

FEDERAL ENERGY REGULATORY COMMISSION  
Washington, D.C. 20426

OFFICE OF ENERGY PROJECTS

Project No. 3428-144 &-145--Maine  
Worumbo Project  
Miller Hydro Group

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April 5, 2010

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Subject: Upstream and downstream fish passage issues

Dear Sirs:

We received two letters from the Friends of Kennebec Salmon and the Friends of Merrymeeting Bay (together, Friends), both dated February 1, 2010, addressing fish passage operation to protect Atlantic salmon at the Worumbo Project,<sup>1</sup> located on the Androscoggin River in Maine. The first letter addresses the timing of upstream fish passage operation, and the second addresses the timing of downstream passage operation. We received responses to the Friends' letters from the Miller Hydro Group (licensee), and the Maine Department of Marine Resources (MDMR), dated February 26 and March 25, 2010, respectively. We then received another letter from Friends, dated March 25, 2010, addressing the listing of Atlantic salmon under the Endangered Species Act (ESA).<sup>2</sup>

License Requirements and Status of Fish Passage

Article 34 of the license for the Worumbo Project required the licensee to file functional design drawings of fish passage facilities. The licensee's drawings were approved by the Commission on December 15, 1987.

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<sup>1</sup> Order Issuing License (Major). 33 FERC ¶ 62,430 (1985).

<sup>2</sup> Friends' February 1 and March 25, 2010 letters also address issues at the Pejepscot Project (FERC No. 4784). These are being handled in a separate proceeding.

Article 35 requires the licensee to, in cooperation with the U.S. Fish and Wildlife Service (FWS), the National Marine Fisheries Service (NMFS), the MDMR, the Maine Department of Inland Fisheries and Wildlife (MDIFW), and the Atlantic Sea Run Salmon Commission, conduct a study to determine the effectiveness of the fish passage facilities required by article 34. Article 35 requires a report on the results of the study, and recommendations for changes in operation of the passage facilities or need for additional facilities, be filed with the Commission. In the article, the Commission reserves the right to require changes in the fish passage facilities and operation, or construction of additional facilities, to maintain anadromous fish migrations past the project.

The licensee indicated in a report filed September 24, 1998, pursuant to article 35 that it had determined in consultation with the resource agencies that, short of turbine mortality studies, all downstream passage study methods adaptive to the project site had been tried, and studies to date had been inconclusive in determining fish passage efficiency. The licensee made the following recommendations: (1) fish passage operation, and any future fish passage studies, be determined in consultation with the resource agencies; (2) annual meetings with the agencies be held to discuss the status of anadromous fish runs and the need for further passage studies; and (3) annual status reports be filed with the Commission following the annual meetings. The MDMR, MDIFW, and FWS concurred with the licensee's recommendations. The Commission approved the licensee's report and recommendations in an order issued November 12, 1998,<sup>3</sup> reserving the right to require additional fish passage efficiency studies.

The licensee has filed annual reports in accordance with the November 12, 1998 order. These reports, which have focused on alewife and shad, have discussed annual upstream and downstream passage operation, provided counts of fish by species using the upstream passage facilities, and included counts taken at the downstream Brunswick Project (FERC No. 2284). The reports summarized annual meetings with the resource agencies, reflecting agreement that no passage studies would be conducted. In the most recent report, dated July 20, 2009, the licensee noted that the MDMR discussed the listing of Atlantic salmon under the ESA, and how project operations might be affected.

#### Friends' Letters Regarding Fish Passage Schedules

In their February 1, 2010 letters, Friends reviews the licensee's annual reports for the years 1999 through 2008. Friends writes that only occasionally does the MDMR order upstream fishway operation after mid-July, and that the upstream fishway has only been operated five to 8 weeks each year, which they indicate is less than 25 percent of the

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<sup>3</sup> Order Approving Recommendations for Fish Passage Studies. 85 FERC ¶ 62,089 (1998).

upstream migration season for adult Atlantic salmon, which they identify as July through November. Friends also address the issue of dropdown salmon, writing that current operation penalizes fish which pass the project. move back downriver. and then try to return upstream.

Regarding downstream passage, Friends writes that the MDMR requires downstream fishway operation to begin in early- to mid-June each year, but that records from the downstream Brunswick Project show that in most years at least some adult salmon pass the dams and presumably spawn, producing smolts and kelts which require downstream passage in April and May.

Friends requests that the Commission require operation of the upstream fishway every day during the 2010 Atlantic salmon migration season, and, in following years, from when the first migratory fish passes the Brunswick Project until November 30.

#### Licensee's Response Regarding Fish Passage Schedules

In a letter dated February 26, 2010, the licensee responded to Friends regarding fish passage, writing that the upstream fishway is operated per instructions from the MDMR. The licensee wrote that a table Friends provided in one letter misrepresented what is known about upstream salmon movement. The table compared the counts for salmon passing the Brunswick Project with counts of salmon passing the Worumbo Project, and then presented the information as a percentage to illustrate passage efficiency at Worumbo. The licensee argued that it is not appropriate to assume that every fish passing one dam would migrate up to the next dam. Regarding dropdown fish, the licensee wrote that Friends presented no evidence of dropdowns on the Androscoggin.

Regarding the downstream passage, the licensee wrote that downstream passage operation also follows instructions from the MDMR, and it is not aware of any deviations from the MDMR's schedules.

#### Maine Department of Marine Resources' Response Regarding Fish Passage Schedules

The MDMR provided a March 25, 2010 response to the issues raised by Friends' February 1, 2010 letters, outlining its position on Atlantic salmon passage at the project<sup>4</sup> and noting that the management strategy for Atlantic salmon restoration in the Androscoggin River is classified as passive. The MDMR states that, prior to 2007, there were no indications that the Androscoggin River had a reproducing population of Atlantic salmon. Annual runs of returning adults consisted entirely of fish originating as hatchery

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<sup>4</sup> The MDMR letter also addresses fish passage at the Pejepscot Project.

smolts released in other Maine rivers. There is no information that these salmon spawned or remained in the system through the spawning season. Upstream passage operation for anadromous fish has begun in May, and passage of salmon occurs if the fish are below the facility and river temperatures are favorable for passage. Sufficient downstream passage for smolts and kelts has been achieved through spill in April and May. However, in 2007 and 2008, several returning adults captured at the Brunswick fishway were determined to be naturally-reared fish, and the MDMR decided that changes should be made to downstream passage operations. In June 2009, the MDMR sent letters to the licensees of each of the three lowest projects on the river, including the Woronoco Project, requesting downstream passage operation from April 1 to June 30, and from October 15 to December 31, to ensure safe passage of any naturally-reared adult salmon. The MDMR wrote that it is comfortable with the current coordination and the passage operations outlined in its June 2009 letters to the projects, given the current status of the salmon population, and that it will continue to review operations and make changes based on the salmon population.

#### Friends' Letter Regarding the Federal Listing of Atlantic Salmon Under the ESA

In their letter of March 25, 2010, Friends writes that anadromous Atlantic salmon in the Androscoggin are now listed as endangered under the ESA as part of the Gulf of Maine Distinct Population Segment (DPS), which includes salmon born in the Androscoggin and salmon of hatchery origin used in restoration activities in other Gulf of Maine DPS rivers that swim up the Androscoggin. Further, Friends writes that the Androscoggin River at the Worumbo Project has been identified as Critical Habitat for salmon.

Friends understands the operation of the upstream fishway to be based on the passage of alewife, which cease migration in late June, rather than Atlantic salmon, which may migrate upstream from April to November. They request that this be corrected in 2010. They assert that the issue of dropdown salmon has not been adequately addressed.

Friends disagrees that the fishway should be closed June 30 and then reopened October 15, because it would be inconsistent with downstream passage operation on other Gulf of Maine DPS rivers. Friends asserts that, without an Incidental Take Permit issued under the ESA, safe downstream passage for the salmon must be provided at all times.

Friends believes that the licensee should be required to immediately conduct downstream fish passage effectiveness studies for Atlantic salmon, and that until improvements are made in response to such studies, injury and mortality of salmon at the Woronoco Project is a certainty. Friends notes that, in the November 12, 1998 order, the Commission reserves the right to require additional passage efficiency studies. Friends

also cites standard article 15 of the project license, which requires the licensee to construct, maintain, and operate facilities, and comply with modifications of project structures and operation, as ordered by the Commission for the conservation and development of fish and wildlife resources. They request that the Commission: (1) order downstream passage studies for Atlantic salmon in 2010; (2) instruct the licensee to operate the upstream fishway every day during the 2010 salmon migration season, and in following years beginning when the first migratory fish is passed at the Brunswick Dam, then until Nov. 30; (3) instruct the licensee to operate the downstream fishway April 1 through December 31, and (4) instruct the licensee to cease project generation after April 1, 2010, until full-depth screens are installed at the project intake.

### Discussion and Conclusions

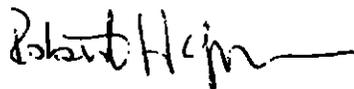
We have carefully reviewed the issues raised in the letters filed by Friends regarding upstream and downstream passage of Atlantic salmon at the Worumbo Project, particularly in light of the listing of the Atlantic salmon Gulf of Maine DPS under the ESA. We have also reviewed the project license and subsequent orders, and the licensee's annual fish passage reports. We have also had the opportunity to review the responses provided by the licensee and the MDMR.

The upstream and downstream fish passage facilities at the Worumbo Project are being operated in accordance with annual guidance from the MDMR. The licensee's annual passage reports, and the March 25, 2010 letter from the MDMR, indicate that passage operation has provided a satisfactory level of protection for Atlantic salmon that may use the Androscoggin River. However, the MDMR has requested downstream passage operation from April 1 to June 30 and from October 15 to December 31, to help ensure safe passage of any naturally-reared salmon. The MDMR will continue to review passage operations at the project based on the Atlantic salmon population. Because of the ongoing involvement of the MDMR, including the annual consideration of passage effectiveness studies, we do not believe that we need to pursue additional passage measures or studies at this time. However, we continue to reserve the rights identified in the project license articles and the November 12, 1998 order regarding changes in passage facilities and operation, construction of additional facilities, and fish passage effectiveness studies.

Regarding any additional need for Commission action produced by the recent listing of the Gulf of Maine DPS of Atlantic salmon, we again defer to direction provided by the resource agencies. We note that representatives of the FWS have been involved in the annual fish passage consultation meetings. We urge the licensee to work to schedule the meetings so that representatives of the FWS, as well as the NMFS and other agencies, can be present.

We welcome input from the resource agencies regarding the issues discussed in this letter, either through consultation with the licensee or directly in response to this letter. Any questions should be directed to B. Peter Yarrington at (202) 502-6129, or [peter.yarrington@ferc.gov](mailto:peter.yarrington@ferc.gov).

Sincerely,



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