



New Hampshire Fish and Game Department

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June 16, 2011

C. Wayne Ives
Instream Flow Specialist
Watershed Management Bureau
NH Department of Environmental Services
PO Box 95 - 29 Hazen Drive
Concord, NH 03302-0095

Re: Lamprey Designated River Proposed Water Management Plan

Mr. Ives:

Thank you for this opportunity to provide NH Fish and Game Department's (NHFGD) comments on the Proposed Water Management Plan for the Lamprey River. NHFGD has been very fortunate to be a long-term (>10 years) active partner in the Instream Flow Program, and that is certainly due to NHDES' efforts to make sure that NHDES and NHFGD have a strong, working relationship.

NHFGD's understanding is:

- 1) The objective is to potentially provide instream flow by the release of water from Pawtuckaway Lake and Mendum's Pond to meet water quality standards during extreme low water conditions (e.g. drought) in the Lamprey River.
- 2) NHDES has completed a great deal of analyses on this new procedure to determine when and why water should be released, how much water would be released, over what period of time, and what that would do to water surface elevations in Pawtuckaway Lake and Mendum's Pond, and
- 3) To accommodate a possible winter instream flow recharge event, Pawtuckaway Lake is proposed to be lowered 5.5 feet instead of the current 7 feet during the normal winter drawdown.

NHFGD has identified several topics relative to this proposal and offers the general comments below. At this time, because the Department plans to continue our discussions with NHDES on the details of the proposal, we are not able to provide specific comments for some topics.

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Summer release of water (potential issues):

a. **Loons:** there is one loon nest in the northern part and one in the southern part of Pawtuckaway Lake. Drawdowns during the nesting period could prevent the loons from being able to return to their nests as they can only slide their bodies across the ground. Therefore drawdowns should not happen between May 15 and July 15. Winter drawdowns should not commence until after October 15 to allow chicks to fledge. Drawdowns to offset low water conditions before May 15 and after July 15 should have no impact on the loons. NHFGD wants DES and others to understand that the comments we offer here are for this specific proposal and at Pawtuckaway Lake only. These comments do not apply to any other waterbody.

b. **Diadromous fish:** to conduct the proposed release at Pawtuckaway Lake approximately two, 8-inch boards would be pulled from the dam for about two days. This has the potential to provide attraction flow to juvenile alewife at a time (summer) when inhospitable conditions would exist in the Lamprey River. NHFGD would not want the alewife to swim downstream into the Lamprey River until they are either mature enough or conditions are optimal for them to migrate directly to the ocean. The management objective is to keep them in Pawtuckaway Lake and grow till October at which time they migrate downstream into the Gulf of Maine. NHFGD and NHDES discussed the potential to use metal screens to ensure that juvenile alewives do not leave Pawtuckaway Lake during a release of water in the summer.

c. **Water temperatures:** there is the concern that the release of surface water from Pawtuckaway Lake in the summer could increase the water temperatures downstream and cause impacts to aquatic fauna. NHFGD requests that continuous (hourly) water temperature data be collected in summer 2011 in order to make informed decisions on this topic. There are 2006 data for several places in the Lamprey River watershed, but not from at the Pawtuckaway Lake dams. NHFGD is pleased to assist in this, and may be able to allocate water temperature loggers to this effort.

d. **Cumulative lowering of Pawtuckaway Lake water levels:** at this time, NHDES has not analyzed under what conditions there exists the potential for multiple releases that could lead to impacts to fish and wildlife from the lowering of water levels. NHFGD plans to continue to work cooperatively with NHDES on this topic.

e. **Fundy Cove area:** being a shallow cove the lowering of water levels could be an issue to fish and wildlife residing there; as well as, limiting the utilization of the Department's existing public boat launch. This also applies to other shallow areas around the lake or pond that would be more dramatically affected on a horizontal level by a proposed vertical drop in water elevation. NHFGD plans to continue to work cooperatively with NHDES on this topic.

Please feel free to contact Mr. John Magee, Fish Habitat Biologist, at 603-271-2744 or john.a.magee@wildlife.nh.gov with questions or concerns. We look forward to our continued progress on meeting water quality standards and the conservation of fish and wildlife resources in New Hampshire.

Sincerely,

A handwritten signature in black ink, appearing to read 'GN', with a long horizontal flourish extending to the right.

Glenn Normandeau
Executive Director

cc: Cheri Patterson
Emily Brunkhurst
Mike Marchand
Kim Tuttle
John Magee
Carol Henderson

