

Federal and State Regulatory Water Quality Requirements

A. Water Quality Generally

- The federal Clean Water Act (CWA), 33 U.S.C. § 1251-1387, is the principal law governing prevention and cleanup of pollution in the nation's surface waters.
- The CWA imposes multiple requirements to control pollution to waters and improve the quality of polluted waters, including:
 - Prohibiting point source discharges of pollutants to surface waters without a permit—33 U.S.C. § 1342 (CWA § 402);
 - Prohibiting the dredging and filling of waters and wetlands without a permit—33 U.S.C. § 1344 (CWA § 404);
 - Requiring each State to have a continuing planning process, such as basin plans—33 U.S.C. § 1313 (CWA § 303(e));
 - Requiring states to establish water quality standards for state waters—33 U.S.C. § 1313 (CWA § 303(a));
 - Requiring states at least every three years to review whether state waters comply with the state water quality standards—33 U.S.C. § 1313 (CWA § 303(d)); and
 - Requiring states to develop cleanup plans for waters that do not comply with state water quality standards—33 U.S.C. § 1313 (CWA § 303(d)).
- Many of the CWA requirements are mandates for states to implement.
- Other CWA provisions—mainly enforcement and permitting—are the authority of U.S. EPA.
- EPA may delegate to a state agency the permitting and enforcement authority for 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.
- Under this delegation, the State of Vermont is authorized to permit and enforce the following federal permit requirements under State law:
 - Discharges of pollutants from a point source to a navigable water—wastewater treatment plants, industrial discharges, etc.
 - The construction stormwater permit for disturbance of more than 1 acre of land.
 - The multi-sector general permit for stormwater runoff from industrial sites.
 - The municipal separate storm sewer permit for stormwater control in specified towns.
 - The concentrated animal feeding operation permit for certain farms that have an actual discharge or are proposing an actual discharge.

B. Water Quality Standards, Impairments, and Cleanup Plans

- 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 water quality standards, it is listed as “impaired”—§ 303(d) list
- If a water is impaired, the State must establish a cleanup goal, called a total maximum daily load (TMDL), for the pollutant that caused the impairment—CWA § 303(d)(1)(C) & (D).
 - The TMDL must be developed at a level or threshold necessary to attain and maintain the applicable state water quality standards with seasonal variations and a margin of safety that accounts for any lack of knowledge.
 - 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 the sum of the load allocations (LA) of pollutants from nonpoint sources, the wasteload allocations of pollutants from point sources, and a margin of safety.
 - EPA must approve all TMDLs set by states. EPA maintains a comprehensive rule on the requirements for setting and maintaining a TMDL—40 C.F.R. part 130.
 - 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.
 - The suite of activities can apply to all waters that drain to the impaired water.
- Lake Memphremagog is impaired by phosphorus. EPA approved a TMDL on Sept. 28, 2017.
- The Connecticut River drains to Long Island Sound, which is impaired by nitrogen. EPA is issuing the Long Island Sound TMDL in stages. The Upper Connecticut has not been issued.

C. Lake Champlain TMDL Implementation, Disapproval, and Re-issuance

- 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.

- EPA concluded that the 2002 Lake Champlain TMDL did not:
 1. include an adequate margin of safety for all lake segments; and
 2. provide reasonable assurances that the nonpoint source pollution control measures in the TMDL would achieve the load allocations under the plan.
- The CWA and EPA rules require that a TMDL include a margin of safety to account for any lack of knowledge concerning the relationship between load and wasteload allocations and water quality (CWA §303(d)(1)(C); 40 C.F.R. §130.7(c)(1)).
- In order to approve a TMDL, EPA guidance explains that when a TMDL is developed for a water impaired by point and nonpoint sources and the LA is based on assumptions that nonpoint source load reductions will occur, the TMDL must provide “reasonable assurances” the nonpoint source measures will achieve expected load reductions.
- EPA’s determination of reasonable assurance that the TMDL’s LAs will be achieved considers whether practices capable of achieving the specified pollutant load are:
 1. technically feasible at a level required to meet allocations; and
 2. have a high likelihood of implementation.
- Adequate funding to implement the practices is a factor EPA analyzes in the accountability framework for a 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. CWA § 303(d)(2) and 40 C.F.R. § 130.7(d)(2).
- When issuing a TMDL, EPA establishes an accountability framework that guides restoration of the water.
- EPA’s authority to implement a TMDL it issues is limited to the regulatory authority under the CWA—i.e. the permitting programs for point source discharge, wastewater discharges, stormwater, and CAFOs.
- Because implementing the TMDL solely through EPA’s permitting authority would have been costly and likely not to achieve attainment, EPA and ANR negotiated a TMDL and implementation plan to achieve attainment through point source and nonpoint controls.
- The accountability framework for the Lake Champlain TMDL includes many of the actions in the Lake Champlain Phase I TMDL Implementation Plan.
 - Many of the Implementation Plan actions rely on statutory authority enacted in Act 64 of 2015—municipal roads permit, small farm certification, legacy 3 acre stormwater, etc.
- Key among the measures under EPA’s accountability framework for the Lake TMDL is establishment of a long-term revenue source to support water quality improvement via the Clean Water Fund.