major</i>	Common plantain	A						•									•	
PLPS	<i>Plantago psyllium</i>	Sand plantain	A															•	
PLHY3	<i>Platanus hybrida</i>	London plane tree	A						•	•									
POA	<i>Poa</i> sp.			•															•
POCU6	<i>Polygonum cuspidatum</i>	Japanese knotweed	A					•	•	•	•	•	•						
POHY	<i>Polygonum hydropiper</i>	Water pepper	A																•
POPE2	<i>Polygonum pensylvanicum</i>	Pennsylvania	N																•
POPE3	<i>Polygonum persicaria</i>	Ladies thumb	A					•											•
PODE3	<i>Populus deltoides</i>	Eastern cottonwood	N					•											
POCA17	<i>Potentilla canadensis</i>	Dwarf cinquefoil	N									•							
PRSE2	<i>Prunus serotina</i>	Black cherry	N			•				•	•	•							
PRVI	<i>Prunus virginiana</i>	Choke cherry	N			•					•								
PYRUS	<i>Pyrus</i> sp.	Bradford pear	A, I									•							
QUPA2	<i>Quercus palustris</i>	Pin oak	N								•	•							
RHODO	<i>Rhododendron</i>	Rhododendron	N, A									•							
RHCO	<i>Rhus copallinum</i>	Winged sumac	N			•	•	•										•	•
RHTY	<i>Rhus typhina</i>	Staghorn sumac	N															•	•
RHYNC	<i>Rhynchospora</i> sp.	Rhynchospora	N															•	•
ROPS	<i>Robinia pseudoacacia</i>	Black locust	N									•						•	

ROCA4	<i>Rosa carolina</i>	Carolina rose	N			•													
ROMU	<i>Rosa multiflora</i>	Multiflora rose	A				•												
RORU	<i>Rosa rugosa</i>	Rugosa rose	A, I	•	•	•			•	•	•								
RUBUS	<i>Rubus</i> sp.	Raspberry	N		•	•			•	•									
RUAC3	<i>Rumex acetosella</i>	Sheep sorrel	N			•		•		•			•						
RUCR	<i>Rumex crispus</i>	Curly dock	A							•			•						
SANI	<i>Salix nigra</i>	Black willow	N										•						
SAKA	<i>Salsola kali</i>	Prickly saltwort	A, I	•															
SAOF4	<i>Saponaria officinalis</i>	Soapwort	A	•															
SAAL5	<i>Sassafras albidum</i>	Sassafras	N				•		•										
SCAM2	<i>Scirpus americanus</i>	Three square	N										•						
SCIRP	<i>Scirpus</i> sp.	Bulrush	N										•						
SIPR4	<i>Silene pratensis</i>	White campion	N										•						
SODU	<i>Solanum dulcamara</i>	Bitter nightshade	N										•						
SOCA6	<i>Solidago canadensis</i>	Canada goldenrod	N			•							•			•			
SONE	<i>Solidago nemoralis</i>	Gray goldenrod	N										•						
SOSE	<i>Solidago sempervirens</i>	Seaside goldenrod	N	•	•								•	•					
SOSP2	<i>Solidago speciosa</i>	Showy goldenrod	N															•	
SPAL	<i>Spartina alterniflora</i>	Smooth cordgrass	N																•
SPPA	<i>Spartina patens</i>	Salt meadow cordgrass	N	•									•						•
SPPE	<i>Spartina pectinata</i>	Prairie cordgrass	N										•						
SPRU	<i>Spergularia rubra</i>	Sandspurry	I	•														•	
SPPR	<i>Spiraea prunifolia</i>	Bridalwreath							•										
STHE9	<i>Strophostyles helvula</i>	Trailing wild bean	N	•	•								•						
SYFO	<i>Symplocarpus foetidus</i>	Skunk cabbage	N															•	
TAOF	<i>Taraxacum officinale</i>	Common dandelion	A, I						•	•	•								
TARAX	<i>Taraxacum</i> sp.	Dandelion sp.		•									•						
TAXUS	<i>Taxus canadensis</i>	American yew	N						•	•									
TORA2	<i>Toxicodendron radicans</i>	Poison ivy	N, I	•	•	•	•	•	•	•	•	•							
TRPO	<i>Tragopogon porrifolius</i>	Oyster plant	A										•						
TRAG	<i>Trifolium agrarium</i>	Hop clover	A																
TRAR4	<i>Trifolium arvense</i>	Rabbitfoot clover	A						•				•						
TRRE3	<i>Trifolium repens</i>	White clover	A		•				•										
TRPU4	<i>Triplasis purpurea</i>	Purple sandgrass	N	•									•						
VETH	<i>Verbascum thapsus</i>	Common mullein	A			•	•						•						
VERON	<i>Veronica arvensis</i>	Speedwell	N						•										
VIRE7	<i>Viburnum recognitum</i>	Northern arrowwood	N															•	
XAST	<i>Xanthium strumarium</i>	Cocklebur	N	•	•								•	•					
YUFI	<i>Yucca filamentosa</i>	Spoonleaf-yucca	N	•	•								•						

(1) A=alien, I=invasive or potentially invasive onsite, N=ative

Sources: Field Surveys conducted by Parsons 1998 and 1999; Field Surveys conducted by ASGECI 2007-2011

APPENDIX B
WILDLIFE OBSERVED AT SEA GIRT NGJTC

APPENDIX B
WILDLIFE OBSERVED AT SEA GIRT NGJTC

Scientific Name	Common Name
Mammals	
<i>Condylura cristata</i> ⁽¹⁾	Star-nosed mole
<i>Didelphis virginiana</i> ⁽¹⁾	Opossum
<i>Felis silvestris</i>	Feral cat
<i>Marmota monax</i>	Groundhog
<i>Lasiurus borealis</i> ⁽³⁾	Eastern red bat
<i>Lasiurus cinereus</i> ⁽³⁾	Hoary bat
<i>Mephitis mephitis</i> ⁽¹⁾	Striped skunk
<i>Myotis lucifugus</i> ⁽¹⁾	Little brown bat
<i>Ondatra zibethicus</i>	Muskrat
<i>Peromyscus leucopus easti</i> ⁽¹⁾	White-footed mouse
<i>Phoca vitulina</i> ⁽²⁾	Harbor seal
<i>Procyon lotor</i> ⁽¹⁾	Raccoon
<i>Sciurus carolinensis</i>	Gray squirrel
<i>Sylvilagus floridanus</i>	Eastern cottontail
<i>Tursiops truncatus</i> ⁽²⁾	Bottlenosed dolphin
<i>Vulpes vulpes</i>	Red fox
Birds	
<i>Accipiter cooperii</i>	Cooper's hawk (SC - BR)
<i>Accipiter striatus</i>	Sharp-shinned hawk (SC)
<i>Actitis macularia</i>	Spotted sandpiper (SC - BR)
<i>Agelaius phoeniceus</i>	Red-winged blackbird
<i>Ammodramus caudacutus</i> ⁽³⁾	Saltmarsh sharp-tailed sparrow (SC - BR)
<i>Ammodramus henslowii</i> ⁽³⁾	Henslow's sparrow (SE)
<i>Ammodramus savannarum</i> ⁽³⁾	Grasshopper sparrow (ST- BR, SC – NB)
<i>Anas Americana</i>	American widgeon
<i>Anas discors</i> ⁽³⁾	Blue-winged teal
<i>Anas platyrhynchos</i>	Mallard
<i>Anas rubripes</i> ⁽³⁾	American black duck
<i>Anas strepera</i> ⁽³⁾	Gadwall
<i>Archilochus colubris</i>	Ruby-throated hummingbird
<i>Ardea alba</i>	Great egret
<i>Ardea herodias</i>	Great blue heron (SC - BR)
<i>Arenaria interpres</i>	Ruddy turnstone
<i>Asio flammeus</i>	Short-eared owl (SE – BR, SC - NB)
<i>Aythya valisineria</i> ⁽³⁾	Canvasback
<i>Baeolophus bicolor</i> ⁽³⁾	Tufted titmouse
<i>Bombycilla cedrorum</i> ⁽³⁾	Cedar waxwing
<i>Branta bernicla hrota</i>	Atlantic brant
<i>Branta canadensis</i>	Canada goose
<i>Bubulcus ibis</i> ⁽³⁾	Cattle egret (ST - BR, SC - NB)
<i>Bucephala albeola</i>	Bufflehead
<i>Buteo jamaicensis</i> ⁽³⁾	Red-tailed hawk

Scientific Name	Common Name
<i>Butorides virescens</i>	Green heron
<i>Calidris alba</i>	Sanderling (SC - NB)
<i>Calidris melanotos</i>	Pectoral sandpiper
<i>Calidris mauri</i>	Western sandpiper
<i>Calidris pusilla</i>	Semipalmated sandpiper (SC - NB)
<i>Cardinalis cardinalis</i> ⁽³⁾	Northern cardinal
<i>Carduelis tristis</i>	American goldfinch
<i>Carpodacus mexicanus</i>	House finch
<i>Carpodacus purpureus</i> ⁽³⁾	Purple finch
<i>Cathartes aura</i> ⁽³⁾	Turkey vulture
<i>Cathartes ustulatus</i> ⁽³⁾	Swainson's thrush
<i>Catharus guttatus</i> ⁽³⁾	Hermit thrush
<i>Catharus minimus</i> ⁽³⁾	Gray-cheeked thrush (SC - NB)
<i>Chaetura pelagic</i> ⁽³⁾	Chimney swift
<i>Charadrius melodus</i>	Piping Plover (FT, SE)
<i>Charadrius semipalmatus</i>	Semipalmated plover
<i>Charadrius vociferus</i>	Killdeer
<i>Chen caerulescens</i>	Snow goose
<i>Chordeiles minor</i> ⁽³⁾	Common nighthawk (SC)
<i>Circus cyaneus</i>	Northern harrier (SE – BR, SC – NB)
<i>Clangula hyemalis</i> ⁽³⁾	Long-tailed duck
<i>Colaptes auratus</i>	Northern flicker
<i>Columba livia</i>	Rock dove
<i>Corvus brachyrhynchos</i>	American crow
<i>Corvus ossifragus</i>	Fish crow
<i>Cyanocitta cristata</i> ⁽³⁾	Blue jay
<i>Cygnus olor</i> ⁽³⁾	Mute swan
<i>Dendroica pinus</i> ⁽³⁾	Pine warbler
<i>Dendroica caerulescens</i> ⁽³⁾	Black-throated blue warbler (SC - BR)
<i>Dendroica castanea</i> ⁽³⁾	Bay-breasted warbler
<i>Dendroica cerulean</i> ⁽³⁾	Cerulean warbler (SC)
<i>Dendroica coronate</i>	Yellow-rumped warbler
<i>Dendroica discolor</i> ⁽³⁾	Prairie warbler
<i>Dendroica fusca</i> ⁽³⁾	Blackburnian warbler (SC - BR)
<i>Dendroica magnolia</i> ⁽³⁾	Magnolia warbler
<i>Dendroica palmarum</i>	Palm warbler
<i>Dendroica pensylvanica</i> ⁽³⁾	Chestnut-sided warbler
<i>Dendroica petechia</i> ⁽³⁾	Yellow warbler
<i>Dendroica striata</i> ⁽³⁾	Blackpoll warbler
<i>Dendroica tigrina</i> ⁽³⁾	Cape May warbler
<i>Dumetella carolinensis</i> ⁽³⁾	Gray catbird
<i>Egretta caerulea</i> ⁽³⁾	Little blue heron (SC)
<i>Egretta thula</i>	Snowy egret (SC - BR)
<i>Empidonax traillii</i> ⁽³⁾	Willow flycatcher
<i>Eremophila alpestris</i>	Horned lark (ST - BR, SC - NB)

Scientific Name	Common Name
<i>Erolia minutilla</i>	Least sandpiper
<i>Falco columbarius</i> ⁽³⁾	Merlin
<i>Falco peregrines</i>	Peregrine falcon (SE – BR, SC - NB)
<i>Falco sparverius</i>	American kestrel (ST)
<i>Gavia immer</i>	Common loon
<i>Gavia stellata</i>	Red-throated loon
<i>Gelochelidon nilotica</i>	Gull-billed tern (SC)
<i>Geothlypis trichas</i> ⁽³⁾	Common yellowthroat
<i>Haematopus palliatus</i>	American oystercatcher (SC)
<i>Haliaeetus leucocephalus</i>	Bald eagle (SE – BR, ST - NB)
<i>Helmitheros vermivorum</i> ⁽³⁾	Worm-eating warbler (SC - BR)
<i>Hirundo rustica</i>	Barn swallow
<i>Hylocichla mustelina</i> ⁽³⁾	Wood thrush (SC - BR)
<i>Icterus galbula</i> ⁽³⁾	Baltimore oriole
<i>Iridoprocne bicolor</i>	Tree swallow
<i>Junco hyemalis</i> ⁽³⁾	Dark-eyed junco
<i>Larus argentatus</i>	Herring gull
<i>Larus atricilla</i>	Laughing gull
<i>Larus delawarensis</i>	Ring-billed gull
<i>Larus hyperboreus</i>	Glaucous gull
<i>Larus marinus</i>	Great black-backed gull
<i>Larus ribidundus</i>	Black-headed gull
<i>Limnodromus griseus</i> ⁽³⁾	Short-billed dowitcher
<i>Lophodytes cucullatus</i>	Hooded merganser
<i>Megaceryle alcyon</i>	Belted kingfisher
<i>Melanerpes carolinus</i> ⁽³⁾	Red-bellied woodpecker
<i>Melanitta americana</i>	Black scoter
<i>Melanitta fusca</i> ⁽³⁾	White-winged scoter
<i>Melanitta perspicillata</i>	Surf scoter
<i>Meleagris gallopavo</i> ⁽³⁾	Wild turkey
<i>Melospiza georgiana</i> ⁽³⁾	Swamp sparrow
<i>Melospiza lincolni</i> ⁽³⁾	Lincoln's sparrow
<i>Melospiza melodia</i>	Song sparrow
<i>Mergus serrator</i> ⁽³⁾	Red-breasted merganser
<i>Mimus polyglottos</i>	Northern mockingbird
<i>Mniotilta varia</i> ⁽³⁾	Black and white warbler
<i>Molothrus ater</i>	Brown-headed cowbird
<i>Morus bassanus</i>	Northern gannet
<i>Numenius phaeopus</i> ⁽³⁾	Whimbrel (SC - NB)
<i>Nyctanassa violacea</i>	Yellow-crowned night heron (ST)
<i>Nycticorax nycticorax</i>	Black-crowned night heron (ST – BR, SC - NB)
<i>Oporornis formosus</i> ⁽³⁾	Kentucky warbler (SC)
<i>Oxyura jamaicensis</i> ⁽³⁾	Ruddy duck
<i>Pandion haliaetus</i>	Osprey (ST - BR)
<i>Parula americana</i> ⁽³⁾	Northern parula (SC - BR)

Scientific Name	Common Name
<i>Parus atricapillus</i>	Black-capped chickadee
<i>Passer domesticus</i>	House sparrow
<i>Passerculus sandwichensis</i> ⁽³⁾	Savannah sparrow (ST - BR)
<i>Passerella iliaca</i> ⁽³⁾	Fox sparrow
<i>Passerina cyanea</i> ⁽³⁾	Indigo bunting
<i>Phalacrocorax auritus</i>	Double-crested cormorant
<i>Picoides pubescens</i> ⁽³⁾	Downy woodpecker
<i>Pipilo erythrophthalmus</i> ⁽³⁾	Eastern towhee
<i>Pirang rubra</i> ⁽³⁾	Summer tanager
<i>Piranga olivacea</i> ⁽³⁾	Scarlet tanager
<i>Plegadis falcinellus</i> ⁽³⁾	Glossy ibis (SC - BR)
<i>Pluvialis squatarola</i> ⁽³⁾	Black-bellied plover
<i>Pluvialis dominica</i>	American golden plover
<i>Poecile carolinensis</i> ⁽³⁾	Carolina chickadee
<i>Pooecetes gramineus</i> ⁽³⁾	Vesper sparrow (SE – BR, SC - NB)
<i>Porzana carolina</i> ⁽³⁾	Sora
<i>Progne subis</i> ⁽³⁾	Purple martin
<i>Prothonotaria citrea</i> ⁽³⁾	Prothonotary warbler
<i>Quiscalus major</i>	Boat-tailed grackle
<i>Quiscalus quiscula</i> ⁽³⁾	Common grackle
<i>Rallus longirostris</i> ⁽³⁾	Clapper rail
<i>Regulus satrapa</i> ⁽³⁾	Golden-crowned kinglet
<i>Rynchops niger</i>	Black skimmer (SE)
<i>Seiurus aurocapilla</i> ⁽³⁾	Ovenbird
<i>Seiurus motacilla</i> ⁽³⁾	Louisiana waterthrush
<i>Seiurus noveboracensis</i> ⁽³⁾	Northern waterthrush
<i>Setophaga dominica</i> ⁽³⁾	Yellow-throated warbler
<i>Setophaga ruticilla</i> ⁽³⁾	American redstart
<i>Setophaga virens</i> ⁽³⁾	Black-throated green warbler (SC - BR)
<i>Somateria mollissima</i> ⁽³⁾	Common eider
<i>Sopizella pusilla</i> ⁽³⁾	Field sparrow
<i>Spiza americana</i> ⁽³⁾	Dickcissel
<i>Spizella arborea</i> ⁽³⁾	American tree sparrow
<i>Spizella passerina</i> ⁽³⁾	Chipping sparrow
<i>Stelgidopteryx serripennis</i> ⁽³⁾	Northern rough-winged swallow
<i>Sterna antillarum</i>	Least tern (SE)
<i>Sterna caspia</i> ⁽³⁾	Caspian tern (SC - BR)
<i>Sterna dougallii</i>	Roseate tern (FE, SE)
<i>Sterna forsteri</i>	Forster's tern
<i>Sterna hirundo</i>	Common tern (SC - BR)
<i>Sturnella magna</i> ⁽³⁾	Eastern meadowlark (SC)
<i>Sterna maxima</i>	Royal tern
<i>Sturnus vulgaris</i>	European starling
<i>Thryothorus ludovicianus</i> ⁽³⁾	Carolina wren
<i>Toxostoma rufum</i> ⁽³⁾	Brown thrasher (SC - BR)

Scientific Name	Common Name
<i>Tringa flavipes</i>	Lesser yellowlegs
<i>Tringa melanoleuca</i>	Greater yellowlegs
<i>Tringa semipalmata</i> ⁽³⁾	Willet
<i>Tringa solitaria</i>	Solitary sandpiper
<i>Troglodytes aedon</i> ⁽³⁾	House wren
<i>Turdus migratorius</i>	American robin
<i>Vermivora peregrina</i> ⁽³⁾	Tennessee warbler
<i>Vermivora pinus</i> ⁽³⁾	Blue-winged warbler
<i>Vermivora ruficapilla</i> ⁽³⁾	Nashville warbler (SC - BR)
<i>Wilsonia canadensis</i> ⁽³⁾	Canada warbler (SC - BR)
<i>Wilsonia citrina</i> ⁽³⁾	Hooded warbler (SC - BR)
<i>Wilsonia pusilla</i> ⁽³⁾	Wilson's warbler
<i>Zenaida macroura</i>	Mourning dove
<i>Zonotrichia albicollis</i> ⁽³⁾	White-throated sparrow
<i>Zonotrichia leucophrys</i> ⁽³⁾	White-crowned sparrow
Amphibians	
<i>Anaxyrus</i> [formerly <i>Bufo</i>] <i>fowleri</i>	Fowler's toad (SC)
Common Invertebrates	
<i>Amphipoda</i> spp.	Scuds
<i>Bembix</i> sp.	Sand wasp
<i>Calosoma scrutator</i>	European caterpillar hunter
<i>Coccinella novemnotata</i>	9 spotted ladybeetle
<i>Dasymutilla occidentalis</i>	Cow killer
<i>Emerita talpoida</i>	Mole crab
<i>Ocypode quadrata</i>	Atlantic ghost crab
<i>Sphecidae</i>	Mud dauber wasps
<i>Tenodera aridifolia</i>	Chinese mantis
<i>Trimerotropis maritima</i>	Seaside grasshopper

(1)Source: Humanetrics, Inc., 1993

(2) Possible sighting

(3)Source: Unpublished data collected as part of the previously proposed wind turbine project avian/bat survey. Additional bat species are expected to occur onsite, however were not identified to species during the acoustic survey component of the wind turbine study.

ST – State Threatened Species

SC – State Species of Special Concern

SE – State Endangered Species

FT – Federally Threatened Species

BR – Breeding Population

NB – Non-breeding Population

APPENDIX C
AGENCY CORRESPONDENCE

APPENDIX C
AGENCY CORRESPONDENCE

Copies of outgoing and incoming correspondence for this INRMP (implementation period 2013-2017) are provided in this appendix. The table below provides a summary of correspondence.

Date	Agency	Description
6/19/08	USFWS	Outgoing request for concurrence on added protection measures
8/5/08	USFWS	Concurrence on added protection measures
12/7/11	USFWS	Outgoing request for participation letter
12/7/11	Conserve Wildlife Foundation of NJ on Behalf of NJDEP ENSP	Outgoing request for participation letter
12/7/11	WPWA	Outgoing request for participation letter
12/7/11	Sea Girt Administrator	Outgoing request for participation letter
12/7/11	Sea Girt Env. Commission	Outgoing request for participation letter
12/7/11	Manasquan Env. Commission	Outgoing request for participation letter
12/7/11	Monmouth Co. Env. Commission	Outgoing request for participation letter
1/20/12	USFWS	Incoming follow-up to stakeholder meeting
8/3/12	NJDEP DLUR	Issued Wetlands Letter Of Interpretation
9/24/12	USFWS	Incoming concurrence on initial Draft Review of INRMP
10/26/12	Conserve Wildlife Foundation of NJ on Behalf of NJDEP ENSP	Comments on initial Draft Review of INRMP
2/27/13	Borough of Sea Girt	Incoming concurrence on Draft INRMP
3/4/13	USFWS	Incoming concurrence on Draft INRMP
3/12/13	Manasquan Environmental Council	Incoming comments on Draft INRMP
3/18/13	Monmouth County Parks Department	Incoming comments/concurrence on Draft INRMP
3/18/13	Monmouth County Parks Department	Outgoing response to statements on Draft INRMP
3/18/13	WPWA	Incoming concurrence on Draft INRMP
3/22/13	Conserve Wildlife Foundation of NJ on Behalf of NJDEP ENSP	Incoming concurrence on Draft INRMP
3/25/13	NJARNG/NJDMAVA	Errata sheet response to agencies/stakeholder comments
7/16/13	ARNG	ARNG Directorate Approval of the INRMP Update for Sea Girt NGJTC



STATE OF NEW JERSEY
NATIONAL GUARD TRAINING CENTER

Post Office Box 251
Sea Girt, New Jersey 08750

Mr. J. Eric Davis, Jr.
Supervisor
United States Fish and Wildlife Service
927 North Main Street, Building D
Pleasantville, NJ 08205

June 19, 2008

RE: Informal Consultation
Integrated Natural Resource Management Plan
Sea Girt National Guard Training Center
Sea Girt, New Jersey

Dear Mr. Davis

We request your concurrence that the proposed additional protection measures to the New Jersey National Guard Training Center's (NGTC) Integrated Natural Resource Management Plan (INMRP) is not likely to adversely effect any federally listed or Migratory Bird Protection Act species at the Sea Girt NGTC. In addition, we request that you respond to our request as soon as possible as we would like to implement the protection measures in an expeditious manner.

At the start of this year's monitoring season, Ms. Stephanie Egger of your office and Mr. Todd Pover of the New Jersey Department of Environmental Protection (NJDEP) questioned how the NGTC was going to address several issues that may have the increased potential to impact the federally listed Piping Plover and Sea Beach Amaranth. These issues include routine life guard patrols in front of the northern protection area, garbage disposal at the boardwalk entrance, and predator control. These issues are long standing concerns and the NGTC has tried to limit those impacts through various measures identified in the INRMP. This letter intends to address those concerns prior to the 5 year revision of the NGTC's INRMP scheduled to start next year and re-authorization of the Coastal Area Facility Review Act (CAFRA) beach maintenance permit being submitted this year. These issues have been recently addressed through ongoing discussions with the NGTC's environmental office and representatives from the Borough of Sea Girt.

SECTION 1 - BACKGROUND

As you know, the NGTC has had an INRMP since 2006. The INRMP was developed in cooperation with the NJDEP and the United States Fish and Wildlife Service (USFWS). The purpose of the plan is to ensure natural resources such as federally listed rare species are not impacted as the facility continues to train military personnel. By definition, an impact can cover a wide range of possibilities from harassment (which may lead to failure to nest and nest abandonment) to inadvertent killing. In addition, the INRMP requires that any protection measures implemented do not adversely impact the training mission of the facility.

Although military training at the NGTC beach is limited to physical training and the occasional water survival skills training event, the NGTC provides a significant moral, welfare, and recreation (MWR) benefit to military personnel and their families. The MWR benefit is especially critical to the families of approximately 6,000 New Jersey Army National Guard soldiers, half of whom are scheduled to deploy to Iraq this month. As such, the NGTC wishes to maintain these benefits while working to protect the various rare species that inhabit the NGTC. The NGTC feels both goals are critical to the NGTC and are obtainable.

SECTION 2 - LIFEGUARDS & RUTS

Issue:

For the past seven years, the Borough of Sea Girt has had an agreement with the NGTC to provide lifeguard services on the NGTC beach during the summer season. The lifeguards divide the NGTC beach into four zones:

- Zone 1 – Northern most zone between the northern boundary of the NGTC (Sea Girt Ave.) to the northern edge of the northern protection area. This area is unguarded and identified as a “no swimming area.” Lifeguard supervisors on the borough’s beach respond to emergencies in this area rather than lifeguards assigned to the borough’s beach. Bathers migrate to this portion of the beach from the borough’s beach to the north or the sand ramp at Sea Girt Ave.
- Zone 2 – This is an unguarded area in front of the northern protection area (“no rake zone”). The strong rip current and intense wave activity in front of the protection area are attractive to wave runners. Unfortunately, they can get into trouble and require rescuing. This area is generally out of view from the lifeguards assigned to Zones 3 and 4 and routine supervisory vehicle patrols are the primary oversight in this area. In addition, during a routine patrol, if the supervisor sees someone in the unguarded area they can flash their lights and direct them out of the area on their public address system. The patrols help alleviate the pressure on the stands to respond to emergencies and act as a preventative measure. According to lifeguard

records, the routine patrols have prevented approximately 500 to 700 and 600 to 700 rescues for calendar years 2007 and 2006, respectively.

- Zones 3 and 4 – This is a guarded area from the southern edge of the northern protection area to the NGTC's southern boundary with the Borough of Manasquan. The lifeguards establish three stands in the southern end of the NGTC beach. Two stands are typically occupied during normal use periods and the third stand is occupied during heavy bathing periods. Two life guards are posted at each stand. See attached drawing. The stands are supplemented by routine supervisory lifeguard patrols from the lifeguard headquarters near Beacon Street (approximately 1.3 miles away) to the southern end of the NGTC. These patrols are the same patrols mentioned in Zone 2 above and bring equipment, staffers, and supplies to the stands.

According to the head lifeguard (Mr. Tim Harmon), each stand watches 100 to 500 bathers at any given time. Records kept by the NGTC indicate that approximately 3,000 bathers visit the NGTC beach on any given weekend with more visiting on holidays. Many of the bathers are out of town day trippers that need daily reminders on where they can safely swim. For calendar years 2007 and 2006, the lifeguards assigned to the NGTC beach performed 36 and 53 rescues on the NGTC beach (all zones), respectively.

In addition, per the New Jersey State Sanitary Code, Public Recreational Bathing Code (NJAC 8:26-5.10c), one lifeguard is required per 300 linear feet of bathing beach. Zones 3 and 4 have approximately 880 linear feet of bathing beach. In addition, the NGTC has approximately 1,110 linear feet of beach, but most of this beach includes the unguarded area in Zones 1 and 2. The closest stands are approximately 800 feet from the Zone 3.

The NJDEP & USFWS has issue with the intensity of the routine lifeguard patrols and rutting that the vehicles cause in the area in front of the northern protection area (Zone 2). The NJDEP and USFWS are suggesting that the life guard patrols be diverted along Range Road during the nesting season (March through late June) in addition to anytime a chick is present. The INRMP mentions these patrols as occurring "several times per day." However, the USFWS & NJDEP feel that it's occurring more often than "several times per day" and is altering the habitat. During high tide, due to the topography (both the narrowness and steepness) of the beach, the vehicles come very close to the protection area fencing near the previous location of the 2007 nest. Also, amaranth has historically occurred in the area along the fence adding to the issue. Lastly, until the wave action and tides knock down the ruts, the USFWS & NJDEP fear that the ruts can entrap recently hatched plovers.

Currently, all vehicle activity in front of the northern protection area is stopped once the chicks hatch. When the outdoor small arms firing range is in use, these patrols are rerouted away from the protection area along Range Road on the NGTC. The range is usually in operation Monday through Friday and

most Saturdays in the summer. In addition, no vehicles, except emergency response vehicles responding to a valid emergency, are allowed in the area in front of the northern protection area when chicks are present.

Proposed Solution:

The life guards provide a valuable service to the bathers at the NGTC and, given the unique circumstances of the NGTC, this service needs to be maintained. However, the NGTC proposes the following protection measures:

1. Last summer and this summer, the NGTC identified a portion of the beach in front of the northern protection area as a fishing area only. The NGTC intends to continue this restriction in future years in order to limit bathing and ocean recreational activities in this area, while giving fishermen a safe place to fish.
2. The NGTC intends to re-route routine life guard vehicle patrols to Range Road when piping plover eggs are present rather than when chicks are present. This change will provide an additional approximately 27 days (typical gestation period for plover eggs) for wave action to knock down any ruts in front of the protection area before the eggs hatch. In addition, the NGTC proposes a one time mechanical rake event in front of the northern protection area within one day of identifying the presence of plover eggs. The intent of the raking event is to accelerate the removal of the ruts. The NGTC would conduct the rake event with close oversight from the NJDEP and USFWS representatives. The NGTC plans on including this activity in the soon to be submitted CAFRA beach maintenance permit application. In accordance with the INRMP, a valid emergency will still negate all protection efforts in effect and the lifeguards will still be required to document all emergency responses to the NGTC.
3. At Mr. Harmon's request, the NGTC partnered with the USFWS and NJDEP to conduct a training brief on 18 June 2008 for the Borough of Sea Girt lifeguards and other appropriate borough emergency response officials. However, the NGTC does not anticipate providing this brief annually. Instead, the NGTC intends on continuing the annual awareness brief to various NGTC and borough representatives including the borough's Department of Public Works supervisor (Mr. Kevin Thompson) and the Mr. Harmon. Representatives are directed to filter the briefing among their staff as appropriate. This year, Mr. Harmon and Mr. Thompson were briefed on 17 April and 11 March, respectively.

SECTION 3 - PREDATORS

Issue:

Predators on the NGTC include both dogs and the resident fox population. These animals have the potential to harass and eat the rare birds. However, there has not been a documented killing of a plover at the NGTC by a predator. It appears, based on fox and dog tracks within the northern protection area, harassment is the dominant impact by predators. Harassment may lead to nest failure. On 16 April 2008,

a fox was observed within the northern protection area and fox dens have been identified on the NGTC in the dunes behind the ranges and within the rip rap embankments near the beach parking lots.

Proposed Solution:

The NGTC proposes the following plan to deal with the predator issue:

1. The NGTC has historically enforced a “no pet policy” and annually issues letters to the local police and animal control offices reiterating that policy. Starting this summer, the NGTC intends to initiate a mailing campaign each year to licensed dog owners of the boroughs of Sea Girt and Manasquan informing them of the NGTC’s “no pet policy” and the potential impact on the plovers. Also, the NGTC will erect additional signage at either end of the NGTC beach informing residents of the pet policy.
2. The NGTC intends to allow the NJDEP to conduct predator control at the NGTC. The INRMP identified the need to conduct predator control at the NGTC and identified the NJDEP as the agency that would implement the action. Prior to conducting the predator control activities, the NGTC requests that the NJDEP develop a plan specific to the NGTC that details the target species and method of capture. In addition, the NGTC requests that the NJDEP take a comprehensive approach to predator control so that any predators removed from the NGTC are not replaced by adjacent offsite predators. To that end, the NGTC requests that the NJDEP enter into an agreement with the Borough of Sea Girt to conduct predator control activities on borough property, particularly Crescent Park. The NJDEP has indicated red fox dens are present in the park. The NGTC requests that the USFWS supports the proposed predator control concept and persuade the NJDEP to conduct predator control as a comprehensive approach.

SECTION 4 - TRASH

Issue:

Trash attracts predators. Trash is routinely picked up within the protection areas by volunteers of the Wreck Pond Watershed Association (WPWA) and an environmental consultant hired by the NGTC to conduct rare species monitoring. However, the NJDEP and USFWS have taken issue with the trash cans at the boardwalk in the beach parking lot. At times over summer weekends, the trash cans are apparently overflowing. To date, animal tracks have not been identified around the trash cans.

Proposed Solution:

The NGTC intends to install recycling cans at the boardwalk. The hope is the recycling cans will negate the need for additional pickups during the weekend. In addition, the NGTC intends to closely monitor the situation this season. The trash cans are emptied twice a day on weekends. Additional trash can service will occur as needed to ensure they do not overflow.

SECTION 5 - OTHER ISSUES

HABITAT ENHANCEMENT – The INRMP identified the possible need for vegetative management in the northern protection area. High density vegetation is not suitable habitat for beach nesting birds as predators can hide in the vegetation. As the northern protection area has not been raked in many years, vegetative cover is very dense. In order to investigate this phenomenon, the NGTC is conducting a vegetative assessment in 2008 and 2009 to determine the percent cover and conduct a literature search to determine the appropriate cover density. Although vegetative management is not planned in the next few years, the NGTC requests that if habitat management is required, the USFWS review the habitat management plan when the NGTC seeks the appropriate NJDEP and USFWS approvals.

NECROPSY – The NGTC requests a copy of the necropsy report for the piping plover chick that died last year at the NGTC. As you know, the NGTC piping plover chick carcass was sent to a USFWS laboratory to undergo a necropsy. Based on a report from Mr. Pover, it is suspected to have succumbed as a result of a struggle with a red fox. The NGTC would like to add the results of the necropsy to the 2007 annual monitoring summary report. In addition, it may help justify the management of the predator population.

TRESSPASSERS – The NGTC is experiencing an increase in the number of youth aged trespassers, particularly along the concrete sea wall behind the northern protection area. According to the borough police (Chief Sidley), local residents are complaining to the police department to rectify the situation. Chief Sidley is concerned that if he pursues the trespassers, they will flee into the protection area, potentially impacting any rare species. In addition, his police officers are reluctant to follow the perpetrators in the event the officers impact any rare species. The NGTC is investigating the installation of a fence along the top of the sea wall. The NGTC requests that if the fencing requires any NJDEP and USFWS approvals, the USFWS agree to the installation of the fence.

MEMORANDUM OF AGREEMENT - The NGTC is attempting to enter into a formal memorandum of agreement (MOA) with the WPWA. Currently, the MOA is at the National Guard Bureau (NGB) for review. The MOA attempts to establish formal guidelines the WPWA will follow while on the NGTC. It is important for the WPWA to understand that any impacts they cause to a rare species while on the NGTC puts the NGTC at risk.

We hope that this letter fulfills your need for informal consultation requirements. Although we are willing to modify the routine lifeguard patrol route when plover eggs are present, we strongly feel that the

lifeguard patrols provide an important service to the NGTC and intend on maintaining the routine lifeguard patrols in Zone 2 as a life safety measure. We request your concurrence that the proposed additional protection measures are not likely to adversely affect any federally listed or Migratory Bird Protection Act species at the Sea Girt NGTC. In addition, we request that you respond to our request as soon as possible as we would like to implement the proposed protection measures as soon as possible. If you have any questions or would like to arrange a meeting to discuss these issues, please contact Mr. William McBride of the NJARNG Environmental Compliance Office at (609) 530 7136.

Sincerely,



JEFFERY PIERSON
BG (ret.), Director
Sea Girt National Guard Training Center

cF: NGTC (Mr. Gary Schmitz)
USFWS (Ms. Stephanie Egger)
NJDEP (Mr. Todd Pover)
Sea Girt (COL (ret.) Alan Bunting)
ASGECI (Mr. Harry Strano)
Brinkerhoff Environmental (Ms. Yvonne Jamieson)
NGB (Ms. Elizabeth Erickson)
ID-OEC (file)



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New Jersey Field Office
Ecological Services
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Pleasantville, New Jersey 08232
Tel: 609/646 9310
Fax: 609/646 0352

<http://www.fws.gov/northeast/njfieldoffice>

In Reply Refer to:

2008-I-0553

AUG 05 2008

Jeffery Pierson, Director
Sea Girt National Guard Training Center
P.O. Box 251
Sea Girt, New Jersey 08750

Dear Mr. Pierson,

This U.S. Fish and Wildlife Service (Service) letter is in response to the Sea Girt National Guard Training Center's (NGTC) June 19, 2008 letter requesting concurrence that additional protective measures proposed to amend the NGTC's 2006 Integrated Natural Resource Management Plan (INRMP) are not likely to adversely affect federally listed threatened and endangered species. The additional protective measures are proposed to further address impacts to the federally listed (threatened) piping plover (*Charadrius melodus*) and seabeach amaranth (*Amaranthus pumilus*). This response is provided pursuant to Section 7 of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA) to ensure the protection of federally listed threatened and endangered species.

PROTECTIVE MEASURES PROPOSED BY NGTC

The following are the Service's comments regarding the additional protective measures in the NGTC's June 19, 2008 letter.

Lifeguard Vehicle Activity/Rut Removal

Vehicles may harm or harass plovers by crushing wrack into the sand and making it unavailable as cover or as a foraging substrate, by creating tire ruts that may trap or impeded movement of chicks, and by preventing plovers from using habitat that is otherwise suitable (MacIvor, 1990; Strauss, 1990; Hoopes et al., 1992; Goldin, 1993). In the past, lifeguard vehicles have created deep tire ruts that have not diminished before piping plover chicks were present. The NGTC proposes to re-route routine lifeguard vehicle patrols to Range Road when piping plover nests are present in addition to when chicks are present. The Service concurs with the added protective measure of re-routing vehicles after piping plover nests are found in addition to when chicks are present. Re-routing the lifeguard vehicles before chicks are present will allow natural processes

to smooth out deep tire ruts created by lifeguard vehicles and allow for additional undisturbed feeding and breeding activities of the nesting piping plovers.

In addition, the NGTC proposes a one-time mechanical rake event in front of the NGTC's northern protected area within one day of identifying the presence of plover eggs. The intent of the raking is to accelerate the removal of deep tire ruts created by lifeguard vehicles. The raking would be coordinated with the Service and New Jersey Department of Environmental Protection (NJDEP). The Service concurs with NGTC conducting a one-time mechanical rake event (only if necessary) to assist with smoothing out deep tire ruts created by lifeguard vehicles. The raking should be conducted in coordination with the Service and the NJDEP's Endangered and Nongame Species Program (ENSP) and be consistent with the Service's 1994 *Guidelines for Managing Recreational Activities in Piping Plover Breeding Habitat on the U.S. Atlantic Coast to Avoid Take Under Section 9 of the Endangered Species Act*. Raking must not occur until the area has been thoroughly searched for piping plover nests and all nests and an adequate buffer area have been symbolically fenced. This area is considered a no-rake zone pursuant to the NJDEP-issued Coastal Area Facility Review Act (N.J.S.A. 13:19) beach maintenance permit for the NGTC beaches; therefore, the NGTC must coordinate with the NJDEP's Division of Land Use Regulation (DLUR) to ensure the activity can be authorized.

Predation

The NGTC proposes to initiate a mailing campaign each year to licensed dog owners of the neighboring Boroughs of Sea Girt and Manasquan informing them of the NGTC's "no pet policy" and the potential impact on piping plovers and other beach nesting birds. The NGTC will also erect additional signage at either end of the NGTC beach informing residents of the "no pet policy." The Service concurs with these additional protective measures. Reducing or eliminating pets on the beach should reduce interactions of pets and piping plover adults and chicks that might result in injury, harassment, or even death.

The NGTC proposes to allow NJDEP to conduct predator control at NGTC. The NGTC requests that the NJDEP develop a plan specific to NGTC that details the target species and method of capture. In addition, the NGTC requests that the NJDEP take a comprehensive approach to predator control so that any predators removed from the NGTC are not replaced by adjacent off-site predators. The Service concurs with NJDEP being identified as an agency to conduct predator control measures at NGTC. The Service is available to assist the NGTC and the NJDEP in developing a regional predator management plan specific to addressing the NGTC's predator issues and predators at Sea Girt's Wreck Pond nesting area during the critical period (just prior to and during the nesting season [March 15 – August 31]) if necessary. The Service also recommends the NGTC contact the U.S. Department of Agriculture – Animal and Plant Health Inspection Services – Wildlife Services to serve as an additional agency to conduct predator control at NGTC.

Refuse

The NGTC proposes to install recycling cans at the boardwalk to negate the need for additional refuse pickups during the week. In addition, the NGTC intends to closely monitor refuse

disposal during the 2008 season and allow for additional service of refuse cans to ensure that cans do not overflow. The Service concurs with installing additional refuse cans and the additional monitoring of disposal. Allowing additional refuse pick-ups (if necessary) may reduce attraction of predators. The Service also recommends fitting refuse cans with predator resistant lids.

Fishing

The NGTC identified a portion of the beach in front of the northern protection area as a “fishing only” area and intends to continue this practice in future years. The Service supports low levels of passive recreation, such as fishing, in front of the northern protected zone. However, as noted in the revised recovery plan (U.S. Fish and Wildlife Service, 1996), substantial evidence exists that human activities exacerbate natural predation on piping plovers, their eggs, and chicks. Beach recreationists often feed wildlife or leave trash that attracts species that prey on piping plovers. The NGTC should ensure (*e.g.*, signs, brochures) that fishermen do not leave bait scrapes or other trash behind that would attract predators.

Briefings

The NGTC will continue its annual awareness briefing on threatened and endangered species to various NGTC and Borough of Sea Girt representatives. The representatives are directed to disseminate the information among their staff as appropriate. The Service is available to assist in future briefings if necessary.

ADDITIONAL COMMENTS

The following comments address additional requests from the NGTC to the Service in the NGTC’s June 19, 2008 letter.

Habitat Enhancement

The NGTC is conducting a vegetative assessment in 2008 and 2009 to determine if the increased density of vegetative cover is affecting the suitability of the NGTC for listed species. The Service is available to review any habitat management plan that is developed by the NGTC.

Necropsy

The NGTC requests a copy of the necropsy report for the piping plover that died in 2007 on the NGTC beach. The NGTC should contact the Service’s Law Enforcement Agent, Dorothy Manera, at 856-327-0821 or dorothy_manera@fws.gov to request a copy of the necropsy report.

Trespass

The NGTC is investigating the need to install a fence along the top of the seawall landward of the northern protected area to reduce the number of trespassers and has requested Service approval. The Service opposes the installation of fencing along the top of the seawall because

fencing may provide perching sites that would encourage use by avian predators that may prey on beach-nesting birds. The Service is available to review alternative methods, including installing fencing in another location, to reduce the number of trespassers from entering the northern protected zone at the seawall.

Memorandum of Agreement

The NGTC is attempting to enter into a formal memorandum of agreement (MOA) with the Wreck Pond Watershed Association to assist with monitoring and management of threatened and endangered species on the NGTC's beaches. The Service commends the NGTC for being proactive by entering into an MOA with the Wreck Pond Watershed Association. The Service is available to provide additional technical assistance in support of the MOA. Monitoring and management conducted by the Wreck Pond Watershed Association volunteers should be coordinated with the ENSP.

CONCLUSION

The Service concurs that the actions listed above under "Protective Measures Proposed by NGTC" are not likely to adversely affect the continued existence of the piping plover or seabeach amaranth. The Service recommends against installing a fence along the top of the seawall. Although a fence may discourage trespassing, it may provide perching sites for avian predators. The Service looks forward to continuing to work cooperatively with the NGTC to ensure the protection of federally and State-listed species. Please contact Ms. Stephanie Egger at 609-383-3938 extension 47, if you have any questions regarding the above comments or require additional assistance regarding federally listed threatened and endangered species.

Sincerely,



J. Eric Davis Jr.
Supervisor

LITERATURE CITED

- Goldin, M.R. 1993. Effects of human disturbance and off-road vehicles on piping plover reproductive success and behavior at Breezy Point, Gateway National Recreation Area, New York. M.S. Thesis. University of Massachusetts, Amherst, Massachusetts. 128 pp.
- Hoopes, E. M., C.R. Griffin, and S.M. Melvin. 1992. Relationships between human recreation and piping plover foraging ecology and chick survival. Unpublished report. University of Massachusetts, Amherst, Massachusetts. 77 pp.

- MacIvor, L.H. 1990. Population dynamics, breeding ecology, and management of piping plovers on Outer Cape Cod, Massachusetts. M.S. Thesis. University of Massachusetts, Amherst, Massachusetts. 100 pp.
- Strauss, E. 1990. Reproductive success, life history patterns, and behavioral variation in a population of piping plovers subjected to human disturbance (1982-1989). Ph.D. Dissertation. Tufts University, Medford, Massachusetts. 143 pp.
- U.S. Fish and Wildlife Service. 1996. Piping plover (*Charadrius melodus*), Atlantic Coast population, revised recovery plan. U.S. Department of the Interior, Fish and Wildlife Service, Hadley, Massachusetts. 245 pp.



AECOM
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732.564.3600 tel
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December 7, 2011

Stephanie Egger
Representative for U.S. Fish and Wildlife Service
New Jersey Field Office
927 North Main Street
Heritage Square, Building D
Pleasantville, New Jersey 08232

**Subject: Stakeholder Meeting Invitation
Integrated Natural Resources Management Plan (2006-2010)
Five-year Review and Update
Sea Girt National Guard Training Center
Sea Girt, New Jersey**

Dear Ms. Egger,

The New Jersey Department of Military and Veterans Affairs (NJDMVA) is initiating review and update of its existing Integrated Natural Resources Management Plan (INRMP) for the Sea Girt National Guard Training Center (NGTC). AECOM has been contracted by NJDMVA to assist with the review and update of the Sea Girt NGTC INRMP prepared in February, 2006. The purpose of this letter is to formally invite a representative for the U.S. Fish and Wildlife Service (USFWS) to attend an onsite stakeholder meeting:

January 10th, 2012 at 10 AM
NGTC Building 7
Sea Girt, New Jersey.

The intent of the meeting is to familiarize agency personnel with the military mission and natural resources at the installation and to solicit input from the USFWS to support and facilitate a cooperative planning process.

The INRMP is a five-year planning document required by the *Sikes Act Improvement Act of 1997* that requires revisions to meet new requirements and missions at the facility. The purpose of the INRMP is to document the policies and desired future direction of the New Jersey Army National Guard's natural resources programs at the Sea Girt NGTC, which are consistent with and support the military mission of the facility. Specific objectives of the plan are as follows:

- To provide a comprehensive planning document to support the military mission and promote ecosystem health,
- To ensure no net loss of military training capacity,

- To establish a framework for the implementation of natural resources programs and ecosystem management,
- To provide a centralized source of information on the status of natural resources programs, and
- To help ensure compliance with natural resources-related requirements.

An electronic copy *Final Integrated Natural Resources Management Plan (2006-2010)* is available for download at <http://www.state.nj.us/military/installations/index.html>.

Please respond to this invitation by email to Melissa.Smith@aecom.com. Should you have any questions, please feel free to contact me via email or by phone at (732) 564-3637 or Mr. Bill McBride (NJDMAVA) at William.McBride@njdmava.state.nj.us or (609) 530-7136.

Yours sincerely,



Melissa Smith
Project Manager
Melissa.Smith@aecom.com



Nancy Palmstrom
Project Director
Nancy.Palmstrom@aecom.com

cc:

Bill McBride (NJDMAVA)
Ron Popowski (USFWS)
File

December 7, 2011

Todd Pover, Beach Nesting Bird Project Manager
New Jersey Division of Fish and Wildlife
Endangered and Nongame Species Program
2201 County Rt. 631
Woodbine, NJ 08270

**Subject: Stakeholder Meeting Invitation
Integrated Natural Resources Management Plan (2006-2010)
Five-year Review and Update
Sea Girt National Guard Training Center
Sea Girt, New Jersey**

Dear Mr. Pover,

The New Jersey Department of Military and Veterans Affairs (NJDMVA) is initiating review and update of its existing Integrated Natural Resources Management Plan (INRMP) for the Sea Girt National Guard Training Center (NGTC). AECOM has been contracted by NJDMVA to assist with the review and update of the Sea Girt NGTC INRMP prepared in February, 2006. The purpose of this letter is to formally invite a representative for the New Jersey Division of Fish and Wildlife (NJDFW) Endangered and Nongame Species Program (ENSP) to attend an onsite stakeholder meeting:

January 10th, 2012 at 10 AM
NGTC Building 7
Sea Girt, New Jersey.

The intent of the meeting is to familiarize agency personnel with the military mission and natural resources at the installation and to solicit input from NJDFW to support and facilitate a cooperative planning process.

The INRMP is a five-year planning document required by the *Sikes Act Improvement Act of 1997* that requires revisions to meet new requirements and missions at the facility. The purpose of the INRMP is to document the policies and desired future direction of the New Jersey Army National Guard's natural resources programs at the Sea Girt NGTC, which are consistent with and support the military mission of the facility. Specific objectives of the plan are as follows:

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- To ensure no net loss of military training capacity,
- To establish a framework for the implementation of natural resources programs and ecosystem management,

- To provide a centralized source of information on the status of natural resources programs, and
- To help ensure compliance with natural resources-related requirements.

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Please respond to this invitation by email to Melissa.Smith@aecom.com. Should you have any questions, please feel free to contact me via email or by phone at (732) 564-3637 or Mr. Bill McBride (NJDMAVA) at William.McBride@njdmava.state.nj.us or (609) 530-7136.

Yours sincerely,



Melissa Smith
Project Manager
Melissa.Smith@aecom.com



Nancy Palmstrom
Project Director
Nancy.Palmstrom@aecom.com

cc:

Bill McBride (NJDMAVA)
File

December 7, 2011

Nancy Maclearie-Hayduk, Director
Wreck Pond Watershed Association
wreckpond@hotmail.com

**Subject: Stakeholder Meeting Invitation
Integrated Natural Resources Management Plan (2006-2010)
Five-year Review and Update
Sea Girt National Guard Training Center
Sea Girt, New Jersey**

Dear Mrs. Maclearie-Hayduk,

The New Jersey Department of Military and Veterans Affairs (NJDMAVA) is initiating review and update of its existing Integrated Natural Resources Management Plan (INRMP) for the Sea Girt National Guard Training Center (NGTC). AECOM has been contracted by NJDMAVA to assist with the review and update of the Sea Girt NGTC INRMP prepared in February, 2006. The purpose of this letter is to formally invite a representative for the Wreck Pond Watershed Association to attend an onsite stakeholder meeting:

January 10th, 2012 at 10 AM
NGTC Building 7
Sea Girt, New Jersey.

The intent of the meeting is to familiarize agency personnel with the military mission and natural resources at the installation and to solicit input from the Association to support and facilitate a cooperative planning process.

The INRMP is a five-year planning document required by the *Sikes Act Improvement Act of 1997* that requires revisions to meet new requirements and missions at the facility. The purpose of the INRMP is to document the policies and desired future direction of the New Jersey Army National Guard's natural resources programs at the Sea Girt NGTC, which are consistent with and support the military mission of the facility. Specific objectives of the plan are as follows:

- To provide a comprehensive planning document to support the military mission and promote ecosystem health,
- To ensure no net loss of military training capacity,
- To establish a framework for the implementation of natural resources programs and ecosystem management,
- To provide a centralized source of information on the status of natural resources programs, and
- To help ensure compliance with natural resources-related requirements.

An electronic copy *Final Integrated Natural Resources Management Plan (2006-2010)* is available for download at <http://www.state.nj.us/military/installations/index.html>.

Please respond to this invitation by email to Melissa.Smith@aecom.com. Should you have any questions, please feel free to contact me via email or by phone at (732) 564-3637 or Mr. Bill McBride (NJDMAVA) at William.McBride@njdmava.state.nj.us or (609) 530-7136.

Yours sincerely,



Melissa Smith
Project Manager
Melissa.Smith@aecom.com



Nancy Palmstrom
Project Director
Nancy.Palmstrom@aecom.com

cc:

Bill McBride (NJDMAVA)
File

December 7, 2011

Alan Bunting (Borough of Sea Girt Administrator)
P.O. Box 296
Sea Girt, New Jersey
08750

**Subject: Stakeholder Meeting Invitation
Integrated Natural Resources Management Plan (2006-2010)
Five-year Review and Update
Sea Girt National Guard Training Center
Sea Girt, New Jersey**

Dear Mr. Bunting,

The New Jersey Department of Military and Veterans Affairs (NJDMAVA) is initiating review and update of its existing Integrated Natural Resources Management Plan (INRMP) for the Sea Girt National Guard Training Center (NGTC). AECOM has been contracted by NJDMAVA to assist with the review and update of the Sea Girt NGTC INRMP prepared in February, 2006. The purpose of this letter is to formally invite a representative for the Borough of Sea Girt to attend an onsite stakeholder meeting:

January 10th, 2012 at 10 AM
NGTC Building 7
Sea Girt, New Jersey.

The intent of the meeting is to familiarize agency personnel with the military mission and natural resources at the installation and to solicit input from the Borough to support and facilitate a cooperative planning process.

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Yours sincerely,



Melissa Smith
Project Manager
Melissa.Smith@aecom.com



Nancy Palmstrom
Project Director
Nancy.Palmstrom@aecom.com

cc:

Bill McBride (NJDMAVA)
File

December 7, 2011

Borough of Sea Girt Environmental Commission
P.O. Box 296
Sea Girt, New Jersey
08750

**Subject: Stakeholder Meeting Invitation
Integrated Natural Resources Management Plan (2006-2010)
Five-year Review and Update
Sea Girt National Guard Training Center
Sea Girt, New Jersey**

Dear Commission Members,

The New Jersey Department of Military and Veterans Affairs (NJDMVA) is initiating review and update of its existing Integrated Natural Resources Management Plan (INRMP) for the Sea Girt National Guard Training Center (NGTC). AECOM has been contracted by NJDMVA to assist with the review and update of the Sea Girt NGTC INRMP prepared in February, 2006. The purpose of this letter is to formally invite a representative for the Sea Girt Environmental Commission to attend an onsite stakeholder meeting:

January 10th, 2012 at 10 AM
NGTC Building 7
Sea Girt, New Jersey.

The intent of the meeting is to familiarize agency personnel with the military mission and natural resources at the installation and to solicit input from the Commission to support and facilitate a cooperative planning process.

The INRMP is a five-year planning document required by the *Sikes Act Improvement Act of 1997* that requires revisions to meet new requirements and missions at the facility. The purpose of the INRMP is to document the policies and desired future direction of the New Jersey Army National Guard's natural resources programs at the Sea Girt NGTC, which are consistent with and support the military mission of the facility. Specific objectives of the plan are as follows:

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Yours sincerely,



Melissa Smith
Project Manager
Melissa.Smith@aecom.com



Nancy Palmstrom
Project Director
Nancy.Palmstrom@aecom.com

cc:

Bill McBride (NJDMAVA)
File



AECOM
30 Knightsbridge Road, Suite 520
Piscataway, New Jersey 08854

732.564.3600 tel
732.269.0122 fax

December 7, 2011

Borough of Manasquan Environmental Commission
201 East Main Street
Manasquan, New Jersey
08736

**Subject: Stakeholder Meeting Invitation
Integrated Natural Resources Management Plan (2006-2010)
Five-year Review and Update
Sea Girt National Guard Training Center
Sea Girt, New Jersey**

Dear Commission Members,

The New Jersey Department of Military and Veterans Affairs (NJDMVA) is initiating review and update of its existing Integrated Natural Resources Management Plan (INRMP) for the Sea Girt National Guard Training Center (NGTC). AECOM has been contracted by NJDMVA to assist with the review and update of the Sea Girt NGTC INRMP prepared in February, 2006. The purpose of this letter is to formally invite a representative for the Borough of Manasquan Environmental Commission to attend an onsite stakeholder meeting:

January 10th, 2012 at 10 AM
NGTC Building 7
Sea Girt, New Jersey.

The intent of the meeting is to familiarize agency personnel with the military mission and natural resources at the installation and to solicit input from the Commission to support and facilitate a cooperative planning process.

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Melissa Smith
Project Manager
Melissa.Smith@aecom.com



Nancy Palmstrom
Project Director
Nancy.Palmstrom@aecom.com

cc:

Bill McBride (NJDMAVA)
File

December 7, 2011

Monmouth County Environmental Commission
Hall of Records
One East Main Street
Freehold, New Jersey
07728

**Subject: Stakeholder Meeting Invitation
Integrated Natural Resources Management Plan (2006-2010)
Five-year Review and Update
Sea Girt National Guard Training Center
Sea Girt, New Jersey**

Dear Commission Members,

The New Jersey Department of Military and Veterans Affairs (NJDMVA) is initiating review and update of its existing Integrated Natural Resources Management Plan (INRMP) for the Sea Girt National Guard Training Center (NGTC). AECOM has been contracted by NJDMVA to assist with the review and update of the Sea Girt NGTC INRMP prepared in February, 2006. The purpose of this letter is to formally invite a representative for the Monmouth County Environmental Commission to attend an onsite stakeholder meeting:

January 10th, 2012 at 10 AM
NGTC Building 7
Sea Girt, New Jersey.

The intent of the meeting is to familiarize agency personnel with the military mission and natural resources at the installation and to solicit input from the Commission to support and facilitate a cooperative planning process.

The INRMP is a five-year planning document required by the *Sikes Act Improvement Act of 1997* that requires revisions to meet new requirements and missions at the facility. The purpose of the INRMP is to document the policies and desired future direction of the New Jersey Army National Guard's natural resources programs at the Sea Girt NGTC, which are consistent with and support the military mission of the facility. Specific objectives of the plan are as follows:

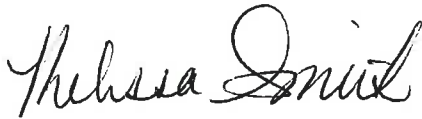
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Bill McBride (NJDMAVA)
File



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New Jersey Field Office
Ecological Services
927 North Main Street, Building D
Pleasantville, New Jersey 08232
Tel: 609/646 9310
Fax: 609/646 0352
<http://www.fws.gov/northeast/njfieldoffice>



In Reply Refer to:
2012-I-0092

Jeffery Pierson, Director
Sea Girt National Guard Training Center
P.O. Box 251
Sea Girt, New Jersey 08750

JAN 20 2012

Dear Mr. Pierson:

This U.S. Fish and Wildlife Service (Service) letter is in follow-up to the Sea Girt National Guard Training Center's (NGTC) interagency and stakeholder meeting for the upcoming revisions to the NGTC's 2006 Integrated Natural Resource Management Plan (INRMP). As agreed to at the January 10, 2012 meeting, the NGTC will continue to operate under the 2006 INRMP for the 2012 nesting and growing seasons of the federally listed (threatened) piping plover (*Charadrius melodus*) and seabeach amaranth (*Amaranthus pumilus*). In addition to the INRMP, the NGTC will follow the additional protective measures proposed by NGTC and outlined in the Service's August 5, 2008 letter (File No. 2008-I-0553, attached) to further address impacts to piping plovers and seabeach amaranth. The NGTC will also act in accordance with any provision of the Borough of Sea Girt's May 2010 Settlement Agreement between the Service and the New Jersey Department of Environmental Protection for activities conducted by the Borough of Sea Girt on NGTC property (*i.e.*, beach raking and lifeguard operations). This response is provided pursuant to Section 7 of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16. U.S.C. 1531 *et seq.*) to ensure the protection of federally listed threatened and endangered species.

Stephanie Egger of the Conserve Wildlife Foundation of New Jersey (acting on behalf of the Service for this matter) is available to assist the NGTC and answer any questions that may arise during the INRMP revision process. We look forward to continuing our cooperative relationship with the NGTC for the protection of federally and State-listed species. Ms. Egger may be contacted at (215) 350-6827 or stephanie.egger@conservewildlifenj.org. If she is not available, please contact Mr. Ron Popowski at Ron_Popowski@fws.gov.

Sincerely,

for J. Eric Davis Jr.
Field Supervisor



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Land Use Regulation
Mail Code 501-02A, P. O. Box 420
Trenton, New Jersey 08625-0420
www.state.nj.us/dep/landuse

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Commissioner

AUG 03 2012

RECEIVED

AUG 10 2012

AMY S. GREENE
ENVIRONMENTAL CONSULTANTS, INC.

Jeffery Pierson
101 Eggerts Crossing Rd.
Lawrenceville, NJ 08648

RE: Letter of Interpretation: Line Verification
File No.: 1300-11-0004.1
Activity Number: FWW110001
Applicant: NJ DEPT OF MILITARY AND VETERANS AFFAIRS
Block(s) and Lot(s): [54, 2.01] [106, 1]
Sea Girt Borough, Monmouth County

Dear Mr. Pierson:

This letter is in response to your request for a Letter of Interpretation to have Division of Land Use Regulation (Division) staff verify the boundary of the freshwater wetlands and/or State open waters on the referenced property.

In accordance with agreements between the State of New Jersey Department of Environmental Protection, the U.S. Army Corps of Engineers Philadelphia and New York Districts, and the U.S. Environmental Protection Agency, the NJDEP, the Division is the lead agency for establishing the extent of State and Federally regulated wetlands and waters. The USEPA and/or USACOE retain the right to reevaluate and modify the jurisdictional determination at any time should the information prove to be incomplete or inaccurate.

Based upon the information submitted, and upon a site inspection conducted by Division staff on February 14, 2011, the Division has determined that the wetlands and waters boundary line(s) as shown on the plan map entitled: "WETLAND LOCATION & TOPOGRAPHIC SURVEY", consisting of 4 sheet(s), dated August 11, 2011, last revised March 4, 2012, and prepared by John Hanlon, PLS, is accurate as shown.

Wetlands Resource Value Classification ("RVC")

Ordinary: "B1" to "B12", "D1" to "D15", "E1" to "E9", "F1" to "F6", "G1" to "G10", "11" to "16", "J1" to "J5" and "Q1" to "Q6" [No wetland buffer]

State Open Water: "K-8" – "K-14". [No wetland buffer]

Intermediate: All remaining flag numbers. [50 foot wetland buffer]

The Department has identified a water feature possibly regulated by the Flood Hazard Area Control Act Rules (FHACAR) N.J.A.C. 7:13. Under the FHACAR, a riparian zone is required along every regulated water with few exceptions (see N.J.A.C. 7:13-4.1). In order to determine the limits of any riparian zone on site, the applicant may obtain a Flood Hazard Area Verification (see 7:13-6.1), which determines all areas regulated under the FHACAR.

RVC may affect requirements for wetland and/or transition area permitting. This classification may affect the requirements for an Individual Wetlands Permit (see N.J.A.C. 7:7A-7), the types of Statewide General Permits available for the property (see N.J.A.C. 7:7A-4) and any modification available through a transition area waiver (see N.J.A.C. 7:7A-6). Please refer to the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.) and implementing rules for additional information.

Wetlands resource value classification is based on the best information available to the Department. The classification is subject to reevaluation at any time if additional or updated information is made available, including, but not limited to, information supplied by the applicant.

General Information

Pursuant to the Freshwater Wetlands Protection Act Rules, you are entitled to rely upon this jurisdictional determination for a period of five years from the date of this letter unless it is determined that the letter is based on inaccurate or incomplete information. Should additional information be disclosed or discovered, the Division reserves the right to void the original letter of interpretation and issue a revised letter of interpretation.

Regulated activities proposed within a wetland, wetland transition area or water area, as defined by N.J.A.C. 7:7A-2.2 and 2.6 of the Freshwater Wetlands Protection Act rules, require a permit from this office unless specifically exempted at N.J.A.C. 7:7A-2.8. The approved plan and supporting jurisdictional limit information are now part of the Division's public records.

This letter in no way legalizes any fill which may have been placed, or other regulated activities which may have occurred on-site. This determination of jurisdiction extent or presence does not make a finding that wetlands or water areas are "isolated" or part of a surface water tributary system unless specifically called out in this letter as such. Furthermore, obtaining this determination does not affect your responsibility to obtain any local, State, or Federal permits which may be required.

Appeal Process

In accordance with N.J.A.C. 7:7A-1.7, any person who is aggrieved by this decision may request a hearing within 30 days of the date the decision is published in the DEP Bulletin by writing to: New Jersey Department of Environmental Protection, Office of Legal Affairs, Attention: Adjudicatory Hearing Requests, P.O. Box 402, Trenton, NJ 08625-0402. This request must include a completed copy of the Administrative Hearing Request Checklist found at www.state.nj.us/dep/landuse/forms. Hearing requests received after 30 days of publication

notice may be denied. The DEP Bulletin is available on the Department's website at www.state.nj.us/dep/bulletin. In addition to your hearing request, you may file a request with the Office of Dispute Resolution to engage in alternative dispute resolution. Please see the website www.nj.gov/dep/odr for more information on this process.

Please contact Bob Kozachek of our staff by e-mail at bob.kozachek@dep.state.nj.us or (609) 633-2289 should you have any questions regarding this letter. Be sure to indicate the Department's file number in all communication.

Sincerely,



Bruce Stoneback, Acting Supervisor
Division of Land Use Regulation

c: Municipal Clerk
Municipal Construction Official
Harry Strano, Amy Greene Environmental Consultants, Inc. (original)



United States Department of the Interior

FISH AND WILDLIFE SERVICE



In Reply Refer To:
12-CPA-0326

New Jersey Field Office
Ecological Services
927 North Main Street, Building D
Pleasantville, New Jersey 08232
Tel: 609/646 9310
Fax: 609/646 0352
<http://www.fws.gov/northeast/njfieldoffice/>

Mr. Jeffery Pierson, Director
Sea Girt National Guard Joint Training Center
P.O. Box 251
Sea Girt, New Jersey 08750

SEP 24 2012

Dear Mr. Pierson,

The U.S. Fish and Wildlife Service (Service) appreciates the opportunity to provide a concurrence letter for the *External Review Request, New Jersey Army National Guard (NJANG), Integrated Natural Resources Management Plan (INRMP) (2012-2016) for Sea Girt National Guard Joint Training Center (NGJTC), Monmouth County, New Jersey, dated July, 2012.* The INRMP is intended to achieve compliance by the NJANG with Federal laws, provide coordination with Federal and State agencies, support the preservation of natural resources that are critical to sustaining military training activities, and foster coordination of land-use activities with properties adjacent to Sea Girt NGJTC in accordance with the provisions of the Sikes Act (16 U.S.C. 670a *et seq.*).

Please note that our Director's Order No. 135 dated June 12, 2009 authorizes Regional Directors to delegate INRMP concurrence authority to Field Office Supervisors. In the August 3, 2009 memorandum to the New Jersey Field Office (NJFO), our Regional Sikes Act Coordinator delegated concurrence authority to the Field Supervisor at NJFO for INRMP authorizations in New Jersey.

Please find enclosed the Signature Page granting concurrence and accepting the Sea Girt NGJTC's 2012-2016 INRMP. If we may be of further service, please contact Dennis Hamlin at (609) 383-3938, extension 14.

Sincerely,

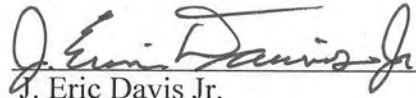
J. Eric Davis Jr.
Field Supervisor

Enclosure

**INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN (2012 – 2016)
NEW JERSEY ARMY NATIONAL GUARD
SEA GIRT NATIONAL GUARD JOINT TRAINING CENTER
DRAFT JULY 2012**

The U.S. Fish and Wildlife Service and New Jersey Army National Guard are in mutual agreement with regard to the contents of this Integrated Natural Resources Management Plan:

17 Sep 12
Date


J. Eric Davis Jr.

Field Supervisor
U.S. Fish and Wildlife Service

Meeting Minutes

Client:	State of New Jersey, Department of Military and Veterans Affairs
Project Name:	Sea Girt National Guard Training Center - Integrated Natural Resources Management Plan Update
AECOM Project Number:	60236545
Date:	January 10, 2012
Location:	Sea Girt National Guard Training Center, Sea Girt, NJ
Meeting Purpose:	Stakeholder Meeting
Prepared By:	Melissa Smith (AECOM)/Harry Strano (ASGECI)

In Attendance			
Name	Company	Telephone	E-mail Address
Bill McBride	NJDMAVA	(609) 530-7136	William.McBride@njdmava.state.nj.us
Harry Strano	ASGECI	(908) 788- 9676 ext. 26	hstrano@amygreene.com
Melissa Smith	AECOM	(732) 564-3637	Melissa.Smith@aecom.com
* Todd Pover	CFW (rep for NJDEP ENSP)	(609) 628-0401	bnb@hughes.net
* Stephanie Egger	CFW (rep for USFWS)	(215) 350-6827	Stephanie.egger@conservewildlifenj.org
Gary Schmitz	NGTC		Gary.schmitz@njdmava.state.nj.us
Mike Fedosh	Monmouth County Env. Council, Chairman	(732) 739-6444 x-27	mfedosh@accutechenvironmental.com
Mike Sinneck	Manasquan Env. Commission	(425) 443-5718	sinnech@gmail.com
Jay M. Amberg	Borough of Sea Girt	(732) 616-6339	jmfamberg@aol.com

Action Item Number	Action Item	Responsibility
0001	Distribute Meeting Minutes to Attendees	Melissa Smith
0002	USFWS to issue a letter that the NGTC will continue to operate under its existing plan for 2012.	Stephanie Egger
0003	Provide AECOM with past mark-ups by USFWS to original INRMP.	Bill McBride
0004	Determine what level of commitment WPWA is comfortable committing to in the update INRMP.	Melissa Smith

Summary

Purpose of Meeting:

The purpose of this meeting was to introduce and discuss the Integrated Natural Resources Management Plan (INRMP) update process with agency and stakeholder representatives and illicit input in the update process.

Introduction

Bill McBride (BM) provided an introduction and overview of the Sea Girt National Guard Training Center (NGTC), its tenants, mission, the INRMP update process and future planned development associated with the 2010 Master Plan.

Melissa Smith (MS) provided an overview of anticipated updates to be incorporated into the new plan.

Discussion

Mike Fedosh (MF) indicated interest in the use of solar panels onsite. BM indicated that the NGTC wind turbine project is now officially terminated and discussed plans for future solar panels to be installed onsite. TP asked if funding would be transferable from the previously proposed wind turbine project to other green energy projects like solar panels. BM – explained that funding was earmarked for the turbine and had an expiration date therefore cannot be used for other projects.

BM stated that the Master Plan EA will be available for public review in the near future.

MF stated that the Master Plan should better illustrate the actual changes to previous cover. The figures can be construed as showing all new development over previous cover when in actuality may be existing impervious cover.

BM - The Master Plan and the INRMP will reflect the increase in population that will occur as a result of added classrooms proposed in the Master Plan. It is not expected to impact the number of people who use the beach since added training is classroom based as opposed to physical training. However, it may be necessary to add Physical Training (PT) to the Awareness Brief to address adaptive management measures that may be necessary for PT when a highly mobile chick/brood is present.

Todd Pover (TP) indicated that the official annual start date for plover regulations including sign and fencing installation is March 15; however, it is at NJDEP/USFWS discretion to change the date based on site conditions, etc.

TP/Stephanie Egger (SE) indicated that habitat enhancement at Seven Presidents Park has set a precedence that may expedite the permitting process needed to implement a large scale sand transfer to alter topographic conditions. The permitting fee was waived for the park, however it falls in an urban zone so may have contributed to ease of permitting. For these projects a plan is required that demonstrates some topographic limitations – it generally indicates locations where sand is taken from and moved to. TP and SE indicated that the work at Seven Presidents Park required a Coastal General Permit [CAFGP 29] and that the same permit would likely be required at Sea Girt.

SE – Herbicide spraying has been conducted for sand sedge from Sea Bright to Manasquan by the USFWS. It has been mostly effective however re-growth occurs at the perimeter of treated areas.

TP/SE – Will the NGTC continue to operate under the 2006 INRMP for the 2012 season? BM confirmed that the NGTC will continue to operate under the old plan until the updated version is issued. SE – will initiate drafting a letter on behalf of USFWS stating this intention.

TP – The 2010 Borough of Sea Girt Settlement Agreement will expire (5-year term). TP will review measures incorporated into the INRMP to ensure they are consistent with future measures to be implemented by Borough.

See
4.11.11 pg 16
"Seasonally
repeated
applications
may be
unavoidable"

→ 3/14

TP – since the Wreck Pond Watershed Association is a volunteer organization and the Draft MOU has not been finalized, the INRMP should attempt to define the level of involvement the WPWA can commit to annually so that the necessary level of monitoring support from ENSP/NJDMAVA can be anticipated.

BM/MS- Discussed past and potential nuisance wildlife control onsite. Lazer hazing of geese will continue to be used to control fecal issues. Control of denning foxes onsite were also discussed, Six foxes and one cat were captured in 2009 but trapping is currently not occurring. Future fox studies may be conducted including camera documentation or radio tracking before additional controls are considered.

SE – May be valuable to contact Seven Presidents Park to discuss the complexity of their habitat enhancement project. CAFRA permitting was somewhat flexible. Basically required identifying zones from where sand would be moved from and where it would be placed. The process was also less onerous due to the park having a beach management plan. Since NGTC also has a plan, can anticipate similar level of effort.

MF – concerned about the stormwater management infrastructure associated with the new Master Plan. Will old infrastructure be used or will it be reconstructed? BM – anticipates that new infrastructure and stormwater basins will be developed.

Mike Senneck – An environmental study is being conducted by the Manasquan Environmental Commission to evaluate water quality and an assessment has been done on Watson Creek which identified low water quality with the presence of some scuds.

MS –Draft INRMP submission to NJDMAVA is **tentatively February 17** and after NJDMAVA reviews the document, it will be circulated to stakeholders **tentatively March 8th** with comments requested by **April 9th**.

From: [Todd Pover](#)
To: ["McBride, William C."](#)
Cc: [Smith, Melissa](#); ron_popowski@fws.gov; stephanie.egger@conservewildlifenj.org
Subject: Sea Girt NGTC INRMP Revisions
Date: Friday, October 26, 2012 2:06:14 PM

Bill (and Melissa),

Regarding the new/revised INRMP for Sea Girt National Guard Training Center:

I have no major concerns/comments about the E&T portions of the plan. It generally follows the revised guidance developed by Stephanie Egger (when she was still working with USFWS-NJFO) and I as interim management policy for endangered beach nesting birds and plants at the site once the original INRMP technically lapsed. Furthermore, it reflects more recent discussions about vehicle use during various stages of nesting. I was particularly happy to see that predator and habitat suitability concerns were more thoroughly addressed in this plan, as both are currently limiting factors for shorebird nesting at the site. Decreasing predator populations (red fox) and increasing habitat suitability will go a long way to improving shorebird use and success – considering how much time and resources go into E&T species at this site, it seems like this should be a shared long-term goal. I have a few minor comments.

- 1) Regarding Figure 6-1 Map. Technically speaking the “No-rake Zone” includes the current dune area west of the area mapped as “no rake”, essentially from the waterline to the base of the concrete wall. I understand NGTC doesn’t try to rake the dunes, but I don’t want to give the impression you could, furthermore, that area may not always be characterized as dunes due to natural processes or any habitat enhancement that is undertaken. My first thought was to revise the map, however, throughout the document you refer to the “no rake zone” as an area pedestrians and vehicles can pass through under certain conditions (as opposed to the fenced nesting area), so that complicates things. An alternative would be to CLEARLY indicate in the narrative, perhaps under the raking section, that the no-rake zone includes the dune area. Or overlap the no-rake coloring into the dune area on the map.
- 2) Page 2-32. It indicates piping plover and least tern have “attempted” to nest on the beach and most attempts have been “unsuccessful”. It is unclear whether attempts for your purposes here mean; scraping (no nests), nests, fledged chicks. At the very least it should be nests, not just whether chicks fledged.
- 3) Page 6-17. It says NJDMAVA will provide fencing material and signs...That is true for SPA (plant area), but ENSP has provided for NPA (bird area) and will continue to do so.
- 4) Page 6-18. It reads “habit” instead of “habitat”.
- 5) Page 6-26. Sand Scraping. Currently it says no sand scraping is allowed in NPA. Would you consider adding a caveat along the lines of unless otherwise part of a permitted habitat enhancement project done in consultation with ENSP and USFWS to improve habitat suitability, so as to allow for the possibility discussed in other portions of the INRMP.
- 6) Page 6-36. Regarding capture and handling of predators, you should add USDA to list of agencies to coordinate with (they are referenced earlier in this section).
- 7) Page 6-39. Possible management practices (for habitat enhancement) include raking, disking, herbicide treatments, and saltwater irrigation. **[confirm with agencies (USFWS and ENSP) that these are possibilities]**. These are definite possibilities and highly encouraged

(with proper permit – which we can assist you with), although I am not familiar with the irrigation method.

- 8) I see another question about Wreck Pond Watershed Association involvement in monitoring/management and the need to confirm their participation. As far as I know they are not currently active, although I don't know if that is a temporary thing and seeing how they are cited throughout the document you would want to know for sure before removing them. Or do you want to leave them in in the event they are active again. Obviously, you have not signed a MOA with them yet, so perhaps it is caveated as, if you sign agreement?

Thanks for the chance to review this plan and you continued strong partnership in protecting rare plants and nesting shorebirds at NGTC.

Todd Pover
Beach Nesting Bird Project Manager
Conserve Wildlife Foundation of New Jersey
On behalf of
New Jersey Division of Fish and Wildlife
Endangered and Nongame Species Program
2201 County Rt. 631
Woodbine, NJ 08270
609-628-0401
609-628-2734 (fax)
todd.pover@conservewildlifenj.org (e-mail)

Conserve Wildlife Foundation of New Jersey
www.conservewildlifenj.org
"Keeping New Jersey's Wildlife in our Future."

Smith, Melissa

From: McBride, William C. <William.McBride@njdmava.state.nj.us>
Sent: Monday, March 11, 2013 11:42 AM
To: Smith, Melissa
Subject: RE: Sea Girt NGJTC Draft INRMP - Request for Comment

How's this:

On 27 Feb 2013 at 1500hrs, Mr. Justin Dooley, an employee of the Borough of Sea Girt and Mr. Alan Bunting's assistant called the undersigned to say Mr. Bunting appreciated the opportunity to review and comment on the draft INRMP. Mr. Dooley said Mr. Bunting had no comments.

Thanks,

Bill McBride
Environmental Specialist
NJARNG
CFMO-EMB
101 Eggerts Crossing Road
Lawrenceville, NJ 08648
william.mcbride@njdmava.state.nj.us (primary)
bill.mcbride1@us.army.mil (alternate)
(609) 530 7136 (voice)
(609) 530 6880 (fax)
445-9136 (DSN voice)
445-9880 (DSN fax)
<http://www.nj.gov/military>
<http://www.nj.gov/military/army/index.html>



Please consider the environment before printing this e-mail

From: Smith, Melissa [<mailto:Melissa.Smith@aecom.com>]
Sent: Monday, March 11, 2013 9:22 AM
To: McBride, William C.
Subject: RE: Sea Girt NGJTC Draft INRMP - Request for Comment

Sure, no problem. Glad to hear Sea Girt responded. Would it be possible for you to provide some sort of written summary of your telephone conversation that I can include in the correspondence appendix?

From: McBride, William C. [<mailto:William.McBride@njdmava.state.nj.us>]
Sent: Monday, March 11, 2013 9:20 AM
To: Smith, Melissa
Subject: RE: Sea Girt NGJTC Draft INRMP - Request for Comment

I haven't heard from Todd. I'll drop him a line.

Smith, Melissa

From: Popowski, Ron <ron_popowski@fws.gov>
Sent: Monday, March 04, 2013 2:38 PM
To: Smith, Melissa
Cc: McBride, William C.
Subject: Re: Sea Girt NGJTC Draft INRMP - Request for Comment
Attachments: 12-CPA-0326.pdf

Hi Bill & Melissa,

We have no comments on the draft. I still need for you to send me concurrence copy for our signature. As stated in our September 24, 2012, our field office will sign the form, not the regional office. Please ensure the signature block read as J. Eric Davis Jr., Field Supervisor. Attached is the copy of signature page we signed in September.

Thanks,

On Tue, Feb 12, 2013 at 1:23 PM, Smith, Melissa <Melissa.Smith@aecom.com> wrote:

The Sea Girt National Guard Joint Training Center (NGJTC) *Draft Integrated Natural Resources Management Plan (2013-2017)* is now available for review. Sometime this afternoon, you should each receive an email indicating that the Revised Draft INRMP is available for download via the AECOM SendFiles website.

If you are not yet an authorized SendFiles user, please see attached instructions. New users need to request approval at <https://sendfiles.aecom.com> before sending or receiving files. You submit the request identifying my email address and then I'll receive a notice to authorize use. This should only take a minute or so. Once I approve, you can download the files from the email message you received.

We request that comments be provided by **March 15th 2013**.

Thank you all for your participation and please don't hesitate to contact me if you have any problems at all.

Melissa Smith

Wetland and Wildlife Biologist

AECOM Environment

T 732-564-3637

F 732-369-0122

Melissa.Smith@aecom.com

AECOM

30 Knightsbridge Road, Suite 520

Piscataway, NJ 08854

www.aecom.com

 Please consider the environment before printing this email

--

Ron Popowski
Asst. Supervisor
U.S. Fish and Wildlife Service
New Jersey Field Office
Ecological Services
927 N. Main Street, Bldg. D
Pleasantville, New Jersey 08232

609.241.7065

609.646.0352 FAX

[Celebrate the 40th anniversary of the Endangered Species Act!](#)



United States Department of the Interior

FISH AND WILDLIFE SERVICE



In Reply Refer To:
12-CPA-0326

New Jersey Field Office
Ecological Services
927 North Main Street, Building D
Pleasantville, New Jersey 08232
Tel: 609/646 9310
Fax: 609/646 0352
<http://www.fws.gov/northeast/njfieldoffice/>

Mr. Jeffery Pierson, Director
Sea Girt National Guard Joint Training Center
P.O. Box 251
Sea Girt, New Jersey 08750

SEP 24 2012

Dear Mr. Pierson,

The U.S. Fish and Wildlife Service (Service) appreciates the opportunity to provide a concurrence letter for the *External Review Request, New Jersey Army National Guard (NJANG), Integrated Natural Resources Management Plan (INRMP) (2012-2016) for Sea Girt National Guard Joint Training Center (NGJTC), Monmouth County, New Jersey, dated July, 2012.* The INRMP is intended to achieve compliance by the NJANG with Federal laws, provide coordination with Federal and State agencies, support the preservation of natural resources that are critical to sustaining military training activities, and foster coordination of land-use activities with properties adjacent to Sea Girt NGJTC in accordance with the provisions of the Sikes Act (16 U.S.C. 670a *et seq.*).

Please note that our Director's Order No. 135 dated June 12, 2009 authorizes Regional Directors to delegate INRMP concurrence authority to Field Office Supervisors. In the August 3, 2009 memorandum to the New Jersey Field Office (NJFO), our Regional Sikes Act Coordinator delegated concurrence authority to the Field Supervisor at NJFO for INRMP authorizations in New Jersey.

Please find enclosed the Signature Page granting concurrence and accepting the Sea Girt NGJTC's 2012-2016 INRMP. If we may be of further service, please contact Dennis Hamlin at (609) 383-3938, extension 14.

Sincerely,

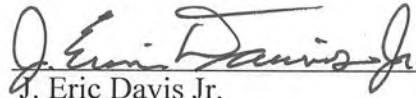
J. Eric Davis Jr.
Field Supervisor

Enclosure

**INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN (2012 – 2016)
NEW JERSEY ARMY NATIONAL GUARD
SEA GIRT NATIONAL GUARD JOINT TRAINING CENTER
DRAFT JULY 2012**

The U.S. Fish and Wildlife Service and New Jersey Army National Guard are in mutual agreement with regard to the contents of this Integrated Natural Resources Management Plan:

17 Sep 12
Date


J. Eric Davis Jr.

Field Supervisor
U.S. Fish and Wildlife Service

Meeting Minutes

Client:	State of New Jersey, Department of Military and Veterans Affairs
Project Name:	Sea Girt National Guard Training Center - Integrated Natural Resources Management Plan Update
AECOM Project Number:	60236545
Date:	January 10, 2012
Location:	Sea Girt National Guard Training Center, Sea Girt, NJ
Meeting Purpose:	Stakeholder Meeting
Prepared By:	Melissa Smith (AECOM)/Harry Strano (ASGECI)

In Attendance			
Name	Company	Telephone	E-mail Address
Bill McBride	NJDMAVA	(609) 530-7136	William.McBride@njdmava.state.nj.us
Harry Strano	ASGECI	(908) 788- 9676 ext. 26	hstrano@amygreene.com
Melissa Smith	AECOM	(732) 564-3637	Melissa.Smith@aecom.com
* Todd Pover	CFW (rep for NJDEP ENSP)	(609) 628-0401	bnb@hughes.net
* Stephanie Egger	CFW (rep for USFWS)	(215) 350-6827	Stephanie.egger@conservewildlifenj.org
Gary Schmitz	NGTC		Gary.schmitz@njdmava.state.nj.us
Mike Fedosh	Monmouth County Env. Council, Chairman	(732) 739-6444 x-27	mfedosh@accutechenvironmental.com
Mike Sinneck	Manasquan Env. Commission	(425) 443-5718	sinnech@gmail.com
Jay M. Amberg	Borough of Sea Girt	(732) 616-6339	jmfamberg@aol.com

Action Item Number	Action Item	Responsibility
0001	Distribute Meeting Minutes to Attendees	Melissa Smith
0002	USFWS to issue a letter that the NGTC will continue to operate under its existing plan for 2012.	Stephanie Egger
0003	Provide AECOM with past mark-ups by USFWS to original INRMP.	Bill McBride
0004	Determine what level of commitment WPWA is comfortable committing to in the update INRMP.	Melissa Smith

Summary

Purpose of Meeting:

The purpose of this meeting was to introduce and discuss the Integrated Natural Resources Management Plan (INRMP) update process with agency and stakeholder representatives and illicit input in the update process.

Introduction

Bill McBride (BM) provided an introduction and overview of the Sea Girt National Guard Training Center (NGTC), its tenants, mission, the INRMP update process and future planned development associated with the 2010 Master Plan.

Melissa Smith (MS) provided an overview of anticipated updates to be incorporated into the new plan.

Discussion

Mike Fedosh (MF) indicated interest in the use of solar panels onsite. BM indicated that the NGTC wind turbine project is now officially terminated and discussed plans for future solar panels to be installed onsite. TP asked if funding would be transferable from the previously proposed wind turbine project to other green energy projects like solar panels. BM – explained that funding was earmarked for the turbine and had an expiration date therefore cannot be used for other projects.

BM stated that the Master Plan EA will be available for public review in the near future.

MF stated that the Master Plan should better illustrate the actual changes to previous cover. The figures can be construed as showing all new development over previous cover when in actuality may be existing impervious cover.

BM - The Master Plan and the INRMP will reflect the increase in population that will occur as a result of added classrooms proposed in the Master Plan. It is not expected to impact the number of people who use the beach since added training is classroom based as opposed to physical training. However, it may be necessary to add Physical Training (PT) to the Awareness Brief to address adaptive management measures that may be necessary for PT when a highly mobile chick/brood is present.

Todd Pover (TP) indicated that the official annual start date for plover regulations including sign and fencing installation is March 15; however, it is at NJDEP/USFWS discretion to change the date based on site conditions, etc.

TP/Stephanie Egger (SE) indicated that habitat enhancement at Seven Presidents Park has set a precedence that may expedite the permitting process needed to implement a large scale sand transfer to alter topographic conditions. The permitting fee was waived for the park, however it falls in an urban zone so may have contributed to ease of permitting. For these projects a plan is required that demonstrates some topographic limitations – it generally indicates locations where sand is taken from and moved to. TP and SE indicated that the work at Seven Presidents Park required a Coastal General Permit [CAFGP 29] and that the same permit would likely be required at Sea Girt.

SE – Herbicide spraying has been conducted for sand sedge from Sea Bright to Manasquan by the USFWS. It has been mostly effective however re-growth occurs at the perimeter of treated areas.

TP/SE – Will the NGTC continue to operate under the 2006 INRMP for the 2012 season? BM confirmed that the NGTC will continue to operate under the old plan until the updated version is issued. SE – will initiate drafting a letter on behalf of USFWS stating this intention.

TP – The 2010 Borough of Sea Girt Settlement Agreement will expire (5-year term). TP will review measures incorporated into the INRMP to ensure they are consistent with future measures to be implemented by Borough.

See
4.11 pg 16
"Seasonally
repeated
applications
may be
unavoidable"

→ 3/14

TP – since the Wreck Pond Watershed Association is a volunteer organization and the Draft MOU has not been finalized, the INRMP should attempt to define the level of involvement the WPWA can commit to annually so that the necessary level of monitoring support from ENSP/NJDMAVA can be anticipated.

BM/MS- Discussed past and potential nuisance wildlife control onsite. Lazer hazing of geese will continue to be used to control fecal issues. Control of denning foxes onsite were also discussed, Six foxes and one cat were captured in 2009 but trapping is currently not occurring. Future fox studies may be conducted including camera documentation or radio tracking before additional controls are considered.

SE – May be valuable to contact Seven Presidents Park to discuss the complexity of their habitat enhancement project. CAFRA permitting was somewhat flexible. Basically required identifying zones from where sand would be moved from and where it would be placed. The process was also less onerous due to the park having a beach management plan. Since NGTC also has a plan, can anticipate similar level of effort.

MF – concerned about the stormwater management infrastructure associated with the new Master Plan. Will old infrastructure be used or will it be reconstructed? BM – anticipates that new infrastructure and stormwater basins will be developed.

Mike Senneck – An environmental study is being conducted by the Manasquan Environmental Commission to evaluate water quality and an assessment has been done on Watson Creek which identified low water quality with the presence of some scuds.

MS –Draft INRMP submission to NJDMAVA is **tentatively February 17** and after NJDMAVA reviews the document, it will be circulated to stakeholders **tentatively March 8th** with comments requested by **April 9th**.

**INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN (2013 – 2017)
NEW JERSEY ARMY NATIONAL GUARD
SEA GIRT NATIONAL GUARD JOINT TRAINING CENTER
DRAFT MARCH 2013**

The U.S. Fish and Wildlife Service and New Jersey Army National Guard are in mutual agreement with regard to the contents of this Integrated Natural Resources Management Plan:

13 Mar 13

Date



J. Eric Davis Jr.,

Field Supervisor

U.S. Fish and Wildlife Service

Smith, Melissa

From: Sinneck, Mike <msinneck@manasquan-nj.com>
Sent: Tuesday, March 12, 2013 2:05 PM
To: Smith, Melissa
Cc: George Dempsey; Mike Sinneck; Ed Donovan
Subject: Draft Integrated Natural Resources Management Plan for Sea Girt NGJTC

Dear Ms. Smith,

Thank you for providing a copy of the draft Integrated Resources Management Plan(INRMP) for our review. We appreciate the opportunity to comment on the various aspects of the plan.

We have several comments to offer regarding the plan overall and several of the specific components. These are provided below. We understand that the plan provides a framework for phased development of the Sea Girt NGJTC over a 25 year period . Three phases have been proposed to focus development activities with the first being the RTI Educational Complex, infrastructure and utilities upgrades . Administration and demolition of some existing buildings over the next 1-5 years. The draft INRMP does not provide any information on which to assess the demolition and/or reconstruction/replacement of buildings, and the RTI Educational Complex. Therefore it is not possible for the Borough of Manasquan to provide a comprehensive review or comment. This is important because of the potential visual impacts of any new construction on Manasquan property owners who live adjacent to Stockton Lake. The comments below are preliminary in nature as they are not entirely informed by the availability of complete information regarding the first phase of the INRMP implementation.

Specific comments:

- Has any consideration been given to address the recent flooding problems associated with Irene and Sandy? It would appear from figure 2-5 that substantial impacts from 100 and 500 year flood can be expected as the proposed developments occur on the south and southeast areas of the site?
- The plan is comprehensive in its treatment of endangered/threatened species of flora and fauna particularly in the Dune area
- Removal of invasive species by chemical means seems to be the only available and effective means to eradicate the invasive species. Appropriate chemical treatment approved by USFWS and NJDEP should be employed under their supervision.
- Elimination of the carbon tetrachloride plume and asbestos contamination of soils should be undertake as a top priority.
- Stakeholders (section 3.4) should be provided with periodic updates regarding specific implementation plan status so as to monitor progress.

- The data regarding piping plover and lease tern nesting is very disturbing. There have been zero piping plovers fledged since 2000 with only 1 nest in 2007. Lease tern fledges have not been observed since 2003 with the last nest seen in 2005. Considering the amount of effort and expense proposed to protect/preserve these species proposed one must question the efficacy of the plans since the birds appear to have moved to other locations.
- The fireworks launch site is located 210 feet from the nearest neighbor. We request that feedback from the neighbors affected by this specific development be sought to determining impact.
- Beach access form outdoor recreation is provided to selected individuals. The estimated number or participants in 2011 was 95,419. Assuming an effective beach season of 120 days that would mean an average number of beach goers of 795 per day. The numbers seems incorrect given the size of the permanent cadre on site. It should be reconsidered as 795 beach goers per day creates a significant stress on beach facilities and puts further pressure on endangered/threatened habitat.

Overall we found the plan to be comprehensive, thoughtful and complete. We trust that our observations and comments will help guide the further development of the INRMP. Please contact Me if you have questions or to discuss any of the material above.

Mike Sinneck

[\(425\) 443-5718](tel:(425)443-5718)

Smith, Melissa

From: Smith, Melissa
Sent: Monday, March 18, 2013 9:17 AM
To: 'Thoman, Ken'
Subject: RE: Sea Girt Draft INRMP

Ken,
Thanks so much for your comments. I definitely appreciate your firsthand knowledge on the effectiveness of management efforts with geese and dune vegetation. Todd did provide us with the study he conducted with Brooke Maslo. Once funding is provided to initiate the habitat enhancement project, we can start really fleshing out the specifics of the methodology. My hope is that we can continue discussions as things start progressing along.

Thanks again!

Melissa

From: Thoman, Ken [<mailto:Ken.Thoman@co.monmouth.nj.us>]
Sent: Monday, March 18, 2013 8:16 AM
To: Smith, Melissa
Subject: RE: Sea Girt Draft INRMP

Hello Melissa,
Sorry I missed your deadline, but wanted to get some comments to you.
Your report/plan is very thorough, as would be expected from such a respected firm. Nice job!
A few comments for what they are worth.
Section 5.2.2 Nuisance Wildlife
Your objective to manage/control C Goose pops, we carry a depredation permit from USFWS, NJ does not administer program as I understand. We now go to epermits.fws.gov
We also are very strong on our habitat modification efforts, vegetated shorelines, taller grassy areas, etc. We have relied less and less on harrasment, expensive, although I think we may still carry a contract with dogs at some golfcourses.
Your attention to vegetation encroachment on habitat areas is warranted. We have actively managed vegetation in the habitat areas, pre-Sandy. Now we are busy building dunes back up and have expanded them. You may find Brooke Maslo's study for her PhD useful for habitat management, which was later published with Todd and Steven Handel:
Maslo, Brooke, Steven N. Handel, and Todd Pover 2010
Restoration Ecology RESEARCH ARTICLE
Restoring Beaches for Atlantic Coast Piping Plovers
(*Charadrius melodus*): A Classification and
Regression Tree Analysis of Nest-Site Selection.

Thank you for sharing your report.
Ken

Ken Thoman, PWS
[Acquisition & Design](#)
Monmouth County Park System
805 Newman Springs Road
Lincroft, New Jersey 07738-1695
732.842.4000, ext. 4267 732.842.3640 FAX
www.monmouthcountyparks.com

Monmouth County's Park, Recreation, and Open Space Leader Since 1960

 *Save a tree, excite an electron!*

Smith, Melissa

From: Nancy Maclearie Hayduk <wreckpond@hotmail.com>
Sent: Monday, March 18, 2013 3:35 PM
To: Smith, Melissa
Subject: RE: Comments on the Sea Girt Draft INRMP

Hi Melissa

Everyone else does such a great job.....it's great!

hope to see you soon,
nnacy

Nancy Maclearie-Hayduk
Wreck Pond Watershed Association
809 Central Avenue
Spring Lake Heights NJ 07762
732.449.8764

From: Melissa.Smith@aecom.com
To: wreckpond@hotmail.com
Subject: Comments on the Sea Girt Draft INRMP
Date: Mon, 18 Mar 2013 16:17:05 +0000

Hi Nancy,
Hope all is well. I just wanted to touch base to see if you have any comments on the Draft INRMP provided last month. We requested comments by this past Friday March 15th. Please let me know if you anticipate having anything to provide in the next day or so before the plan is finalized.

Thanks very much,

Melissa Smith
Wetland and Wildlife Biologist
AECOM Environment
T 732-564-3637
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Melissa.Smith@aecom.com

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Piscataway, NJ 08854
www.aecom.com

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Smith, Melissa

From: Todd Pover <todd.pover@conservewildlifenj.org>
Sent: Friday, March 22, 2013 3:34 AM
To: Smith, Melissa
Cc: 'McBride, William C.'
Subject: RE: Sea Girt Draft INRMP

Melissa and Bill,
No additional comments – good to go.
Todd

From: Smith, Melissa [<mailto:Melissa.Smith@aecom.com>]
Sent: Tuesday, March 19, 2013 10:20 AM
To: Todd Pover
Subject: Sea Girt Draft INRMP

Hi Todd,
Hope all is well. Just wanted to touch base and see if you had any additional comments to the INRMP?
Thanks,

Melissa Smith
Wetland and Wildlife Biologist
AECOM Environment
T 732-564-3637
F 732-369-0122
Melissa.Smith@aecom.com

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*Errata Sheet
Updates to 2006 INRMP
Sea Girt National Guard Training Center
Sea Girt, New Jersey*

[Stakeholder Comments on DRAFT INRMP]
March 2013

Source of Comment	Applicable Section; Page; Paragraph; Sentence	Comment	NJARNG Response to Comment	Changes Made to Draft INRMP in response to Comment
Manasquan Environmental Commission (M. Sinneck)	General	"We understand that the plan provides a framework for phased development of the Sea Girt NGJTC over a 25 year period. Three phases have been proposed to focus development activities with the first being the RTI Educational Complex, infrastructure and utilities upgrades. Administration and demolition of some existing buildings over the next 1-5 years. The draft INRMP does not provide any information on which to assess the demolition and/or reconstruction/replacement of buildings, and the RTI Educational Complex. Therefore it is not possible for the Borough of Manasquan to provide a comprehensive review or comment."	The Borough of Manasquan is encouraged to comment on the Sea Girt NGJTC Master Plan and the NGJTC's proposed Regional Training Institute during the soon to be announced public comment period on the Environmental Assessments for the NGJTC's Master Plan and the RTI Complex.	No change.
Manasquan Environmental Commission (M. Sinneck)	Section 2.7.3 Floodplains	"Has any consideration been given to address the recent flooding problems associated with Irene and Sandy? It would appear from figure 2-5 that substantial impacts from 100 and 500 year flood can be expected as the proposed developments occur on the south and southeast areas of the site?"	Yes, future construction will take into account engineering techniques to mitigate for potential flood impacts. Any future construction within flood plains will comply with New Jersey Department of Environmental Protection's Flood Hazard Area Control Act regulations and laws (NJAC 7:13 and NJSA 58:16A).	No change.
Manasquan Environmental Commission (M. Sinneck)	General	"The plan is comprehensive in its treatment of endangered/threatened species of flora and fauna particularly in the Dune area"	Thank you.	No change.
Manasquan Environmental Commission (M. Sinneck)	Section 4.2.6 Invasive Plant Management	"Removal of invasive species by chemical means seems to be the only available and effective means to eradicate the invasive species. Appropriate chemical treatment approved by USFWS and NJDEP should be employed under their supervision."	Agreed. Any invasive species management activities will be coordinated with the USFWS and NJDEP including obtaining all necessary permits.	No change.
Manasquan Environmental Commission (M. Sinneck)	Section 2.10 Installation Restoration Program	"Elimination of the carbon tetrachloride plume and asbestos contamination of soils should be undertake as a top priority."	Agreed. However, the carbon tetrachloride plume is from an offsite source and is managed by the USEPA's Superfund Cleanup Program. Additional information regarding the plume remediation efforts can be found on the USEPA's website at: http://www.epa.gov/region2/superfund/npl/whiteswan/ . The asbestos contaminated soils will be remediated in 2013.	No change.
Manasquan Environmental Commission (M. Sinneck)	Section 3.4	"Stakeholders (section 3.4) should be provided with periodic updates regarding specific implementation plan status so as to monitor progress."	Historically, copies of the annual rare species monitoring report have been provided to the USFWS, NJDEP, and the Wreck Pond Watershed Association. The annual reports include a summary of INRMP activity/goal implementation. Any future reports will be provided to the boroughs of Sea Girt and Manasquan.	No change in document.
Manasquan Environmental	General	"The data regarding piping plover and lease tern nesting is very disturbing. There have been zero piping plovers fledged since 2000	Key reasons to maintain the plan are: 1. The Sea Girt NGTC beach remains important resting and foraging habitat for	No change.

Commission (M. Sinneck)		with only 1 nest in 2007. Least tern fledges have not been observed since 2003 with the last nest seen in 2005. Considering the amount of effort and expense proposed to protect/preserve these species proposed one must question the efficacy of the plans since the birds appear to have moved to other locations.”	<p>piping plovers and least terns. The NGJTC is 1 of only 38 sites statewide to support piping plovers in the last 10 years. Plover and tern habitat use at the Sea Girt NGJTC may be limited in part, by a combination of increasingly dense vegetation cover, erosion, and the presence of foxes. However, even with its compromised quality, a chick that hatched on the Sea Girt Borough beach in 2009 routinely migrated between the NGTC beach and the borough beach to forage and eventually fledge. Additionally, this updated version of the INRMP has added new goals for the next implementation period to enhance habitat and address predator issues.</p> <p>2. A requirement for beach nourishment projects. The increased plover and tern nesting activity appears to have coincided immediately after the beach nourishment activities in the late 1990's. Given this data, an agency must have a valid plover and tern management plan to be eligible for beach nourishment projects.</p>	
Manasquan Environmental Commission (M. Sinneck)	Section 6.3.14 Special Events, Page 6-42, Paragraph 1	The fireworks launch site is located 210 feet from the nearest neighbor. We request that feedback from the neighbors affected by this specific development be sought to determining impact.	The residents and administrators of the Borough of Sea Girt, the USFWS, and the NJDEP were invited to comment on the INRMP at the same time as the Borough of Manasquan. As of this date, no comments from the USFWS, NJDEP, or administrators or residents of the borough of Sea Girt have been received.	[added text] “The fireworks training event occurred once in 2009 by the DCA and has not occurred since. According to the DCA, the Sea Girt NGJTC is a suitable site for this training given its wide open fields in an urbanized area where participants can experience the type of winds DCA inspectors may encounter while overseeing professional fireworks display at the shore. The training has been included in this version of the INRMP to demonstrate to the USFWS and NJDEP that the Sea Girt NGJTC is complying with the various restrictions imposed on fireworks that are launched proximate to rare species in the event DCA needs to conduct this type of training again.”
Manasquan Environmental Commission (M. Sinneck)	Section 7.2.2 Outdoor Recreation Areas and Uses	Beach access form outdoor recreation is provided to selected individuals. The estimated number or participants in 2011 was 95,419. Assuming an effective beach season of 120 days that would mean an average number of beach goers of 795 per day. The numbers seems incorrect given the size of the permanent cadre on site. It should be reconsidered as 795 beach goers per day creates a significant stress on beach facilities and puts further pressure on endangered/threatened habitat.	As mentioned in the INRMP, the beach is open to individuals employed at the Sea Girt NGTC, law enforcement agencies, local municipal emergency responders, and retired or active duty military personnel. Therefore, the reported beach visitors include many more individuals not necessarily working on the Sea Girt NGJTC. Facilities at the Sea Girt NGJTC do not appear “stressed” given the average load of visitors. In additional, beach visitors are not permitted in the rare species habitat areas thereby eliminating pressure on the habitat. Lastly, there are provisions in the INRMP to expand the protection areas in the event highly mobile chicks are present. This measure further reduces the size of the bathing beach area and there in its associated pressure on the habitat.	No change.
Monmouth County Parks Department (K. Thoman)	General	<i>Email on 18 March 2013:</i> “Your report/plan is very thorough, as would be expected from such a respected firm. Nice job!”	-	No change.
Monmouth	Section 5.2.2,	<i>Email on 18 March 2013:</i>	See email response below.	[changed link on page 5-3 from:

County Parks Department (K. Thoman)	Page 5-3	"Your objective to manage/control C goose populations, we carry a depredation permit from USFWS, NJ does not administer programs as I understand. We now go to epermits.fws.gov" "We are also very strong on our habitat medication effort, vegetated shorelines, taller grassy areas, etc. We have relied less and less on harassment, expensive, although I think we may still carry a contract with dogs at some golf courses.		http://www.state.nj.us/dep/fgw/pdf/goose_control_info.pdf to: https://epermits.fws.gov/eRCGR/geSI.aspx
Monmouth County Parks Department (K. Thoman)	Section 6.3.12 Dune and Vegetation Management	<i>Email on 18 March 2013:</i> "Your attention to vegetation encroachment on habitat areas is warranted. We have actively managed vegetation in the habitat areas, pre-Sandy. Now we are busy building dunes back up and have expanded them. You may fine Brooke Maslo's study for her PhD useful for habitat management, which was later published with Todd (Pover) and Seven Handel: Maslo, Brooke, Steven N. Handel, and Todd Pover 2010 Restoration Ecology RESEARCH ARTICLE Restoring Beaches for Atlantic Coast Piping Plovers (<i>Charadrius melodus</i>): A Classification and Regression Tree Analysis of Nest-Site Selection."	<i>Email Response via M. Smith (AECOM) on 3/18/13:</i> "Thanks so much for your comments. I definitely appreciate your firsthand knowledge on the effectiveness of management efforts with geese and dune vegetation. Todd (Pover) did provide us with the study he conducted with Brooke Maslo. Once funding is provided to initiate the habitat enhancement project, we can start really fleshing out the specifics of the methodology. My hope is that we can continue discussions as things start progressing along."	No change.
Borough of Sea Girt (A. Bunting [assistant and J. Dooley on behalf of A. Bunting])	General	<i>Telephone call summary:</i> [On 27 Feb 2013 at 1500hrs, Mr. Justin Dooley, an employee of the Borough of Sea Girt and Mr. Alan Bunting's assistant called the Mr. William McBride (NJARNG DMAVA) to say Mr. Bunting appreciated the opportunity to review and comment on the draft INRMP. Mr. Dooley said Mr. Bunting had no comments.]	-	No change.
USFWS (Ron Popowski)	General/Signature Page	<i>Email on 4 March 2013:</i> [We (USFWS) have no comments on the draft. I still need for you to send me concurrence copy for our signature. As stated in our September 24, 2012, our field office will sign the form, not the regional office. Please ensure the signature block read as J. Eric Davis Jr., Field Supervisor. Attached is a copy of signature page we signed in September.]	[Changes made as indicated on signature page and emailed to USFWS.]	[Signature page changed as indicated.]
WPWA	General	<i>Email on 18 March 2013:</i> "Everyone else does such a great job.....it's great!"	-	No change.
NJDEP (Todd Pover per Conserve Wildlife Foundation)	General	Email on 22 March 2013: [No additional comments – good to go.]	-	No change.
Monmouth County Environmental Commission	General	Email on 22 March 2013: "You know Melissa, having that file here at work is just not giving me the time to review. Things are busy here. Rather than string you along you can finalize the report w/o comments from me. Sorry to delay your conclusion.	<i>Email Response via M. Smith (AECOM) on 3/22/13:</i> "Hi Mike, I'm sorry you weren't able to comments. Please feel free to provide any input at a later date. We will consider it for future updates and management as appropriate. Thanks, Melissa"	No change.

		Mike"		
AECOM	General	-	-	[Revised Draft dates throughout in titles, headers, and footers].
AECOM	Appendix C	-	-	[Agency Correspondence updated with recent communications]



NATIONAL GUARD BUREAU

111 SOUTH GEORGE MASON DRIVE
ARLINGTON VA 22204-1382

ARNG-ILE

16JUL13

MEMORANDUM FOR New Jersey Army National Guard (NJARNG) Environmental Office, (Attn: Mr. Bill McBride), CFMO-EMB, 101 Eggerts Crossing Road, Lawrenceville, NJ 08648

SUBJECT: ARNG Directorate Approval of the Integrated Natural Resource Management Plan (INRMP) Update for Sea Girt National Guard Joint Training Center

1. References:

- a. The Sikes Act (16 U.S.C 670 et seq)
- b. Handbook, Guidance on Preparing Environmental Documentation for Army National Guard Actions in Compliance with the National Environmental Policy Act (NEPA) of 1969, Oct 11.
- c. Memorandum, ARNG-ILE, 9 Apr 12, Guidance for the Creation, Implementation, Review, and Revision and Update of Integrated Natural Resources Management Plans.
- d. Army Regulation 200-1, Environmental Protection and Enhancement, Dec 07.

2. The Training and Infrastructure Branch has reviewed the final INRMP including the errata sheet and determined our comments have been sufficiently addressed.

3. For compliance with the Sikes Act, ensure that you conduct a review of the INRMP for operation and effect with the US Fish and Wildlife Service and the New Jersey Department of Environmental Protection at least once every five years. Enclosed is the signed INRMP.

4. The point of contact for this action is Mr. Jay Rubinoff, Natural Resources Program Manager, DSN 327-7973, 703-601-7973, or via email at jay.m.rubinoff.civ@mail.mil.

Encl

A handwritten signature in black ink, appearing to read "Michael C. Ahn".

MICHAEL C. AHN
COL, EN
Chief, Environmental
Programs Division

APPENDIX D
PERMITS, AGREEMENTS, AND PROCEDURES

1. *National Guard Joint Training Center Health & Safety Goose Control Program Standard Operating Guide (SOG)*
2. *DRAFT Memorandum of Understanding between New Jersey Army National Guard, New Jersey Department of Military and Veteran's Affairs, National Guard Bureau, and the Wreck Pond Watershed Association Inc.*
3. CAFRA Beach Raking Permit DLUR File No.: # 1344-03-0001.3 (CAF 080001)
4. *National Guard Joint Training Center Beach Pass Policy (2011)*
5. *National Guard Joint Training Center Fishing Permit Guidance Brochure*

NATIONAL GUARD JOINT TRAINING CENTER
HEALTH & SAFETY GOOSE CONTROL PROGRAM
STANDARD OPERATING GUIDE (SOG)

CHAPTER 1

GENERAL

500:1-1. PURPOSE. The purpose of this Standing Operating Guide (SOG) is to establish basic procedures for the conduct of a Goose Control Program at the National Guard Joint Training Center (NGJTC), Sea Girt.

500:1-2. GENERAL. This SOG is established for the following general reasons:

- a. Over the past many years previous methods of goose control have been used to no avail, e.g., use of a dog to scare away the geese, fake coyote signs, driving small vehicles close to the flocks to scare them, etc.
- b. Flocks have increased with the laying of eggs on the Post grounds that have imprinted with the goslings as they have grown.
- c. Goose droppings overwhelm the fields, campsites, roads, and walkways, as well as in and around the buildings.
- d. People contracting the use of the field, as well as parents, have complained because those playing on the field events in games and training occasionally fall and are covered with goose droppings. This is an unsafe condition as the foot slips on the droppings and an unhealthy condition when falling into the droppings.
- e. People stepping in goose droppings and walking into buildings, Dining Facility, etc., create unhealthy conditions for those working and eating.
- f. Soldiers and tenant agency recruits when conducting training on the fields and around the various buildings are limited to where they conduct calisthenics in a healthy and safe environment.

500:1-2. BACKGROUND. The following additional background regarding Canadian Geese is provided as information.

- a. Canadian Geese are a nationwide problem. Here in New Jersey they range in flocks of 80 to 100,000 depending on the time of the year and other circumstances.
 - b. The ideal habitats are golf courses and large open fields, such as at the NGJTC.
-

*This SOP supersedes SOG 500, dtd 14 Feb 2011

- c. Their primary source of food is grass and water from ponds.
- d. The safe havens provide little or no danger from humans and predators.

500:1-3. PUBLICATION CHANGES. Recommendations for changes to this publication will be forwarded to the Director, NGJTC Sea Girt, PO Box 251, Sea Girt, New Jersey 08750 for consideration.

CHAPTER 2

RESPONSIBILITIES

500:2-1. RESPONSIBILITIES.

- a. Contracting. It is the responsibility of the New Jersey Department of Military & Veterans Affairs (DMAVA) to enter into a contract on behalf of the NGJTC to assist in the eradication of the Canadian Geese. Such a contract has been entered into with Goose Control Technology of New Jersey.
- b. Training. It is the responsibility of Goose Control Technology of New Jersey to train NGJTC fulltime staff to assist in the Goose Control Program. Further, it is the responsibility of Goose Control Technology to periodically visit throughout the year to evaluate and assist in the Goose Control Program.
- c. Equipment. A hand held .50mW green laser device will be the primary method used to disperse the geese. Additional methods may include a dog, fake coyote signs, and driving small utility vehicles close to the flocks.
- d. Trained Personnel. It is the responsibility of the Director, NGJTC to have personnel trained and qualified to conduct the Goose Control Program at the NGJTC.

500:2-2. LASER EQUIPMENT RESPONSIBILITIES.

a. Avian Laser Development.

- (1). Lasers were first developed for use in England and France to protect the shellfish beds along the coast. This was very expensive and very difficult to use because of the distance from the shore to the shellfish grounds.
- (2). The first practical laser developed was very large, with a limited range, very expensive and looked like a radar gun or large handgun.
- (3). The United States Department of Agriculture conducted a study to scientifically examine the use of the laser for bird control. They looked at both the effect of lasers on birds and the efficiency of their use. The results proved that properly used lasers are an effective tool for the dispersal of avian species.
- (4). The laser causes a flight response by the geese, as it is believed to be perceived as a predator.

b. Laser Setup. The handheld laser is simple to setup. Insert C batteries, turn on the safety device and key, open cover, hold the laser away from the face and pointed at the ceiling to test, and press the button. The green laser beam will take a few seconds to energize before it will operate.

c. Laser Maintenance. Certain basic procedures should be followed as follows:

- (1). Do NOT drop the laser.
- (2). Keep the unit clean, to include the end cap and key area.
- (3). Do not leave the batteries in the laser when it is stored.
- (4). Battery life is limited so keep spare batteries with the unit.

d. Laser Safety. Safety precautions will be followed when handling and using the laser as follows:

- (1). Only trained personnel will operate the laser.
- (2). Do NOT drop the laser.
- (3). Do NOT shine the laser into eyes--yours, other persons, animals, etc.
- (4). Do NOT shine the laser on skin for a long period, as it will burn.
- (5). DO NOT SHINE THE LASER AT AIR CRAFT OR UP INTO THE SKY.
- (6). DO NOT SHINE THE LASER AT MOTOR VEHICLES.
- (7). Do NOT shine the laser into or out of windows, or at mirrors.
- (8). Do NOT shine the laser at the water when it is windy as the ripple effect may bounce the beam off to places you do not want it to go.
- (9). Do NOT use the laser when birds are molting or only goslings, as they cannot fly away.
- (10). Do NOT shine the laser directly on the birds if at all possible.

CHAPTER 3

GOOSE CONTROL OPERATING PROCEDURES

500:3-1. BASIC PROCEDURES. The laser will be used as follows for Goose Control operations.

- a. Elimination of roosting locations. Geese need an undisturbed roosting location, thus the laser shining on the grass or adjacent structure will be used to disrupt the roosting sites.
- b. Elimination of feeding sites. When geese are field in the fields and in and around buildings the laser will be used to disrupt the feeding site. Shine the beam in front of the geese on vegetation or other birds.
- c. Elimination of drinking sites. When geese are in and around the water drinking the laser will be used to disrupt the drinking site. Shine the beam on the water. With the exception of Stockton Lake the laser will not be used on Stockton Lake.

d. Additional Guidelines. Additional guidelines are established in the Integrated Natural Resources Management Plan, published by the New Jersey Department of Military and Veterans Affairs for the NGJTC.

500:3-1. OPERATIONS ON POST.

a. Generally. The following general laser operations will be practiced.

- (1). Carefully move the beam around keeping previous safety precautions in mind, and the following operational tips.
- (2). Start and stop the process to haze and make the birds move.
- (3). Turn the laser off and on periodically to save the battery, do NOT use it for extended periods.
- (4). Hazing operations will normally be conducted during the period 1 April through 31 August to avoid migrating Canada Geese and other migratory birds.
- (5). Lasers will not be used where people are congregating or when people are engaged in sports or other events on the fields.
- (6). Extra caution will be used during the summer periods when the NGJTC beaches are open, or when personnel are firing on the ranges.
- (7). Hazing is not conducted during the molting period for humane reasons, which is typically during the month of June.

a. Field Site Operations. Basic tips for field operations.

- (1). Work in low light conditions. Best at dawn or dusk, thus normal operations will be early in the morning when the shifts arrive for work.
- (2). The laser can be used during rain, snow and limited fog conditions.
- (3). Laser use will be restricted to parallel operations with Sea Girt Avenue and Stockton Lake aiming from the West to the East.
- (4). When operating from small utility vehicles travel North to South or South to North across fields aiming the laser from the West to the East, ensuring that it is not directed towards private homes outside the Post perimeter.
- (5). Shine the laser through an open door or window only when riding in a small utility vehicle.

b. Nesting Site Operations. Nesting sites may be in and around buildings and campsites. Thus the following precautions will be observed.

- (1). Shine the laser on a surface adjacent to the nest.
- (2). Be careful not to shine the laser towards windows and open doors.
- (3). Be careful when the campsites are being occupied, and when the Manasquan Little League Fields are in use.

(4). Try to operate on foot, again aiming West to East to avoid shinning the light onto private homes outside the Post perimeter.

c. Taking Birds by Capture and Euthanization.

(1). A Federal Fish and Wildlife Permit is required, and is maintained in the Superintendent's Office allowing for the taking of birds by capture and euthanization.

(2). The permit allows for up to Two-Hundred Fifty (250) Canada Geese and they MUST be buried or incinerated, by the authorized subcommittee "Goose Control Technology."

(3). More detailed guidance is provided on the permit and in the Standard Conditions 50 CFR 21.41 found in the Superintendent's Office.

(4). NGJTC staff and subcommittee staff will comply with all appropriate guidance and regulations.

(5). The taking of Canada Geese will be recorded on the NGJTC Hazing Record as a remark in the Results column.

d. No Feeding Policy. The feeding of Canada Geese and other migratory birds and endangered species are strictly prohibited on the NGJTC. Violators will be immediately identified to the Superintendent for further action and/or discipline. This includes providing water from other than natural resources found on post. All post personnel and transient personnel will be notified by various means of the "No Feeding Policy."

500:3-2. HAZING EFFECTS.

a. In most cases geese will disperse from the area within three (3) to seven (7) days of hazing.

b. They will tend to start to come back in small numbers in a week to 12 days.

c. Be watchful and continue to haze as needed.

500:3-3. RECORDS. A record of all hazing events will be maintained in the Headquarters Officer, see Enclosure 1, NGJTC Hazing Record

OFFICIAL:

JEFFREY L. PIERSON

BG (Ret) USA

Director, NGJTC-SG

Enclosures:

1—NGJTC Hazing Record

MEMORANDUM OF UNDERSTANDING
BETWEEN
NEW JERSEY ARMY NATIONAL GUARD,
NEW JERSEY DEPARTMENT OF MILITARY AND VETERAN'S AFFAIRS,
NATIONAL GUARD BUREAU, AND
THE WRECK POND WATERSHED ASSOCIATION, INC.

I. INTRODUCTION

- A. This Memorandum of Understanding (MOU) is made and entered into among the New Jersey Army National Guard (NJARNG), New Jersey Department of Military and Veteran's Affairs (NJDAMVA), Sea Girt National Guard Training Center (NGTC), National Guard Bureau (NGB), and the Wreck Pond Watershed Association, Inc (Association), herein referred to as "the parties." This MOU is limited to the land occupied by the Sea Girt National Guard Training Center (NGTC), Sea Girt, New Jersey.
- B. The Sea Girt NGTC is located at the south end of the Borough of Sea Girt along the Atlantic Ocean in southern Monmouth County, New Jersey. The installation encompasses 171 acres of land surrounded by residential communities on its north, south, and west sides. A railroad line is located adjacent to the western boundary. Stockton Lake, a tributary of the Manasquan River, is located adjacent to the southern boundary and the Atlantic Ocean is located adjacent to the eastern boundary.
- C. The mission of Sea Girt NGTC is to provide facilities to support the stationing, training, and support of regional National Guard units, and facilities to support the academic training of soldiers, airmen, and sailors in the region. The installation has been used for military training since 1885. The vision for Sea Girt NGTC is to continue its stationing, training, and support mission for the National Guard, while preserving its environmental integrity.
- D. The dunes at the installation represent the only remaining dune complex in the vicinity of the Sea Girt NGTC. As is the case statewide, most of the dunes have been completely developed with residential dwellings or are regularly mechanically raked to remove deleterious materials and vegetation. Only a small portion of the NGTC's dunes are raked to support beach recreation activities while the back dune area is heavily vegetated. Two federally listed threatened species (piping plover and seabeach amaranth) and three state listed species (osprey, seabeach knotweed, and least tern) have been documented at Sea Girt NGTC. As recently as the summer of 2007 piping plovers and ospreys have nested at the NGTC while seabeach amaranth and seabeach knotweed was identified in the summer of 2006. Least terns have not nested at the NGTC since the summer of 2005, but frequently overfly the NGTC in search of nesting sites.
- E. The NJARNG prepared the NGTC's Integrated Natural Resources Management Plan (INRMP) to manage the natural resources and support its military mission. The INRMP was signed in spring 2006 by MG Glenn Reith, the Adjutant General, NJARNG, COL (ret.) Michael Smith, then Director of the NGTC, COL Stephen Hines, then Chief of Staff, NJARNG, COL Raymond Barnard, then Director Construction Facilities Management Office, COL Gerald Walter, then Chief of the NGB's Environmental Program, Mr. Marvin Moriarty, Acting Region 5 Director, United States Fish and Wildlife Service (USFWS), and Mr. David Chanda, Acting Director, Division of Fish and Wildlife, New Jersey Department of Environmental Protection (NJDEP). The INRMP identifies natural resource management activities through 2010. The INRMP will be reviewed in federal fiscal year 2009 by the NJDMVA, USFWS, and NJDEP to determine actions beyond 2010.
- F. Wreck Pond Watershed Association is a charitable, non-profit organization whose mission is to foster responsibility to care for our natural resources and ensure that they are sustainably managed for current and future generations. They focus on the resources in and around Wreck Pond from the headwaters in Wall Township through Spring Lake Heights, Sea Girt, Spring Lake and ultimately, the ocean. Association members participate in the responsible management of wildlife, land, water and biodiversity to ensure healthy ecosystems for present and future generations. Wreck Pond is less than 1 mile north of the NGTC. The Association is particularly interested in beach nesting birds such as the piping plover and least tern. They are headquartered in

Spring Lake Heights, New Jersey and frequently observe the various nesting sites of least terns and piping plovers in Sea Girt, Spring Lake and Belmar Boroughs.

II. AUTHORITY

- A. The parties enter this MOU under the provisions of the INRMP for the NGTC, the Sikes Act (16 USC 670a, et seq.), the Endangered Species Act of 1973 (16 U.S.C. §§ 1531-1544 Public Law 93-205), and the New Jersey Endangered Species Conservation Act of 1973 (N.J.S.A. 23:2A et seq.).

III. PURPOSE

- A. The purposes of this MOU are to provide a foundation for cooperative management of important biological resources located on the facility and to fulfill the objectives and goals of the facility's INRMP, within the context of NGTC's military missions. The MOU intends to meet the objectives outlined below:
1. Cooperate in the monitoring and management of rare and endangered species and their habitat at NGTC.
 2. Advance our understanding of the distribution and condition of biological diversity associated with our Nation's marine, coastal and riparian waters.
 3. Promote the gathering and sharing of scientific data and research by all parties as it may be related to projects of mutual interest and concern.

IV. BENEFITS

- A. The parties agree that the ability to achieve mutual natural resource goals can be enhanced significantly under the approach outlined in this MOU.
- B. The NGTC, NJDAMVA, and NJARNG will benefit from the support of the Association's extensive and active network of volunteers while the Association can benefit from access to the NGTC.
- C. The parties share a commitment to protecting rare species, natural biological communities, and their habitats.
- D. The parties both seek opportunities to develop partnerships and engage diverse stakeholder groups and local communities to identify, understand, and resolve water resource management challenges.

V. ROLES AND RESPONSIBILITIES

- A. Pursuant to the authorities listed above, the parties agree as follows:
- B. The parties will communicate the establishment of this MOU to all of their applicable offices, divisions, and districts as well as, where appropriate, outside tenants and leases.
- C. The Association will:
1. Recruit and screen interested and capable volunteer members interested in providing monitoring services for beach nesting birds at the NGTC. Students and children are welcomed as volunteers, but must be accompanied and supervised by an adult volunteer.
 2. Provide monitoring services between the months of March to September each year. The frequency of the visits is variable depending on volunteer availability. Additional site visits are authorized if warranted based on increased nesting activities on the beach. The Association Point of Contact (POC) shall submit an anticipated survey schedule to the NJARNG Natural Resources Manager, NGTC, NJDEP Endangered and Non-Game Species Program (ENSP), and USFWS POCs for coordination and approval by 1 February of each year the MOU is in effect. The anticipated schedule shall include the names of anticipated volunteers, site visit times and dates, and any liability for equipment used to conduct the survey.
 3. Ensure that each volunteer has signed a liability waiver releasing the NJDEP, USFWS, NGTC, NJDMAVA, NJARNG, Borough of Sea Girt, and any other federal, state, or local government authority from any liability for personal property damages or physical harm that may befall any volunteer. Copies of

the waivers will be provided to the NJARNG Natural Resources Manager POC by 1 March of each year this MOU is in effect.

4. Park only in parking spaces designated by the NGTC POC.
5. Provide a representative to attend the annual rare species briefing at the NGTC every March.
6. Provide a list of names of all Association volunteer monitors to the NJARNG Natural Resources Manager each year no later than 1 March. The Association may modify this list at any time. However, the Association will provide a new list and a signed liability waiver no later than 1 week prior to any volunteer's anticipated visit to the NGTC.
7. Show a valid government issued photo identification card each time a volunteer attempts to enter the NGTC or when challenged anywhere on the NGTC.
8. Immediately obey any direction given to vacate an area or the NGTC.
9. Limit its survey activities to the beach and dune areas.
10. Not survey the beach and dune areas when the range located on the west side of the dune area is active. Typically a guard is posted on the beach warning visitors not to enter the area. The Association's volunteers will always heed the guard's warnings.
11. Provide regular monitoring reports and photos at a minimum of once per week. Reports may be mailed electronically to the NJARNG Natural Resource Manager POC.
12. Not enter any of the protection areas identified on the beach and the attached drawings unless authorized by the NJARNG, NJDMAVA, NGTC, NJDEP, and USFWS. This requirement is especially important to avoid "jeopardizing" or "taking" (Endangered Species Act of 1973 16 U.S.C. §§ 1531-1544 Public Law 93-205) any federally listed species. The Association assumes all liability if any Association action results in "jeopardizing" or "taking".
13. Not erect any fencing, signage, predator enclosure device, etc. at the NGTC without prior authorization from the NJDMAVA, NJARNG, NGTC, NJDEP or USFWS.
14. Notify the NJARNG Natural Resources Manager POC as soon as possible when the presence of any plover or tern egg, chicks, or nests (inside or outside the protection areas) is identified.
15. Notify the NGTC POC in the event of an activity deemed dangerous, illegal, or unauthorized within the beach area.

D. The NGTC, NJARNG, and NJDMAVA will:

1. Provide the Association with access to the NGTC, beach parking areas, beach and dune areas, and restroom facilities at the bath house.
2. Provide the Association with annual rare species monitoring reports for as long as this MOU is in effect.
3. Notify the Association's POC if a volunteer's behavior is inappropriate or unauthorized.
4. Invite the Association to the annual rare species briefing at the NGTC every March as long as this MOU is in effect.

E. This MOU is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds between the parties to the MOU will be handled in accordance with applicable laws, regulations, and procedures. Such endeavors, if any, will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This MOU does not provide such authority. Specifically, this MOU does not establish authority for the noncompetitive award to the Association of any contract or other agreement.

F. For purposes of this MOU, the Association's POC is Ms. Nancy Maclearie-Hayduk, Director, Wreck Pond Watershed Association, Inc., 809 Central Avenue, Spring Lake Heights, NJ 07762, (732) 449-8764 (voice), (732) 682-6771 (mobile), wreckpond@hotmail.com (electronic mail).

G. For purposes of this MOU, the NJARNG Natural Resources Manager POC is Mr. William McBride, NJARNG, CFMO-EMB, 101 Eggerts Crossing Road, Lawrenceville, New Jersey, 08648, (609) 530-7136 (voice), (609) 530-6880 (facsimile), william.mcbride@njdmava.state.nj.us (electronic mail).

H. For purposes of this MOU, the Sea Girt NGTC POC is Mr. Gary Schmitz, Facility Manager, Sea Girt NGTC, PO Box 277, Sea Girt, New Jersey, 08750, (732) 974-5952 (voice), (732) 974-5969 (facsimile), and gary.schmitz@njdamva.state.nj.us (electronic mail).

-
- I. For purposes of this MOU, the NJDEP ENSP POC is Mr. Todd Pover, Beach Nesting Bird Project Manager, Conserve Wildlife Foundation of New Jersey on behalf of NJDEP, Division of Fish and Wildlife, Endangered and Nongame Species Program, 2201 County Rt. 631, Woodbine, NJ 08270, 609-628-0401 (voice), 609-628-2734 (fax), BNB@hughes.net (electronic mail).
 - J. For purposes of this MOU, the USFWS POC is Ms. Stephanie Egger, Fish and Wildlife Biologist, U.S. Fish and Wildlife Service, New Jersey Field Office, 927 N. Main Street, Heritage Square, Building D. Pleasantville, NJ 08232, (609) 646-9310 (voice), (609) 646-0352 (fax), stephanie_egger@fws.gov (electronic mail).
 - K. For the purpose of this MOU, the National Guard Bureau POC is Ms. Beth A. Erickson, chief, Training & Infrastructure Branch, Environmental Division, Army Readiness Center, 111 S. George Mason Drive, Arlington, VA 22204 (703)607-4271 (voice), (703)607-8329 (fax), beth.a.erickson@us.army.mil (electronic mail).

VI. MODIFICATION, TERMINATION, AND OTHER CONDITIONS

- A. This MOU may be modified or amended at any time by mutual agreement of the parties in writing, and may be terminated by any party upon thirty (30) days prior written notice.
- B. This MOU in no way restricts the parties from participating with other public or private agencies, organizations, and individuals. All parties recognize the importance of continuing cooperation and participation with non-governmental organizations and institutions in programs of mutual interest.
- C. The parties intend to conduct the activities contemplated in this agreement in accordance with existing authorities. If any provisions of this MOU are determined to be inconsistent with existing laws or regulations or directives governing the signatories, then the provisions of this MOU not affected by a finding of inconsistency shall remain in full force and effect.

VII. IMPLEMENTATION

- A. This MOU becomes effective when signed by all signatory parties and remains in effect for a period of two years or until modified or terminated prior to such two year period.
- B. NJDMAVA will provide a copy of the final, signed MOU to the above referenced USFWS and NJDEP POCs.

Nancy Maclearie-Hayduk date
Director
Wreck Pond Watershed Association, Inc.

BG (ret) Jeffery Pierson date
Director
Sea Girt National Guard Training Center

Michael J. Bennett date
COL, NGB
Chief, Environmental
Programs Division

Glenn K. Rieth date
Major General, NJARNG
The Adjutant General

ATTORNEY GENERAL OF NEW JERSEY

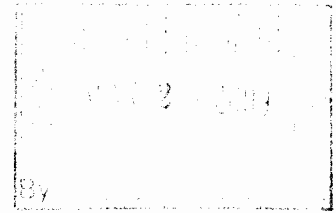
The aforementioned agreement has been reviewed and approved as to form.

By: _____
Susan J. Dougherty date



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Land Use Regulation
P.O. Box 439, Trenton, NJ 08625-0439
Fax # (609) 777-3656
www.state.nj.us/dep/landuse



MARK N. MAURIELLO
Acting Commissioner

JON S. CORZINE
Governor

Yvonne A. Jamieson
Brinkerhoff Environmental Services, Inc.
1913 Atlantic Avenue, Suite R 5
Manasquan, NJ 08736

MAR 13 2009

RE: Authorization for Coastal General Permit
DLUR File No.: # 1344-03-0001.3 (CAF 080001)
Applicant: Borough of Sea Girt
Project location: National Guard Training Center
Block(s): 85; Lot(s): 1
Borough of Sea Girt, Monmouth County

Dear Ms. Jamieson:

The Division of Land Use Regulation has reviewed the referenced application for a General Permit authorization pursuant to the requirements of the Coastal Permit Program Rules at N.J.A.C. 7:7-7 and in accordance with the Coastal Area Facility Review Act (N.J.S.A. 13:19 et seq.) and/or the Waterfront Development Law (N.J.S.A. 12:5-3).

This permit authorizes beach and dune maintenance activities conducted in accordance with Best Management Practices as found in the Rules on Coastal Zone Management at N.J.A.C. 7:7E-3A. These activities are to be conducted under the supervision of the National Guard Training Center Post Director BG Jeffery Pierson, who is available by phone at: (732) 974-5951. Ultimate responsibility for the work is with the Borough of Sea Girt's Department of Public Works, Superintendent, Kevin Thompson, Philadelphia and Bell Place, Sea Girt, NJ 08750, who is available by phone at (732) 449-6463.

This permit authorizes beach and dune maintenance activities only, and does **NOT** authorize the replacement of any street-end bulkheads.

The approved maintenance area is the beach within the municipal boundaries, specifically as shown on one sheet, entitled "Base Map Sea Girt National Guard Training Center Borough of Sea Girt Monmouth County, New Jersey" dated June 4, 2008, last revised October 30, 2008 and prepared by GEOD Corporation.

By this permit, the State of New Jersey does not relinquish tidelands ownership or claim to any portion of the subject property or adjacent properties.

This permit is issued based on the Department's failure to provide a permit decision on this application within the time limits set forth in the Coastal Permit Program Rules (7:7-4.7). Concurrence with the applicant's coastal zone management consistency certification may be assumed with issuance of this permit.

Project Specific Conditions

In addition to the conditions noted at N.J.A.C. 7:7-1.5, the activities allowed by this authorization shall comply with the following conditions. Failure to comply with these conditions shall constitute a violation of the Coastal Area Facility Review Act (N.J.S.A. 13:19-1 et seq.) and/or the Waterfront Development Law (N.J.S.A. 12:5-3).

1. Beach maintenance activities must be conducted in accordance with the National Guard Training Center's Integrated Natural Resource Management Plan which has been approved by the United States Fish and Wildlife Service. In particular, the National Guard must annually establish a protected area for endangered species based in past species locations; install and maintain string and post fencing and signage around the protected area from March through December; prohibit sand scraping within the protected area year round; prohibit beach raking within the protected area from May 15 through December 1; prohibit beach raking in from (seaward) of the protected area, and re-route lifeguard vehicles so they do not pass in front of the protected area, while any unfledged plover chicks are present; manage motor vehicles in accordance with the Service's *Guidelines for Managing Recreational Activities in Piping Plover Breeding Habitat on the U.S. Atlantic Coast to Avoid Take Under Section 9 of the Endangered Species Act*; and prohibit non-motorized recreational beach use within the protected area during the nesting/growing season.
2. Beach raking, sand transfers and non-emergency vehicle/pedestrian traffic are prohibited within the protected area for the duration of the sea beach amaranth growing season (May 15 to December 1) and the piping plover nesting season (March 15 to approximately August 15).
3. This authorization does not allow any one time raking event to grade tire ruts in front of the protection area before plover eggs hatch.
4. This permit does not authorize the repair or reconstruction of street end seawalls and/ or bulkheads.
5. If the applicant determines it is necessary to charge a beach use fee, the public beach fee income, as at municipal beaches statewide, may not exceed that portion of direct beach maintenance and operation costs attributable to public usage.
6. The applicant can not limit vertical or horizontal public access to its dry sand beach area nor interfere with the public's right to free use of the dry sand for intermittent recreational purposes connected with the ocean and wet sand. The applicant must provide customary lifeguard services for members of the public who use the ocean areas up to the high water mark, regardless of whether they are just passing through or remaining on the beach area of its property.

The Division reserves the right to reassess the applicant's beach access fee at a later date and the applicant must make associated financial records available upon Division request.

7. The proposed activities **MUST** be conducted in accordance with Best Management Practices as defined by the Department in the Rules on Coastal Zone Management, N.J.A.C. 7:7E-3A (copy enclosed). Activities other than those outlined in this Subchapter (3A) shall require additional authorization from the Division. Failure to receive such additional authorization prior to activities may warrant enforcement action by the Bureau of Coastal and Land Use Enforcement.
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 Borough, 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 amount of sand transferred, the name of the person supervising the transfer activities, and the engineering certification required (if appropriate) for all sand transfer activities.
10. Bulldozing, excavation, grading, vegetation removal or clearing and relocation of existing dunes whether existing or constructed in conjunction with this permit are **NOT** authorized under this general permit.

Standard Permit Conditions

The following standard conditions shall apply to all General Coastal Permits:

1. **Acceptance of permit: If you begin any activity approved by this permit, you thereby accept this document in its entirety, and the responsibility to comply with the terms and conditions. If you do not accept or agree with this document in its entirety, do not begin construction. You are entitled to request an appeal within a limited time as detailed on the attached Administrative Hearing Request Checklist and Tracking Form.**
2. This permit, including all conditions listed herein, shall be recorded in the office of the County Clerk (the Registrar of Deeds and Mortgages if applicable) in the county or counties wherein the lands included in the permit are located within ten (10) days after receipt of the permit by the applicant. A copy of the recorded permit shall be forwarded to the Division of Land Use Regulation immediately thereafter.
3. The permittee shall notify, in writing, the NJDEP, Bureau of Coastal and Land Use Enforcement at 1510 Hooper Avenue, Toms River, NJ 08753, three working days prior to the commencement of construction on the site or site preparation.
4. The issuance of this permit shall in no way expose the Department to liability for the sufficiency or correctness of the design of any construction or structures. Neither the State

nor the Department shall be liable for any loss of life or property which may occur by virtue of the activity or development resulting from any permit.

5. The permittee shall allow the authorized representatives of the Department free access to the site at all time when construction activity is taking place, and at other times upon notice to the permittee.
6. The activities shown by plans and/or other engineering data, which are this day approved, shall be constructed and/or executed in conformity with such plans and/or engineering data and conditions herein. No change in plans or specifications upon which this permit is issued shall be made except with the prior written permission of the Department, in accordance with N.J.A.C. 7:7-4.10.
7. A copy of this permit and approved plans shall be kept at the construction site and shall be exhibited upon request to any person.
8. 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 this permit. The Department may, upon discovery of such anticipated 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. 7:7-4.11.
9. This permit does not waive the obtaining of any local, State or Federal permits which may be required. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained.
10. All fill and other earth work on the lands encompassed within this permit authorization shall be stabilized in accordance with "Standards for Soil Erosion and Sediment Control in New Jersey," (obtainable from local Soil Conservation District Offices) promulgated by the New Jersey State Soil Conservation Committee, pursuant to the soil Erosion and Sediment Control Act of 1975, N.J.S.A. 4:24-42 et. seq. and N.J.A.C. 2:90-1.3 through 1.14. These standards are hereby incorporated by reference.

Duration of Authorization/Notification of Work

This authorization for a General Permit is valid for a term not to exceed five years from the date of receipt from the Department. If the term of this authorization exceeds the expiration date of the general permit issued by rule, and the permit upon which the authorization is based is modified by rule to include more stringent standards or conditions, the permittee must comply with the requirements of the new regulations by applying for a new General Permit authorization unless construction is already underway. If this General permit is not reissued, the permittee must apply for an individual CAFRA permit unless construction pursuant to the prior General Permit is underway. The expiration date of the General Permits issued by rule is March 21, 2011.

If you or anyone is aggrieved by this permit decision, an administrative appeal may be filed in accordance with the Coastal Permit Program Rules, (N.J.A.C. 7:7-5). Any interested person who considers himself or herself aggrieved by this permit decision may request a hearing within 30 days

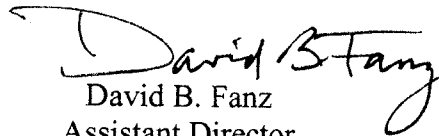
after notice of the decision is published in the DEP Bulletin by addressing a written request for such hearing to the following address: Office of Legal Affairs, Department of Environmental Protection, P. O. Box 402, Trenton, NJ 08625-0402, Attention: Adjudicatory Hearing Requests.

This written request must include a completed copy of the Administrative Hearing Request Checklist and all information identified in Section III of that list. The DEP bulletin and Checklist is available through the Department's website at www.state.nj.us/dep.

In order to promote inter-governmental cooperation in management of our natural resources, a copy of this decision shall be shared with appropriate local and federal agencies.

If you have any questions regarding this General Permit authorization, please contact Kara Turner of our staff by email at kara.turner@dep.state.nj.us, by phone at (609) 777-0454, or in writing at the above address. Please reference the permit number in any future communication concerning this action.

Sincerely,

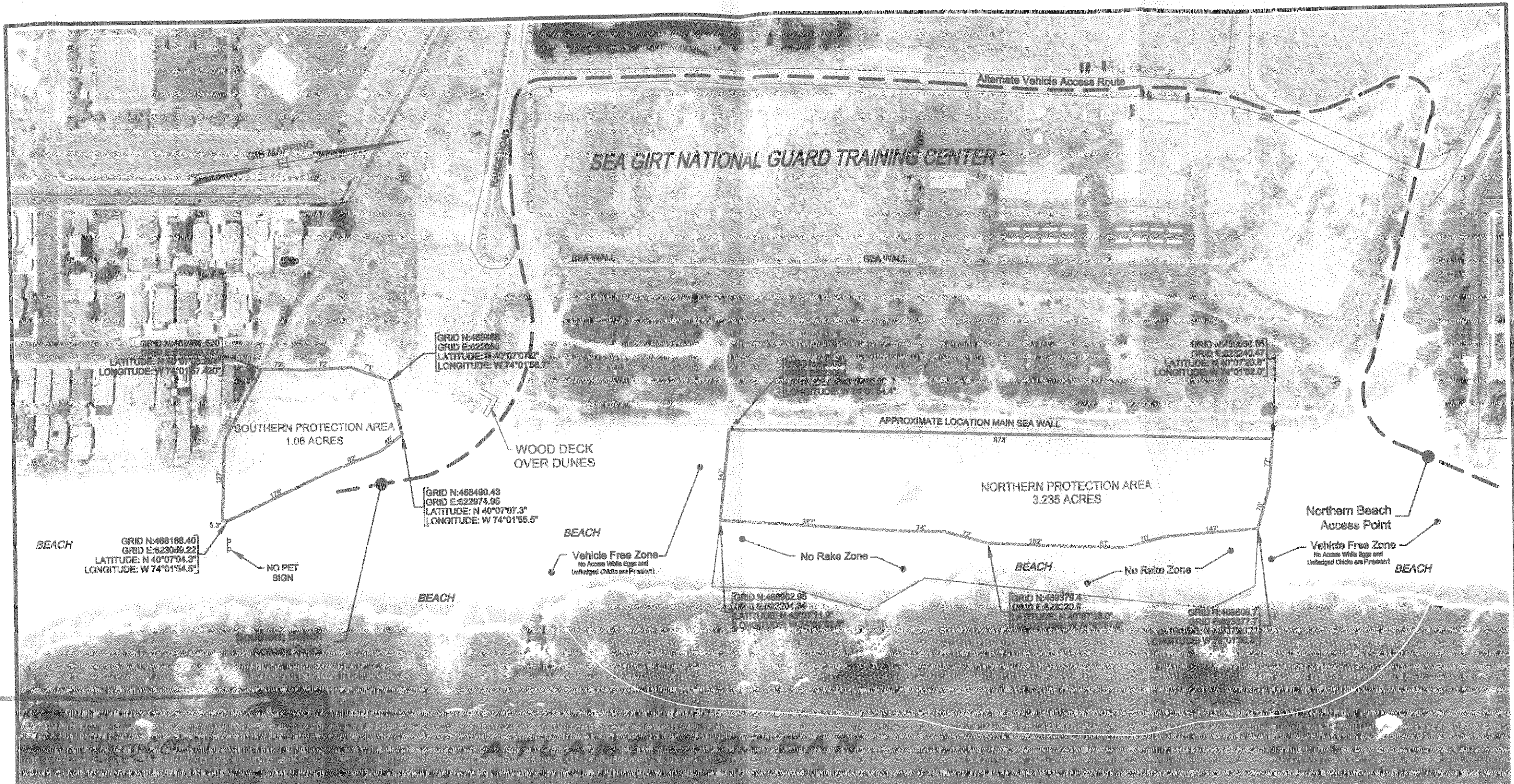


David B. Fanz
Assistant Director

Division of Land Use Regulation

Attachments: Subchapter 3A. Standards for beach and Dune Activates

- c. NJDEP, Bureau of Coastal and Land Use Enforcement, Toms River (w/plan)
US Army Corps of Engineers, New York District



1334-03-000-3

Date	By	Description
10/30/08	R J C	UPDATE PER CLIENT COMMENTS
09/30/08	R J C	UPDATE PER CLIENT COMMENTS
07/01/08	R P F	UPDATE PER CLIENT COMMENTS
06/30/08	R P F	MSC UPDATE

GEOD CORPORATION
 PHOTOGRAMMETRIC SCIENCES - SURVEY TECHNOLOGIES
 CORPORATE OFFICE
 18-24 Kenosue Rd., Newfoundland, N.J. 07435 - (973) 697-2122 FAX: (973) 838-6433
 Certificate of Authorization # 247A29046790

Base Map
 Sea Girt National Guard Training Center
 Borough of Sea Girt
 Monmouth County, New Jersey

Drawn By: R.P.F.
 Checked: P.J.E.
 Scale: 1" = 150'
 Date: 06/04/08
 Proj. No. 2628
 Page: 1 of 1

PAUL J. EMILIUS Jr.
 N.J. Professional Land Surveyor Lic. No. 11195



State of New Jersey
DEPARTMENT OF MILITARY AND VETERANS AFFAIRS
POST OFFICE BOX 340
TRENTON, NEW JERSEY 08625-0340

CHRIS CHRISTIE
Governor
Commander-in-Chief

☆☆
GLENN K. RIETH
Major General
The Adjutant General

TAG MEMORANDUM 5-11

10 March 2011

NATIONAL GUARD JOINT TRAINING CENTER BEACH PASS POLICY (2011)

1. **PURPOSE:** To provide policy guidance and procedures for requesting / issuing beach pass access for the National Guard Joint Training Center (NGJTC).
2. **APPLICABILITY:** This policy applies to all individuals and organizations seeking access to NGJTC beach facilities.
3. **GENERAL:**
 - a. The NGJTC in Sea Girt, New Jersey is a state owned and operated property specifically funded and organized to support the New Jersey Army and Air National Guard. Long-term tenant organizations based at the Center are the NJ State Police (NJSP), the NJ Criminal Justice Division, the NJ Juvenile Justice Commission, and the NJ Department of Corrections. Further, there are numerous other government, public and private lessees who use the premises on various occasions.
 - b. The NGJTC is not part of the State park system. The beach bathing area is less than ¼ mile in length patrolled by the Sea Girt Beach Patrol through a cooperative agreement, and sits between the cities of Sea Girt to the North, and Manasquan to the South. Based on the limited size of the beach, access is limited.
 - c. Four (4) changing rooms and two (2) outside showers are provided to the left side of the beach parking areas. Additionally, in the same vicinity port-a-johns (including handicapped) are available. These facilities are cleaned daily.
4. **POLICY & PROCEDURES:** Beach / Training Center access criteria, official and unofficial business. Individuals must present credentials to the Security Guard at the main gate:
 - a. **NGJTC Access:**
 - (1) **Military and military dependent ID card:** All *active duty* and *reserve component military personnel* (based in New Jersey) have access to the NGJTC and the beach with presentation of a valid identification (ID) card as follows:
 - NJ National Guard members (current and retired)

Supersedes TAG Memorandum 2-10, dated 20 January 2010

- Active Duty current members only based in NJ (Army, Marines, Navy, Air Force, Coast Guard).
- Dependents of current NJ National Guard and retired NJ National Guard members, Reserve Component members, and Active Duty members with valid military dependent identification cards.

(2) **State/Federal Employee ID card:** New Jersey Department of Military and Veterans Affairs (DMAVA) federal and state employees have access to the NGJTC and the beach with presentation of a valid DMAVA ID card as follows:

- NJ DMAVA employees, current and retired

(3) **New Jersey State Police Badge/Shield:** NJSP officers have access to the NGJTC and the beach with presentation of a valid NJSP ID card as follows:

- All NJSP, current and retired.

(4) **Other Law Enforcement Badge/Shield:** Other federal and state law enforcement officers *based* at Sea Girt have access to the NGJTC and the beach with presentation of a valid federal or state ID card as follows:

- All current law enforcement officers *based* at the NGJTC

(5) **First Responders vicinity NGJTC (ID Card/Badge/Shield):** Local First Responders (Police, Fire, and EMS) have access to the NGTC and the beach with presentation of a valid ID card as follows:

- All current Police, Fire, Rescue Squad/EMS located in Sea Girt, Manasquan, Spring Lake, Spring Lake Heights, and Wall.

b. **Courtesy Beach Passes.** Courtesy beach passes are provided as indicated below for distribution to extended family members and friends.

(1) Passes will be distributed as follows:

- NJ Army and Air National Guard members current and retired 5 (maximum)
- NJDMAVA employees, current and retired 2 (maximum)
- NJSP, current and retired 2 (maximum)
- Other Law enforcement based at the NGTC 2 (maximum)
- TAG/DAG/Director, NGTC discretion/determination (no limit)
for supporters of the NJNG (civic groups, veterans' organizations, donors, etc.)

(2) Passes are issued at the following locations:

- NGJTC, POC: Eileen Foster, (732) 974-5951
- NGJTC, Security Gate, Security Guard, Mr. Don Cannon
- DMAVA HQ, Lawrenceville, POC: Gail Miller, (609) 530-6912
- JFHQ, Ft. Dix, Army, POC: Zandra Ramcharitar, (609) 562-0959
- JFHQ, Ft. Dix, Air, POC: CMSgt. Bonnie Gaskell, (609) 562-0925

- 8WG, Joint Base McGuire–Dix -Lakehurst, MSgt. Rose Kopala, (609) 754-6160
- 177FW, Atlantic City, (609) 645-6206

(3) Beach Passes will not be available until mid-April or mid-May 2011.

c. **Discretionary Beach Passes.** Individuals seeking discretionary beach pass privileges must submit a letter to The Director, National Guard Training Center, P.O. Box 251. Sea Girt, New Jersey 08750, requesting same with the reason/justification clearly identified therein. Upon Director’s approval passes will be issued.

d. **Additional Responsibilities and Disciplinary Actions.**

(1) Beach passes are published annually by the Director, NGJTC. Forged passes will be confiscated by the Security Guard, the person(s) will be denied entrance, and a report will be filed with the Director, NGJTC. Appropriate commanders and agencies will be notified by the Director, NGJTC for further disciplinary action.

(2) Beach visitors will park in authorized areas only.

(3) Trash will be disposed of in approved containers.

(4) Beach visitors will not walk into the dune areas, nor will they enter the restricted environmental and wildlife habitats behind the ranges, and on the beach.

(5) Beach visitors will comply with the Sea Girt Life Guard and NGJTC swimming restrictions and guidance.

(6) Visitors to the NGJTC are subject to the rules, regulations and other guidance applicable to Post operations. Failure to comply with said guidance will be cause for eviction from the post, and other appropriate actions as required by the situation.

e. **Beach Parking Fees.**

(1) Because of increased operational expenses and reduced budget support, we are anticipating charging a modest Beach Parking Fee as indicated below. These fees will go to pay for current beach operational expenses, e.g., costs to clean the beach, lifeguard services, maintaining current beach equipment and facilities, cleaning showers and toilets, rental of port-a-johns, etc.. Furthermore a portion of the fees collected will set aside for future beach projects, e.g., the purchase of volleyball equipment for the beach, more picnic tables for the picnic area, sand mats for the handicapped, beach pavilion, etc.

(2) The following fees apply to personnel identified in paragraphs 4a (1) through 4a (5) above that have been issued beach passes.

Daily Parking	\$ 3.00
One Week Parking	\$15.00 (7 days)
Seasonal Parking	\$50.00 (106 days)


- (3) The following beach parking fees apply to all other individuals for 2011.

Daily Parking	\$ 5.00
Weekly Parking	\$20.00 (7 days)
Seasonal Parking	\$60.00 (106 days))

- (4) Purchase locations for beach parking fees will be established at a later date.

(NGJTC)

OFFICIAL:


GLENN K. RIETH
Major General, NJARNG
The Adjutant General

DISTRIBUTION: A, B, C, D, E, F



WELCOME

National Guard Joint Training Center
Sea Girt, New Jersey 08750

FISHING PERMIT GUIDANCE



NGJTC Flyer 12-1

Welcome Statement

On behalf of Brigadier General Michael L. Cunniff, the Adjutant General, and my staff I wish to welcome you to the National Guard Joint Training Center. We hope your visit is enjoyable and safe.



*Brigadier General Michael L. Cunniff
The Adjutant General
New Jersey National Guard*

Fishing Rules

Fishing on the NGJTC beaches is a privilege and not a right. It is limited to those members of the current National Guard, retired military, and tenant agencies on Post. This privilege may be extended upon written request to the Director, NGJTC, PO Box 251, Sea Girt, NJ 08750. The following basic rules apply for Post permitted fishers:

- Place trash in proper receptacles
- **No tents/cabanas**
- **No Open fires or campfires**
- Fish in approved areas only
- **No PETS**
- Use Port-a-Johns located near beach

- Pass is limited only to the applicant, and guests are not permitted.
- Fishing during the summer season described under Beach Rules & Operations will be limited to the 2nd North Jetty area
- Fishing during the winter season is authorized from the 2nd Jetty South to the boundary with Manasquan
- Fishing hours are limited to 0700-2000 hours
- This permit must be presented to gain entrance, and then displayed (permit number) on the dashboard, drivers side of vehicle
- Unused bait and fish scraps will be taken with the fisher, and **not** disposed on the beach or in trash containers:
- Beach is open to bathers 0900-1900 hours daily during the summer season-during Lifeguards on duty 0900-1700 on weekends only from Saturday before Memorial Day through June 30th
- Lifeguards are on duty daily 0900-1700 from July 1 through second Sunday in September.
- **No vehicles** on the beach
- Park only in authorized areas
- **No boats, jet skis, kayaks, surfboards, or tents** allowed
- Must vacate the water immediately when directed by the Lifeguards or Beach Security
- You may eat on the beach, but you must clean up your mess and place it in the receptacles.

Beach Safety

Caution: when entering the water as the beach drops off. If you are not an experienced swimmer do not enter into the water far from the beach.

Rip Currents: Be careful swimming on the Sea Girt Beach. Rip currents are frequent. Pay attention do not panic. Tread water and float, then swim parallel to the beach. Holler and wave to attract attention.

Range Firing: When the RED FLAGS are up on the end of the Range Road, when on the beach stay out of the Range Impact Area. Failure to do so could cause you to be removed from the beach.

Environmental Areas: Stay out of the dunes and the environmental areas that are marked on the beach. There are protected birds and plants within these areas.

General Post Rules: The following general rules apply:

- ***No smoking*** and no ***smokeless tobacco*** in buildings
- Obscene gestures, lewd or indecent conduct by any guest will not be tolerated
- Destruction of property will not be tolerated. Reimbursement for damaged property is expected, and the possibility of prosecution exists.
- Obey the Post 20 MPH speed limit

Failure to Comply: Your failure to comply may:

- Cause your stay to be terminated early and without refund
- Cause you to lose future use of Training Site facilities
- Trigger additional charges for cleaning and repair services
- Cause you to be prosecuted

Visit the Militia Museum



Building #66 inside and outside displays. Open Tuesday & Thursday year round 10:00 AM-3:00 PM. Also, open selected days and most weekends during the summer. *Note outside displays are open all the time, but please do not climb on the displays.*

PERMIT NO. _____

NAME: _____

ADDRESS: _____

EMERGENCY PHONE #: _____

EMERGENCY CONTACT: _____

RELATIONSHIP: _____

VEHICLE PLATE #: _____

DRIVERS LICENSE #: _____

DATE ISSUED: _____

DATE EXPIRES: _____

Hold Harmless Statement

The user shall assume all risk and responsibility for, and save harmless the State of New Jersey, the New Jersey Department of Military and Veterans Affairs, and the employees of Military and Veterans Affairs, from and all claims, demands, suits, actions, recoveries, judgments, and costs, and expenses in connection therewith on account of any loss of life or property, or injury or damages to the person, body or property of a person, persons or entity, which shall arise from or result directly or indirectly from User's use of the premises. The Department shall under no circumstances be liable to User or any persons, for any loss, damage or destruction of property, sustained in connection with activities conducted by the User while on the National Guard Training Center.

APPENDIX E
INRMP IMPLEMENTATION SUMMARY

NEW JERSEY ARMY NATIONAL GUARD
SEA GIRT NATIONAL GUARD JOINT TRAINING CENTER INTEGRATED
NATURAL RESOURCES MANAGEMENT PLAN IMPLEMENTATION SUMMARY

Program and Goal	Labor Source	Start Date	End Date	DMAVA Labor Hours						Equipment and Supply Funding						Contractor Funding						Total Funding						Funding Source
				CY13	CY14	CY15	CY16	CY17	5-yr	FY13	FY14	FY15	FY16	FY17	5-yr	FY13	FY14	FY15	FY16	FY17	5-yr	FY13	FY14	FY15	FY16	FY17	5-yr	
General INRMP Management	CFMO-EMB, Contractor	Ongoing	Ongoing	120	120	120	120	120	600	\$0	\$0	\$0	\$0	\$0	\$0	\$52,000	\$7,000	\$7,000	\$7,000	\$52,000	\$125,000	\$52,000	\$7,000	\$7,000	\$7,000	\$52,000	\$125,000	EPR-CON
Land and Watershed Management																												
Land and Watershed Goal #1 - Protect and rehabilitate sensitive wildlife habitats by controlling invasive plants	CFMO-EMB, Facilities, Contractor	7/1/2013	8/31/2017																									
1. Prepare treatment, restoration, and prevention plan.		7/1/2013	12/31/2013	40	0	0	0	0	40																			
2. Implement chemical/mechanical controls. Foliar herbicide application May – August but before		5/1/2014	8/31/2014	0	40	0	0	0	40																			
3. Conduct restoration plantings.		5/1/2014	8/31/2014	0	40	0	0	0	40																			
4. Conduct monitoring and retreatments.		5/1/2015	8/31/2017	0	0	40	40	40	120																			
Totals =				40	80	40	40	40	240	\$0	\$1,000	\$1,000	\$1,000	\$1,000	\$4,000	\$25,000	\$20,000	\$10,000	\$10,000	\$10,000	\$75,000	\$25,000	\$21,000	\$11,000	\$11,000	\$11,000	\$79,000	STEP
Land and Watershed Goal #2 – Minimize visitor and staff exposure to poison ivy	CFMO-EMB, Facilities, Contractor	Annual	Annual																									
1. Control in high traffic areas		May	Aug.	24	24	24	24	24	120																			
2. Provide awareness to staff and visitors		Mar.	Aug.	40	40	40	40	40	200																			
Totals =				64	64	64	64	64	320	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$5,000	\$0	\$0	\$0	\$0	\$0	\$0	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$5,000	STEP
Land and Watershed Goal #3 – Prevent introduction and spread of invasive	CFMO-EMB, Facilities, Contractor	1/1/13	12/31/17																									
1. Annual inspections for early detection		5/1/14	8/31/2017	0	0	0	0	0	0																			
2. Implement storage and disposal procedures		7/1/13	12/31/13	20	0	0	0	0	20																			
3. Implement clothing and equipment decontamination procedures		7/1/13	12/31/13	20	0	0	0	0	20																			
4. Implement other best management procedures in prevention plan.		7/1/13	12/31/13	20	0	0	0	0	20																			
5. Provide awareness to staff and visitors		Mar.	Aug.	10	10	10	10	10	50																			
Total=				70	10	10	10	10	110	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$5,000	15,000	15,000	15,000	15,000	15,000	\$75,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$80,000	STEP
Land and Watershed Goal #4 – Manage and protect onsite wetlands	CFMO-EMB, Facilities, Contractor																											
1. Erect/expand split rail fence around wetlands.		1/1/13	12/31/13	0	40	0	0	0	40																			
Totals =				0	40	0	0	0	40	\$0	\$8,000	\$0	\$0	\$0	\$8,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,000	\$0	\$0	\$0	\$8,000	STEP

APPENDIX F
RECORD OF ENVIRONMENTAL CONSIDERATION FOR IMPLEMENTATION OF
AN INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN AT SEA GIRT
NGJTC

ARNG ENVIRONMENTAL CHECKLIST

Enter information in the yellow shaded areas.

PART A - BACKGROUND INFORMATION

1. PROJECT NAME:

Update to the Sea Girt NGJTC Integrated Natural Resource Management Plan

2. PROJECT NUMBER:

3. DATE:

1-Jan-13

4. DESCRIPTION AND LOCATION OF THE PROPOSED ACTION:

Incorporate new data and revisions into the existing Intergrated Natural Resource Management Plan for the Sea Girt National Guard Joint Training Center located in Sea Girt, New Jersey. The project provides for inclusion of ongoing annual threatened and endangered species survey results, natural resource data collected over the term of the prior INRMP and the recent one year avian and bat survey related to the potential installation of a wind turbine. The turbine is no longer a feasible project and has been withdrawn from planning. The current INRMP with associated activities and surveys is continuous. The project proposes to update the plan for these ongoing activities, implement periodic invasive herbaceous species control and provide for limited beach dune habitat enhancements.

5. START DATE (dd-mmm-yy): 1-Jan-13

6. END DATE (dd-mmm-yy): 31-Dec-17

7. STATE/ORGANIZATION: Sea Girt National Guard Joint Training Center

8. SERVICE COMPONENT: NJARNG

9. ADDRESS: Sea Girt , New Jersey

10. PROPONENT/UNIT NAME: NJ Department of Military and Veteran's Affairs

11. POC: William McBride

12. PROPONENT/UNIT ADDRESS: 101 Eggerts Crossing Rd, Lawrenceville, NJ

13. COMM VOICE: 609-530-7136

14. COMM FAX: 609-530-6880

15. DSN VOICE:

16. DSN FAX:

17. EMAIL: Wiliam.Mcbride@njdmava.state.nj.us

18. Was the project adequately addressed in a separate environmental review? Do not include Environmental YES NO

Baseline Surveys (EBSs).

If YES, fill out and attach copy of the decision document:

Document Title:

Reviewing Agency:

Date of Review: (dd-mmm-yy):

PART B - HISTORICAL INFORMATION

1. Is the agency undergoing, or has it undergone, legal action for NEPA issues? YES NO

2. Has there been previous ARNG training, construction, or similar proposals on the site? YES NO

3. Are there any known contentious environmental issues currently associated with the site? YES NO

Explain any YES answers.

Project includes proposed activities that have been previously executed and regularly ongoing for the previous 4-5 years.

4. Has the proposed type of equipment (tracked or wheeled) been operated on the site before? YES NO

If NO, what NEPA document covers this action? Provide copy of REC, FNSI, or ROD. This does not include EBSs.

Document Title: Not Applicable

Preparing Agency:

Date (dd-mmm-yy):

5. Describe the environmental setting, including past and present use of the site.

The site is currently used for regular NJARNG troop training and is the home of the NJ State Police and NJ Department of Corrections Training Academies. The Installation has been in continuous military use since 1885 and is characterized by WWII era single story buildings, one sturcture eldigible for national historic listing, several more modern structures (Headquarters, FSMS, Training Facilities) and a static outdoor vehicle display, all spread across the west and southwest portions of the site. The north and central portion of the site is mowed grasses used as athletic fields (open to the public/school groups) and cermonial parade grounds. The eastern portion of the site contians five small arms ranges, three of which are activiely used by the NJSP cadets and the Guard. The ranges terminate at bllet traps and bulkheads which are located along the western/inland side of beach dunes. Most portions of the dune area is designated as sensitve and protected

PART C - DESCRIPTION OF PROPOSED PROJECT/ACTION

Include a map with the site clearly marked

1. The proposed action will involve (check all that apply):

<input type="checkbox"/> Training Activities/Areas	<input type="checkbox"/> Construction	<input type="checkbox"/> Reorganization/Restationing
<input type="checkbox"/> Maintenance/Repair/Rehabilitation	<input type="checkbox"/> Lease or License	<input checked="" type="checkbox"/> Environmental Plans/Surveys
<input type="checkbox"/> EBS Preparation		
<input checked="" type="checkbox"/> Other (Explain):	Implementation of ongoing surveys, limited mammal predator control	

2. Has any related real estate action been addressed in a separate environmental document within the last 5 years? YES NO

If YES Document Title: 2010 Master Plan Date (dd-mmm-yy): 1-Feb-12

3. Number of acres to be disturbed: None

4. How is the site currently zoned?

<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Park
<input checked="" type="checkbox"/> Other (Explain): District 3-Beach, District 4 Single Family Residential			

5. Briefly describe the surrounding area land uses (e.g., undeveloped, recreation, residential, etc):
 The installation is bounded on the east by the Atlantic Ocean. To the southeast is a small municipal ball park surrounded by year round and seasonal residential homes. To the south is a bulkhead and Stockton Lake across from which is a public roadway and additional residences. To the southwest are private residents. All of the above are located in the Borough of Manasquan, NJ. To the west is an active NJ tranist light rail line and commercial properties. To the north west is the commercial business district of the Borough of Sea Girt, NJ. The northern boundary is a public roadway accross from which are located multiple year round and seasonal residential homes. The surrounding area can by characterized as moderate to high density residential and limited commercial properties.

6. Provide distances to ALL environmentally sensitive areas:

TYPE	Distance	Unit	TYPE	Distance	Unit
a. Prime/Unique Farmland	> 1	Mile	e. Wild/Scenic River	> 1	Mile
b. Wilderness Area/National Park	> 1	Mile	f. Coastal Zones	Within the installation	
c. Sole-Source Aquifer	Within the installation		g. Floodplain	Within the installation	
d. Wetlands	Within the installation				

PART D - ENVIRONMENTAL IMPACT ANALYSIS

1. AIR

a. Is the proposed action in a non-attainment/maintenance area? YES NO

Attach a General Conformity Determination or Record of Non-Applicability (RONA) for Military Construction activities in non-attainment/maintenance areas.

b. Will the proposed action require an air emissions permit, registration, license, etc?	During proposed action	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	During normal operations after proposed action is completed	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
c. Will the proposed action release objectionable odors, smoke, dust, suspended particles, or noxious gases into the air?	During proposed action	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	During normal operations after proposed action is completed	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
d. Will the proposed action expose sensitive receptors (threatened or endangered plants or animals, or children) to pollutants?	During proposed action	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	During normal operations after proposed action is completed	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO

Explain any YES answers and/or planned mitigation here.

***Project involves NO construction, demolition, operation of emissions producing equipment or any activites that would create impacts to ambient air. A RONA is not applicable to the project.

2. TRAFFIC

a. Will the proposed action result in generation of or increase in aircraft activity/traffic? YES NO

b. Will the proposed action result in the generation of or increase in vehicular traffic? YES NO

c. Will the proposed action use and/or construct unimproved roads?	During proposed action	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	During normal operations after proposed action is completed	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO

Explain any **YES** answers and/or planned mitigation here. Include aircraft types, number of sorties, and flight schedules (if applicable).

3. NOISE

a. Will the proposed action result in an increase in noise levels?	During proposed action	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	During normal operations after proposed action is completed	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO

b. Is the proposed action close to any civilian activity where noise might affect the population (add any not listed in the spaces provided)? Include distances for all types: YES NO

TYPE	Distance	Unit	TYPE	Distance	Unit
(1) Residence/Home	>500	FT	(5) Library	>1000	FT
(2) Church	>1000	FT	(6) Wilderness Area	>1000	FT
(3) School	>1000	FT			
(4) Hospital	>1000	FT			

c. Will the proposed action involve aircraft? YES NO

d. Will the proposed action involve night (10 pm to 7 am) operations?	During proposed action	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
	During normal operations after proposed action is completed	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO

Explain any **YES** answers.
Implementation of the INRMP may call for occasional night predator (fox and ferral cat) surveys involving night vision or periodic use of spot lights. No unusual noise genrating activites will occur during these surveys.

4. EARTH

a. Will the proposed action result in long-term disruptions, displacements, compaction, or overcovering of soil, a permanent change in topography, or ground surface relief features? YES NO

b. Will the proposed action result in a long-term increase in wind or water soil erosion, on or off the site, after the proposed action is completed? YES NO

Explain any **YES** answers.

5. NATURAL RESOURCES

NOTE- A **subject matter expert** from the State/Territory ARNG Environmental Office must confirm the answers to these questions by signing the signature page.

a. Will the proposed action change the diversity or numbers of any species including mammals, birds, reptiles, amphibians, fish, trees, shrubs, grasses, crops, microflora, or aquatic plants? YES NO

b. Will the proposed action introduce any non-native species into the area? YES NO

c. Will the proposed action impact any plants or animals that are listed or candidates for threatened, unique, rare, or endangered status? YES NO

d. Will the proposed action create barriers to prevent the migration or movement of animals? YES NO

e. Will the proposed action deteriorate, alter, or destroy existing fish or wildlife habitat?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
f. Will the proposed action deplete any non-renewable natural resources?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
g. Will the proposed action alter, destroy, or significantly impact environmentally sensitive areas (wetlands, coastal zones, etc.)?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO

Explain any **YES** answers.

6. LAND USE

a. Will the proposed action alter the present land use of the site?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
b. Who owns the property?	<input type="checkbox"/> Federal/DOD <input checked="" type="checkbox"/> State <input type="checkbox"/> City/Town/County <input type="checkbox"/> Private <input type="checkbox"/> Other (Explain):	

c. Does the proposed action involve a real estate action (e.g., purchase, lease, permit, or license)?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
Answer the following if you answered YES above:	(1) Has an EBS been completed? If YES , attach the EBS.	<input type="checkbox"/> YES <input type="checkbox"/> NO
	(2) Require an increase of acreage/amendment to an existing lease or license?	<input type="checkbox"/> YES <input type="checkbox"/> NO
	(3) Require new purchase of additional acres using federal, state, or other funds?	<input type="checkbox"/> YES <input type="checkbox"/> NO
	(4) Require a new lease, license, and/or land use permit?	<input type="checkbox"/> YES <input type="checkbox"/> NO
	(5) Replace or dispose of existing facilities?	<input type="checkbox"/> YES <input type="checkbox"/> NO

Explain any **YES** answers.

7. SOLID WASTE

a. Will the proposed action generate solid wastes that must be disposed of on or off site?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
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Explain a **YES** answer.

8. HAZARDOUS WASTE

a. Will the proposed action generate hazardous waste?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
b. Will the proposed action store and/or prepare for the disposal of hazardous waste or materials?	During proposed action	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
	During normal operations after proposed action is completed	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
c. Does the proposed action require a permit to accumulate hazardous waste or materials at the site?	During proposed action	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
	During normal operations after proposed action is completed	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
d. Does the proposed action have an increased risk for explosion, spill, or the release of hazardous waste or materials (including but not limited to pesticides, chemicals, or radiation)?	During proposed action	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
	During normal operations after proposed action is completed	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
e. Will the proposed action require the presence of trained personnel to handle and dispose of hazardous and/or toxic waste/materials?	During proposed action	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	During normal operations after proposed action is completed	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

f. Will the proposed action involve the opportunity for hazardous material minimization and recycling?	During proposed action During normal operations after proposed action is completed	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<p>Explain any YES answers.</p> <p>NJDEP permitted and licensed personnel will be used to apply periodic approved herbicides during invasive species management actions. These activities will be closely coordinated with NJDEP authorities.</p>		
g. Do you have a plan describing procedures for the proper handling, storage, use, disposal, and cleanup of hazardous and/or toxic materials?	During proposed action During normal operations after proposed action is completed	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<p>Explain any NO answers.</p> <p>Not applicable to the Project. Existing plans and standard operating procedures are already in place on the installation which apply to all actions.</p>		
9. WATER		
a. Will the proposed action change currents, course, or direction of water movements in marine or fresh waters?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
b. Will the proposed action discharge sediments, liquids, or solid wastes into surface waters, or alter the surface water quality?	During proposed action During normal operations after proposed action is completed	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
c. Will the proposed action change the quality and/or quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
d. Does the proposed action have the potential to accidentally spill hazardous or toxic materials in or near a body of water?	During proposed action During normal operations after proposed action is completed	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
e. Does the proposed action have the need for a Spill Control and Countermeasure Plan, and/or Installation Spill Contingency Plan (SPCC and/or ISCP)?	During proposed action During normal operations after proposed action is completed	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
f. Will the proposed action construct facilities or implement actions within floodplains and/or wetlands?	During proposed action During normal operations after proposed action is completed	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
g. Does the proposed action require an NPDES stormwater or wastewater discharge permit?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
h. Does the proposed action involve the construction of a water or wastewater treatment system (oil water separators, grease traps, etc)?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<p>Explain any YES answers.</p> <p>Implementation of the INRMP currently requires physical and topographic surveying in areas of the floodplain and existing wetlands. Flora and Fauna surveys also require occasional foot traffic in limited areas of the flood plain and adjacent to wetland areas. These actions are non-destructive, provide minimal impact to resources and are an ongoing and preexisting activity. As part of proposed invasive plant species management, small amounts of NJDEP approved commercial herbicides may be used in wetlands areas under permit and the direction of NJDEP authorities. These materials are currently regulated and approved for widespread use in New Jersey.</p>		

10. CULTURAL RESOURCES

- a. Does the proposed action involve an undertaking (Reference: 36 CFR 800.161[y]) to a building/structure 50 years or older? YES NO
- If YES** to Question a, has an architectural inventory/evaluation been completed to determine eligibility for the National Register of Historic Places? YES NO
- b. Does the proposed action involve ground disturbance? (Reference: 36 CFR 800.161[y]) YES NO
- If YES** to Question b, has an archaeological inventory been completed to determine if there are any archaeological sites present? YES NO
- If YES** to Question b, did the state contact any Federally-recognized Tribes to comment on the proposed action? YES NO
- c. Does the proposed action fall under any Federal or Nationwide Programmatic Agreement or Programmatic Comment? **If YES**, reference it below. YES NO
- d. Has the state contacted the SHPO for comments? YES NO
- e. Does the proposed action have the potential to affect any traditional cultural properties or sacred sites? **If YES**, attach coordination with Federally-recognized Tribes. YES NO

Explain any **YES** answers.

Project is primarily a continuation of field surveys, and flora and fauna management. There will be no impacts on historic structures or cultural resources. Previous archaeological surveys have been conducted on Post. There will be some potential restoration of storm depleted dune areas. Prior to any dune work, current study data will be reviewed with SHPO, however dune areas are highly mobile and dynamic due to tidal and wave action. NOTIFICATION TO IDENTIFIED TRIBAL ENTITIES AND SHPO WILL BE MADE WHEN DRAFT INRMP IS AVAILABLE FOR AGENCY REVIEW.

11. POPULATION

- a. Will the proposed action alter the location, distribution, density, or growth rate of the human population of an area? YES NO
- b. Will the proposed action affect children?
Reference: Executive Order 13045
- During proposed action YES NO
- During normal operations after proposed action is completed YES NO
- c. Are there any Environmental Justice issues associated with the proposed action?
Reference: Executive Order 12898. YES NO

Explain any **YES** answers.

12. INFRASTRUCTURE

- a. Will the proposed action result in the need for new systems or substantial alterations to the following utilities:
- (1) Electrical power, fossil fuel or other (specify): YES NO
- (2) Drinking water? YES NO
- (3) Wastewater treatment? YES NO
- (4) Sewer collection system? YES NO
- (5) Wash racks? YES NO
- (6) Solid waste disposal? YES NO

Explain any **YES** answers.

PART E - INNOVATIVE READINESS TRAINING (IRT)

Skip this portion if this is not an IRT Project

1. REQUESTER INFORMATION

a. REQUESTER NAME:		b. TITLE:	
c. AGENCY NAME:			
d. AGENCY ADDRESS:			
e. COMM VOICE:	f. COMM FAX:	g. DSN VOICE:	
h. DSN FAX:	i. EMAIL:		
j. TYPE:	<input type="checkbox"/> FEDERAL <input type="checkbox"/> STATE <input type="checkbox"/> LOCAL/MUNICIPAL <input type="checkbox"/> YOUTH/CHARITABLE		
k. SUPPORT TYPE REQUESTED:	<input type="checkbox"/> ENGINEER	<input type="checkbox"/> TRANSPORTATION	<input type="checkbox"/> TECH ASSISTANCE <input type="checkbox"/> LOGISTICAL
	<input type="checkbox"/> COMMUNICATION	<input type="checkbox"/> ADMINISTRATIVE	<input type="checkbox"/> CEREMONIAL <input type="checkbox"/> PARADE
	<input type="checkbox"/> OTHER (SPECIFY):		

2. ASSIGNED UNIT INFORMATION (Filled out by assigned National Guard unit)

a. UNIT ASSIGNED PROJECT:		b. SERVICE COMPONENT:	
c. UNIT ADDRESS:			
d. PROJECT OFFICER	RANK:	NAME:	
e. SITE VISIT DATE (dd-mmm-yy)			
f. PROJECT ASSESSMENT (Give detailed assessment of project requirements. Review project requirements against the screening criteria in Section 651.29 of 32 CFR Part 651. If the project qualifies for a Categorical Exclusion, indicate the Categorical Exclusion code).			

g. ESTIMATED NUMBER OF HOURS REQUIRED TO COMPLETE PROJECT:		h. PERSONNEL REQUIRED:	<u>OFFICER</u>	<u>ENLISTED</u>
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PART F - DETERMINATION


a. Does the proposed action have the potential to degrade the quality of the environment, or curtail the diversity of the environment? YES NO

b. Does the proposed action have the potential for cumulative impacts on environmental quality when the effects are combined with those of other Federal/State actions, or when the action is of lengthy duration? YES NO

c. Does the proposed action have environmental effects that will cause substantial adverse effects on the human or natural environment, either directly or indirectly? YES NO

On the basis of this initial evaluation, the following is appropriate (check one):

- An **Environmental Baseline Survey (EBS)** and a **new checklist** once the EBS is completed.
- IAW 32 CFR 651 Appendix B, the proposed action qualifies for a **Categorical Exclusion (CX)** that does not require a Record of Environmental Consideration.
- A **Record of Environmental Consideration (REC)**.
- An **Environmental Assessment (EA)**.
- A **Notice of Intent (NOI)** to prepare an **Environmental Impact Statement (EIS)**.




Signature of Proponent (Requester)

COL Michael Lyons

Printed Name of Proponent (Requester)

7/23/13

Date Signed

Concurrence: 

Environmental Program Manager

William C. McBride

Printed Name of Env. Program Manager

7/18/13

Date Signed

Concurrence (as needed):

Signature of Landowner

Printed Name of Landowner

Date Signed

Signature of Facilities Officer

Printed Name of Facilities Officer

Date Signed

Signature of Commander

Printed Name of Commander

Date Signed

Signature of Plans & Operations Officer

Printed Name of Plans & Operations Officer

Date Signed

ARNG RECORD OF ENVIRONMENTAL CONSIDERATION

1. PROJECT NAME:

Update to the Sea Girt NGJTC Integrated Natural Resource Management Plan

2. PROJECT NUMBER:

0

3. DATE:

1-Jan-13

4. PROJECT START DATE (dd-mmm-yy):

1-Jan-13

5. PROJECT END DATE (dd-mmm-yy):

31-Dec-17

6. DESCRIPTION AND LOCATION OF THE PROPOSED ACTION:

Incorporate new data and revisions into the existing Intergrated Natural Resource Management Plan for the Sea Girt National Guard Joint Training Center located in Sea Girt, New Jersey. The project provides for inclusion of ongoing annual threatened and endangered species survey results, natural resource data collected over the term of the prior INRMP and the recent one year avian and bat survey related to the potential installation of a wind turbine. The turbine is no longer a feasible project and has been withdrawn from planning. The current INRMP with associated activities and surveys is continuous. The project proposes to update the plan for these ongoing activities, implement periodic invasive herbaceous species control and provide for limited beach dune habitat enhancements.

7. CHOOSE ONE OF THE FOLLOWING:

- An existing **Environmental Assessment** adequately covers the scope of this project.
EA Date (dd-mmm-yy) _____ Conducted By: _____
- An existing **Environmental Impact Statement** adequately covers the scope of this project.
EIS Date (dd-mmm-yy) _____ Conducted By: _____
- After reviewing the screening criteria and completing the ARNG Environmental Checklist, this project qualifies for a **Categorical Exclusion** (select one below).
Categorical Exclusion Code: D-4: Studies, data collection, monitoring, and information gathering... ▼
See 32 CFR 651 App. B
- This project is exempt from NEPA requirements under the provisions of:
Cite superseding law: _____

8. REMARKS:

The Project provides for inclusion and updates of the existing INRMP with data collected over the term of the previous document and supports longterm and ongoing natural resource and threatened and endangered species management programs that regularly occur with coordination with federal, state and local environmental regulatory officials.



Signature of Proponent (Requester)

COL Michael Lyons

Printed Name of Proponent (Requester)

12 July 2012

Date Signed

Concurrence:



Environmental Program Manager

William C. McBride

Printed Name of Env. Program Manager

11 July 2013

Date Signed

APPENDIX G
PRELIMINARY ASSESSMENT OF IMPACTS FROM HURRICANE SANDY

The discussion provided in the body of this Sea Girt NGJTC 2013-2017 INRMP does not include a review of impacts to natural resources resulting from Hurricane Sandy. Provided herein is a summary of the preliminary assessment of post-storm impacts conducted and prepared by Amy S. Greene Environmental Consulting Inc. (ASGECI) through January of 2013. It is expected that a complete evaluation will require seasonal observations throughout 2013 to fully assess on-site changes to ecological communities and wildlife.

PRELIMINARY ASSESSMENT OF IMPACTS FROM HURRICANE SANDY

On October 29, 2012, Hurricane Sandy made landfall near Atlantic City New Jersey and caused unprecedented damage along coastal Monmouth and Ocean Counties. The maximum wind gusts at Sea Girt NGJTC registered at a maximum of 79 mph and the site received approximately 2.5 inches of rain according to the NGJTC facility weather station. The barometric pressure was as low as 28.23” during October 29. Flooding occurred throughout much of the eastern and southern portions of the facility. Areas that flooded included the majority of the primary and secondary dune, beach parking lots, and much of the fields, facilities and buildings bordering Stockton Lake and on the southern end of the grounds.

Following the storm, AECOM returned to the site on November 1, 2012 to continue predator population surveys (initiated in fall of 2012) and assess damage on cameras and trapping equipment. AECOM noted that there was minimal damage to the trapping equipment and cameras (loss of one of four cameras posted on-site). ASGECI waited to return to the site on November 19, to allow for restoration of power and major clean up within the region. On November 19, 2012, ASGECI conducted a preliminary assessment of impacts to beach habitats and communities. Damage included the following vegetation and natural resource impacts:

- The loss of the osprey tower, which snapped at its base
- The loss of the osprey nest atop the facility cell tower
- Flooding and sand deposition within portions of the secondary dune habitat
- Flooding within the NGJTC freshwater wetland and adjacent fields
- The loss of nearly all above ground vegetation (mainly American beachgrass) and much of the root systems within the primary dune. Including the northern protection area (NPA), southern protection area (SPA) and the southern beach area
- Major topographic alterations (primarily beach erosion) to the primary dune and the unconsolidated shore/intertidal zone.

ASGECI revisited the NGJTC on January 10, 2013 to further assess topographic and tidal impacts to the beach and primary dune areas. Within the NGJTC beach, preliminary observation indicates that the total topography has dropped by a range of three to six or more

feet depending on the location. Evidence of this decrease in topography was apparent by the new exposure of old bulkhead remains in both the NPA and SPA, which included erect wooden planks two or more feet above ground. In addition, two jetties were exposed in the NPA with rocks ranging from several inches to over one foot above the sand surface. These jetties ran in an east west orientation from the middle-western portion of the NPA to inside the “no rake” zone east of the NPA. These jetties are associated with the onsite rock piles that were exposed in the no rake /intertidal zone before the Hurricane. Some larger pieces of loose debris, including large pieces of wood remained on the beach, primarily within the SPA.

At the time of observation in January of 2013, most of the NGJTC beach topography extended in a relatively uniform slope toward the ocean, with a very slight upward berm in portions of the intertidal zone. The steepest portions of the NPA (excess of 30% slope) remained primarily along its western boundary with the sea wall and the secondary dune. Variation in primary dune topography in protection areas including peaks (of 13 feet AMSL or more) in the middle-frontal portions and troughs in rear areas were no longer present. Observations of the beach front revealed a steep shelf of several feet just before the tide line in the intertidal zone. This shelf was most prominent in the “no rake” zone east of the NPA.

Based on these preliminary observations, it appeared that spring high tides under calm conditions, would not infiltrate the NPA and the tidal inundation would stay below the shelf described above. It would appear; however, that high tides combined with moderate wavers of several feet could regularly inundate the NPA frontal portions based on the lowered topography. The wrack line on January 10th, which appeared to have occurred under moderate wave conditions sometime previous to the spring high tide was 40 feet from the typical NPA boundary and approximately 220 feet from the concrete sea wall at the western end of the NPA.

Remaining aboveground vegetation onsite within the primary dune protection areas amounted to approximately less than one percent cover and did not appear to be viable. Few root systems appeared to remain intact and those remaining, primarily in the westernmost portion of the NPA and SPA, may not be viable. American beach grass thrives in dynamic beach environments, and it would be expected to recolonize the protection areas in upcoming seasons; however, it would likely take multiple seasons of relative stability to recover to cover and density levels recorded previous to Hurricane Sandy.

The combination of low topography combined with the exposure of new jetties and high tides and moderate surf could make lifeguard passage in front of the NPA on a regular basis more difficult. It is possible there could be some sand recovery on the NGJTC beach as the spring approaches; however, it appears likely that overall beach topography will generally remain several feet below the previous condition. Based on current and previous observations, the reduction of vegetation could result in a higher probability of nest attempts by beach nesting birds in the spring. It would be expected; however, that there would be a greater probability of nest inundation from spring high tides and storm surges during the incubation

period. Additionally, regular occurrences of red fox have been observed onsite following the storm by both ASGECI and AECOM. Two foxes were observed on December 19, 2013, two on January 10, 2013, and one fox on January 27, 2013. Fox tracks were visible throughout the NGJTC including protection areas on various site visits and game cameras further verified regular activity on-site.

Large portions of secondary dune, particularly lower successional dune areas, were also inundated during Hurricane Sandy. It appears large areas of shrub flora, particularly Northern bayberry, was impacted by wind and water during the storm. Many of the shrub limbs and trunks are cracked, but may still be viable. The storm surge appears to have extended through beach access points north and south of the secondary dune (along the alternate driving route) and into the eastern portions of the field and parking lot. Several feet of sand accretion occurred within the northern and southern ends of the secondary dune habitats from the storm's wave action. It is possible that the ratios of plant composition and structure within the secondary dune areas will change in some areas as a result of the storm. These communities should be monitored to see how various invasive species and other vegetation respond to the impact.

The full impacts and necessary courses of action resulting from Hurricane Sandy, including lifeguard beach access and protection area maintenance, will be continually assessed by NJDMAVA in conjunction with USFWS and NJDEP as the active season in 2013 approaches.