ENVIRONMENTAL PROTECTION

WATER RESOURCE MANAGEMENT

DIVISION OF WATER QUALITY

New Jersey Pollutant Discharge Elimination System

Treatment Works Approvals, Capacity Assurance Program, and Sewer Ban Program

Proposed Amendments: N.J.A.C. 7:14A-22.8, 22.16, and 22.17

Authorized By: Bob Martin, Commissioner, Department of Environmental Protection.

Authority: N.J.S.A. 13:1D-9; 13:1E-1 et seq., 58:10A-1 et seq., 58:11-49 through 58, and 58:11-64 et seq.

Calendar Reference: See Summary below for explanation of exception to calendar requirement.

DEP Docket Number: 08-15-09.

Proposal Number: PRN 2015-135.

A public hearing concerning this proposal will be held on Thursday, December 3, 2015,

from 9:00 A.M. until 12:00 P.M., at:

New Jersey Department of Environmental Protection

Public Hearing Room

401 East State Street, 1st Floor

Trenton, New Jersey

Directions to the hearing room may be found at the Department of Environmental

Protection's (Department's) website address at <u>www.nj.gov/dep/where.htm</u>.

Submit comments by December 18, 2015, electronically at

www.nj.gov/dep/rules/comments. Each comment should be identified by the applicable N.J.A.C.

citation, with the commenter's name and affiliation following the comment.

The Department encourages electronic submittal of comments. In the alternative,

comments may be submitted on paper to:

Gary J. Brower, Esq.

Attention: DEP Docket Number 08-15-09

Office of Legal Affairs

Department of Environmental Protection

401 East State Street, 7th Floor

Mail Code 401-04L

P.O. Box 402

Trenton, New Jersey 08625-0402

Written comments may also be submitted at the public hearing. It is requested (but not required) that anyone submitting oral testimony at the public hearing provide a copy of any prepared text to the stenographer at the hearing.

The rule proposal may be viewed or downloaded from the Department's website at

www.nj.gov/dep/rules.

The agency proposal follows:

Summary

As the New Jersey Department of Environmental Protection (Department) has provided a 60-day comment period on this notice of proposal, this notice is excepted from the rulemaking

calendar requirements pursuant to N.J.A.C. 1:30-3.3(a)5.

The Department is proposing amendments to the New Jersey Pollutant Discharge Elimination System (NJPDES) rules with respect to the capacity assurance program (CAP) provisions that are part of the rules governing treatment works approvals (TWAs) at N.J.A.C. 7:14A-22. The Summary describes the existing CAP rule and the rule as it is proposed to be amended. Following that is a discussion of the basis for the proposed changes in the flow threshold that triggers the CAP analysis, and then a discussion of how the proposed amendments to the CAP rule relate to the wastewater treatment capacity analysis provisions in the proposed Water Quality Management Planning (WQMP) rules published elsewhere in this issue of the New Jersey Register. Last, the Summary describes an unrelated amendment that updates the TWA application requirements to include the submittal of GPS coordinates for certain aspects of a proposed TWA project.

Background and existing CAP rule

The purpose of the CAP rule at existing N.J.A.C. 7:14A-22.16 is to establish a mechanism for ensuring that treatment works, which includes both the treatment plant and the associated conveyance system(s), will avoid hydraulic overloads that could result in violation(s) of NJPDES permit discharge limits or unpermitted discharges.

Under the existing CAP rule, when the committed flow to a treatment plant reaches 80 percent of the permitted flow, the participating municipalities and/or sewerage authorities are required to submit a capacity assurance program to the Department. Committed flow is the average flow over three consecutive months plus the sum of all flows anticipated from approved

but non-operational connections. Permitted flow is the maximum allowable flow as stated in the treatment plant's NJPDES permit or TWA, whichever is more stringent.

The capacity assurance program under the existing rule must include, at a minimum: measures for water conservation; maximization of treatment capacity at a minimum cost; reduction of infiltration/inflow (I/I) where appropriate; construction of improvements; disconnection of roof leaders, sump pumps, and other sources of inflow into sanitary sewer lines and their connection into storm sewer lines where available and to the extent feasible; submission of a WQM007 form on a quarterly basis; and preparation for the imposition of a selfimposed sewer connection ban.

In cases where the sewerage authority anticipates that, because of excessive I/I, the treatment plant will be receiving flows in excess of its permitted flow during wet months, and believes these flows can be adequately treated, the existing rule requires that the sewerage authority, in addition to the submission of the program described above, must submit a detailed technical report demonstrating that the treatment plant is capable of treating flows above its permitted flow and will still meet the discharge limits in its NJPDES permit and provide a justification for the issuance of treatment works approvals for additional flows in order for the Department to consider issuing TWAs for additional flows.

Under the existing rule, if participating municipalities or authorities do not comply with the CAP requirements, the Department may issue a warning notice requiring the sewerage authority or municipality to prepare and submit a capacity assurance program within 45 days of receipt of the notice. If, however, the committed flow to the treatment plant is at or above the plant's permitted flow and the Department determines that the participating municipalities or

sewerage authorities have not adequately complied and that additional flows may result in NJPDES permit violations at the treatment plant, the Department may deny applications for TWAs that would convey additional flow to the treatment plant.

CAP rule amendments

The Department is proposing amendments to the CAP rule to enhance the effectiveness of the capacity assurance program with respect to the roles and responsibilities of the various entities involved in addressing potential capacity shortfalls, the threshold at which the requirements are triggered, and the information gathered and evaluated as part of the capacity analysis.

The existing rule requires both the participating municipality and sewerage authority to submit a capacity analysis program to be implemented when the committed flow to a treatment plant reaches 80 percent of the permitted flow. A sewerage authority is an entity created pursuant to the Sewerage Authorities Law, N.J.S.A. 40:14A-1 et seq. Participating municipalities are those municipalities or other bodies that are members of the affected sewerage entity or that have contracted to obtain sewerage treatment services from a sewerage entity or other domestic treatment works. The Department is proposing to revise the rule to focus the responsibility for conducting a CAP analysis on the treatment plant permittee. This is consistent with the Water Pollution Control Act, specifically N.J.S.A. 58:10A-6.h(3).

As proposed to be amended, N.J.A.C. 7:14A-22.16(a) requires that when the average flow over 12 consecutive months reaches or exceeds the permitted flow of a treatment plant, the permittee of the treatment plant, in coordination with participating municipalities and sewage

authorities, must conduct a capacity analysis and submit a capacity analysis report to the Department for approval.

The capacity analysis must assess the treatment works (treatment plant and conveyance system); evaluate alternatives that would maximize conveyance and treatment of existing flows, reduce existing flows, and/or increase the capacity of the treatment works; identify the alternative(s) that will be implemented; establish an implementation schedule; and identify the financing mechanism(s) for the selected alternative(s). The specific considerations that must be addressed for each aspect of the capacity analysis are listed at proposed new N.J.A.C. 7:14A-22.16(c), which outlines the content of the capacity analysis report that must be submitted.

The capacity analysis report must be submitted within 180 days after the last day of the final month of the 12-consecutive-month period. The deadline for submission of the report reflecting the capacity analysis, the submittal and certification of the implementation schedule for the measures that will be undertaken to address potential flow overload, and the requirement to identify the means by which the measures will be financed are new or enhanced requirements intended to ensure that when the treatment plant has reached its permitted flow, measures will be taken to prevent the potential violation of NJPDES permit effluent limits or unpermitted discharges. The Department expects that only under very limited circumstances (for instance, the service area for the treatment plant is at full build-out with no expectation that redevelopment will increase flows) would a permittee be able to provide an acceptable justification for 'no action' once the CAP requirements are triggered.

The provision at existing N.J.A.C. 7:14A-22.16(c) under which the Department would issue a warning notice to municipalities and authorities when the CAP flow threshold was met

but the CAP was not submitted and providing 45 days to comply is proposed to be deleted. The 180-day deadline to submit the capacity analysis report in the proposed rule obviates the need to issue a warning notice and provide 45 days to comply.

By the last day of the month following the date in which the treatment plant's permitted flow has been met, the permittee must begin submitting the WQM007 Form, which requires the permittee to report quarterly actual and permitted flow and anticipated flow from permitted but not yet operational TWAs. The quarterly submittal of this form enables the Department to monitor capacity at the treatment plant.

Even though the threshold in the proposed CAP rule will be based on 12 months of data instead of three as under the existing rule (see explanation of the meaning of "committed flow" above), the Department recognizes that there are some instances when, during wet weather events, flow exceeds permitted flow and a treatment plant is at risk of violating its NJPDES permit effluent limits. Existing N.J.A.C. 7:14A-22.16(b) requires that, if a sewerage authority seeks to have additional flow approved by the Department through issuance of TWAs for projects in the treatment plant's sewer service area and the treatment plant is subject to excessive I/I and the permitted flow is occasionally exceeded during wet months, the sewerage authority must submit the capacity analysis information required under N.J.A.C. 7:14A-22.16(a) as well as additional documentation in a technical report demonstrating that the treatment plant can accept additional flows and still maintain compliance with its NJPDES permit. The Department is proposing amendments at N.J.A.C. 7:14A-22.16(b) that substitute "wet weather events" for "wet months" because significant I/I can occur during a wet

weather event that would not necessarily be reflected in the monthly average. The list of issues the technical report must include is proposed to be deleted; instead the rule cross-references the capacity analysis and capacity analysis report requirements at N.J.A.C. 7:14A-22.16(a)1 and (c), respectively. In addition, the Department is proposing that the permittee of the treatment plant at which the permitted flow is occasionally exceeded during wet weather events must, after notification from the Department, conduct a capacity analysis and submit for approval a capacity analysis report, including the selection of a corrective measure(s) to decrease excessive flow to the treatment plant and an implementation schedule.

As discussed above, N.J.A.C. 7:14A-22.16(a) is proposed to be amended to provide that the permittee must conduct the capacity analysis and submit the capacity analysis report, in coordination with the participating municipalities and sewage authorities as the owners or operators of the systems that convey flow to the treatment plant. These owners and operators play an important role in ensuring the permittee is able to operate its facility effectively and in accordance with the terms and conditions of its NJPDES permit. If the conveyance system is inadequate or not properly maintained, sanitary sewer overflows may occur, resulting in the potential for negative impacts to human health, through direct contact, and the environment that could result from the discharge of raw sewage. In addition, I/I that is conveyed through the system uses available capacity in both the conveyance system and at the treatment plant that could otherwise be used to convey and treat wastewater, including sanitary sewage or a combination of sanitary sewage and stormwater (combined sewage). Accordingly, proposed new N.J.A.C. 7:14A-22.16(d) requires that within 180 days of notification by the Department, the owner or operator of a conveyance system (whether sanitary or combined) must conduct a

capacity analysis and submit a capacity analysis report when the Department finds circumstances exist that are likely to result in excessive flow that may cause NJPDES permit violations or contribute to the discharge of untreated sewage at a combined sewer overflow or through sanitary sewer overflows. The causes for the Department to require a CAP analysis and report include: existing flows approach the design capacity of the conveyance system; there is excessive I/I in the conveyance system; the conveyance system is connected to a combined sewer system or a plant that receives flow from municipalities that have such systems; there has been an unpermitted discharge from the treatment works; and the 12-consecutive-month average flow equals or exceeds the permitted flow at the receiving treatment plant, and a municipality or sewage authority has not cooperated (for example, has not provided the necessary information regarding I/I or measures to be taken to reduce I/I) with the permittee to conduct the capacity analysis as required under proposed N.J.A.C. 7:14A-22.16(a) when the threshold was met.

These proposed amendments to the CAP rule complement the requirements of the National Combined Sewer Overflow Policy, which is incorporated into the NJPDES rules at N.J.A.C. 7:14A-11, Appendix C, for purposes of reducing, eliminating, and/or controlling discharges from combined sewer overflows.

The public notification requirements in the existing CAP rule at N.J.A.C. 7:14A-22.16(d) are proposed to be recodified with amendments at N.J.A.C. 7:14A-22.16(e). The Department is proposing to require that the notification be made when the Department approves the capacity analysis report submitted by the permittee or the owner or operator of the conveyance system. This will facilitate notification to the public well in advance regarding potential capacity issues within the service area and the potential for limitations on the connection of future projects that

would contribute additional flows to the system, as well as measures being considered by the permittee to address flows, including the potential need for capital improvements. This could aid development or business decisions. In addition to requiring the notification to provide identifying information about the treatment plant and a statement that the treatment plant has reached its permitted flow, or that the conveyance system to the plant meets one of the criteria triggering a capacity analysis under N.J.A.C. 7:14A-22.16(d), the Department is proposing that the notification include a warning that the Department may cease to issue TWAs if the capacity issues are not satisfactorily addressed. The Department is also proposing to require that a copy of the capacity analysis report be made available to the public on the website and at the office of the permittee or of the owner or operator of the conveyance system.

Proposed new N.J.A.C. 7:14A-22.16(f) continues the requirement at existing N.J.A.C. 7:14A-22.16(a)7, with clarifying amendments. When the permitted flow threshold at N.J.A.C. 7:14A-22.16(a) is met and the permittee anticipates that additional flows will result in any of the criteria that trigger imposition of a sewer connection ban within the treatment plant's sewer service area under N.J.A.C. 7:14A-22.17, the permittee must prepare for the imposition of a ban in accordance with the procedures at N.J.A.C. 7:14A-22.18, for instance, drafting the resolution that would impose a sewer connection ban.

Existing N.J.A.C. 7:14A-22.16(e) is proposed to be recodified at N.J.A.C. 7:14A-22.16(g) with amendments that make clear that the Department may stop issuing TWAs that would result in additional flows to a treatment plant if the permittee, any of the participating municipalities, a sewerage authority, or the owner or operator of the conveyance system does not submit a capacity analysis report that meets the requirements of the rule, or does not implement

the capacity assurance measures established through the capacity analysis report and implementation schedule required by the rule.

The Department is proposing new N.J.A.C. 7:14A-22.16(h) to establish a mechanism for the permittee to be relieved of the continuing obligation, referenced at N.J.A.C. 7:14A-22(a)3, to submit the WQM007 Form on a quarterly basis. The permittee may request to discontinue submitting the WQM007 Form if it can demonstrate that the flow, as reported in Discharge Monitoring Reports (DMRs), has decreased below the permitted flow for 36 consecutive months. However, the Department's approval of the request does not exempt that permittee from becoming subject to the requirements of the CAP rule in the future if flow at the treatment plant again triggers the threshold.

At N.J.A.C. 7:14A-22.17, which is the rule governing sewer ban imposition, the Department is proposing to modify the reference to the threshold that triggers the CAP rule from 80 percent of permitted flow to permitted flow, to reflect the proposed amendments to the CAP rule at N.J.A.C. 7:14A-22.16(a) described above.

Basis for changes in flow threshold that triggers capacity assurance requirements

The CAP rule is intended to establish a mechanism for ensuring that hydraulic overloads in the treatment works that could result in unpermitted discharges or violation(s) of NJPDES permit limits are avoided. This is accomplished by requiring permittees and participating municipalities to analyze and implement appropriate measures when flows approach the permitted or design capacity of the treatment works. The Department is proposing to amend the threshold at which the capacity assurance requirements are triggered in three respects: (1)

existing flow rather than committed flow is used to compare against permitted flow; (2) the flow is increased from 80 percent of permitted flow to the permitted flow (100 percent of permitted flow); and (3) the time period over which the existing flow is averaged is modified from three months to 12 months.

The Department conducted an evaluation of the correlations among treatment plant NJPDES permit violations, percentage of committed flow to permitted flow over various time periods, and flow averaging periods (discussed further below). For the evaluation, the Department reviewed data reported in DMRs and NJPDES permit violations recorded in the New Jersey Environmental Management System (NJEMS) database for 189 treatment plants that currently discharge treated domestic wastewater to surface waters in New Jersey. Permit violations for oxygen demanding parameters (BOD₅ or CBOD₅) and total suspended solids (TSS) were used in the evaluation as these parameters are common across all treatment plants that discharge treated domestic wastewater to surface water, are integral to the design of the treatment plants, and are related to the performance criteria for the treatment plants as reflected in their NJPDES permit limits.

The analysis indicated that there was a weak correlation between the percentage of committed flow to permitted flow (which are the flows that are compared for purposes of the existing CAP rule threshold) and the number of months in which numerical effluent limitation violations for CBOD₅, BOD₅ or TSS occurred. More specifically, the Department analyzed the percentage of committed flow to permitted flow using a 12-month average over a one-year period, a three-month rolling average over a five year period, and a 12-month rolling average over a five year period, and a second concentration or

loading limit violation for CBOD₅, BOD₅, or TSS. In general, if there is a strong correlation between two variables (in this case the percentage of committed flow to permitted flow and the incidence of effluent violations in a given month) the correlation coefficient would approach 1.00. The results of the Department's analysis produced correlation coefficients of 0.19, 0.01, and 0.10, respectively which demonstrated a weak correlation between the two variables. In other words, an increase in the percentage of committed flow to permitted flow from 80 to 100 percent at a treatment plant would not be expected to result in an increase in the number of NJPDES permit effluent violations incurred by that treatment plant over those varying timeframes. The Department also evaluated correlations between existing flow, as reported in the DMRs, to permitted flow and the months with violations and the same results were observed. Since approved but not yet operational TWAs represent a relatively small portion of committed flow, this result was consistent with expectations.

Based on the above evaluation, the Department determined that 68 percent of the facilities (129 of 189 facilities) would have triggered the CAP rule requirements at the existing threshold of 80 percent committed flow to permitted flow over a three-month period, and 18 percent (34 facilities) would trigger the requirements if the average reported flow over 12 consecutive months exceeded the permitted flow. Although more treatment plants would be required to conduct evaluations under the existing CAP rule, the requirements under the rule as it is proposed to be amended that would apply to treatment plants that reach the 100 percent threshold are more rigorous, including the evaluation, selection, certification, and implementation of measures to maximize conveyance and treatment of existing flows, decrease flow, and/or address additional flows at the treatment plant in order to avoid potential NJPDES

violations.

Although the evaluation showed a weak correlation between the percentage of committed flow to permitted flow and violations of NJPDES permit effluent limitations, increases in flow above permitted flow may eventually result in permit effluent limit violations and the potential degradation of the water quality by jeopardizing the ability of the treatment plant to operate as originally designed. Consequently, requiring a permittee to undertake a capacity analysis when the 100 percent permitted flow threshold has been triggered is appropriate to protect water quality and ensure adequate treatment and conveyance capacity in the sewer service area of the treatment plant.

The proposed amended CAP rule threshold of 100 percent permitted flow will provide adequate time for the permittee to develop and implement measures to address potential hydraulic overloading of the plant because the design capacity of a treatment plant is based on conservative assumptions regarding flow. In accordance with N.J.A.C. 7:14A-23.13(o), a treatment plant must be hydraulically designed to handle daily flows up to 2.5 times the average permitted flow. However, treatment capacity varies in each individual treatment unit within the treatment plant. In addition, newer plants and upgraded older plants typically have controls within the treatment train that allow the operator additional flexibility to address fluctuations in flow at the plant. Also, the permittee, municipality, sewage authority, and/or the owner or operator of the conveyance system must certify in every TWA application, in accordance with N.J.A.C. 7:14A-22.8(a)3, that there is adequate conveyance and treatment capacity for the projected flow.

As noted, the Department is also proposing to redefine the time period over which flow is

averaged for purposes of determining whether the permitted flow threshold is met. The existing rule requires the capacity analysis to be undertaken when the committed flow (which is the flow received at the treatment plant over the preceding three consecutive months plus the projected flow from approved but not yet operational TWAs) reaches 80 percent of permitted capacity. The proposed amended rule requires the capacity analysis be undertaken when the average flow over 12 consecutive months reaches the permitted flow at the treatment plant.

Averaging flow over only three months may undermine the accuracy of the CAP rule threshold as a predictor of potential hydraulic overloads at the treatment plant because if those three months constitute a period of wet weather the flow will trend high, or, conversely, if rainfall or snowmelt is minimal during those three months the flow will trend low. The proposed 12-consecutive-month period over which reported flow will be averaged will provide a more accurate representation of the existing flow at the treatment plant and the potential impact of that flow on the treatment plant's capacity. The capacity analysis requirements need not always be triggered because of seasonal fluctuations and/or wet weather events since the resulting changes in flow can typically be accommodated through hydraulic flexibility within the treatment plant. Also, the Department may require a capacity analysis if the permitted flow is occasionally exceeded during wet weather events pursuant to N.J.A.C. 7:14A-22.16(b), described above. The Department emphasizes that permittees and owner/operators of the conveyance system are subject to enforcement action for effluent limit violations regardless of whether a CAP has been triggered or implemented.

In addition, using the data compiled for the evaluation described previously, the Department examined the correlations between NJPDES permit violations and the percentage of

committed flow to permitted flow using (1) a 12-month average over a one year period, (2) a three-month rolling average over a five year period, and (3) a 12-month rolling average over a five year period. The results indicated that there was no significant difference in the correlations between the number of months where violations occurred and the different time periods used to average flows. As indicated above, the Department chose to utilize a 12-month average over a one year period to provide a more accurate representation of the existing flow at the treatment plant and the potential impact of that flow on the treatment plant's capacity.

Relationship to wastewater treatment capacity analysis under Water Quality Management Planning rules

Elsewhere in this issue of the New Jersey Register, the Department is proposing to repeal the existing Water Quality Management Planning rules at N.J.A.C. 7:15 and to propose new rules. Included in that proposal are provisions requiring that a wastewater management agency must conduct a wastewater capacity analysis and determine future wastewater needs as part of developing its wastewater management plan (WMP). In the wastewater planning context, the wastewater treatment capacity analysis is intended to identify potential shortfalls between the anticipated demand for flow from existing and future development in the sewer service area of a treatment plant and the permitted flow of that plant. It is premised on a longer-term look at the circumstances of the treatment plant and the effects of development in the sewer service area. The existing flow that is compared against permitted flow is the highest consecutive 12-month rolling average over the most recent five year period as of the date of WMP preparation and the threshold that triggers the wastewater capacity analysis is when that flow is 80 percent of

permitted flow. This approach is intended to facilitate the development of wastewater management strategies well in advance of permitting, financing, design, and construction of new infrastructure should that be determined necessary.

On the other hand, the CAP rule in the NJPDES TWA rules focuses on evaluating the capacity of an existing treatment plant and conveyance system and the near-term implementation of measures to avoid hydraulic overloads that could result in a violation of the treatment plant's NJPDES permit limits or unpermitted discharges. Thus, as explained previously, under the proposed amendments, the TWA capacity analysis is triggered when reported flow at the treatment plant averaged over 12 consecutive months reaches the permitted flow. This should provide adequate time for the owner/operator of the treatment plant and/or conveyance system to take the necessary steps to reduce flow or expand infrastructure before violations occur.

Amendment to Stage II TWA application requirements

N.J.A.C. 7:14A-22.8 contains the application requirements for Stage II TWAs, which are TWAs issued for the construction, installation, or modification of a treatment works. The Department is proposing to amend the rule to require submittal of the GPS coordinates for each pump station and wastewater treatment plant control building included in the treatment works project. This information is necessary for purposes of emergency response operations, asset management, and operation and maintenance of the treatment works.

Social Impact

The Department anticipates that the proposed amendments will have an overall positive

social impact. The purpose of the CAP is to ensure that treatment plants and associated conveyance systems avoid hydraulic overloads that could result in NJPDES permit effluent violations or unpermitted discharges. The proposed amendments change the threshold that triggers the CAP, thus establishing a more appropriate time to conduct a more detailed analysis to avoid these potential negative effects. The requirements of the analysis are more specific and rigorous, including the evaluation and selection of alternatives, development of an implementation schedule, assessment of the necessary financing to implement the selected alternative, and certification to ensure its implementation. The proposed amendments also further define the roles and responsibilities of the permittees, participating municipalities, and sewage authorities to ensure that the goals of the program are met. All of these changes will help ensure the timely development of any necessary operational or capital improvements to the system and avoid the need to deny new treatment works approvals that would increase flows into potentially compromised systems that could discharge raw sewage or violate NJPDES permit limits and potentially negatively impact public health or the environment. The proposed amendments also continue to require public notification, including a new requirement for a web-based publication, of the results of the analysis and anticipated steps, thereby ensuring public awareness of wastewater infrastructure issues and potential costs.

Economic Impact

The Department anticipates that the proposed amendments will not result in any impacts to the economy of New Jersey. The proposed amendments are not expected to economically impact permittees, municipalities, sewage authorities, State government, businesses, or the

general public. The proposed amendments will provide the permittee additional time to formally submit a plan and comply with the requirements of N.J.A.C. 7:14A-22.16 regarding the need for a CAP study since the flow threshold triggering the requirement is being changed from a three-month average flow equal to or greater than 80 percent of permitted flow to a 12-month average equal to the entire permitted flow.

Although treatment plant permittees should regularly assess optimally efficient conveyance and treatment of existing flows, ways to reduce existing flows, and the necessity to increase the capacity of the treatment works, not all permittees do this to the same extent. The specific items required under the CAP ensure that a variety of alternatives are analyzed and considered in order to prevent violations of NJPDES permit effluent limitations and unpermitted discharges for all permittees that trigger the proposed flow threshold. As the requirements proposed for the capacity analysis report are very similar to those required previously, and it only applies to those permittees that trigger the threshold, there is no economic impact expected. In addition, permittees should already be analyzing these items in order to properly operate and maintain their systems. The proposed amendments to the CAP rule applicable to the owners/operators of the conveyance systems will not impose any new financial burden related to planning and operating a permitted treatment works, because it is already their responsibility to plan, maintain, and/or implement improvements to their systems to ensure they are capable of meeting wastewater conveyance needs of the service area.

Environmental Impact

The proposed amendments are anticipated to bolster the positive environmental impact

the CAP requirements have in ensuring hydraulic overloads that could result in violation(s) of the treatment plant's NJPDES permit discharge limits or unpermitted discharges are avoided. Improperly maintained and operated treatment works create the potential for adverse environmental impacts and serious health risks, such as those resulting from raw sewage overflows into basements, storm sewers, and waterways, as well as the release of untreated or partially treated sewage into the surface and ground waters of the State. The proposed amendments will enhance the effectiveness of the capacity assurance program by defining roles and responsibilities of the permittees, participating municipalities, and sewage authorities, and by requiring a more detailed assessment of alternatives as well as the development of appropriate capital improvement plans, schedules for implementation, and the identification of financing mechanisms to address potential issues associated with inadequate conveyance or treatment capacity.

Federal Standards Statement

Executive Order 27 (1994) and N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c. 65) require State agencies that adopt, readopt, or amend any State rules that exceed any Federal standards or requirements to include in the rulemaking document a Federal standards analysis. The Treatment Works Approval rules have no Federal counterpart and are not promulgated under or subject to any Federal law. Accordingly, no further analysis is required.

Jobs Impact

The Department anticipates that the proposed amendments will have no impact on job

creation and retention in New Jersey. Under the existing rule and under the proposed amendments, the participating municipalities and/or sewage authorities are required to evaluate measures to ensure adequate conveyance and treatment capacity. This may require a continuation of the retention of services to ensure proper operation and maintenance of wastewater conveyance and treatment systems, as well as professional services needed to evaluate alternatives and design and construct selected measures to comply with the strengthened CAP requirements.

Agriculture Industry Impact

The proposed amendments will have no impact on agriculture in New Jersey. Agricultural facilities do not operate treatment plants, and therefore would not be subject to the CAP rule, since this rule is only applicable to owners/operators of treatment plants or conveyance systems.

Regulatory Flexibility Analysis

As required by the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq., the Department has evaluated the reporting, recordkeeping, and other compliance requirements that the proposed amended rules would impose on small businesses. The Regulatory Flexibility Act defines the term "small business" as "any business which is a resident in this State, independently owned and operated and not dominant in its field, and which employs fewer than 100 full time employees." The proposed amendments do not expand the number of entities regulated beyond those currently captured under the existing CAP provisions. The majority of

facilities regulated under the CAP rule are publicly owned and do not meet the definition of a small business. Those facilities that are privately owned are designed to treat wastewater generated by the individual business on site and are unlikely to meet or exceed the permitted flow and trigger the requirements of rule as it is proposed to be amended. The proposed amendments expand the elements of the capacity analysis report required to be submitted, as described in the Summary above, but do not increase routine reporting or recordkeeping requirements for facilities. As related in the Economic Impact above, the Department does not anticipate that the proposed amendments will result in any additional costs to permittees. Given the potential negative impacts associated with unpermitted discharges or violations of NJPDES permit limits that could result when treatment system conveyance or treatment capacity is exceeded, the Department has determined it would be inappropriate to establish different standards for small businesses.

Housing Affordability Impact Analysis

In accordance with N.J.S.A. 52:14B-4.1b, the Department has evaluated the proposed amendments to determine their impact, if any, on the affordability of housing. The proposed amendments establish a regulatory tool by which the Department and the affected treatment works owner/operator use a coordinated approach to ensure that the capacity of the treatment works, which includes both the treatment plant and the associated conveyance system(s), will avoid hydraulic overloads that could result in violation(s) of the treatment plant's NJPDES permit discharge limits or unpermitted discharges. Accordingly, the Department anticipates the

proposed amendments will have no impact on the affordability of housing because it is extremely unlikely that the amendments will evoke a change in the average costs associated with housing.

Smart Growth Development Impact Analysis

In accordance with N.J.S.A. 52:14B-4.1b, the Department has evaluated the proposed amendments to determine the impacts, if any, on housing production in Planning Areas 1 or 2, or within designated centers, under the State Development and Redevelopment Plan. The proposed amendments establish a regulatory tool by which the Department and the affected treatment works owner/operator use a coordinated approach to ensure that the capacity of the treatment works, which includes both the treatment plant and the associated conveyance system(s), will avoid hydraulic overloads that could result in violation(s) of treatment plant's NJPDES permit discharge limits or unpermitted discharges. Accordingly, the Department anticipates the proposed amendments will have no impact because it is extremely unlikely that the rules will evoke a change in housing production in Planning Areas 1 or 2, or within designated centers.

Full text of the proposal follows (additions indicated in boldface **thus**; deletions indicated in brackets [thus]):

7:14A-22.8 Application requirements for construction, installation, or modification of treatment works--Stage II

(a) Persons who propose to build, install, or modify treatment works that require theDepartment's approval pursuant to this subchapter, shall submit the following information anddocuments in the manner prescribed in this subchapter:

1. - 9. (No change.)

10. A copy of a USGS Quad Map with the project site location boundaries drawn to scale. If the project includes a pump station or sewage treatment plant, the GPS coordinates of the pump station or treatment plant control building in accordance with N.J.A.C. 7:1D Appendix A. The Department recommends using the "NJDEP GPS Data Collection Standards" guidance document, as amended or updated. Guidance related to the mapping and digital data standards is available at the Department's website at http://www.state.nj.us/dep/gis/standard.htm;

11. - 13. (No change.)

(b) - (e) (No change.)

7:14A-22.16 Capacity assurance program

[(a) Whenever the committed flow reaches or exceeds 80 percent of the permitted capacity of a treatment works, the participating municipalities and/or sewerage authorities shall submit to the

Department a program to be implemented in order to prevent an overloading of their facility or a violation of their NJPDES permit. This program shall include, but is not limited to, the following:

1. Implementation of water conservation measures;

2. Reduction of inflow and infiltration (I/I) where appropriate. Measures shall be taken, to the satisfaction of the Department, which appropriately identify the causes and course

of corrective action within a specified time frame;

3. Implementation of measures to maximize treatment plant capacity at a minimum cost;

4. Construction of improvements;

5. Disconnection of roof leaders, sump pumps and other sources of inflow, from sanitary sewer lines and connect into storm sewer lines where storm sewers are available and to the extent feasible;

 Submission, on a quarterly basis, of a completed WQM007 Form to the Municipal Finance and Construction Element, Bureau of Financing and Construction Permits, PO Box 425, Trenton, New Jersey 08625-0425; and

7. Preparation for the imposition of a self-imposed sewer connection ban, as required by N.J.A.C. 7:14A-22.17, in the event that it is anticipated that additional flows will result in violations of any pollutant parameter limits contained in the plant's NJPDES or NPDES permit.

(b) For treatment plants which are subject to excessive inflow and infiltration to the extent that NJPDES permitted permit limits for flow are is occasionally exceeded during wet months, the

Department will consider issuing TWAs for additional flow if, in the sewerage authority's opinion, the affected sewage treatment plant can treat flows in excess of its permitted capacity and still maintain compliance with the pollutant limits specified in its NJPDES permit. In addition to the requirements in (a)1 through 7 above, the authority shall submit a detailed technical report demonstrating its findings and providing justification for the issuance of treatment works approvals for additional contributory flows.

- 1. The detailed technical report referenced in (b) above must contain a discussion of the following issues:
 - i. The extent of inflow and infiltration;
 - ii. Dry weather treatment capacity at the plant;
 - iii. The plant's ability to treat additional flows;
 - iv. Water quality issues;
 - v. Status of the current NJPDES permit for the plant; and
 - vi. The effect that such a decision will have upon the discharge limitations contained in future NJPDES permits.

(c) If the participating municipalities and authorities do not comply with (a) above, then the Department may issue a warning notice. A warning notice shall require the sewerage authority or municipality to prepare and submit a program pursuant to N.J.S.A. 58:10A-6(h)(3) and (a) above, within 45 days of receipt of the notice.]

(a) If the average flow over 12 consecutive months, as reported in DMRs by the permittee of a treatment plant, reaches or exceeds the permitted flow of that treatment plant, the permittee, in coordination with participating municipalities and sewage authorities, shall:

Conduct a capacity analysis that assesses the treatment works; evaluates
alternative measures that would maximize conveyance and treatment of existing
flows, reduce existing flows, and/or increase the capacity of the treatment works;
identifies the alternative(s) that will be implemented; establishes an implementation
schedule; and identifies the financing mechanism(s) for the selected alternatives;
 Submit the capacity analysis report described at (c) below to the Department
within 180 days after the last day of the final month of the 12-consecutive-month
period; and

3. Beginning the last day of the month following the date the threshold at (a) above is met, and on a quarterly basis thereafter, submit a completed WQM007 Form to the Department at: Municipal Finance and Construction Element, Bureau of Financing and Construction Permits, PO Box 420; Mail Code 401-03D, Trenton, NJ 08625-0420.

(b) Within 180 days of notification by the Department, the permittee of a treatment plant at which the NJPDES permitted flow is occasionally exceeded during wet weather events shall conduct a capacity analysis as described at (a)1 above and submit a capacity analysis report as described at (c) below.

(c) The capacity analysis report submitted under (a) or (b) above or (d) below shall include:

1. An assessment of the treatment works, including:

i. Dry weather treatment capacity at the plant;

ii. Wet weather treatment capacity at the plant;

iii. Sources and extent of inflow and infiltration;

iv. Amount of flow for connections for which TWAs have been issued but

which are not yet in operation, and projected flows to accommodate growth

within the service area over the next 20 year period;

v. Current operation and maintenance practices that maximize conveyance and treatment;

vi. Planned improvements to the treatment works;

vii. Pending applications for NJPDES permits and treatment works

approvals related to the capacity of the treatment works; and

viii. Compliance status, including NJPDES permit violations and known

sanitary sewer overflows.

2. Based on the assessment of the treatment works described at (c)1 above, an evaluation of alternative measures that would maximize conveyance and treatment of existing flows, reduce existing flows below permitted flow at the treatment plant and ensure adequate conveyance capacity, and/or increase the capacity of the treatment works. This evaluation shall include, at a minimum:

i. A review of current and proposed water conservation measures to reduce flow;
ii. Strategies to reduce infiltration;

iii. Strategies to reduce inflow from sanitary sewer lines, including
disconnection of roof leaders, sump pumps, and other sources of inflow, and
redirect the inflow to storm sewer lines to the extent feasible;
iv. Strategies to maximize current conveyance and treatment capacity
including changes to current operation and maintenance practices or
increases in permitted flow at the treatment plant; and

v. Capital improvements to expand existing conveyance or treatment capacity;

3. The identification of and justification for the measure(s) selected based on the evaluation of alternatives described at (c)2 above;

4. An implementation schedule for the selected alternative(s), including any necessary continued assessment of infiltration and inflow and changes to rules, ordinances, and sewer use agreements of the permittee, participating municipalities, and/or sewage authorities. The implementation schedule shall provide for the revision of relevant operation and maintenance and asset management plans to incorporate the selected alternative(s) and the submittal of quarterly progress reports to the Department;

5. A description of the mechanisms to be used to finance the selected alternative(s); and

6. A certification signed in accordance with N.J.A.C. 7:14A-4.9 that the selected alternative(s) will be undertaken in accordance with the implementation schedule.

(d) Within 180 days of notification by the Department, the owner or operator of a conveyance system shall conduct a capacity analysis as described at (a)1 above and submit a capacity analysis report as described in (c) above. The following are causes for requiring a capacity analysis and report under this subsection:

1. Existing flows to the treatment works approach the design capacity of the conveyance system;

2. Excessive infiltration and inflow exists in the conveyance system;

3. The conveyance system is hydraulically connected to a combined sewer system or a treatment plant that receives flow from municipalities with a combined sewer system;

4. There has been an unpermitted discharge from the treatment works, including sanitary sewer overflows; or

5. The 12-consecutive-month average flow equals or exceeds the permitted flow at the receiving treatment plant and any municipality or sewage authority has not cooperated with the permittee to conduct the capacity analysis required pursuant to (a) above.

[(d)] (e) Upon approval by the Department of a program submitted pursuant to (a), [or] (b), or(d) above, [the sewage authority and participating municipalities] the permittee or the owner

or operator of the conveyance system shall:

 [give] Give public notice of the program in a manner designed to inform local residents, developers, the local planning board, and other affected persons. Such notice shall include [at least] the following information:

[1.] **i.** The name, mailing address, and telephone number of the owner of the treatment works;

[2.] ii. If applicable, [The] the permitted [capacity] flow of the treatment [works] plant;

[3.] **iii. If applicable,** [The] **the** [committed] **existing** flow to the treatment [works] **plant**;

[4.] **iv.** A statement that the treatment plant [is approaching] **has reached** its permitted [capacity] **flow or the conveyance system has met one of the criteria in (d) above** and the possibility exists that a sewer connection ban will be imposed [if the plant is unable to maintain compliance with its discharge limits] **or that the Department may cease to issue treatment works approvals for projects that convey flow to the treatment plant**; and

[5.] v. [Description] A description of the sewer service area including the participating municipalities[.]; and

2. Make a copy of the capacity analysis report available to the public on the website and at the office of the permittee or of the owner or operator of the conveyance system.

(f) If the threshold in (a) above is met and the permittee anticipates that additional flows will result in any of the criteria at N.J.A.C. 7:14A-22.17 being met, the permittee shall prepare for the imposition of a sewer connection ban in accordance with N.J.A.C. 7:14A-22.18.

[(e)] (g) [In the event that the committed flow to a sewage treatment plant is at or above 100 percent of the plant's permitted capacity, and] If the Department determines that [issues involved in (a), (b) or (c) above have not been appropriately addressed and that additional flows above the plant's permitted capacity may result in violations of their NJPDES permit] the permittee, any of the participating municipalities, a sewage authority, or the owner or operator of a conveyance system does not submit a capacity analysis report that meets the requirements of this section or is not implementing capacity assurance measures in accordance with (a) through (f) above, the Department may cease the further issuance of treatment works approvals for additional flow to the plant. In the event that such a decision is made, the Department, at its discretion, may grant exceptions for projects that require a TWA providing the project meets the sewer ban exemption criteria specified in N.J.A.C. 7:14A-12.22.

(h) The permittee may submit a request to discontinue quarterly submittal of the
 WQM007 Form required under (a) above if the permittee can demonstrate that flow, as
 reported in DMRs, has decreased to below the permitted flow for 36 consecutive months.

The Department's approval of such request does not exempt that permittee from the

application of the requirements of this section in the future.

[(f)] (i) (No change in text.)

7:14A-22.17 Sewer ban imposition

(a) - (b) (No change.)

(c) For surface water dischargers, violations of NJPDES [or NPDES] effluent requirements for flow, percent removal, or toxicity shall not require the imposition of a sewer connection ban. In the case of a treatment facility at or above [80 percent of] its permitted flow, the facility shall be subject to the provisions of the Capacity Assurance Program specified at N.J.A.C. 7:14A-22.16.

(d) - (f) (No change.)