

Agricultural Water Quality: An Overview

A. Water Quality Generally

- The federal Clean Water Act (CWA) is the principal law governing prevention and cleanup of pollution in the nation's surface waters.
- The CWA imposes multiple requirements on States and property owners to control pollution to waters and improve the quality of polluted waters.
- The CWA has two major parts: 1) financial assistance to states for municipal wastewater treatment; and 2) regulatory programs to prevent pollution of waters or require cleanup.
 - The regulatory program itself has two components—one to require permits for specific activities, one to establish standards and cleanup to maintain water quality.
- U.S. EPA is the federal agency with authority over implementation of the CWA.
- EPA may delegate a state agency as the permitting and enforcement authority in the state.
 - States must meet minimum requirements for delegation, including statutory and regulatory authority and commitments to implement and enforce.
 - In 1974, EPA delegated ANR as the CWA permitting authority for Vermont.
 - EPA retains oversight over permit issuance and may make recommendations and require conditions for federally required permits such as wastewater permits.
- In addition to enforcement by EPA or ANR, CWA § 505 authorizes any citizen to commence a civil action on his or her own behalf against any person, including federal, state, or municipal government instrumentality, who is alleged to be violating the CWA.
 - Prior to filing a citizen suit, a person must notify EPA, ANR, and the alleged violator.
 - Citizen suits may not be brought if EPA or ANR is "diligently prosecuting" the violation.

B. Clean Water Act Regulatory Requirements—Permits

- A discharge permit is required for all discharges of pollutants from a point source to a navigable water—wastewater treatment plants, industrial discharges, etc.
- A stormwater permit is required in order to disturb more than one acre land.
- Certain SIC classified industries must implement stormwater controls under a general permit called the Multi-sector General Permit.
- Certain municipalities must implement stormwater controls under a permit called the Municipal Separate Storm Sewer (MS4) Permit.
- A permit is required for Concentrated Animal Feeding Operations that have an actual discharge or are proposing an actual discharge.

C. Vermont Agricultural Water Quality Requirements

- "Animal feeding operation" (AFO) means a lot or facility where livestock or domestic fowl have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and crops, vegetation, or forage growth are not sustained in the normal growing season over any portion of the lot or facility.
 - A large AFO has 700 or more mature dairy cows;
 - A medium AFO has between 200 and 699 mature dairy cows; and
 - A small AFO has less than 200 mature dairy cows.
- Farms in Vermont do not obtain CAFO permits. CAFO permits are required for “actual discharges” to waters and Vermont law prohibits any farm from discharging to waters.
- Vermont farms instead either must obtain a state permit or comply with accepted agricultural practices (AAPs) to address water quality.
 - Large farms must obtain a Large Farm Operation (LFO) permit.
 - Medium farms must seek coverage under a Medium Farm Operation (MFO) general permit.
 - Small farms must comply with the AAPs, but currently do not need a permit.
- LFO permits, MFO permits, and the AAPs all include conditions or requirements intended to prevent agricultural runoff/discharges to state waters.
- The Agency of Agriculture, Food and Markets (AAFM) implements and enforces the LFO, MFO, and AAP programs.
- ANR enforces discharges to state waters and would implement and enforce a CWA CAFO if required for a farm in Vermont.
- ANR and AAFM have a memorandum of understanding (MOU) regarding how the agencies will respond to agricultural water quality issues and when issues will be referred to ANR for enforcement under ANR’s authority.
- AAFM also has a financial assistance program that provides farms in Vermont with financing to implement or improve water quality practices on the farm. The program is referred to as EQIP or the BMP program.
 - Much of the state financial assistance is used as cost share to draw down federal money from the U.S.D.A. Natural Resources Conservation Service (NRCS).
 - The Capital Bill includes the funding for the EQIP/BMP program.

D. Clean Water Act Regulatory Requirements—Water Quality

- The CWA establishes effluent limits for discrete discharges, and the State can adopt more stringent standards under State law.
- CWA § 303 requires all states to adopt water quality standards, which are the limits, uses, or criteria to evaluate and protect water quality from pollutants.
- CWA § 303(d) requires States to review all waters every three years to determine if the water meets the State water quality standards.
- If a water does not meet the State water quality standards, it is listed as “impaired.”
- If a water is listed as impaired, the State is required to establish a cleanup goal, known as a total maximum daily load (TMDL) plan for the pollutants that caused the impairment.
 - A TMDL is a target or goal that, when reached, should result in the cleanup of the water so that it meets the State water quality standards and is no longer impaired.
 - A TMDL is not the actions that the State must take to clean up a water.
- Actions necessary to clean up a water are included in a separate implementation plan. An implementation plan can include a suite of activities to remediate the water.

E. Lake Champlain TMDL Implementation

- Lake Champlain is impaired due to phosphorus—i.e. it does not meet the State water quality standards for use, recreation, etc. because of phosphorus pollution.
- In 2002, EPA approved a joint TMDL between Vermont and New York for the Lake.
- In 2008, CLF petitioned EPA to disapprove the Vermont portion of the Lake TMDL.
- CLF argued the TMDL was flawed, because it included insufficiently stringent wasteload allocations, lacked reasonable assurances, and lacked an adequate margin of safety.
- In 2011, EPA disapproved the Vermont portion of the Lake Champlain TMDL.
- When EPA disapproves a State TMDL, the CWA requires EPA to issue the new TMDL within 30 days of disapproval—i.e. EPA will issue the new TMDL, not ANR.
- Since 2011, EPA has been working with ANR to design the TMDL for the Lake—i.e. the target goal for bringing the Lake back into compliance.
- A target has been established. The target will be broken down according to the contributors of phosphorus to the Lake.
 - These wasteload allocations will be based on sector—development, agriculture, forestry, etc.—and will be the targets for those sectors.

- The State must develop an implementation plan—the actions to be taken to achieve the TMDL goal—see Phase I Implementation plan.
- Many of the proposed actions will or may require legislative action, including small farm certification, nutrient application, stormwater, impervious surface retrofits, and funding.
- With regard to funding, the Administration proposed an increase on the tonnage fee for fertilizer sold in the State.
- The fee would increase from \$0.25 per ton to \$50.00 per ton of fertilizer distributed in the State.
 - The fee is projected to raise \$1.2 million annually.
- According to fee bill report, 35 companies would distribute more than 5 tons per year in the State.
 - 21 companies distribute less than 5 tons per year.