



# Water Policy Issues in Vermont

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*Lake Champlain Committee*

Before the House Committee on Environment

January 6, 2026

# Water Quality and Water Quantity Are Interrelated

## Water Quality Issues –

- Nutrient pollution from runoff from impervious surfaces, natural resources (forests and stream erosion) and agriculture
- Impacts on aquatic biota and drinking water sources, both ground water and surface water, such as from excessive salt use or concentration of pollutants.

## Water Quantity Issues –

- Flood years and drought years
- Impacts on drinking water supplies, agriculture, commercial use and the environment, such as habitat
- Flooding and drought impacts on water quality

# Water Quality and the Value of Clean Water: Vermont's economy relies heavily on tourism and people come here to enjoy the outdoors, including clean lakes and rivers.

According to the Vermont Treasurer's 2017 Clean Water Report, over \$2.5 billion is spent annually by visitors and vacation homeowners, much of that linked to our lakes and rivers. Per a UVM study, visitor spending contributed \$318 million in tax and fee revenues in 2013 and supported an estimated 30,000 Vermont jobs.

According to U.S. Bureau of Economic Analysis, in 2023, the economic value added in Vermont was:

- \$82.2 million for RVing.
- \$70.1 million in boating / fishing, and
- \$31.1 million in climbing / hiking / tent camping

“The \$300 million estimated annual tourist expenditures in Vermont's four main lakeside counties generate an additional \$72.75 million in spending and nearly 1,070 jobs.”

*Brian Voigt et al, An Assessment of the Economic Value of Clean Water in Lake Champlain, University of Vermont, Gund Institute for Ecological Economics, for the Lake Champlain Basin Program (Sept 2015).*



Photo by Eileen Fitzgerald © Lake Champlain Committee

# Phosphorus runoff feeds Cyanobacteria blooms in Lake Champlain and other Vermont lakes and ponds.



*Lake Champlain*

*Credit: Dawn Coster*



*Mirror Lake, Calais*

*Credit: Elaine McDevitt*



**Over the last decade, the Vermont Legislature has enacted statutes to address water quality and quantity, some of which include:**

Act 172 (2014), the Vermont Shoreland Protection Act

Act 64 (2015), the Vermont Clean Water Act

Act 76 (2019), the Clean Water Service Provider Act

Act 135 (2022), the Surface Water Withdrawal Act

Act 121 (2024), the Flood Safety Act

Act 67 (2025), the Concentrated Animal Feeding Operation Water  
Quality Permit Act (or Misc. Agric. Subjects Act)

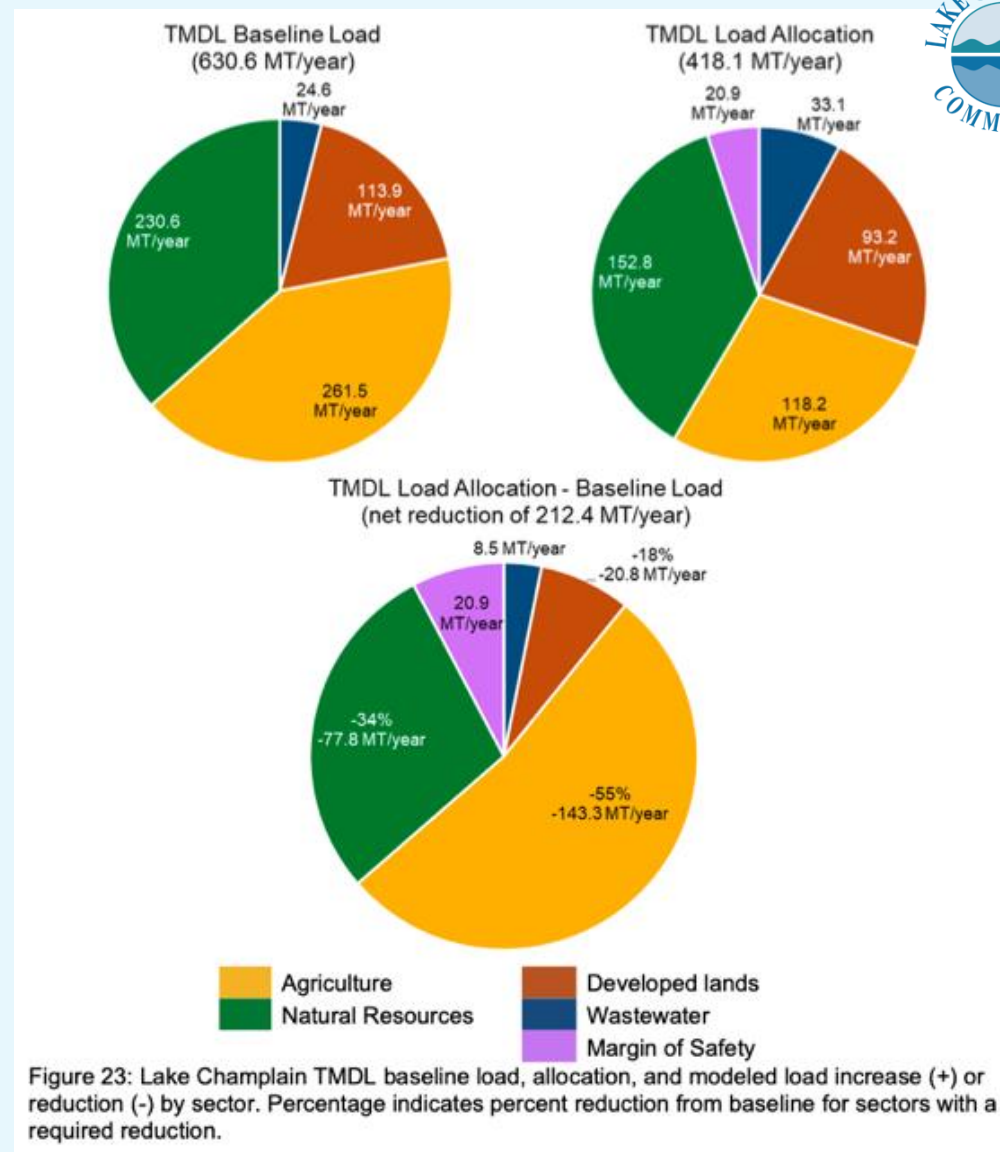
*Committee oversight is needed to determine the effectiveness of  
clean water statutes and programs, making changes if needed.*

# TMDL: Phosphorus Reduction Requirements in the Lake Champlain Basin

In the 2016 Lake Champlain Total Maximum Daily Load (TMDL), the U.S. Environmental Protection Agency requires the following reductions by 2036. Any change to this formula likely requires EPA approval.

- Agriculture reduction of 261 MT/yr to 118 MT/yr (load of 41% to 28%)
- Stream Bank Erosion 130 MT/yr to 71 MT/yr. (load of 21% to 17%)
- Developed Lands increases from 18% to 22%, but still a reduction from 114 MT/yr to 93 MT/yr.

*From Phosphorus TMDLs for Vermont Segments of Lake Champlain, U.S. Environmental Protection Agency (June 17, 2016) pg. 48.*



But at the midway point to the 2036 goal, phosphorus reduction starts to plateau, warranting a discussion on the effectiveness of each program.

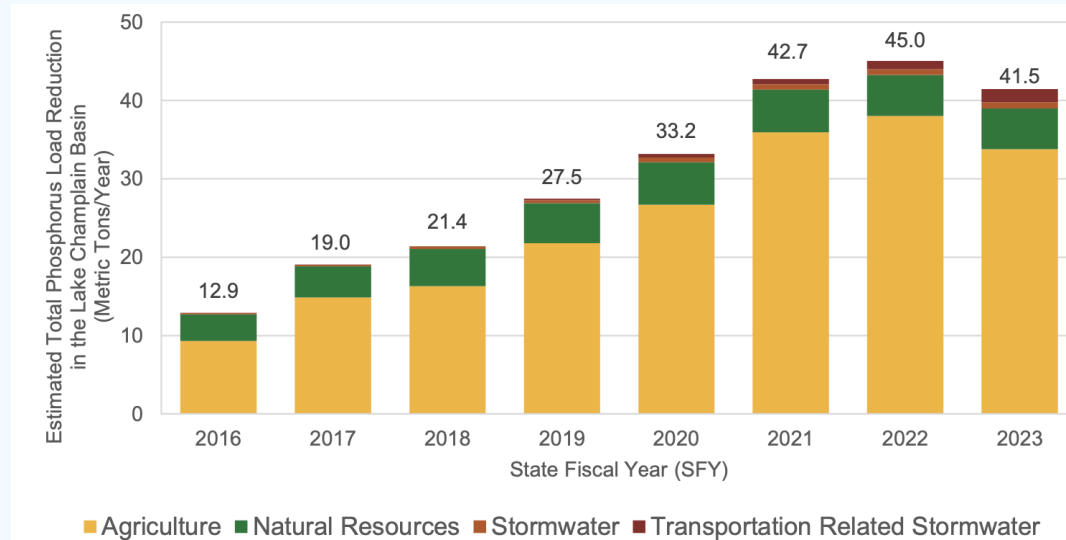


Figure 24: Annual estimated total phosphorus load reductions (metric tons per year) associated with projects implemented through state and federal funding and regulatory programs in the Lake Champlain basin in effect during SFY 2016–2023 by land use sector.<sup>47</sup>

From Vermont Clean Water Initiative 2024 Performance Report pg. 60.

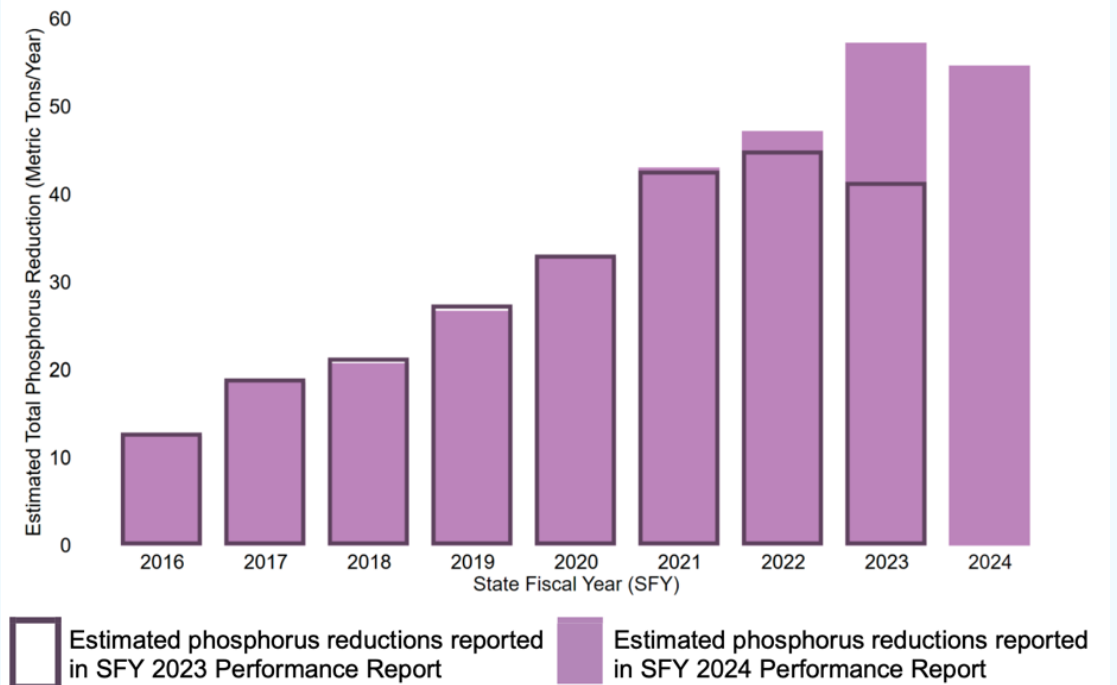


Figure 26: Estimated annual phosphorus reduction data in the Lake Champlain basin reported in SFY 2023 compared to SFY 2024.

From Vermont Clean Water Initiative 2024 Performance Report pg. 61.

# Act 64: Implementation of Water Quality Programs by Sector

- Agriculture is starting to plateau with the Required Agricultural Practices in place since 2018.
- Stormwater rules are in effect, but many deadlines are not until 2036
- Natural Resources implementation is lagging, with most programs still being implemented. Some of these have a strong flood resiliency component.

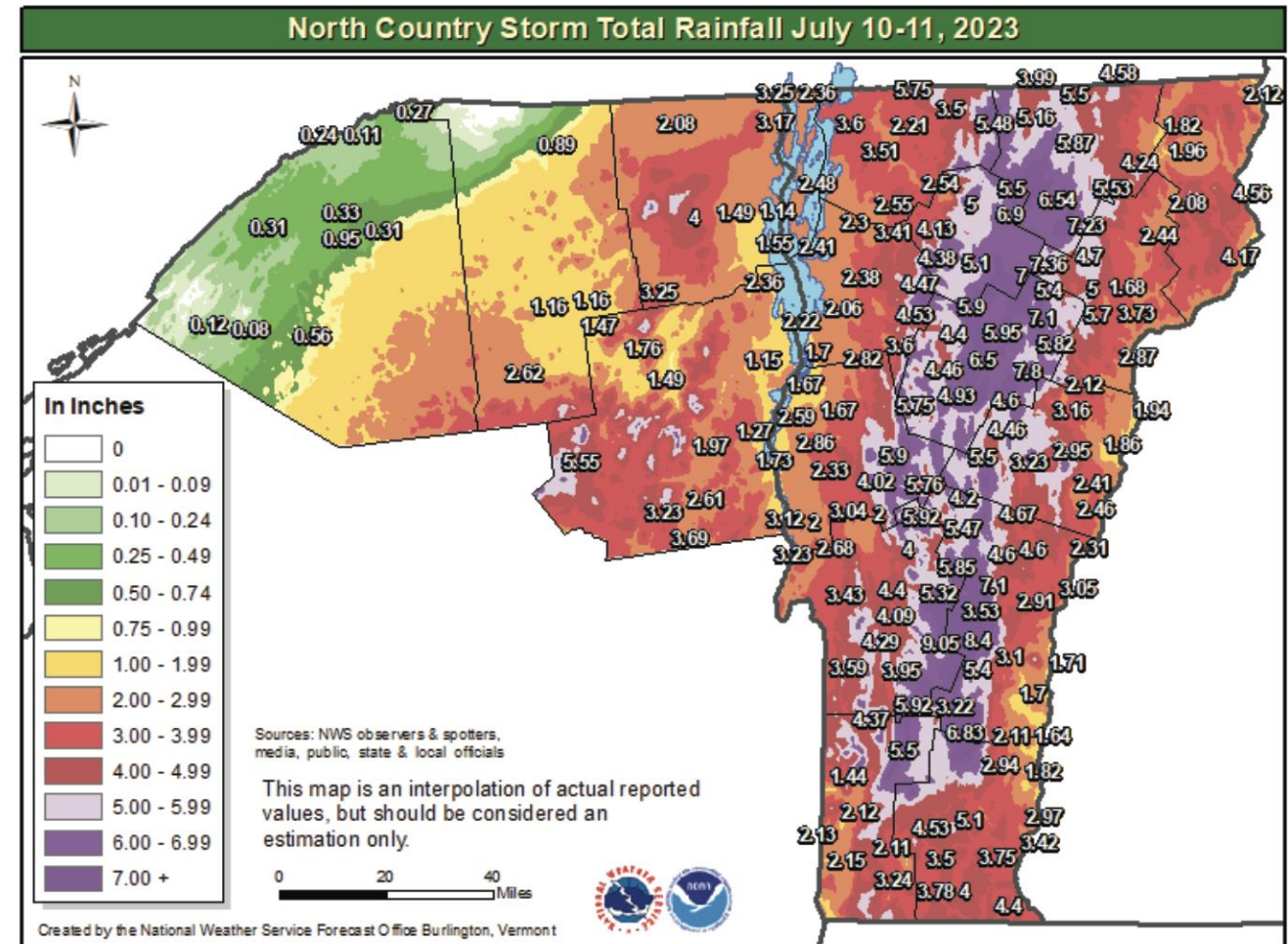
Table 4: Status of phosphorus accounting by project or practice type.

| Sector                            | Project or Practice Type                       | Status of Phosphorus Accounting          |
|-----------------------------------|------------------------------------------------|------------------------------------------|
| Agriculture                       | Conservation crop rotation                     | Implemented                              |
|                                   | No-till and reduced till                       | Implemented                              |
|                                   | Cover crop                                     | Implemented                              |
|                                   | Crop to hay planting                           | Implemented                              |
|                                   | Manure injection                               | Implemented                              |
|                                   | Manure incorporation                           | Implemented                              |
|                                   | Grazing management                             | Implemented                              |
|                                   | Agricultural riparian buffer                   | Implemented                              |
|                                   | Grassed waterways and filter strips            | Implemented                              |
|                                   | Livestock exclusion                            | Implemented                              |
|                                   | Production area compliance                     | Implemented (regulatory only)            |
|                                   | Nutrient management                            | Implemented                              |
|                                   | Easements with water quality protections       | Not yet established                      |
|                                   | Gully erosion in agricultural settings         | Not yet established, in progress         |
| Stormwater                        | Structural stormwater treatment                | Implemented                              |
|                                   | Non-structural stormwater treatment            | Implemented (regulatory only)            |
|                                   | Outlet and gully stabilization                 | Implemented                              |
|                                   | Tree canopy expansion                          | Implemented                              |
|                                   | Native revegetation ('no-mow zones')           | Implemented                              |
| Transportation Related Stormwater | Public road erosion remediation (MRGP and TS4) | Implemented                              |
|                                   | Private road erosion remediation               | Not yet fully implemented, in progress   |
| Natural Resources                 | Forested riparian buffer                       | Implemented                              |
|                                   | Bioengineered lakeshore stabilization          | Implemented                              |
|                                   | Forest road & trail erosion remediation        | Not yet fully implemented, in progress   |
|                                   | Use Value Appraisal program enrollment         | Implemented                              |
|                                   | Floodplain and stream restoration              | Not yet fully implemented, in progress   |
|                                   | River corridor easements                       | Not yet fully implemented, in progress   |
|                                   | Wetland restoration                            | Not yet fully implemented, in progress   |
|                                   | Wetland easements                              | Not yet fully implemented, in progress   |
| Wastewater                        | Land conservation easements                    | Not yet established                      |
|                                   | Wastewater treatment facility (WWTF) upgrades  | Measured discharges from permitted WWTFs |
|                                   | Private wastewater system upgrades             | Not yet established                      |
|                                   | Combined sewer overflow (CSO) abatement        | Not yet established                      |

From Vermont Clean Water Initiative 2024 Performance Report pg. 18

# Water Quantity: Fluctuations in Precipitation

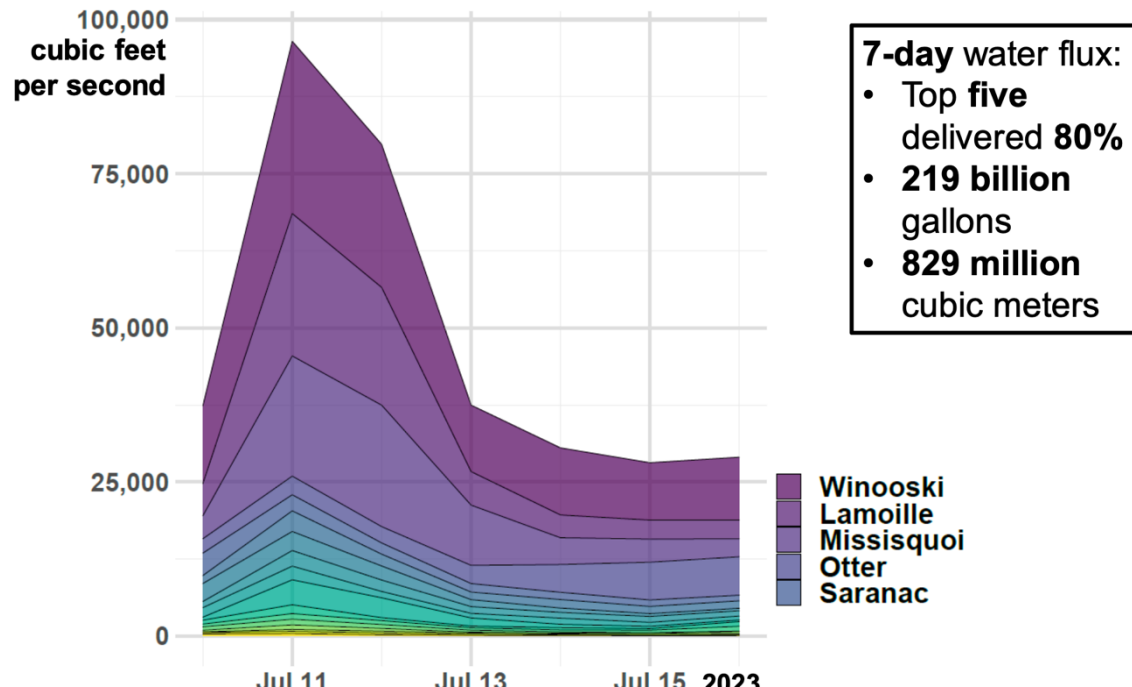
Wide changes in annual precipitation are leading to their own impacts on communities and water quality. Floods cause wide damage to property and wash nutrients into surface waters, while droughts impact drinking water supplies, agriculture and commercial businesses.



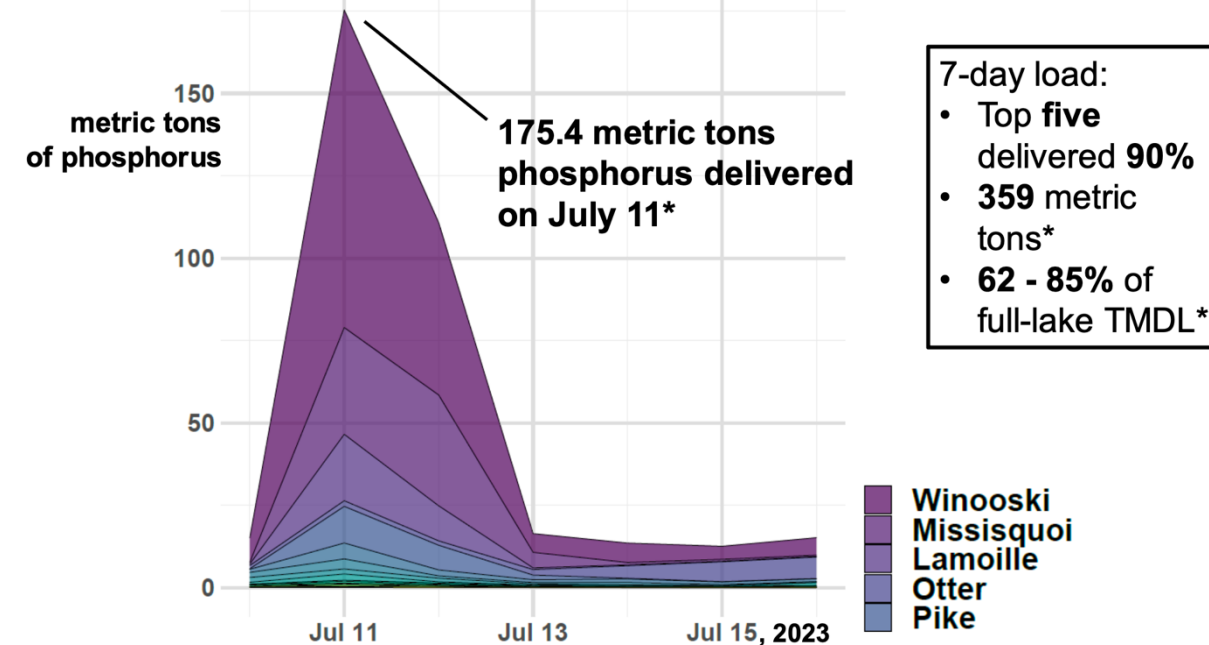
**Figure 3.** Map from the National Oceanic and Atmospheric Administration webpage showing the 48-hour rainfall totals (in inches) from July 10–11, when most of the rainfall occurred, in Vermont and northern New York; from Banacos (2023).

# Increased water quantity results in increased nutrient discharge and impacts to water quality

**Daily average flow from each tributary**



**Daily phosphorus load from each tributary to Lake Champlain**

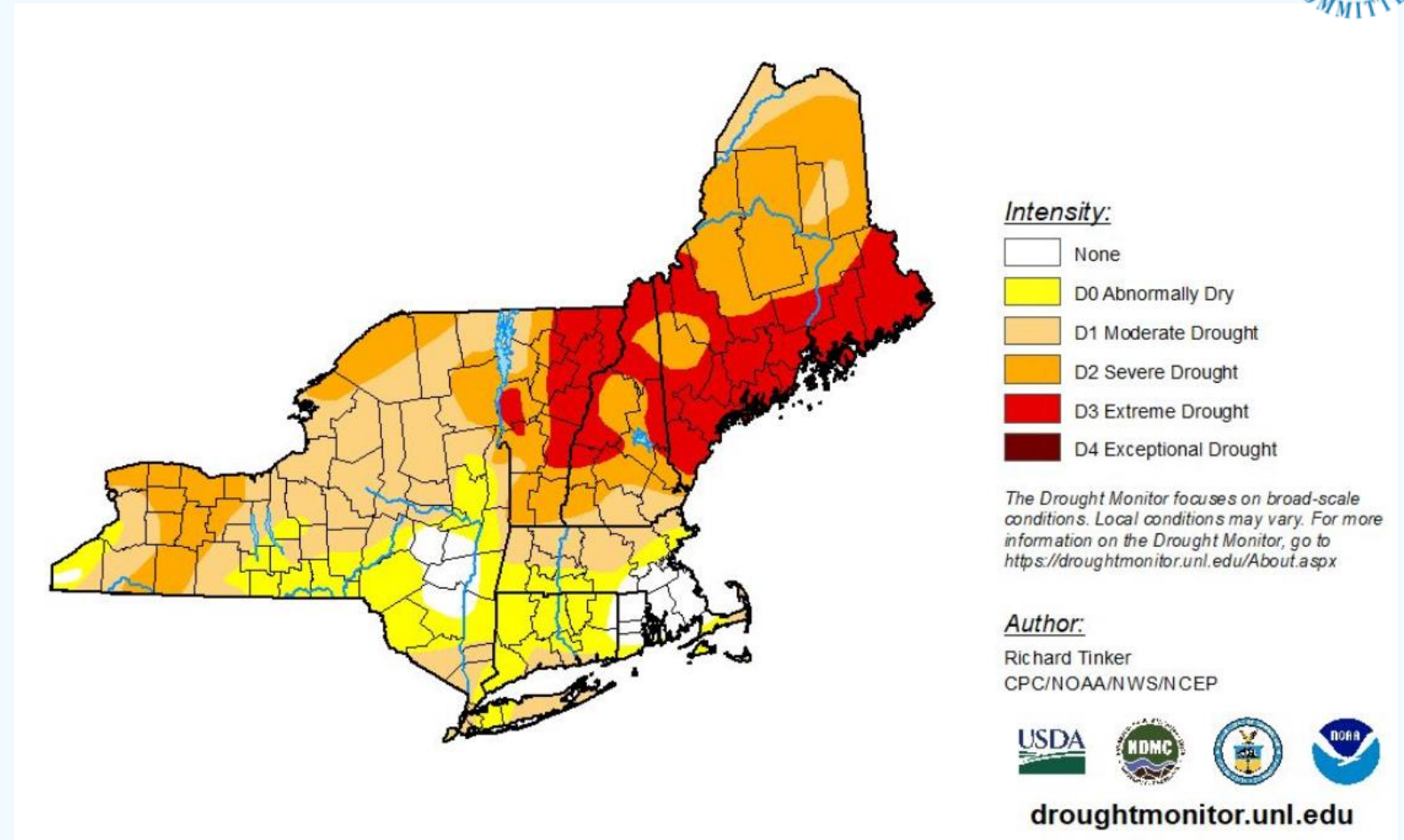


*Vaughn, Matthew, July 2023 storm: preliminary analysis, LCBP VT CAC (November 13, 2023).*

# Impacts of 2025 Drought

After two years of flooding, Vermont experienced excessive drought in 2025, contributing to impacts on:

- Drinking water sources
- Agriculture
- Commercial water withdrawals
- Habitat and water quality





# Update and diversify current programs that reduce pollution runoff to include a primary co-benefit of flood resilience.

Vermont Resilience Implementation Strategy

September 17, 2025

Prepared by:  
Vermont Agency of Natural Resources  
Vermont State Treasurer's Office

**Priority Action Item 15:** Integrate resilience objectives into the planning, funding, and implementation of water quality projects to deliver co-benefits such as flood safety, habitat connectivity, and climate adaptation.

15B: Leverage existing funding to prioritize water quality projects that deliver climate resilience co-benefits. Acknowledging current measurement challenges, this effort will focus on creating practical, effective metrics that integrate co-benefits, such as flood resilience and biodiversity impacts, into project selection and scoring.

15D: Revise the project selection and scoring criteria for Vermont's clean water funding programs to explicitly prioritize prevention-focused projects, such as conserving intact wetlands, floodplains, and river corridors, that build climate resilience.

# The Chloride Reduction Bill is in Senate Natural Resources & Energy Committee

1. Establishes best management practices for salt application,
2. Sets **voluntary** certification programs for commercial and municipal applicators,
3. Study on salt storage facilities in proximity to waters and costs to cover, and
4. Provides liability protection for applicators that complete and follow the certification program



**S.124 passed last year requiring ANR and AAFM to establish CAFO permitting.**

**None of the deadlines have been met so far ....**

Sept 1, 2025, new Memorandum of Understanding between AAFM and ANR to be released for a public comment period.

Dec 15, 2025, ANR was required to issue a CAFO general permit and Notice of Intent.

Future Deadlines include:

- Feb 15, 2026, stakeholder group suggestions due
- July 1, 2026, ANR issue CAFO application and individual CAFO permit