H.652: Prohibits the discharge of leachate from a landfill into the watershed of Lake Memphremagog whether the leachate has been treated or not.

- **Title 10, Chap. 56, Section 1673** provides the legislative authority to protect public water sources.

- **North flowing Lake Memphremagog is the drinking water reservoir** for over 175,000 Quebec citizens. Ingestion of PFAS contaminated water and food are the primary sources of PFAS exposure in people.

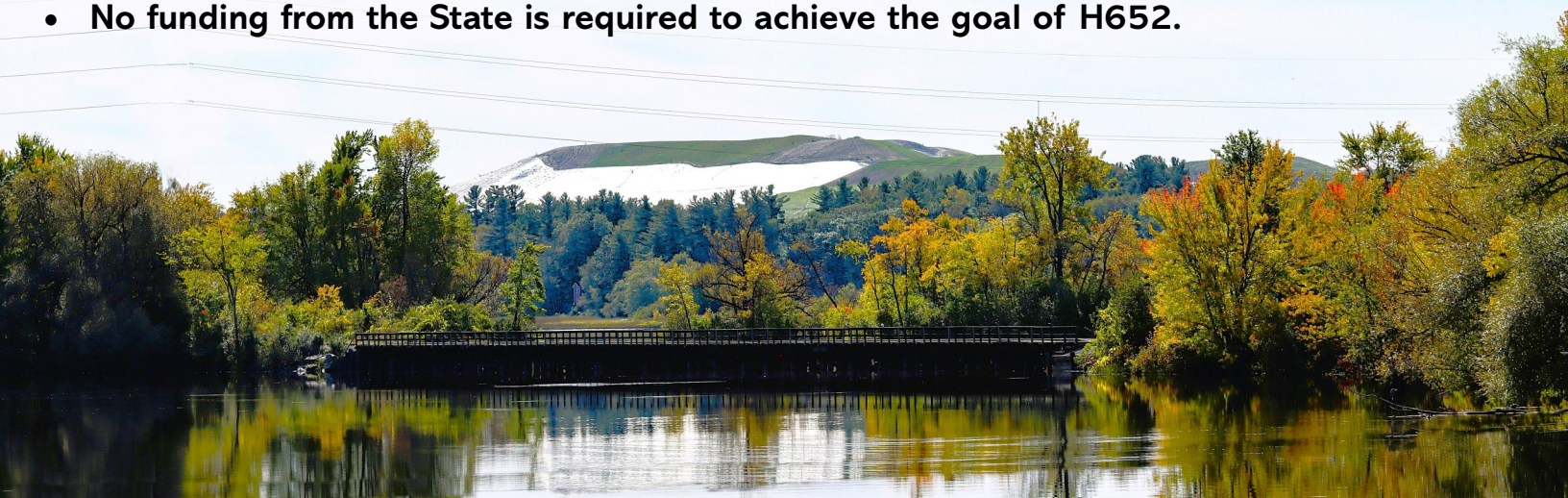
- **Harmful Health Effects:** Landfill leachate, even after current "treatment" contains thousands of PFAS chemicals with no safe level of exposure. Dangerous PFAS contaminants accumulate and persist for many years in the bodies of people and animals exposed to them. PFAS are proven to cause many negative health effects, including cancers, obesity, high blood pressure, fertility, and developmental and behavioral effects in children.

- **Environmental Protection:** Landfills worldwide are among the top four industrial environmental polluters. Vermont's only landfill in Coventry is no exception. PFAS chemicals have been reported in groundwater wells surrounding the landfill and in in all sectors of Memphremagog's surface waters. Hazardous PFOS are proven to be bioaccumulating in the tissue of the lake's fish.

- **Environmental Justice:** The Lake Memphremagog communities are economically disadvantaged, further burdened by environmental injustice in landfill siting. A mere 7% of waste disposed in our landfill comes from the tri-county NEK. The remainder comes from the rest of VT and out of state. Equitably, landfill leachate should be returned to the regions generating the greatest percentage of waste.

- **Economic Importance:** Lake Memphremagog is the cornerstone of the regional, international economy: It is the economic driver of the communities on both sides of the border. H.652 would show respect and support for our Canadian neighbors and help to restore accustomed cross-border economic and social relationships.

- **No funding from the State is required to achieve the goal of H652.**



H.652 Findings:

(1) Lake Memphremagog is of integral importance to Vermont and Quebec as the lake:

(A) is the largest body of water in northeastern Vermont and southeastern Quebec;

(B) provides over 175,000 individuals with drinking water in the municipalities of Sherbrooke, Magog, Potton, and Saint-Benoît-du-Lac Quebec;

(C) is an important economic driver in northeastern Vermont and southeastern Canada, drawing individuals and resources for its beautiful landscapes and numerous recreational opportunities;

(D) is a precious natural resource and habitat for fish and wildlife.

(2) Vermont environmental agencies need to take on a greater role in the oversight and restriction of discharges that may cause impairments to northerly flowing Lake Memphremagog as more than 100 permanent or intermittent tributaries feed the Lake, including the Black River in Coventry, with 71 percent of the watershed located in Vermont.

(3) Prior to issuance of the Act 250 permit to New England Waste Services of Vermont in 2019 prohibiting the disposal of landfill leachate in the Lake Memphremagog watershed, 15,000 gallons per day of toxic landfill leachate were disposed of, untreated for perfluoroalkyl and polyfluoroalkyl substances (PFAS), in Newport's wastewater treatment facility.

(4) Current leachate treatment system are incapable of removing all hazardous PFAS from leachate. Therefore, Lake Memphremagog must be protected from chemically contaminated discharges into the lake and watershed that are proven to be harmful to human and environmental health.

(5) PFAS contamination of Lake Memphremagog's waters has been identified in numerous reports by the Agency of Natural Resources (ANR), the Department of Fish and Wildlife, and others; for example, in an ANR study entitled 2021 Vermont Per- and Polyfluoroalkyl Substances (PFAS) Surface Water, Fish Tissue, and Wastewater Treatment Facility Effluent Monitoring Report, Lake Memphremagog measured highest of all surface waters sampled or analyzed for perfluorooctanesulfonic acid (PFOS), at 2.8 parts per trillion (ppt) at mid-lake, which is 70 percent of the maximum contaminant level of 4 ppt for PFOS.

(6) In the ANR study in the Vermont Per- and Polyfluoroalkyl Substances (PFAS) Surface Water, Fish Tissue, and Wastewater Treatment Facility Effluent Monitoring Report:

(A) four species of fish in Lake Memphremagog that were sampled and analyzed for hazardous PFOS measured equivalent to 1,000 ppt (VTs. Drinking water limit is 20ppt); and

(B) the City of Newport's wastewater treatment facility measured higher for PFAS than any other Vermont wastewater treatment facility sampled and analyzed in the study.

(7) In the 2020 U.S. Geological Survey (USGS) publication Malignant Melanoma of Brown Bullhead (Ameiurus nebulosus) in Lake Memphremagog, Vermont Quebec, the USGS found a prevalence of 30 percent of adult brown bullhead had malignant melanoma. Cancerous brown bullheads are found in no other waterbodies in Vermont.

(8) PFAS chemicals are proven to accumulate in the environment and bioaccumulate in organisms, including in humans.

(9) PFAS chemicals are proven to cause harmful health effects, including up to 10 types of cancers; endocrine disruption leading to problems with reproduction, development, and metabolism; hypertension; and numerous other serious health impairments.

(10) As more PFAS chemicals enter the groundwater and surface water system of the Lake Memphremagog watershed, levels of these chemicals will increase, lasting for decades and longer.

(11) To address the environmental and public health concerns posed by the disposal of PFAS to the waters of Vermont, the State should permanently prohibit the discharge of landfill leachate, treated or untreated, anywhere in the Lake Memphremagog watershed, either by direct discharge into the watershed, or by discharge into a wastewater treatment facility that discharges into the Lake Memphremagog watershed.

NB: This evidence speaks for itself. Lake Memphremagog is already contaminated, including by PFAS, and must not be subjected to further contamination from any source, including by landfill leachate.