

Maine Voices: Reject CMP power line because Hydro-Quebec facilities damage ecosystem

Wintertime discharges from the company's dam reservoirs are warming the Gulf of Maine, starving its fisheries and may be a key factor in the decline of Arctic sea ice.

BY **STEPHEN M. KASPRZAK**SPECIAL TO THE PRESS HERALD

CAPE PORPOISE — I am writing to ask the Maine Department of Environmental Protection to deny a permit for the proposed [145-mile Avangrid/Central Maine Power transmission corridor](#), carrying electricity from Canada to Massachusetts, because Hydro-Quebec reservoir hydroelectric facilities are starving the fisheries in the Gulf of Maine and warming its waters.

In a recent Canadian [study](#) comparing trends in river discharge in two time periods – 2006-2013 and 1964-1971 – the authors found that there has been a threefold increase in discharge during winter, when power demand peaks, into the estuaries of the Labrador Sea and eastern Hudson Bay, and a 40 percent reduction in discharge during the summer.

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It would be declared an extreme drought by meteorologists if total spring and summer precipitation were 40 percent below normal. If it happened for 50 continuous years on land in the northern latitudes, the people would have starved to death. In the ocean waters of Newfoundland, Labrador and Maine, the

fisheries are being starved to death.

For the past 50 years, a threefold increase in discharge from these warm (in the mid-30s) reservoir waters during the three months of winter represents a deluge of biblical proportion to the frozen seas. Thousands of reservoir hydroelectric facilities throughout the northern latitudes operate in a similar manner.

The cumulative impact is predictable. Since the start of regular satellite observations in 1979, there has been [an overall decline](#) in Arctic sea ice. However, total sea ice in the Antarctic has increased by 1 percent per decade. Is this deluge of warmer-than-natural discharged waters a key factor in the decline of Arctic sea ice?

The proliferation of large reservoir hydropower dams by Hydro-Quebec over the last 50 years never would have been allowed in Maine for the following reasons:

- The construction and management of these dams would have violated Section 401 of the Clean Water Act and Maine's Natural Resources Protection Act.
- These dams are starving the Hudson Bay, Labrador Sea and Gulf of Maine fisheries by reducing the transport of dissolved silicate to silicon diatom phytoplankton, which are the foundation of the marine food web.
- The reduction in diatom phytoplankton blooms has increased carbon in the air by significantly reducing the natural transference of carbon dioxide from the atmosphere to the ocean.
- These reservoir dams are warming the waters of the Hudson Bay, Labrador Sea and the gulf by capturing the spring freshet behind these dams and holding these waters to maximize hydropower generation during peak demand in the winter months.

If a permit is issued, it should be conditioned on Hydro-Quebec's changing the management of its reservoir facilities to run-of-river mode, which uses the natural flow of the river. This would help restore large silicon diatom phytoplankton blooms to feed the fisheries and increase carbon dioxide transference from the atmosphere to the ocean. It should also help reduce the warming of the Gulf of Maine.

"Half of the Gulf of Maine ecosystem lies in Canada, where much of the water feeding the gulf and affecting its temperature comes from," Staff Writer Colin Woodard [reported](#) in 2015. Hydro-Quebec reservoir facilities have eliminated the spring freshet on the rivers that feed the gulf by capturing and storing runoff.