



## **Statement from the Vermont DEC Lakes and Ponds Program after the July 2023 Floods**

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Dear Vermont Lakes Community,

Greetings from the DEC Lakes and Ponds Program. It has been about a week since catastrophic flooding began to devastate many of our communities, homes, roads, businesses, waterways, and lakeshores. We've had four distinct unusually large rain events, starting on July 7 and continuing thorough yesterday July 16, with the big one of course being on Monday, July 10, that have all played their part in damaging infrastructure and property with flooding and landslides, increasing flow and water levels in our waterways, creating health risks, and damaging water quality throughout our state. These storms, as yet unnamed, are another unfortunate example of how climate change negatively impacts our society and environment. For me, the easiest connection is recognizing that higher temperatures lead to warmer air that can hold more water vapor, which in turn leads to larger precipitation events and flooding, which seems to be what led to up to nine inches of rain in some parts of Vermont. And so just 12 years after Tropical Storm Irene and less than four years after the 2019 Halloween storm, both deemed as events of historic proportion, we just had another catastrophic event, that even eclipsed Irene in terms of discharge amounts in some rivers. This "July 2023" storm feels tragic in so many ways, and there are plenty of immediate short-term needs to meet as we move from emergency response into damage assessment, and then there are of course medium to long term impacts to people's lives and to our beloved water bodies in this state that we will be wrestling with for months and years to come. As many have said, the only real silver lining is how Vermonters across the state have come together to help each other out, and in the long-run, I hope this event contributes to the spirit of resiliency that is so common here. To all who have suffered damage to their property, residence, or businesses, you have my most sincere apologies, and I hope the State and Federal Response to this disaster will help you get back on your feet.

The Lakes and Ponds Program is part of the Watershed Management Division of Vermont DEC, and the Division's top priorities have been working to get municipal wastewater treatment facilities back online and to assess (primarily) public infrastructure and property damage created by swollen rivers, streams, and lakes, including dam safety assessments, an effort that is still ongoing and will be for some time. In the Lakes and Ponds Program, we are getting reports of very high-water levels in many lakes and ponds across the state and related property damage, including Peacham Pond, Joe's Pond, Lake Dunmore, Shadow Lake (Glover), Lake Elmore, Woodbury Lake, Valley Lake, Sabin Pond, and various reservoirs. I am sure there are many others, and this is not an exhaustive list. It is always useful to hear from people about what is going on after the storm at individual lakes, so don't hesitate to reach out and share information and photos.

The DEC Lakes and Ponds Program was impacted by the flood in a relatively small way: our storage facility near the banks of the Winooski in Montpelier was completely flooded and the large garage bay doors opened due to an electrical problem, leading to the dispersal of 4 motorboats, canoes, kayaks, and tons of other gear into a flooded field adjacent to the building. Fortunately, some knotweed prevented most items from being lost into the Winooski River, and we spent the day Wednesday

salvaging and decontaminating boats and field equipment. Fortunately, we didn't lose much equipment (go knotweed!) and have been able to clean and relocate most of our boats and equipment to higher ground. The building is significantly damaged, and all surfaces are covered in at least an inch of mud, and hopefully this latest storm will be the impetus our senior leadership needs to help us locate a storage facility that is not in a floodplain!

Here are a few specific thoughts to share now that we are hopefully moving from emergency response to damage assessment and recovery:

- **Contact Recreation:** Before you swim or boat in our lakes, consider that they act as sinks in our landscapes and are a repository for whatever flows in from upstream. In addition to high water levels and fast currents, some of our lakes and ponds are on the receiving end of floodwaters carrying debris, contaminants, and pathogens from flooded or failed wastewater facilities and residential septic systems. You will see that turbidity is increased in lake water with a commensurate decrease in clarity, and this condition is likely to persist until there is a period of 2-3 days without precipitation or high winds that allows all the sediment to settle out on the lake bottoms. I encourage folks to only resume swimming and small watercraft boating (paddle boards) when the lakes look similar to pre-storm conditions and/or when the municipality has been able to test for E-Coli and obtained negative test results. Hopefully there will be less precipitation this week and our lakes and ponds will be swimmable again by the weekend. More info on VDH's program to test water samples for bacteria can be found [here](#). Please also watch out for debris and fast-moving currents due to the high water levels.
- **Property Damage:** If you have experienced property damage related to the flood, see the websites below for information about how to seek assistance (I also found [this article](#) helpful). Six counties (Chittenden, Lamoille, Rutland, Washington, Windham and Windsor) have been approved for FEMA individual Assistance and other counties may follow as state and federal officials do more assessment. As always, our Lakes and Ponds Program Regulatory Team is standing by to provide assistance with any permitting needed to support the recovery effort, and the Governor's Emergency Declarations of [July 9](#) and [July 13](#) provide useful information about the emergency response, disaster assessment, and regulatory relief for infrastructure rebuilds. Don't hesitate to reach out to the DEC if you have questions and our website has tons of storm / flood related contact information.
- **Water Quality:** One aspect of this storm is that it will be a major setback for our joint water quality improvement efforts. Large amounts of nutrients, sediments, pathogens, and even contaminants like chemicals and fuel have ended up in our waterways from stormwater runoff and untreated wastewater carried by these floods. The impact of all this disturbance will be increased turbidity, decreased clarity, higher nutrient concentrations, and reductions in dissolved oxygen. While the flood waters may reduce cyanobacteria blooms in the short term due to flood-related disturbance that impedes bloom formation, we are now at risk of increased blooms for the next several weeks, if not the rest of the summer from the heightened nutrient load. Other possible impacts are fish kills from reduced dissolved oxygen and contaminants, increased shoreline erosion from high water levels and wave action, and this general suite of stressors creating challenging conditions for other flora and fauna.

The storm only increases the importance of our shared efforts to improve the management of our shorelines, reduce nutrient loading to our lakes, improve aquatic habitat, prevent the spread of AIS, manage recreational use in a safe and representative manner, and all the other many actions we are taking to improve water quality. I encourage you to resume these efforts as soon as it is safe to do so and we will do the same.

- **Motorized Boating:** As water levels are very high, waves from motorized vessels will impact parts of the shoreline that are likely more susceptible to erosion and therefore please operate your boats at very low speeds until water levels recede to regular levels.
- **A reminder of all of our flood resources:**
  - ANR Flood resource: <https://anr.vermont.gov/flood>
  - State of Vermont Flood Resources: <https://www.vermont.gov/>
  - Volunteer: Register at [Vermont.gov/volunteer](https://Vermont.gov/volunteer) and you will be contacted as volunteer opportunities are coordinated through the State of Vermont.
  - VT Language Justice Project: The following resource for non-English speakers to access flood safety information. ASL videos coming soon. <https://youtube.com/playlist?list=PL0uaGz81U--7XiSGftCBdoSMS29hPv3il>
  - Roads: For a list of state road closures visit <https://newengland511.org/>.
  - Forecasts: Vermonters can track river forecasts and levels at <https://water.weather.gov/ahps2/index.php?wfo=btv>.
  - Alerts: Residents are encouraged to register for a Vermont Alert account at [www.vtalert.gov](http://www.vtalert.gov) to receive up to the minute safety warnings.
  - For general help, resources, or support - call 211, text your zip code to 211, or visit [VT 211's website](https://www.vt211.org/).

I hope this information is useful, and as always, feel free to reach out if you have any questions or comments. All the best in recovering from this storm, and I hope to see you out on our lakes this summer.

Regards,  
Oliver



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