ENVIRONMENTAL PROTECTION

WATER RESOURCES MANAGEMENT

Notice of Proposed Substantial Changes on Adoption of Proposed Amendments

New Jersey Pollutant Discharge Elimination System

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

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

Proposed: October 19, 2015 at 47 N.J.R. 2582(a).

Authorized By: Bob Martin, Commissioner, New Jersey 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.

DEP Docket Number: 08-15-09

A **public hearing** concerning this notice of substantial change on adoption will be held on:

Friday, December 9, 2016 at 9:00 A.M. at:

New Jersey Department of Environmental Protection

3rd Floor Large Conference Room

401 East State Street

Trenton, New Jersey

Submit comments by (60 days after publication) electronically at www.nj.gov/dep/rules/comments.

The Department of Environmental Protection (Department) encourages electronic submittal of comments. In the alternative, comments may be submitted on paper to:

Alice A. Previte, 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 providing oral testimony at the public hearing provide a copy of any prepared text to the stenographer at the hearing.

This notice of substantial change on adoption can be viewed or downloaded from the Department's web page at www.nj.gov/dep/rules.

Take notice that the Department, in accordance with the Administrative Procedure Act, N.J.S.A. 52:14B-4.10, is proposing substantial changes to the New Jersey Pollutant Discharge Elimination System (NJPDES) rules at N.J.A.C. 7:14A, based on comments received on the

proposal of amendments published in the New Jersey Register on October 19, 2015 (47 N.J.R. 2582(a)). The public comment period originally scheduled to close on December 18, 2015, was extended until December 28, 2015.

The purpose of the capacity assurance program (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 either a violation of NJPDES permit discharge limits or in 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 CAP 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 treatment works approval (TWA), whichever is more stringent. (Both "committed flow" and "permitted flow" are defined at existing N.J.A.C. 7:14A-1.2.)

As proposed to be amended, N.J.A.C. 7:14A-22.16(a) required that when the average actual 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.

Through this notice of proposed substantial changes on adoption, the Department is proposing to require the permittee of the treatment plant, in coordination with participating municipalities and sewage authorities, to conduct the capacity analysis and submit the capacity

analysis report to the Department when the average actual flow reaches or exceeds 95 percent of the permitted flow of the treatment plant.

Under the rule as originally proposed, when a treatment plant triggers the CAP, the permittee must assess and evaluate, and then select, alternative measures to maximize conveyance and treatment and existing flow, reduce existing flows below permitted flow and ensure adequate conveyance capacity, and/or increase the capacity of the treatment works. (See N.J.A.C. 7:14A-22.16(a)1 and (c)2, as originally proposed.) Because the Department is lowering the CAP threshold to 95 percent of permitted flow, the Department proposes to amend N.J.A.C. 7:14A-22.16(a)1 and (c)2 on adoption to require the alternative measures to reduce or maintain existing flow below permitted flow. A facility with flow above 95 percent of permitted flow must show how it will maintain flow below permitted flow. A facility with flow above 100 percent of permitted flow must show how it will reduce (and thereafter maintain) flow below permitted flow.

A facility that triggers a CAP is subject to quarterly reporting, as set forth at proposed N.J.A.C. 7:14A-22.16(a)3. Originally proposed N.J.A.C. 7:14A-22.16(h) allows a facility to request to discontinue quarterly reporting if it can demonstrate that its flow, as reported in the discharge monitoring reports (DMRs), has decreased to below the CAP threshold for 36 consecutive months. The rule as originally proposed does not require the permittee to demonstrate that it implemented any of the selected alternative measures in the approved plan as part of its request for relief from the reporting obligations. In this notice of substantial change, the Department is amending N.J.A.C. 7:14A-22.16(h) to conform to the proposed 95 percent CAP threshold, and to require a permittee to demonstrate that it implemented the selected alternative measures in the approved plan. The Department believes that it is appropriate to

continue to monitor the actual and committed flow of a treatment plant whose actual flow is at or above 95 percent of its permitted flow; therefore, relief from the CAP reporting requirements is not available to such a facility under the rules as proposed to be changed on adoption, even if the facility demonstrates that it has selected and implemented one of the alternative measures discussed above.

Summary of Public Comments and Agency Responses:

The Department received comments on the provisions proposed for substantial change from the individuals listed below:

1. James Cosgrove, PE, Vice President/Principal, Kleinfelder, on behalf of:

   Ronald Anastasio, PE, Executive Director, Somerset Raritan Valley Sewerage Authority; John Kantorek, PE, Executive Director, Stony Brook Regional Sewerage Authority; Christopher Manak, Superintendent, Madison-Chatham Joint Meeting; JoAnn Mondsini, Executive Director, Rockaway Valley Regional Sewerage Authority; and Donato Nieman, Township Administrator, Montgomery Township.
2. Margaret Gallos, Association of Environmental Authorities
3. Robert Goodsell, Post Polak Goodsell & Strauchler
4. Toni Granato and Jeff Tittel, New Jersey Chapter, Sierra Club
5. Jerry Haimowitz, PE
6. Nancy Hedinger, President, League of Women Voters of New Jersey
7. Andrea Leshak, Hackensack Riverkeeper and NY/NJ Baykeeper; Deborah A. Mans, NY/NJ Baykeeper; and Captain Bill Sheehan, Hackensack Riverkeeper

8. Bill Simmons

9. Bill Wolfe

A summary of the comments and the Department's responses follows with respect to those provisions for which substantial changes are proposed. The number(s) in parentheses after each comment identifies the respective commenter(s) listed above.

1. COMMENT: As proposed, the rule allows a treatment plant to reach 100 percent of its permitted flow - its capacity - before it has to submit a plan to reduce the flow or ban new sewer connections. It will take at least six months to prepare and submit a CAP, additional time for the Department to review and approve the plan, and even more time for the plan to be implemented. Based on a threshold of 100 percent of permitted flow, during this time, the facility will be discharging at levels above its permit limits. The Department states that even when a treatment plant is operating at 100 percent of its permitted flow, the plant can operate without violating effluent limits, because plants are often designed to handle flows of up to two and a half times their average permitted flow.

The Department's optimism is predicated on an unpublished study of treatment plants that found only a weak correlation between the percentage of flow and violations in water quality. The result is that 129 of 189 facilities studied by the Department triggered the CAP rule requirements in the existing rules - but only 34 out of 189 facilities will trigger the CAP requirements in the proposed rules. The flow study should have been published and there should have been sufficient time for reviewing it. Instead, the only explanation the Department is

giving the public to justify such a consequential change in policy is a summary in the preamble of the CAP rule. There should be a peer-reviewed study, and public discourse. (6, 8)

2. COMMENT: The existing rule requires facilities to review their infrastructure conditions at an 80 percent threshold. The Department states that fewer facilities will trigger the CAP if the threshold is raised. From a big picture standpoint, this is ill-advised, because fewer will review infrastructure conditions. This will improperly increase development and hinder water conservation efforts.

The Department's basis for the change to a threshold of 100 percent of permitted flow is an analysis that seems designed to demonstrate that the threshold can be increased. Although the Department states there is a low correlation between the 80 percent threshold and actual NJPDES violations, there was some correlation. By increasing the threshold, the Department will increase the number of NJPDES violations. The Department should be going in the other direction, toward no NJPDES violations. (9)

3. COMMENT: Moving the CAP threshold from 80 percent of permitted flow based on a three-month consecutive average to 100 percent of permitted flow over 12 consecutive months is a major change. It appears certain this change increases the likelihood of degrading the State's water quality. A three-month average coupled with an 80 percent threshold captures peak flow exceedances that then trigger a capacity analysis report faster than using the proposed 12-month average coupled with a threshold of 100 percent of permitted flow. This change will have a particularly egregious impact for source systems subject to seasonal peak flows. Shifting to a 12-month average and 100 percent of permitted flow threshold (which smooths and masks the

seasonal peaks) effectively insulates systems subject to seasonal flows from scrutiny and reporting, even though they are operating at flows well above the permitted value for a good part of the year. (6)

4. COMMENT: A major change in the Department's proposal is that the threshold for requiring a CAP has been increased from 80 percent to 100 percent of permitted capacity. In other words, under the proposed rule wastewater treatment plant permittees would not have to conduct analysis or consider implementing corrective measures until the treatment plant reaches or exceeds 100 percent of permitted capacity. When a treatment plant reaches 100 percent of permitted capacity, however, it is already too late.

Allowing permittees to postpone capacity analysis until their flow reaches 100 percent of permitted capacity risks further degrading water quality and increasing the likelihood of NJPDES permit violations. The Department recognizes these risks in the proposed rule, and yet the Department nevertheless concludes that requiring a CAP when the 100 percent permitted flow threshold is reached is "appropriate to protect water quality and ensure adequate treatment and conveyance capacity." The Department claims that the amended threshold of 100 percent permitted flow will provide adequate time for the permittee to develop and implement measures because treatment plants are "often designed to handle flows of up to two and one half times their average permitted flows." However, just because it may be technologically feasible for a wastewater treatment plant to process more flow than the permitted flow, it is not clear that the additional flow itself would not cause NJPDES permit violations. The Department does not explain why exceedances in permitted flow will not lead to NJPDES permit violations, particularly for facilities that have monthly permitted flow limits.

Furthermore, the Department's decision to increase the threshold to 100 percent of permitted capacity is unreasonable, as the evidence that the Department is relying on does not support increasing the threshold. The Department's stated basis for increasing the threshold from 80 percent to 100 percent of permitted capacity is 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. This evaluation has not been published or made available to the public, and the Department's description of its evaluation in the proposed rule raises several questions. First, why did the Department exclude other Department permit violations and limit its evaluation only to those violations based on oxygen demanding parameters and total suspended solids? Other permit violations could be more closely related to percentage of permitted flow. Second, why did the Department not consider relevant differences between the treatment plants that it evaluated? It might be the case that newer, larger, or more technologically advanced wastewater treatment plants can handle more than 80 percent of permitted flow without resulting in permit violations, while older or smaller treatment plants cannot. Third, why did the Department not consider the impact on water quality from the additional permit violations that would likely result from the relaxation of the threshold?

In short, the Department should not relax the threshold from 80 percent to 100 percent of permitted flow because such a shift would lead to more NJPDES permit violations. The purpose of the CAP rule is to prevent treatment plant hydraulic overflows and resulting NJPDES permit violations. The best way to accomplish this purpose is to maintain a conservative threshold that will trigger analysis and corrective action in sufficient time to prevent NJPDES permit violations. (7)

5. COMMENT: The use of 100 percent of capacity instead of 80 percent of capacity for the CAP threshold is a threat to future development. It takes years to plan and build the typical sewage treatment plant upgrade. If a plant must spend a year performing receiving water quality studies and proposes discharge limit changes which environmental groups litigate, just determining the design parameters could be a multiyear process. If a protracted planning period results in the plant violating its permit limits, then it falls under a sewer ban and development stops in a very disruptive way. A better idea is to keep the 80 percent threshold. The Department can look at the growth projections submitted and any potential discharge limit changes and determine when actual water quality will be impacted, when discharge limit studies should be conducted, and when design and construction could commence. (5)

6. COMMENT: Under the existing rule with the 80 percent threshold based on a three-month average, plants would have to adjust their processes to allocate and reduce flows in order to avoid triggering a CAP. Changing the threshold to 100 percent over 12 months means the plants at any one time could be discharging 2.5 times more than permitted flow. This means more pollution violations, resulting in impacts to public health and drinking water. A treatment plant will not need to take corrective action until there is no capacity left. Only if the treatment plant reaches the 100 percent permitted flow limit, would it have to take action to reduce pollution. Fewer plants will take action to reduce flows, causing more development and more pollution. Towns can keep issuing permits and increasing sewer connections without taking into account water conservation. (4)

7. COMMENT: The Department is correct to base the CAP trigger on a 12-month average actual flow as compared to permitted flow. The calculation in the existing rule, based on a three-month average flow, is too easily impacted by seasonal weather fluctuations. However, the CAP triggers in the Water Quality Management Planning (WQMP) proposal and in the CAP proposal are inconsistent. In the WQMP proposal, planning agencies and wastewater treatment plants initiate a wastewater capacity analysis when actual flow reaches 80 percent of design capacity, whereas in the CAP rule proposal, the requirement is that this begins when the actual flow reaches 100 percent of design capacity. It is not in the interest of prudent planning to leave capacity studies until flow reaches full design capacity. An 80 percent threshold may generate unnecessary capacity studies, and that is an inefficient use of the time and funds of both the regulators and the regulated community; therefore, a threshold of 90 percent of design capacity is an appropriate compromise between these two considerations. (2)

8. COMMENT: The rule should require a CAP when the average flow over 12 consecutive months exceeds 90 percent of the permitted flow. This would provide ample time to plan for any required expansions, but would still reduce the number of facilities that enter the capacity assurance program without any real prospect for exceeding treatment capacity. A threshold of 100 percent gives a facility no buffer between plant capacity and the CAP threshold. (1)

9. COMMENT: The existing CAP requirement is triggered when 80 percent of a plant's design flow is reached over a consecutive three-month period. The proposed amendment would replace the 80 percent threshold with a new threshold based on the average flow over 12 consecutive

months as reported on DMRs. This modification is sound and better reflects when a CAP should be required. (3)

RESPONSE TO COMMENTS 1 THROUGH 9:

Analyses in the Proposal Summary

As stated in the proposal summary (47 N.J.R. at 2585), when the Department conducted the analyses on which it based the amendments in the proposal, the Department reviewed DMR data from 189 permittees, and approved but not yet operational flows as identified under TWA permits in the Department's New Jersey Environmental Management System (NJEMS) database. These 189 permittees were all the plants that discharge treated domestic wastewater to surface waters in the State.

For purposes of the original analyses described in the proposal summary, the Department considered flow averaged over a 12-month period (October 2012 through September 2013); the maximum three-month rolling average flow over a five-year period (October 2008 through September 2013); and the maximum 12-month rolling average flow over a five-year period (October 2008 through September 2013). The Department considered data over a five-year period in order to account for varying amounts of precipitation that may occur in any given year. In addition, the extended time period allowed the Department to consider more data points than would be available if it considered only a single 12-month period.

The original analysis, which assessed 189 domestic treatment plants that discharge to surface water, concluded that 129 treatment plants would have triggered the CAP requirements at the existing rule's 80 percent, three-month rolling average threshold over a five-year period (October 2008 through September 2013) (47 N.J.R. at 2585). The 129 figure is the number of

individual domestic treatment plants that would have triggered the CAP requirements at the 80 percent threshold during at least one of the 58 three-month periods during the five-year period (without counting plant twice).

Similarly, the original analysis concluded that 34 of the 189 treatment plants would have triggered the CAP requirements at the proposed rule's threshold of 100 percent permitted flow over a 12-month rolling average from October 2008 through September 2013. This number represented the number of treatment plants that would trigger the CAP requirements based on committed flow (the sum of actual flow plus flow that is approved but not yet operational) compared to permitted flow. Taking into account only actual flow, as reported on permittees' DMRs, and as intended under the proposed rule, the original analysis shows that only 28 of the 189 treatment plants would have triggered CAP requirements at a threshold of 100 percent of permitted flow.

The Water Pollution Control Act at N.J.S.A. 58:10A-6(h)3 provides that any permit issued for a discharge from a municipal treatment works shall require the permittee, "as actual flows to the facility approach design flow or design loading limits, to submit to the commissioner or local agency for approval, a program which the permittee and the persons responsible for building and maintaining the contributory collection system shall pursue in order to prevent overload of the facilities." In accordance with the NJPDES rules at N.J.A.C. 7:14A-1.2, "municipal treatment works" is defined as the treatment works of any municipality, county, or State agency or any agency or subdivision created by one or more municipal, county, or State governments and the treatment works of any public utility as defined in N.J.S.A. 48:2-13. Therefore, the capacity assurance program does not apply to all 189 treatment plants in the State that discharge to surface water, but only to the above described municipal treatment works.

There are 147 municipal treatment plants that discharge to surface water, and six municipal treatment plants that discharge to ground water. Consequently, the Department revisited the data in preparing this notice of substantial change.

As shown in Table 1 below, the Department recompiled the DMR and TWA data from March 2015 through February 2016 to determine the treatment plants' actual flow as a percentage of permitted flow over a 12-month rolling average. This percentage determines whether a treatment plant will trigger the CAP, under the CAP threshold as originally proposed or as proposed in this change notice. If the percentage is greater than 95 percent, the treatment works would trigger the CAP under the rule as proposed to be amended in this change notice. If the percentage is greater than 100 percent, the treatment works would trigger the CAP under both the rule as originally proposed and also under the rule as proposed to be amended in this change notice.

Taking into account the monthly flows (from DMRs) of the 147 municipal treatment plants that are subject to the CAP and that discharge to surface water, the Department's analysis indicates that two facilities, Long Hill Township Sewage Treatment Plant (125 percent of permitted flow) and Fieldsboro Wastewater Treatment Plant (106 percent), would trigger a CAP if the threshold were set at 100 percent permitted flow (as originally proposed). If the CAP threshold is set at 95 percent of permitted flow, as the Department proposes in this notice of substantial change, two additional facilities, Frenchtown Wastewater Treatment Plant (96 percent) and Caldwell Wastewater Treatment plant (95 percent), would trigger a CAP.

The Department also analyzed actual monthly flow during the same single 12-month period for the six municipal treatment plants that discharge to ground water and determined that

only one municipal treatment plant (Chester Borough Wastewater Treatment Facility (132 percent)) would trigger a CAP if the threshold were set at 95 percent of permitted flow.

Although the proposed rule considers actual flow when determining whether a facility meets the threshold for CAP reporting, approved but not yet operational flow is relevant to the Department's analysis. As shown in the table, the approved but not yet operational flow of these facilities was 2.3 percent of the permitted flow on average. The approved but not yet operational flow of approximately 54 percent (80 of 147) of the treatment plants is one percent of permitted flow or less; approximately 88 percent (130 of 147) of the treatment plants have approved but not yet operational flow that is five percent or less of permitted flow. A facility with actual flow of 95 percent of permitted flow, plus 2.3 percent approved but not yet operational flow, has a buffer of 2.7 percent before its committed flow (actual plus approved but not yet operational flow) reaches its permitted flow. The Department believes this is a reasonable period of time for a treatment plant to comply with the CAP, and is consistent with the near-term focus of the CAP, in contrast to the longer-term planning focus of the wastewater capacity analysis of the WQMP rules.

Table 1

New Jersey Wastewater Treatment Plant Capacity Analysis

Municipal Treatment Plants that Discharge to Surface Water and that are Potentially Subject to the CAP

Based on information available to the Department as of February 29, 2016

							Correlation Coefficient = 0.2	
NJPDES #	Facility Name	Permitted Flow [3] (MGD) [a]	Estimate of Flows from Approved but Not Yet Operational Flow from 3/2011 through 2/2016 [2] (MGD) [b]	Actual Flow [1] (MGD) [c]	Actual Flow [1] as a % of Permitted Flow [c]÷[a]	Approved but Not Yet Operational Flow as a % of Permitted Flow [b]÷[a]	Max 12-Mth Rolling Avg. Actual Flow from 3/2011 through 2/2016 (i.e. 5 years) Divided by Permitted Flow	# of Months from 3/2011 through 2/2016 (i.e. 5 years) with at Least One Numerical Violation of NJPDES Permit[4]
NJ0020028	BERGEN CNTY UTILITIES AUTHORITY (BCUA)	75	2.3139	69.554	92.7%	3.1%	123.0%	13
NJ0020141	MIDDLESEX CNTY UA	147	4.2173	100.055	68.1%	2.9%	88.0%	13
NJ0020184	NEWTON WASTEWATER TREATMENT PLANT	1.4	0.0133	0.915	65.4%	1.0%	95.0%	3
NJ0020206	ALLENTOWN BORO WWTP	0.238	0	0.131	55.1%	0.0%	64.0%	11
NJ0020290	CHATHAM TWP MAIN STP	1	0.155	0.817	81.7%	15.5%	84.0%	2
NJ0020371	CAPE MAY REG WTF	3	0.0057	1.253	41.8%	0.2%	44.0%	0
NJ0020389	CLINTON TOWN WWTP	2.03	0.0173	1.070	52.7%	0.9%	74.0%	0
NJ0020427	CALDWELL WASTEWATER TREATMENT PLANT	4.5	0.0525	4.258	94.6%	1.2%	102.0%	3
NJ0020532	HARRISON TWP MULLICA HILL WWTP	0.8	0.0041	0.443	55.4%	0.5%	61.0%	1
NJ0020591	BERGEN COUNTY UTILITIES AUTHORITY - EDGEWATER	6	0.095	3.111	51.9%	1.6%	59.0%	9
NJ0020605	ALLAMUCHY SEWERAGE TREATMENT PLANT	0.6	0	0.245	40.8%	0.0%	54.0%	0
NJ0020915	LAMBERTVILLE MUNICIPAL UTILITY AUTH	1.5	0	0.812	54.1%	0.0%	68.0%	4

NJ0020923	TRENTON SEWER UTILITY	20	0.0912	11.130	55.7%	0.5%	62.0%	0
NJ0021016	PASSAIC VALLEY SEWERAGE COMM	330	6.3005	225.917	68.5%	1.9%	83.0%	7
NJ0021113	WASHINGTON BORO WWTP	1.157	0	0.583	50.4%	0.0%	79.0%	0
NJ0021326	MEDFORD LAKES BOROUGH STP	0.55	0	0.348	63.2%	0.0%	73.0%	0
NJ0021334	MENDHAM BORO	0.45	0	0.335	74.4%	0.0%	94.0%	0
NJ0021342	SKYVIEW / HIBROOK WTP	0.023	0	0.016	71.4%	0.0%	74.0%	0
NJ0021369	HACKETTSTOWN MUA	3.3	0	2.037	61.7%	0.0%	76.0%	0
NJ0021598	PENNSVILLE SEWERAGE AUTHORITY	1.875	0	1.458	77.8%	0.0%	86.0%	0
NJ0021601	CARNEYS POINT STP	1.3	0.0058	0.947	72.8%	0.4%	94.0%	0
NJ0021610	RIVERTON STP	0.22	0	0.168	76.2%	0.0%	78.0%	0
NJ0021636	NEW PROVIDENCE WWTP	1.5	0.0066	1.233	82.2%	0.4%	119.0%	1
NJ0021709	CENTRAL AVE WASTEWATER TREATMENT PLANT	3.65	0.0972	1.908	52.3%	2.7%	63.0%	0
NJ0021717	BUENA BOROUGH MUA	0.4	0.0051	0.322	80.6%	1.3%	88.0%	1
NJ0021890	MILFORD SEWER UTILITY	0.4	0.0356	0.214	53.5%	8.9%	68.0%	0
NJ0021954	CLOVERHILL STP	0.5	0.132	0.308	61.5%	26.4%	74.0%	0
NJ0022021	SWEDESBORO WTP	0.35	0.0508	0.194	55.3%	14.5%	73.0%	2
NJ0022047	RARITAN TOWNSHIP MUA STP	3.8	0.0668	2.893	76.1%	1.8%	84.0%	1
NJ0022063	SUSSEX COUNTY HOMESTEAD WTP	0.05	0	0.010	20.0%	0.0%	37.0%	0
NJ0022250	WOODSTOWN WASTEWATER TREATMENT PLANT	0.53	0.034	0.436	82.3%	6.4%	82.0%	2
NJ0022349	ROCKAWAY VALLEY REG SA	12	0.3053	8.596	71.6%	2.5%	95.0%	1
NJ0022390	SKILLMAN VILLAGE WASTEWATER TREATMENT PLANT	0.5	0.0555	0.085	17.0%	11.1%	17.0%	3
NJ0022489	WARREN TWP SEWERAGE AUTH STAGE I-II STP	0.47	0	0.322	68.5%	0.0%	87.0%	0
NJ0022497	WARREN STAGE IV STP	0.8	0.0129	0.482	60.2%	1.6%	73.0%	0
NJ0022519	RIVERSIDE SEWERAGE AUTHORITY	1	0.0415	0.555	55.5%	4.2%	83.0%	0

NJ0022675	ROXBURY TOWNSHIP	2	0	1.468	73.4%	0.0%	108.0%	12
NJ0022845	HARRISON BROOK STP	2.5	0	1.851	74.1%	0.0%	96.0%	0
NJ0022918	ROOSEVELT BORO WTP	0.25	0	0.169	67.7%	0.0%	83.0%	0
NJ0022985	WRIGHTSTOWN BOROUGH STP	0.337	0	0.078	23.0%	0.0%	26.0%	1
NJ0023361	WILLINGBORO WATER POLLUTION CONTROL PLANT	5.22	0.0796	3.557	68.1%	1.5%	77.0%	1
NJ0023493	WASHINGTON TOWNSHIP MUA WTP	0.5	0.0101	0.387	77.3%	2.0%	122.0%	0
NJ0023507	DELRAN TWP SEWER UTILITY DEPT	2.5	0	2.113	84.5%	0.0%	90.0%	1
NJ0023698	POMPTON LAKES BORO MUA	1.2	0	0.728	60.7%	0.0%	80.0%	0
NJ0023701	FLORENCE TOWNSHIP STP	2.5	0.0367	1.330	53.2%	1.5%	72.0%	0
NJ0023728	PINE BROOK STP	8.8	0.1229	7.183	81.6%	1.4%	89.0%	1
NJ0023787	EAST WINDSOR WATER POLLUTION CONTROL PLANT	4.5	0.035	2.617	58.1%	0.8%	66.0%	1
NJ0023809	LOWER TOWNSHIP MUA	4	0.006	1.953	48.8%	0.2%	52.0%	0
NJ0024007	CINNAMINSON SA	2	0.0588	1.237	61.9%	2.9%	71.0%	6
NJ0024015	MOUNT HOLLY WPCF	7.675	0.0216	3.044	39.7%	0.3%	44.0%	0
NJ0024023	PENNS GROVE SEWERAGE AUTHORITY	0.75	0	0.352	46.9%	0.0%	60.0%	2
NJ0024031	ELMWOOD WTP	2.978	0.1546	1.985	66.6%	5.2%	68.0%	0
NJ0024040	WOODSTREAM STP	1.7	0.001	1.012	59.5%	0.1%	60.0%	0
NJ0024449	PALMYRA STP	1.05	0	0.447	42.5%	0.0%	47.0%	0
NJ0024465	LONG HILL TOWNSHIP OF STP	0.9	0	1.124	124.9%	0.0%	143.0%	1
NJ0024473	ATLANTIC COUNTY UTILITIES AUTH WWTF	40	0.5545	27.567	68.9%	1.4%	73.0%	2
NJ0024490	VERONA TWP WTP	3	0.0338	1.404	46.8%	1.1%	83.0%	0
NJ0024511	LIVINGSTON WATER POLLUTION CONTROL FACILITY	4.6	0.1165	2.637	57.3%	2.5%	78.0%	2
NJ0024520	TOWNSHIP OF OCEAN SEWERAGE AUTHORITY	7.5	0.031	4.076	54.4%	0.4%	64.0%	0
NJ0024562	SOUTH MONMOUTH REGIONAL STP	9.1	0.0303	4.910	54.0%	0.3%	61.0%	0

NJ0024643	RAHWAY VALLEY SEWERAGE AUTH	40	0.9105	30.079	75.2%	2.3%	82.0%	1
NJ0024651	CUMBERLAND COUNTY UTILITIES AUTHORITY	7	0.0119	2.571	36.7%	0.2%	48.0%	9
NJ0024660	BURLINGTON CITY STP	2.7	0.0153	1.668	61.8%	0.6%	93.0%	0
NJ0024678	BORDENTOWN SA BLACK'S CREEK STP	3	0.0374	1.444	48.1%	1.2%	70.0%	0
NJ0024686	GLOUCESTER CNTY UTIL AUTH	27	1.1591	18.013	66.7%	4.3%	76.0%	2
NJ0024708	BAYSHORE REGIONAL SEW AUTH	16	0.1905	7.186	44.9%	1.2%	53.0%	2
NJ0024716	PHILLIPSBURG TOWN STP	3.5	0.0572	2.460	70.3%	1.6%	77.0%	13
NJ0024741	JOINT MEETING OF ESSEX AND UNION COUNTIES	75	1.0848	53.420	71.2%	1.4%	87.0%	2
NJ0024759	EWING-LAWRENCE SA WTP	16	0.2325	10.708	66.9%	1.5%	79.0%	9
NJ0024783	LONG BRANCH SEWERAGE AUTHORITY	5.4	0.164	3.328	61.6%	3.0%	69.0%	0
NJ0024791	RIDGEWOOD VILLAGE WPC FACILITY	5	0.5183	2.316	46.3%	10.4%	61.0%	0
NJ0024813	NORTHWEST BERGEN CNTY UA	16.8	0.09	8.513	50.7%	0.5%	72.0%	3
NJ0024821	PEMBERTON TOWNSHIP MUA STP	2.5	0.0215	1.706	68.2%	0.9%	79.0%	0
NJ0024856	SALEM CITY WASTEWATER TREATMENT FACILITY	1.4	0.0024	0.833	59.5%	0.2%	62.0%	0
NJ0024864	SOMERSET RARITAN VALLEY SA	21.3	0.4527	14.783	69.4%	2.1%	92.0%	1
NJ0024872	TNSA SEWERAGE TREATMENT PLANT	8.5	0.0821	4.972	58.5%	1.0%	64.0%	1
NJ0024902	HANOVER SEWERAGE AUTHORITY WTP	4.61	0.3542	1.963	42.6%	7.7%	47.0%	0
NJ0024911	BUTTERWORTH WATER POLLUTION CONTROL UTILITY	3.3	0.0932	1.242	37.6%	2.8%	52.0%	0
NJ0024929	WOODLAND WATER POLLUTION CONTROL UTILITY (WPCU)	2	0.0078	0.855	42.8%	0.4%	52.0%	0
NJ0024937	MOLITOR WATER POLLUTION CONTROL FACILITY	3.5	0.0345	2.205	63.0%	1.0%	71.0%	1
NJ0024953	LINDEN ROSELLE SA	17	0.5418	11.159	65.6%	3.2%	76.0%	4
NJ0024970	PARSIPPANY TROY HILLS	16	0.2712	9.004	56.3%	1.7%	99.0%	1

NJ0024996	MOORESTOWN TWP WWTP	3.88	0.0563	2.970	76.5%	1.5%	77.0%	1
NJ0025038	SECAUCUS MUA	5.12	0.1208	2.666	52.1%	2.4%	72.0%	4
NJ0025160	HAMMONTON WWTP	1.6	0.0126	0.258	16.1%	0.8%	29.0%	0
NJ0025178	HARTFORD RD WATER POLLUTION CONTROL FACILITY	6	1.0086	4.077	67.9%	16.8%	74.0%	3
NJ0025241	ASBURY PARK WTP	4.4	0.0266	2.106	47.9%	0.6%	59.0%	1
NJ0025321	NORTH HUDSON SEWERAGE AUTHORITY	10	0.2242	7.964	79.6%	2.2%	99.0%	10
NJ0025330	CEDAR GROVE STP	2	0.0018	1.414	70.7%	0.1%	76.0%	4
NJ0025356	MIDDLETOWN SA (TOMSA)	10.8	0.2696	6.368	59.0%	2.5%	71.0%	1
NJ0025496	MORRISTOWN SEWER UTILITY	4.8	0.0422	2.403	50.1%	0.9%	59.0%	0
NJ0025518	FLORHAM PARK WATER POLLUTION CONTROL FACILITY	1.4	0.3606	0.903	64.5%	25.8%	70.0%	0
NJ0026018	OCEAN COUNTY UTILITIES AUTHORITY - SWPCF	20	0.0443	6.900	34.5%	0.2%	38.0%	0
NJ0026085	ADAMS STREET WTP	20.8	0.3754	12.908	62.1%	1.8%	68.0%	0
NJ0026174	CRESCENT PARK STP	0.064	0	0.022	33.9%	0.0%	45.0%	10
NJ0026182	DELAWARE #1 WATER POLLUTION CONTROL FACILITY	80	7.1347	54.475	68.1%	8.9%	72.0%	0
NJ0026301	HAMILTON TWP WPCF	16	0.2119	9.146	57.2%	1.3%	61.0%	0
NJ0026387	BERNARDSVILLE STP	0.8	0	0.494	61.8%	0.0%	82.0%	0
NJ0026719	ALBERT C WAGNER YOUTH CORRECTIONAL FACILITY	1.3	0.0867	0.800	61.6%	6.7%	62.0%	0
NJ0026735	TWO RIVERS WATER RECLAMATION AUTHORITY	13.83	0.1999	9.217	66.6%	1.4%	77.0%	0
NJ0026832	MEDFORD TWP WASTEWATER TREATMENT PLANT	1.75	0.0373	0.988	56.5%	2.1%	75.0%	18
NJ0026867	WHITE ROCK STP	0.11453	0.0438	0.087	76.3%	38.2%	116.0%	0
NJ0026905	STAGE II TREATMENT PLANT	0.63	0	0.527	83.6%	0.0%	84.0%	0
NJ0027006	RINGWOOD ACRES TREATMENT PLANT	0.036	0	0.031	86.5%	0.0%	87.0%	0
NJ0027057	SPARTA PLAZA WTP	0.05	0	0.035	69.8%	0.0%	76.0%	1

NJ0027481	BEVERLY SEWERAGE AUTHORITY	1	0.0042	0.407	40.7%	0.4%	51.0%	0
NJ0027545	LOGAN TOWNSHIP MUA	2	0.1159	1.302	65.1%	5.8%	66.0%	0
NJ0027561	DELAWARE TOWNSHIP MUA	0.065	0	0.033	50.2%	0.0%	62.0%	0
NJ0027669	AWOSTING STP	0.065	0.0003	0.045	69.2%	0.5%	114.0%	3
NJ0027677	OLDE MILFORD ESTATES STP	0.172	0	0.103	60.1%	0.0%	62.0%	9
NJ0027685	HIGHVIEW ACRES STP	0.2	0	0.066	32.9%	0.0%	45.0%	5
NJ0027774	OAKWOOD KNOLLS WWTP	0.035	0	0.022	63.6%	0.0%	67.0%	0
NJ0027821	MUSCONETCONG SEWERAGE AUTHORITY	5.79	0.2809	2.187	37.8%	4.9%	49.0%	0
NJ0027961	BERKELEY HEIGHTS WPCF	3.1	0.0425	1.296	41.8%	1.4%	53.0%	1
NJ0028002	MOUNTAIN VIEW STP	13.5	0.0449	6.735	49.9%	0.3%	66.0%	0
NJ0028142	NORTHERN WATER POLLUTION CONTROL FACILITY	32	1.6077	22.013	68.8%	5.0%	71.0%	0
NJ0028541	BIRCH HILL PARK STP	0.02	0	0.015	75.0%	0.0%	145.0%	15
NJ0029084	WOODCLIFF STP	2.91	0.0788	2.318	79.6%	2.7%	113.0%	3
NJ0029386	TWO BRIDGES WASTEWATER TREATMENT PLANT	7.5	0.2096	5.180	69.1%	2.8%	111.0%	1
NJ0029408	OCEAN CNTY UA	32	0.5563	19.875	62.1%	1.7%	67.0%	0
NJ0029467	MILLVILLE (WTP) CITY OF	5	0	2.341	46.8%	0.0%	48.0%	12
NJ0029475	HIGHTSTOWN BORO AWWTP	1	0	0.701	70.1%	0.0%	86.0%	1
NJ0029831	FRENCHTOWN WASTEWATER TREATMENT PLANT	0.15	0	0.144	96.1%	0.0%	164.0%	6
NJ0030333	GREENWICH TOWNSHIP STP	1	0	0.457	45.7%	0.0%	62.0%	3
NJ0031119	STONY BROOK RSA- RIVER ROAD STP	13.06	0.4578	8.988	68.8%	3.5%	83.0%	0
NJ0031810	FIELDSBORO WWTP	0.1	0.003	0.106	106.1%	3.0%	119.0%	10
NJ0035114	BELVIDERE WWTF	0.5	0.0042	0.268	53.7%	0.8%	68.0%	0
NJ0035301	STONY BROOK RGNL SEWERAGE AUTH	0.3	0.0012	0.279	93.1%	0.4%	103.0%	0
NJ0035319	STONY BROOK RSA	0.3	0.0003	0.233	77.8%	0.1%	98.0%	0

NJ0035343	OCEAN CITY REG WTF	8.24	0.0072	3.086	37.4%	0.1%	38.0%	0
NJ0035483	OXFORD AREA WTF	0.5	0	0.263	52.6%	0.0%	75.0%	0
NJ0050130	RIVERSIDE FARMS STP	0.145	0	0.062	42.5%	0.0%	52.0%	0
NJ0050369	WARREN STAGE V STP	0.38	0	0.181	47.7%	0.0%	56.0%	0
NJ0050423	HANCOCKS BRIDGE STP	0.05	0	0.008	16.0%	0.0%	40.0%	0
NJ0050580	HAMPTON COMMONS WASTEWATER FACILITY	0.05	0	0.031	61.5%	0.0%	80.0%	0
NJ0052990	CAPE MAY COUNTY MUA	7.67	0.0983	3.462	45.1%	1.3%	47.0%	0
NJ0053007	WILDWOOD/LOWER REGION WTF	14	0.042	4.080	29.1%	0.3%	32.0%	1
NJ0053112	CHAPEL HILL ESTATES STP	0.01	0	0.006	64.2%	0.0%	70.0%	0
NJ0053350	SUSSEX CNTY MUA UPPER WALLKILL FACILITY	3	0.0681	1.285	42.8%	2.3%	65.0%	0
NJ0053759	WANAQUE VALLEY REGIONAL SEWERAGE AUTHORITY	1.25	0.0364	0.833	66.6%	2.9%	90.0%	0
NJ0060038	PIKE BROOK STP	0.67	0.0135	0.458	68.4%	2.0%	74.0%	2
NJ0062201	CANTON VILLAGE STP	0.05	0	0.037	73.8%	0.0%	74.0%	1
NJ0067733	OXBRIDGE WASTEWATER TREATMENT PLANT	0.088	0	0.042	48.0%	0.0%	48.0%	0
NJ0069167	MAPLE SHADE TWP PARK AVE WWTP	3.4	0	2.539	74.7%	0.0%	82.0%	1
NJ0069523	CHERRY VALLEY STP	0.286	0.0012	0.171	59.7%	0.4%	71.0%	4
NJ0098922	READINGTON-LEBANON SA	0.8	0.0448	0.690	86.2%	5.6%	104.0%	2
NJ0109061	LONG VALLEY VILLAGE WTP	0.244	0	0.121	49.5%	0.0%	61.0%	0
				>=95% :	3 (2%)	***Average***		
				>=100% :	2 (1%)	2.3%		
						Median		
						0.8%		

(1) Equal to the 1-year Average from 3/2015 through 2/2016 based on monthly average flow data reported on DMRs. For QA/QC purposes, if the reported monthly average flow value was greater than 10 times the permitted flow, the Department did not use the data in the analysis; the permittee's data are incorrect, likely either because the decimal point was placed incorrectly, or the permittee used the wrong units (gallons per day instead of millions of gallons per day) in its DMR.

(2) This estimate is based on the permits where the permittee has not reported that flow designated as approved but not yet operational has become operational, and is included in actual flow.

(3) This flow is equal to the "permitted capacity of the treatment plant."

(4) Concentration or loading limit NJPDES permit violations only (i.e. not percent removal limitations).

Correlation between Flow and Permit Violations (BOD_5, $CBOD_5$, and TSS)

The Department originally proposed to change the threshold from 80 percent of permitted flow to 100 percent of permitted flow, based on a review of the goals of the capacity analysis conducted under the Water Quality Management Planning (WQMP) process and the CAP rule and the Department's evaluation of the correlation among surface water treatment plants' NJPDES permit violations and the percentage of existing flow as a percentage of permitted flow over various time periods. The Department considered violations for oxygen demanding parameters (BOD_5 or $CBOD_5$) and total suspended solids (TSS), since 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. While some facilities have limits for other parameters, the other parameters are not common across all of the facilities and were, therefore, not considered.

The original analysis, discussed in the proposal summary (47 N.J.R. at 2585), indicated a weak correlation between flow and violations for selected parameter limits, meaning violations of BOD_5, $CBOD_5$, and TSS would not be expected to increase as committed flow approaches permitted flow over the varying timeframes (47 N.J.R. at 2585). Specifically, the results of the original analysis showed a correlation coefficient of 0.1 using the maximum 12-month rolling average over a five-year period from October 2008 through September 2013.

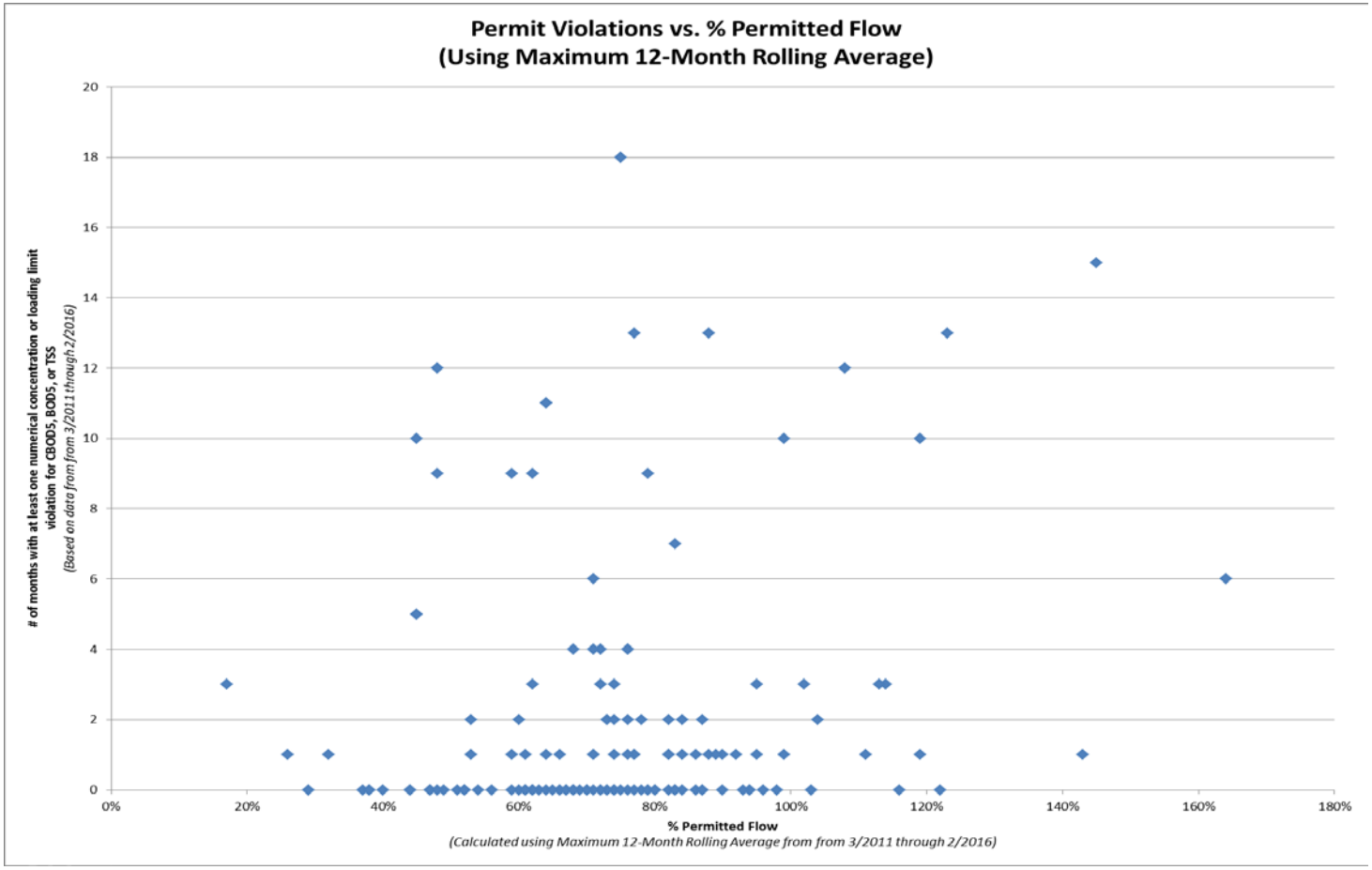
During the period it was reviewing the public comments on the proposal, the Department performed a new analysis that included only domestic municipal treatment plants to which the CAP applies (147 facilities), and actual flow as reported on DMRs. The proposed CAP threshold is based on actual flow, rather than committed flow, making actual flow appropriate for

the analysis. The Department considered DMR and TWA data from March 2011 through February 2016 (the Department used a more recent five-year period in the new analysis) to determine the percent of permitted flow that is actual flow, and correlation between actual flow and violations. The new analysis shows a correlation coefficient of 0.2 between the maximum 12 month rolling average of actual flow and the number of permit violations for BOD_5, $CBOD_5$, and TSS over the five-year period. The new analysis is based upon the data in the two rightmost columns of Table 1 above, which is plotted on the graph in Figure 1 below. Both the original and new analyses found a weak correlation between the two variables. This weak correlation is exhibited in Figure 1, where a high number of violations is observed at relatively low flows and, conversely, a lesser number of violations is observed at higher flows. Therefore, an increase in the percentage of actual flow to permitted flow would not be expected to result in an increase in the number of NJPDES permit effluent violations incurred by a treatment plant. The Department recognizes, however, that if a treatment plant exceeds its maximum design capacity for an extended period of time, the treatment plant will likely be unable to provide the treatment necessary to meet NJPDES permit effluent limits. It is incumbent upon a permittee to operate the treatment plant to ensure compliance with NJPDES permit conditions and requirements. This is the case no matter the CAP threshold.

Although Table 1 identifies the number of months in which a violation occurred at each treatment plant during the five-year period (March 2011 through February 2016), some of these violations may have been due to extenuating circumstances, such as construction associated with treatment works upgrades or mechanical failure of equipment. The Department considers case-specific circumstances when it determines the appropriate enforcement response to a facility's violation of its permit limits.

The Department did not conduct a new analysis for the six municipal treatment plants that discharge to ground water. The sample size of six was too small to obtain adequate data to determine the correlation between permitted flow and permit violations. Flow data from March 2015 through February 2016 indicated that actual flow for five of the treatment plants was between 43 and 81 percent of permitted flow, and actual flow for one treatment plant was 132 percent of permitted flow. None of the five facilities had a flow greater than 81 percent of permitted flow; therefore, only one of the municipal treatment works that discharge to ground water would trigger the CAP under either a CAP threshold of 95 or 100 percent of permitted flow.

Figure 1


Permit Violations vs. % Permitted Flow
(Using Maximum 12-Month Rolling Average)
# of months with at least one numerical concentration or loading limit violation for CBOD5, BOD5, or TSS
(Based on data from from 3/2011 through 2/2016)
20
18
16
14
12
10
8
6
4
2
0
0%
20%
40%
60%
80%
100%
120%
140%
160%
180%
% Permitted Flow
(Calculated using Maximum 12-Month Rolling Average from from 3/2011 through 2/2016)

CAP Threshold - Flow as a Permit Condition

As stated above, the Department found little correlation between increased actual flow and violations of $CBOD_5$, BOD_5 or TSS parameters. However, increased flow could have an impact on violations to the extent that flow is a NJPDES permit limit for some treatment plants. Whether or not flow from the treatment plant reaches the CAP threshold, the permittee must regularly monitor and report its flow on DMRs, and is responsible to ensure that the treatment plant operates without violating its permit limits and/or conditions.

Flow is a NJPDES permit limit for the six municipal wastewater treatment plants that discharge to ground water (Chester Borough Wastewater Treatment Facility, Hammonton Waste Water Treatment Plant, Jackson Township Municipal Utilities Authority, Kings Grant Sewage Treatment Plant, Landis Sewerage Authority, and Sussex County Municipal Utilities Authority), and for five of the municipal treatment plants that discharge to surface water (Passaic Valley Sewerage Commission and the four treatment plants that discharge to the Pinelands waters and the Great Swamp - Buena Borough Municipal Utility Authority, Medford Lakes Borough Sewerage Treatment Plant, Hammonton Wastewater Treatment Plant, and Township of Morris Water Pollution Control Utility's Woodland Sewage Treatment Plant). Depending on the facility, the flow limit is based on either a daily maximum or a monthly average.

Under the rule as proposed, with a CAP threshold of 100 percent of the facility's permitted flow and the actual flow averaged over a 12-month period, a facility with flow as a permit limit would likely violate its permit before its average flow reached the CAP threshold; the 12-month average smooths daily or monthly fluctuations in flow. In order for a 12-month

average flow to equal permitted flow, some daily or monthly flows will likely exceed permitted flow.

A violation of flow as a permit limit is independent of the CAP threshold. If a treatment plant's flow exceeds its permitted limit, it is in violation of its permit, regardless of the CAP threshold. That said, commenters have expressed concern that a treatment plant that has flow as a permit limit will violate its permit before its flow reaches the CAP threshold, if the CAP threshold is 100 percent of permitted flow. The argument implies that a facility will conduct no advance planning or analysis prior to reaching the CAP threshold, even if the treatment plant repeatedly exceeds its permitted flow. This ignores the Water Quality Management Planning rules, discussed further below. It also does not take into account proposed N.J.A.C. 7:14A-22.16(b), which allows the Department to require a CAP if permitted flow is exceeded as a result of wet weather events, or proposed new N.J.A.C. 7:14A-22.16(d), which requires the owner or operator of a conveyance system to, within 180 days of notification by the Department, 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 inflow and infiltration (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 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 (47 N.J.R. at 2584). In addition, the permittee has the responsibility to properly operate and maintain its treatment plant and be proactive in order to avoid overloads and violations of its NJPDES permit limits and conditions.

The 11 facilities with flow as a permit limit could potentially violate their flow limit before their flows reach the 95 percent CAP threshold proposed in this notice of substantial change, since the permit limit is based on either a daily maximum or monthly average flow versus an annual average flow, as stipulated in the CAP requirements. Nevertheless, lowering the CAP threshold to below 95 percent of permitted flow would prematurely subject the majority of regulated facilities without permit flow limits to the rigorous CAP requirements. The Department is attempting to balance the benefits of the CAP against the requirements, including the associated work and financial burdens, imposed by the CAP on permittees. The 11 permittees with flow as a permit limit may need to address capacity issues at their facilities prior to triggering a CAP in order to avoid potential flow violations. As stated in the proposal summary, permittees are subject to enforcement action for effluent limit violations regardless of whether a CAP has been triggered or implemented (47 N.J.R. at 2585). In light of the consequences of repeated violations, including financial consequences, it is in the interest of the permittee to ensure that its flow remains below the permitted flow.

CAP Analysis Compared to Wastewater Capacity Analysis under the WQMP Rules

The Department stated in the proposal summary that the amended CAP threshold of 100 percent of permitted flow would provide adequate time for the permittee to develop and implement measures to address potential hydraulic overloading of the plant (47 N.J.R. at 2585).

In proposing the threshold, the Department attempted to balance the permittees' need for time to develop and implement such measures against the proposed rule's more extensive CAP analysis.

Some commenters suggest that the CAP threshold and the requirement to conduct a wastewater capacity analysis under the WQMP rules at N.J.A.C. 7:15 should be the same, at 80 percent, and suggest that establishing a higher CAP threshold will allow a treatment plant to avoid planning or evaluating its capacity until its flow triggers the CAP threshold. This is not the case. The purpose of the wastewater capacity analysis under the WQMP rules differs from the CAP analysis. As stated in the proposal summary (47 N.J.R. at 2585), 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 the 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 wastewater management plan (WMP), 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, and design, should construction of new or expanded infrastructure be deemed necessary.

As part of the planning process, the regional planning entity coordinates with the Department and the permittee to determine if the remaining projected growth in the sewer service area will result in a capacity deficit. If the potential for a capacity deficit exists, the regional planning agency is required to analyze effective strategies to address the deficiency. Effective strategies could include an assessment of proposed alternatives included in the CAP

rule. This planning process is expected to provide adequate time for the permittee and local officials to plan for future capacity needs well in advance of anticipated connections for new developments.

On the other hand, the CAP provisions in the NJPDES rules focus 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 violations of the treatment plant's NJPDES permit limits or unpermitted discharges. Thus, the capacity analysis is triggered when reported flow at the treatment plant averaged over 12 consecutive months reaches the CAP threshold. It is because of the differences in focus that the CAP threshold need not be the same as the trigger for a capacity analysis required under the WQMP rules. The Department acknowledges that it does take years to plan, conduct the necessary studies, design, finance, and build sanitary sewer system improvements. Therefore, for planning purposes, it is appropriate that a WQMP wastewater capacity analysis considerably earlier than a CAP analysis.

The WQMP wastewater capacity analysis considers what will be needed in the future. The CAP analysis considers what is needed in the near term to ensure proper operation and to avoid potential violations resulting from exceedances in permitted flow. A treatment plant with actual flow at 80 percent of permitted flow is not likely to suffer a chronic hydraulic overload, such that a detailed CAP analysis would be useful. Therefore, an 80 percent threshold would impose the extensive CAP requirements on far more facilities than need to perform the analysis, and would also require the analysis sooner in the life of a facility than is useful.

Similarly, a CAP threshold of 90 percent, as some commenters suggest, is also not appropriate. A facility that is approaching 90 percent of its permitted flow may be able to operate for years before it moves even a few percentage points toward the permitted flow. Such

facilities are in sewer service areas that are unlikely to expand, or that can expand only marginally (for example, towns or counties with very little growth potential). It would be premature to require these facilities to perform the complex analyses that a CAP requires when the facilities may not reach their permitted flow for years, if ever.

The rule as proposed to be amended in this change notice does not preclude a permittee from assessing capacity at any time prior to actual flow reaching the 95 percent threshold, such as the WQMP may require. The responsibility to meet regulatory requirements, including ensuring that NJPDES permit discharge limits and conditions are met at all times, and to adequately address future development and capacity needs, continues to lie with the permittee and local agencies/officials. The permittee should be proactive and implement measures when they are appropriate and necessary to ensure adequate treatment capacity.

Development and Conservation in the Sewer Service Area

The Department does not anticipate that amending the CAP threshold will allow increased development in sewer service areas, or reduce water conservation efforts. Under the existing rule, when a treatment plant's committed flow reaches the 80 percent threshold, it is required to submit a CAP, but reaching the CAP threshold does not prohibit additional connections to the treatment plant. The existing rule at N.J.A.C. 7:14A-22.17 requires the permittee or municipality to impose a sewer connection ban when inadequate conveyance capacity exists or there are recurring NJPDES violations of effluent limits. Neither the rule as proposed nor the changes in this notice alter this requirement. The CAP threshold, whether at 80 percent or 95 percent, is a trigger to initiate a CAP; it does not change the amount of flow that the treatment plant is allowed to discharge. Similarly, the hydraulic flexibility discussed above

that allows a treatment plant to accommodate wet weather events or seasonal fluctuations in flow does not necessarily mean that a treatment plant is able to treat more sewage from new connections. Long-term planning for the sewer service area is accomplished through the WQMP process. In the nearer term, the CAP rules require 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.

One of the purposes of the amendments to the rules, as the Department stated in the proposal Social Impact (47 N.J.R. at 2586), is to 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 untreated sewage or violate NJPDES permit limits and potentially negatively impact public health or the environment. Among the requirements of a CAP analysis as set forth at proposed N.J.A.C. 7:14A-22.16(c)2 is 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. The minimum requirements for this evaluation include (among other things) a review of current and proposed water conservation measures to reduce flow. These CAP program rules are, therefore, intended to further protect the environment and conserve resources, not hinder conservation efforts.

Effect of Proposed Changes on Impact Statements Included in the Proposed Amendments

The proposed substantial changes on adoption will not affect the impact statements set forth in the proposal.

Full text of the proposed substantial changes to the proposed amendments follows (additions to proposal indicated in italicized boldface ***thus***; deletions from proposal indicated in italicized cursive brackets *{*thus*}*):

7:14A-22.16 Capacity assurance program

(a) If the average flow over 12 consecutive months, as reported in DMRs by the permittee of a treatment plant, reaches or exceeds *95 percent of* the permitted flow of that treatment plant, the permittee, in coordination with participating municipalities and sewage authorities, shall:

1. Conduct a capacity analysis that assesses the treatment works; evaluates alternative measures that would maximize conveyance and treatment of existing flows, reduce *or maintain* existing flows *below permitted flow*, 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;

2. – 3. (No change from proposal.)

(b) (No change from proposal.)

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

1. (No change from proposal.)

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 *or maintain* 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. – v. (No change from proposal.)

3. – 6. (No change from proposal.)

(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. – 4. (No change from proposal.)

5. The 12-consecutive-month average flow equals or exceeds *95 percent of* 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.

(e) – (g) (No change from proposal.)

(h) The permittee may submit a request to discontinue quarterly submittal of the WQM007 Form required under (a) above if the permittee *has completed the selected alternative(s) in (c) above as approved by the Department and* can demonstrate that flow, as reported in DMRs, has decreased to below *95 percent of* 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.

(i) (**No change from proposal.**)

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] ***95 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.)