

Current [draft] Thinking on Peak Flows at POTWs

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NPDES authorities have considerable flexibility through the permitting process to account for different peak flow scenarios that are consistent with generally accepted good engineering practices and criteria for long-term design. Peak wet weather discharges from POTWs that are comprised of effluent routed around biological treatment units together with the effluent from the biological units prior to discharge could be approved in an NPDES permit where all of the following principles are followed:

1. The final discharge meets effluent limitations based on the secondary treatment regulation (40 CFR Part 133) and/or any more stringent limitations necessary to meet water quality standards.
2. The NPDES permit application for the POTW provides notice of, and the permit specifically recognizes, the treatment scheme that will be used for peak flow management. The treatment scheme, including designed capacity of various units, should be consistent with generally accepted practices and design criteria, and designed to meet under the specified treatment scenario effluent limitations based on the secondary treatment regulation and/or any more stringent limitations necessary to meet water quality standards.
3. Alternative flow routing scenarios are only used when flows exceed the capacity of storage/equalization units and biological treatment units based on generally accepted good engineering practices and criteria as defined in the permit.
4. During peak flow conditions, the treatment system chosen by the permittee is operated as it is designed to be operated and in accordance with the conditions set forth in the permit.
5. The permit contains appropriate requirements for the collection system, including at a minimum, that the permittee properly design, operate, and maintain its collection system and, for permittees that own or operate combined sewers, conditions that conform to the 1994 Combined Sewer Overflow (CSO) Control Policy.

Peak wet weather flows that are routed around the biological treatment units of the POTW that do not meet the criteria listed above are considered prohibited bypasses under the bypass regulation at 40 CFR 122.41(m) unless they otherwise meet the criteria provided in the bypass provision. Under the NPDES regulations, all NPDES permits are required to contain a prohibition on bypasses consistent with 40 CFR 122.41(m).

Additional considerations for permit writers addressing POTWs that use alternative peak flow treatment schemes include:

- A. NPDES permits should require compliance monitoring appropriate for the peak flow treatment scheme recognized in the permit for the POTW.

- B. NPDES permits should ensure that permittees develop good information to foster informed management of the collection system and treatment facility during peak wet weather flow conditions, and, where appropriate, assess potential water quality impacts and performance of treatment technologies under peak flow conditions.
- C. To the extent practicable, NPDES permit requirements for discharges of peak wet weather flows at the POTW should be developed in a manner that encourages comprehensive consideration of both the intended performance of treatment plants in the system and the collection system itself.
- D. NPDES permit conditions are clear and enforceable.

The principles described above do not address NPDES permit requirements for discharges from facilities other than POTWs, portions of flows that do not receive at least primary treatment, or the treatment of flows resulting from dry weather conditions.