Evolution of Agricultural Water Quality Regulation under Federal and Vermont Law

1948—Federal Water Pollution Control Act encouraged states to enact laws to combat water pollution, recognizing "that water pollution control was primarily the responsibility of state and local governments."

1971—Public Law 92-500 (Clean Water Act (CWA)), amended FWPCA:

- Establishes EPA administered National Pollutant Discharge Elimination System (NPDES) permits.
- Defined "point source" of pollutants to include concentrated animal feeding operations (CAFOs).
- Required states to develop water quality standards (WQS) and periodically review if waters meet WQS.
- Required states to issue a total maximum daily load (TMDLs) for waters that do not meet WQS.
- Required TMDLs to be designed to meet WQS with seasonal variations and a margin of safety.

1973—U.S. EPA Rule Pollutant Discharge Elimination: Form and Guidelines Regarding Agricultural and Silvicultural Activities. Excluded certain farm activities from NPDES permitting, in part because there were too many facilities for EPA to permit.

1974—EPA delegated to Vermont Department of Environmental Conservation authority to issue NPDES permits under a state program. EPA no longer primary permitting or permit enforcement.

1976—After litigation challenging permit exceptions in the 1973 rule, EPA is ordered to issue new CAFO rules. EPA adopted two rules: 1) State Program Elements for Participation in NPDES; CAFOs and 2) State Program Elements for Participation in NPDES; Application of Permit Program to Agricultural Activities.

- Qualifying CAFOs, including land application, were subject to permitting, but certain small CAFOs and most agricultural activities, such as orchards, were exempt.

1986/1987—AAFM defined Accepted Agricultural Practices.

1987—Congress amended CWA to exempt agricultural stormwater from the definition of a "point source."

- Did not define agricultural stormwater; creating confusion as to eligibility for the exemption.
- Second Circuit held the exemption did not apply to CAFOs, but to industrial and municipal stormwater.

1991—Vt. Act No. 261: Delegated authority over agricultural non-point source pollution from ANR to AAFM; required MOU between ANR and AAFM; authorized AAFM to adopt voluntary Accepted Agricultural Practices to reduce agricultural non-point source pollution.

1993—Lake Champlain Water Quality Agreement on Phosphorus between Vt., N.Y, and Quebec.

1995—AAFM adopted the Accepted Agricultural Practices.

1996—Vt. Act No. 163: Enacted the Large Farm Operation (LFO) permit requiring a person with more than 950 animal units of cattle to obtain a permit, required LFOs to have a nutrient management plan, and authorized AAFM to adopt LFO rules consistent with EPA NPDES rules.

- Prior to AAFM enactment of LFO rules, EPA NPDES rules for CAFOs applied to LFOs.
- Vt. Act No. 124 of 1998 required LFO rules to address odor, noise, traffic, insects, flies, and pests.

1999—ANR and AAFM entered first MOU addressing agricultural non-point source pollution.

2000—ANR listed nine segments of Lake Champlain as impaired due to phosphorus.

2002—EPA approved the Lake Champlain Phosphorus TMDL, issued by Vermont ANR and New York Department of Environmental Conservation. Vermont and Quebec sign separate agreement.

2003—EPA adopted a comprehensive rule regulating discharges from CAFOs; National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feed Operations (Feb. 12, 2003).

- Required all CAFOs to apply for a NPDES permit unless a CAFO could affirmatively demonstrate that it had no potential to discharge.
- Required CAFOs to develop and implement nutrient management plans (NMPs), but did not require EPA approval of the NMPs.
- Provided that manure, litter, or wastewater land applied according to site specific conditions qualified for the agricultural stormwater exemption from permits for point source discharges.
- Rule preamble encouraged States to maximize use of voluntary and other non-NPDES programs to support efforts by medium and small operations to implement appropriate measures and correct problems that might cause them to be defined or designated as a CAFO.
- EPA encouraged States to use the flexibility available under the rule so that their State non-NPDES programs complement the required regulatory program. Encouraged States to work with State agriculture agencies, conservation districts, USDA and stakeholders to create proactive programs to fix the problems of small and medium operations before compelling facilities to apply for NPDES permits.

2003—Vt. Act No. 149: Created Agricultural Water Quality Program at AAFM. Revised LFO permit to be consistent with new EPA CFO Rule. Created Medium Farm Operations (MFOs) and Small Farm Operations (SFOs) categories. Required MFOs to obtain a permit from AAFM .

- Act 149 included a purpose section, 6 V.S.A. § 4801, for the Agricultural Water Quality Program: all farms [must] meet certain standards in handling and disposal of animal wastes . . . and the cost of meeting these standards shall not be borne by farmers only, but rather by all members of society, who are in fact the beneficiaries . . . State and federal conservation programs to assist farmers should be directed to farms that need to improve infrastructure to prohibit direct discharges or bring existing water pollution control structures into compliance with NRCS standards.

2005—Waterkeeper Alliance, Inc. v. EPA (2d Cir.): Second Circuit held that the EPA cannot require CAFOs to apply for a permit based on a "potential to discharge." (Feb. 28, 2005).

- EPA has jurisdiction to regulate and control only actual discharges—not potential discharges, and certainly not point sources themselves.
- Land application of manure qualifies for the agricultural stormwater exemption when applied according to site specific nutrient management practices that ensure appropriate utilization.

2005—Vt. Act No. 78. Directed AAFM and ANR to develop an MOU regarding the implementation of the federal CAFO program and the relationship between the federal program and the state agricultural water quality requirements for large, medium, and small farms. (June 24, 2005).

2006—AAFM updates AAPs.

2007—ANR and AAFM enter MOU on implementation of CWA CAFO program and relationship between the federal requirements and State agricultural water quality requirements. Superseded 1999 MOU.

2008—In response to Second Circuit *Waterkeeper* decision, EPA revises CAFO NPDES rule:

- Required a CAFO that discharges or proposes to discharge to apply for an NPDES permit.
- Required permitting authorities to review CAFO NMPs and provide them for public review.
- Required permitting authorities to incorporate terms of NMPs as NPDES permit conditions.

2008—CLF sues EPA in federal court seeking set aside of Champlain TMDL and issuance of new TMDL

2010—CLF petitioned EPA Region 1 asserting that the Vermont portion of the 2002 TMDL for Lake Champlain did not meet the minimum requirements for TMDL approval.

- The petition only related to Vermont, not New York. Vt. and N.Y are in different EPA regions.

2011—EPA Region 1 disapproved the Vermont portion of the Lake Champlain TMDL. (Jan. 24, 2011)

- EPA concluded the TMDL did not provide an adequate margin of safety and did not provide reasonable assurances that the load reductions would be reached.
    - The level of margin of safety was insufficient and inconsistent with EPA rules and <u>the TMDL provides no reasonable assurance that nonpoint source control actions will occur</u>.
- Under CWA, when EPA disapproves a TMDL, EPA is required to issue the new TMDL within 30 days, and the new loads are to be incorporated into the State implementation plan.
- EPA only has limited NPDES permitting authority and residual designation authority.

2011—National Pork Producers Council v. EPA (5th Cir.) Under CWA's plain language, EPA does not have authority to regulate CAFOs that "propose to discharge." (Mar. 15, 2011). EPA lacks jurisdiction over CAFOs unless permit agency shows actual discharge to waters.

2015—Vt. Act No. 64, Vermont Clean Water Act (June 16, 2015). Officially, the purpose of Act 64 was to provide mechanisms, staffing, and financing necessary for State waters to achieve and maintain compliance with WQS. Unofficially, the purpose was to demonstrate to EPA non-point source pollution control sufficient to achieve the Lake Champlain TMDL without use of EPA permitting.

- Renamed the Accepted Agricultural Practices as the Required Agricultural Practices (RAPs) and required new water quality measures under the RAPs.
- Required small farms to certify compliance with RAPs by 7/1/18.
- Required water quality training for operators of LFOs, MFOs, and SFOs.
- Required AAFM to train and certify custom applicators of manure or nutrients.
- Amended AAFM's water quality enforcement authority to be more consistent with ANR authority.
- Established a Clean Water Fund to assist the State in complying with water quality requirements.
- Established a surcharge of 0.2% on the property transfer tax for deposit in the Clean Water Fund.
- Established or increased AAFM fees to pay for new staff needed to implement Act 64.
- Directed AAFM and ANR to develop performance measures for MOU implementation.

2016—EPA issued new Phosphorus TMDL for Lake Champlain and approves Vermont State-Developed Lake Champlain Phosphorus TMDL Phase 1 Implementation Plan.

- TMDL included a list of actions that Vermont needed to complete.
- TMDL also included an Accountability Framework—actions EPA would grade.
- Noted the State needed long-term revenue sources to support water quality improvement via the Clean Water Fund, as described in the TMDLs' Accountability Framework.
    - Projected 20-year costs: $2,312,741,300. Projected 20-year funds at the time: $1,048,490,882.

2016—AAFM updated RAPs by rule in response to Act 64.

2017—ANR and AAFM updated the MOU on agricultural non-point source pollution. MOU now entitled MOU regarding enforcement of agricultural water quality programs.

2018—Implementing the Accountability Framework for Lake Champlain TMDL, EPA issued a final report card in early 2018 assessing Vermont's success in meeting the TMDL Accountability Framework.

- EPA "is pleased with the overall magnitude and quality of Vermont's accomplishments since passage of Act 64." Vermont successfully completed 25 of 28 TMDL milestones.
- Nevertheless, "EPA is giving Vermont a provisional pass." The provisional pass is contingent on EPA's review of Vermont's progress on three remaining Phase 1 milestones by mid-2019.
- The third remaining task was establishment of long-term revenue for TMDL implementation. EPA did not specify the revenue amount required, but noted that not all costs will be borne by the State.

2018—AAFM updated RAPs in response to Act 64 and Act No. 105 of 2016.

2019—Vt. Act No. 76. Dedicated six percent of rooms and meals tax revenue to Clean Water Fund.

- Established the Clean Water Service Provider model of implementing and administering non-regulatory clean water projects.
- Projects are administered by an ANR-designated Clean Water Service Provider for each watershed.
- Agriculture is listed as an activity eligible to be a clean water project, but only for activities not subject to regulation by AAFM or ANR or that exceed AAFM or ANR permit requirements.

2020—EPA letter to ANR and AAFM indicating satisfactory completion by Vermont of all 28 milestones and deliverables in the Lake Champlain TMDL accountability framework.

2020—Vermont Clean Water Initiative 2020 Performance Report: Lake Champlain TMDL Progress Report

- 97% of phosphorus load reductions between 2016 and 2020 associated with agricultural projects.
- Report attributed the load reductions from agricultural project to three reasons:
    - Agricultural conservation practices are highly cost-effective in treatment of phosphorus;
    - Substantial federal funds leveraged through the USDA-NRCS layer on top of state funds; and
    - Existing methods to estimate agricultural load reductions, which other land use sectors lack.
- 96% of agricultural reductions in 2020 were associated with annual practices with one-year lifespan. If level of effort is not maintained, load reductions will not carry through to future years.