

**R18-9-D307. 3.07 General Permit: Tertiary Treatment Wetlands**

- A. A 3.07 General Permit allows constructed wetlands that receive with the intent to treat, discharges of reclaimed water that meet the secondary treatment level requirements specified in R18-9-B204(B)(1).
- B. Notice of Intent to Discharge. In addition to the Notice of Intent to Discharge requirements specified in R18-9-A301(B), an applicant shall submit:
  - 1. The name and individual permit number of any facility that provides the reclaimed water to the wetland;
  - 2. The name and individual permit number of any facility that receives water released from the wetland;
  - 3. The design of the wetland construction and management project, including information on the quality of the influent, the treatment process, and the expected quality of the wastewater;
  - 4. A Best Management Practices Plan that includes:
    - a. A site plan showing the wetland footprint, point of inflow, storm water drainage, and placement of vegetation;
    - b. A contingency plan to address any problem, including treatment performance, wash-out, and vegetation die-off;
    - c. A management plan for flows into and through the wetland to minimize erosion and damage to vegetation;
    - d. A description of the measures for restricting access to the wetlands by the public;
    - e. A management plan for vector control; and
    - f. A plan or criteria for enhancing or supplementing wetland vegetation.
- C. Design requirements. An applicant shall:
  - 1. Release water from the wetland under an individual permit and a National Pollution Discharge Elimination System permit, if required. The applicant shall release water from the wetland only to a direct reuse site if the site is permitted to receive reclaimed water of the quality generated under the individual permit specified in subsection (B)(1);
  - 2. Construct and locate the treatment wetland so that it:
    - a. Maintains physical integrity during a 100-year, 24-hour storm event, and
    - b. Operates properly during a 25-year, 24-hour storm event.
  - 3. Ensure that the bottom of the treatment wetland is at least 20 feet above the seasonal high groundwater table;
  - 4. Maintain a minimum horizontal separation of 100 feet between any water supply well and the maximum wetted area of the wetland;
  - 5. Maintain a minimum 1000 foot setback between the property boundary at the site and the maximum wetted area of the wetland;
  - 6. Fence the wetland area to prevent unauthorized access;
  - 7. Post signs at points of access stating “CAUTION. THESE WETLANDS CONTAIN RECLAIMED WATER, DO NOT DRINK.” The applicant shall ensure that the signs are in English and Spanish, or in English with inclusion of the international “do not drink” symbol;
  - 8. Construct the treatment wetland with a liner using low hydraulic conductivity artificial liner material, site-specific liner material, or both, to achieve a calculated seepage rate of less than 550 gallons per acre per day. The applicant shall:
    - a. Ensure that if an artificial liner material is used, such as geomembrane, the material is underlain by at least six inches of prepared and compacted subgrade;
    - b. Anchor the liner along the perimeter of the wetland; and
    - c. Manage the plants in the wetland to prevent species with root penetration that impairs liner performance.
  - 9. Calculate the size and depth of the wetland so that the rate of flow allows adequate treatment detention time. The applicant shall design the wetland with at least two parallel treatment cells to allow for efficient system operation and maintenance;
  - 10. Ensure that the wetland vegetation includes cattails, bulrush, common reed, or other species of plants with high pollutant treatment potential to achieve the intended water quality identified in subsection (B)(3); and
  - 11. Ensure that construction and operation of the wetlands is consistent with local zoning and land use requirements.
- D. Operational requirements. The permittee shall:
  - 1. Implement an approved Best Management Practices Plan;
  - 2. Monitor wastewater leaving the treatment wetland to ensure that discharge water quality meets the intended treatment specified in subsection (A)(3). The permittee shall ensure that analyses of wastewater

- samples are conducted by a laboratory certified by the Department of Health Services, following the Department's Quality Assurance/Quality Control requirements;
3. Follow the prescribed measures as required in the contingency plan under subsection (B)(4)(b) and report to the Department within five days if verification sampling demonstrates that an alert level or discharge limit is exceeded;
  4. Inspect the wetlands at least quarterly for bank and liner integrity, erosion evidence, and condition of signage and vegetation, and correct any problem discovered; and
  5. Ensure that the wetland is operated by a certified operator.
- E. Recordkeeping. A permittee shall maintain the following information for at least 10 years and make it available to the Department upon request:
1. Construction drawings and as-built drawings, if available; and
  2. A log book or similar documentation to record inspection results, repair and maintenance activities, monitoring results, and facility closure.
- F. Reporting requirements. The permittee shall provide the Department with an annual assessment of the biological condition of the wetland including the volume of inflow to the wetland in the past year.

**Historical Note**

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