



## Frequently Asked Questions Capacity Assurance Program - CAP

**DISCLAIMER:** The following questions and answers are provided for general information purposes only and are not intended to replace or alter the binding effect of any part of the rules at N.J.A.C. 7:14-22.

### **1. What is the Capacity Assurance Program (CAP), and what is its purpose?**

The CAP is a mechanism for ensuring that treatment works, which includes both the wastewater treatment plant and the associated conveyance system(s), will avoid hydraulic overloads that could result in violation(s) of New Jersey Pollutant Discharge Elimination System (NJPDES) permit discharge limits or unpermitted discharges. This is accomplished by requiring that a plan be prepared and submitted to the Department which includes a capacity analysis of both the treatment and conveyance systems.

### **2. How does the threshold that triggers the CAP differ in the new proposed rule compared to the existing rule?**

The new rule raises the threshold for triggering the CAP from 80 percent of permitted flow (based on a 3 month consecutive average using committed flow) to 100 percent of permitted flow (based on an average of actual flows over 12 consecutive months).

### **3. Why was 100 percent of permitted flow chosen as the threshold for triggering the CAP?**

Because the design capacity of a treatment plant is based on conservative assumptions regarding flow, the Department concluded that requiring a permittee to perform a capacity analysis when the 100 percent permitted flow threshold is triggered should provide adequate time for the permittee to develop and implement measures to address hydraulic overloading of the plant. Specifically, in accordance with the existing treatment works approval rules at 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. In addition, wastewater treatment plants typically have controls within the treatment train that allow the operator additional flexibility to address fluctuations in flow at the plant. The Department's evaluation of 189 wastewater treatment plants also showed a weak correlation between the percentage of committed flow to permitted flow and violations of NJPDES permit effluent limitations. (See the section of the rule proposal summary labeled "Basis for changes in flow threshold that triggers capacity assurance requirements", published in the New Jersey Register on October 19, 2015 at 47 N.J.R. 2582(a)). Finally, amendments to the trigger in the proposed Water Quality Management Planning rule

require a wastewater capacity analysis at 80 percent of permitted flow to address future wastewater needs. Based on the above, the Department proposed to raise the threshold to 100 percent for the CAP.

#### **4. Why is the time period for determining the threshold being redefined from 3 months to 12 months?**

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. Specifically averaging flow over three months could represent periods of wet weather (trending high) or periods of minimal rainfall (trending low).

#### **5. What is the difference between permitted flow and committed flow?**

Permitted flow, as defined at N.J.A.C. 7:14A-1.2, means a treatment works' maximum allowable flow (usually in millions of gallons per day) as stated in the facility's NJPDES permit or Treatment Works Approval (TWA), whichever is more stringent. Committed flow, which is also defined in N.J.A.C. 7:14A-1.2, means the sum of the actual flow plus the sum of all flows which are anticipated from connections which have been approved, but are not yet in operation.

#### **6. Why use actual flow vs. committed flow in the new rule?**

The Department chose to utilize actual flow, as reported in the required monthly submittal of Discharge Monitoring Reports (DMRs), instead of committed flow for ease of determining when the threshold is triggered. As indicated above, committed flow is the sum of the actual flow plus the sum of all flows from connections which have been approved (received TWAs) but are not yet in operation. Flows from approved connections that are not yet in operation typically represent a relatively small portion of committed flow. Therefore, since actual flow accounts for the majority of flow expected to impact the wastewater treatment plant in the near future, it is a good representation of the flow to be utilized for determining the CAP threshold.

#### **7. Who is required to prepare a Capacity Assurance Report (CAR)?**

A permittee, in coordination with the owner(s)/operator(s) of the contributing wastewater conveyance system(s), must prepare a CAR under the proposed rule. In some instances, the owner/operator of a wastewater conveyance system will be required to prepare a CAR. See FAQ 9 for more detail.

#### **8. When is a permittee required to prepare a CAR?**

A permittee must prepare a CAR when the average flow over 12 consecutive months reaches or exceeds the permitted flow of their treatment plant.

#### **9. When is an owner/operator of a wastewater conveyance system required to prepare a CAR?**

Under the proposal, the owner/operator of a wastewater conveyance system must prepare a CAR when notified by the Department. The following are causes for requiring a CAR in this instance:

- Existing flows to the treatment works approach the design capacity of the conveyance system;
- Excessive infiltration and inflow (I/I) exists in the conveyance system;
- 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;
- There has been an unpermitted discharge from the treatment works, including sanitary sewer overflows; or
- 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 required capacity analysis.

#### **10. What is the proposed timeline/deadline for the submission of a CAR?**

The CAR must be submitted to the Department within 180 days of the last day of the final month of the 12 consecutive month period that the treatment plant reaches or exceeds its permitted flow, or within 180 days of notification by the Department (in cases addressing wet weather events or conveyance system issues).

#### **11. What needs to be submitted under the proposed rule as part of the CAR?**

The regulatory requirements are proposed to be expanded to include: an assessment of the treatment works; 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 identification and justification for measures selected; the establishment of an implementation schedule; and a description of the mechanism to finance the selected alternative(s) and a certification that the chosen alternative will be implemented.

#### **12. When a CAR is submitted, is there a proposed requirement to make it available to the public?**

The CAR must be made available to the public on the website and at the office of the permittee or the owner/operator of the conveyance system.

#### **13. Are there reporting requirements associated with the CAP?**

A completed WQM007 Form must be submitted to the Department beginning the last day of the month following the date the permitted flow threshold is met; and is required to be submitted on a quarterly basis thereafter.

#### **14. How much Infiltration and Inflow (I/I) work needs to be performed (if it is the selected alternative)?**

The amount of I/I work that needs to be performed will be dependent upon the volume of flow that exceeds the permitted flow of the treatment plant. At a minimum, the proposed I/I reduction should be enough to reduce the committed flow and anticipated flows from future growth to be below the treatment plant's permitted flow.

#### **15. When does the proposed CAP become effective?**

The revised CAP becomes effective on the date the final rule is published in the New Jersey Register. If at the time the CAP rule is adopted a treatment plant has averaged 100 percent of its permitted flow over 12 consecutive months, a capacity analysis needs to be performed and a CAR must be submitted as detailed above in FAQ 10 and FAQ 11.

#### **16. Is there a mechanism in place for being relieved of the continuing obligation of the CAP under the proposal?**

Yes, the permittee may submit a request to discontinue quarterly submittal of the WQM007 Form if the permittee can demonstrate that the flow, as reported in DMRs, has decreased to below the permitted flow for 36 consecutive months. However, the Department's approval of such request would not exempt the permittee from having to comply with the CAP requirements in the future.

#### **17. Are there any requirements prior to reaching the 100 percent permitted flow threshold?**

Permittees may be requested by the Department to submit a CAR if they occasionally exceed their permitted flow during wet weather events.

Even though the proposed CAP requirements typically aren't triggered until the permittee reaches the 100 percent threshold, 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. In addition, permittees should already be assessing and evaluating the items to be analyzed in order to properly operate and maintain their system.

Be advised that the proposed Water Quality Management Planning rules (N.J.A.C. 7:15) require that when the actual flow of a treatment plant reaches 80 percent of the permitted flow, a wastewater capacity analysis must be performed in order to determine future wastewater needs.

#### **18. What if the permittee or owner/operator of a conveyance system doesn't comply with the CAP requirements?**

The proposed CAP rule now includes a requirement that clarifies 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 sewage authority, or the owner/operator of the conveyance system does not submit a CAR that meets the requirements of the rule, or does not implement the capacity assurance measures established through the CAR and implementation schedule required by the rule.

In addition, the Department can take enforcement action for non-compliance with the requirements of the rule.