

R18-9-E318. 4.18 General Permit: Constructed Wetland, Less Than 3000 Gallons Per Day Design Flow

- A. A 4.18 General Permit allows a constructed wetland receiving wastewater treated to a level equal to or better than that provided by a 4.02 General Permit septic tank.
1. A constructed wetland is a treatment technology characterized by a lined excavation, filled with a medium for growing plants and planted with marsh vegetation. The treated wastewater flows horizontally through the medium in contact with the aquatic plants.
 2. As the wastewater flows through the wetland system, additional treatment is provided by filtering, settling, volatilization, and evapotranspiration.
 3. The wetland system allows microorganisms to break down organic material and plants to take up nutrients and other pollutants.
 4. The wastewater treated by a wetland system is discharged to a subsurface soil disposal system.
 5. A constructed wetland is considered if further wastewater treatment is needed before disposal.
- B. Performance. An applicant shall ensure that a constructed wetland is designed on the basis that it produces treated wastewater that meets the following criteria:
1. TSS of 20 milligrams per liter, 30-day arithmetic mean;
 2. BOD5 of 20 milligrams per liter, 30-day arithmetic mean;
 3. Total nitrogen (as nitrogen) of 45 milligrams per liter, five-month arithmetic mean; and
 4. Total coliform level of 100,000 (Log₁₀ 5) colony forming units per 100 milliliters, 95th percentile.
- C. Reference design.
1. An applicant may design and install a constructed wetland that achieves the performance requirements in subsection (B) by following a reference design on file with the Department.
 2. The applicant shall file a form provided by the Department for supplemental information about the proposed constructed wetland with the applicant's submittal of the Notice of Intent to Discharge.
- D. Alternative design. An applicant may submit an alternative to the reference design for a constructed wetland if, following the requirements under R18-9-A312(G), the design achieves the performance requirements in subsection (B).
1. The Department shall consider the submittal of an alternative design as one design change to establish the applicable fee under 18 A.A.C. 14.
 2. The applicant shall file a form provided by the Department for supplemental information about the proposed constructed wetland with the applicant's submittal of the Notice of Intent to Discharge.

Historical Note

New Section adopted by final rulemaking at 7 A.A.R. 235, effective January 1, 2001 (Supp. 00-4).