



New Hampshire Fish and Game Department

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Glenn Normandeau
Executive Director

May 12, 2017

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, DC 20426

**RE: ILP Study 19: American Eel Downstream Passage Assessment
Comments for FERC projects for Vernon (P-1904), Bellow Falls (P-1855) and Wilder
dams (P-1892) located on the Connecticut River in New Hampshire and Vermont.**

Dear Secretary Bose:

The NH Fish and Game Department (NHFGD) submits the following comments after review of the ILP regarding American Eel Downstream Passage Assessment in Study Report #19, submitted by TransCanada Hydro Northeast, Inc. for the Wilder, Bellows Falls and Vernon hydroelectric facilities located on the Connecticut River in NH and VT.

Below are our comments:

- Of the 29 records of eels that passed a dam by spillway, trash gate, or any known route of passage other than a turbine, only 4 eels were not detected at the next dam downstream (or Stebbins Island). Although the primary route of passage at each project was through the units, mortality appears to be much lower for eels that use other means of passage. Promoting alternate means of passage by spilling water and/or opening a fish tube, ice sluice, or trash gate may improve the overall survival of silver eels as they move downstream through each project.
- 102 of 170 eels were detected at the last receiver, located at Stebbins Island, approximately 1.2 km downstream from the Vernon Dam. Based on these numbers, total survival from the various release points to Stebbins Island was 60%. However, 20 eels that passed through the Wilder and Bellows Falls projects had tailrace residency times over 24 hours. Of these 20 fish, only 3 were detected at the next dam downstream. No eel that passed Wilder or Bellows Falls, with a tailrace residency time greater than 120 hours, was detected at the next dam downstream. There were 23 eels detected below the Vernon Dam with a tailrace residency time greater than 24 hours. Of these 23 eels, 16 were also detected at Stebbins Island. However, 8 of these eels had a tailrace residency time over 120 hours. Due to the close proximity of the Stebbins Island receiver to the Vernon Dam, it is possible that some of these eels were mortalities which drifted downstream or were carried downstream by scavengers. This would put total survival somewhere between 50% and 60%. Eels that passed through the units at Vernon with

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- tailrace residency times greater than 120 hours should not automatically be assumed to have been alive even if they were detected at the Stebbins Island receiver. Even the detection of eels at Stebbins Island with Vernon tailrace residency times greater than 24 hours should be treated with caution.
- All of the 8 eels detected using routes of passage other than the units at the Vernon Project, including the trash/ice sluice, fish tube, fishway, or fish pipe, had tailrace residency times of less than 24 hours. These 8 eels were also detected at Stebbins Island within 30 minutes of their last detection in the Vernon tailrace.

We also support any comments received relative to this project and the many submitted Reports to date, including but not limited to, all Vermont Natural Resource agencies, the US Fish and Wildlife Service (USFWS), the NH Department of Environmental Services (NHDES) and the Connecticut River Watershed Council, Inc. (CRWC).

Thank you for this opportunity to comment on this very important relicensing project. If you have any questions or comments regarding these recommendations or comments, please do not hesitate to contact either Fisheries Biologist, Matt Carpenter at 603-271-2501 or Carol Henderson, Environmental Review Coordinator at 603-271-3511.

Sincerely,



Glenn Normandeau
Executive Director