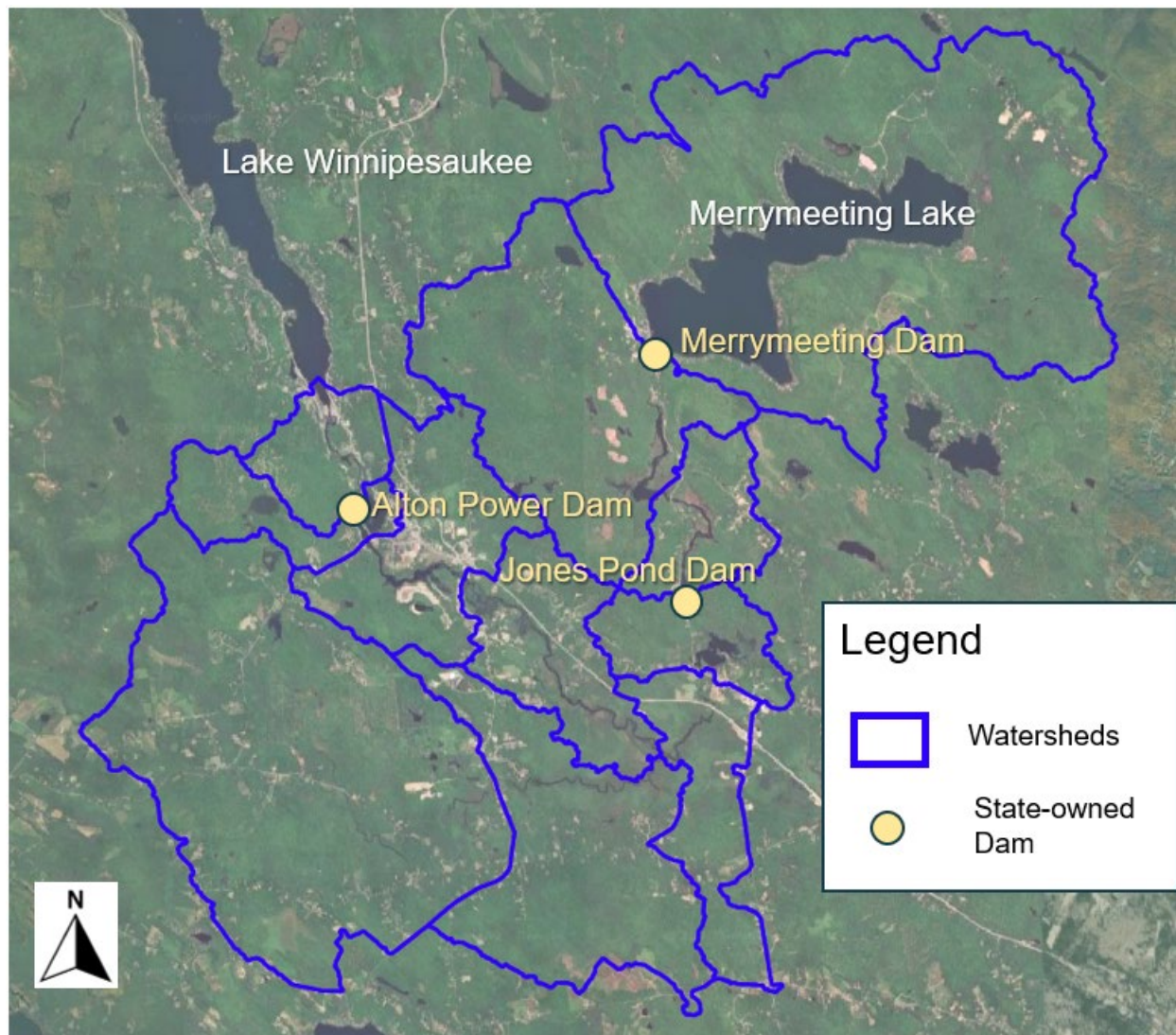


Merrymeeting River Dams – Project Update
New Hampshire Department of Environmental Services
Dam Bureau

Public informational meeting to discuss the three state-owned dams on the Merrymeeting River on December 3, 2025 at 5:00pm at the Community Room located at 6 Main St., New Durham NH 03855.



Merrymeeting Lake Dam



Merrymeeting Lake Dam is a high hazard, earthen embankment dam with a concrete spillway, located in New Durham at the outlet of Merrymeeting Lake. Originally constructed in 1924, it was reconstructed in 1969 and again in 1983. The dam is 285 feet long and 22 feet high, and it is owned by the New Hampshire Fish and Game Department and operated in coordination with the NHDES Dam Bureau. Its primary purpose is recreational water management.

The dam is currently rated in poor condition. It does not meet the required spillway capacity for a 1,000-year design storm, with modeling showing overtopping of approximately 0.6 feet during the design storm. The spillway is founded on fill, and the low-level outlet pipe is over 100-years old. These deficiencies, combined with the dam's high hazard classification, necessitate corrective action.

Two dam rehabilitation alternatives were evaluated. Alternative M1 involves installing overtopping protection using roller-compacted concrete (RCC) or articulated concrete blocks (ACBs), rebuilding the spillway on natural ground, and installing a 4-foot crest gate. This option is estimated to cost \$5.8 million. Alternative M2 proposes widening the spillway to 50 feet and installing an 8-foot crest gate, with an estimated cost of \$6.79 million.

Due to property boundary and long-term maintenance issues with Alternative M1, the chosen alternative is Alternative M2.

Either Alternative M1 and M2 will likely increase in costs as design progresses and will require lowering Merrymeeting Lake approximately 20 feet for an estimated 18 months. Lowering the waterbody and rehabilitation work would likely not begin until sometime after 2029.

Jones Pond Dam



Jones Pond Dam is a high hazard, concrete gravity dam located in New Durham. Constructed in 1924 and reconstructed in 1986, the dam is 210 feet long and 21 feet high. It is owned by the New Hampshire Fish and Game Department and operated in coordination with the NHDES Dam Bureau. The dam was originally built for hydroelectric power generation and now serves recreational purposes.

The dam is in poor condition and fails to meet safety standards in all three critical areas: hydraulic capacity, slope stability, and gravity stability. During the 1,000-year design storm, the dam overtops by 1.3 feet at the dike along Merrymeeting Road. Both upstream and

downstream embankments fail slope stability criteria, and the concrete spillway section does not meet gravity stability requirements.

Three alternatives were considered. Alternative J1 involves lowering the spillway by 3.5 feet (water surface by 5.5 feet) and includes embankment modifications and stream restoration, with an estimated cost of \$2.25 million. Alternative J2 proposes a 3-foot spillway lowering with a 5-foot crest gate, costing \$5.81 million. Alternative J3 would be full dam removal and would restore natural river flow and eliminate future maintenance needs. Depending on the level of restoration required, costs for Alternative J3 would range from \$1.28 million (passive restoration) to \$9.81 million (full active restoration).

The selected path forward is Alternative J3 with a mix of passive and active restoration with a likely cost between \$2 million and \$2.3 million contingent on clean sediment analysis. Final sediment analysis is anticipated in 2026.

Alton Power Dam



Alton Power Dam is a high hazard, concrete gravity dam located in Alton, New Hampshire. Built in 1923 and rehabilitated in 1979, the dam is 190 feet long and 16 feet high. It is owned by the New Hampshire Fish and Game Department and operated in coordination with the NHDES Dam Bureau. Like the other dams in the watershed, it was originally constructed for hydroelectric purposes and now supports recreational use.

The dam is in poor condition and does not meet the hydraulic or structural safety requirements for high hazard dams. It overtops by 1.8 feet during the 1,000-year storm event and fails gravity stability analysis.

Three alternatives were evaluated. Alternative A1 involves lowering the spillway by 0.5 feet and removing stoplogs (reducing pond surface by 3.0 feet), with an estimated cost of \$2.28 million. Alternative A2 includes a 3-foot crest gate and costs \$6.1 million. Alternative A3 would be full dam removal and would restore natural flow and eliminate long-term maintenance. Depending on the level of restoration, costs range from \$990,000 (passive restoration) to \$18.53 million (full active restoration).

The selected path forward is Alternative J3 with a mix of passive and active restoration with a likely cost between \$4.7 million and \$5.5 million contingent on clean sediment analysis. Final sediment analysis is anticipated in 2026.