

DWGB-22-14

2023

## Wastewater from Drinking Water Systems

### What is Drinking Water System Wastewater?

Drinking water systems are all facilities and related infrastructure associated with the collection, distribution and treatment of drinking water. Drinking water treatment wastewater (WTW) is any waste or wastewater that is generated from water treatment processes, construction, operation and maintenance of any of these facilities. Because WTW could include large quantities of sediment (fine particulates containing contaminants), high concentrations of metals or chlorine, high/low pH, and other potentially harmful constituents, the disposal of WTW is regulated to protect human health and the environment.

This fact sheet addresses two options for disposing of WTW, namely discharging to surface water or to groundwater. Additional discharge requirements for certain treatment systems can be found in the following fact sheets:

- [DWGB-3-22, "Arsenic Removal and Disposal of for Public Water Systems."](#)
- [DWGB-22-17, "Disposal of Water Treatment Backwash at Single Family and Duplex Residences."](#)
- [DWGB-22-21, "Methods to Reduce the Concentration of Radionuclides in Drinking Water and Radionuclide Waste Disposal Criteria."](#)

### Discharge of WTW to Groundwater

Whether you need a permit for WTW discharges onto or into the ground depends on the type of discharge. In general, the following applies:

#### Routine WTW Discharges

Discharges that occur at the same location or on a continuous or frequent basis such as treatment plant filter backwash, brine discharges from softeners and unlined dewatering lagoons are considered routine WTW discharges. These discharges must be registered with the New Hampshire Department of Environmental Services (NHDES) and best management practices (BMPs) must be followed.

#### Discharges Requiring pH or Chlorine Neutralization

Discharges associated with well rehabilitation or waterline work where shock chlorination is involved require a Temporary Groundwater Discharge Permit. This permit will have conditions to ensure that proper neutralization, solids settling and/or erosion control occurs.

### What are some of the BMPs that you will be required to follow?

Examples of BMPs that you must follow when you discharge to groundwater include:

- Erosion control
  - Regular inspections of where water is flowing to prevent erosion and sedimentation.

- Diversion of runoff away from sensitive areas and into areas with sufficient vegetation to filter and slow the flow.
- Minimizing sedimentation and erosion by using gradual vegetated slopes and surfaces when available.
- Use of typical erosion control methods such as filter fabric, hay bales, silt fencing, etc. for areas of bare ground or where there are no natural means of filtration and solids settling.
- Suspension of activities during storms or during high water periods.
- Settling and filtration of solids resulting from the use of mechanical equipment to clean delivery lines.
- Minimizing the amount of disturbed soil during construction, repair and maintenance activities.
- Refraining from discharging equipment wash and rinse water containing detergents and surfactants (e.g. detergents, wetting agents, emulsifiers, etc.)

### **Discharge of WTW to Surface Waters**

You will need a federal permit through the National Pollutant Discharge Elimination System (NPDES) program to discharge any WTW to a surface water. For more information about the NPDES program, please contact NHDES' Wastewater Engineering Bureau at [\(603\) 271-0671](tel:6032710671) or Hayley Franz at [hayley.g.franz@des.nh.gov](mailto:hayley.g.franz@des.nh.gov).

### **Prohibited Discharges**

The discharge of ANY wastewater containing a regulated contaminant is prohibited as detailed in the Ambient Groundwater Quality Standards under [Env-Wq 402](#). These prohibited discharges include:

- Facility discharges from open floor drains where regulated contaminants are used or stored.
- Backwash from activated carbon treatment systems for the removal of chlorinated compounds, volatile organic compounds, per- and polyfluoroalkyl substances (PFAS) or other petroleum-or solvent-related contaminants.
- Unfiltered or unsettled backwash from arsenic treatment devices.

### **For More Information**

Please contact the Drinking Water and Groundwater Bureau at [\(603\) 271-2513](tel:6032712513), by email at [GWDischarge@des.nh.gov](mailto:GWDischarge@des.nh.gov) or visit our website at [www.des.nh.gov](http://www.des.nh.gov).

Note: This fact sheet is accurate as of September 2023. Statutory or regulatory changes or the availability of additional information after this date may render this information inaccurate or incomplete.