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105 FERC ¶ 61,011
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;
William L. Massey, and Nora Mead Brownell.

S.D. Warren Company Project No. 2932-003

ORDER ISSUING SUBSEQUENT LICENSE

(Issued October 2, 2003)

1. This order issues a subsequent license to S.D. Warren Company (S.D.Warren) for the 800-kilowatt (kW) Mallison Falls Project No. 2932, located on the Presumpscot River in Cumberland County, Maine. In separate orders issued concurrently with this one, we are issuing subsequent licenses to S.D. Warren for the Saccarappa and Little Falls Projects Nos. 2897 and 2941, respectively, and new licenses for the Dundee and Gambo Projects Nos. 2942 and 2931, respectively, all of which projects are also on the Presumpscot River. In the order issuing a subsequent license for the Saccarappa Project, we discuss the multi-project proceeding in which the five projects were evaluated, as well as issues common to some or all of the five projects. The present order summarizes the procedural background and addresses remaining issues that pertain to the Mallison Falls Project alone.

Background

2. The Mallison Falls Project was constructed in 1900, although the Mallison Falls dam has been in existence for over 250 years. The original license for the Mallison Falls Project was issued in 1980,[1] with an expiration date of May 1, 2000. However, in 1996, at S.D. Warren's request, all of the licenses for the Presumpscot River projects were modified to expire on January 26, 2001, to enable a coordinated review at relicensing. See S.D. Warren, 74 FERC ¶ 62,036 (1996). The Mallison Falls Project continues to

[1]S.D. Warren Company, 11 FERC ¶ 62,111 (1980).

3. operate under the terms and conditions of its existing license until the Commission acts on the applications for relicense.[2]

4. S.D. Warren filed applications for new licenses for the five Presumpscot River projects on January 22, 1999. S.D. Warren proposes the continued operation of all five of the projects, but does not propose to install any new capacity at any of the projects. S.D. Warren proposes the following environmental measures for Mallison Falls and the other four projects: (1) continuation of run-of-river operations and daily headpond monitoring; (2) avoidance of impoundment drawdowns during May and June; (3) implementation of impoundment refill procedures after drawdown; (4) institution of operational measures to provide downstream eel passage; (5) implementation of a Recreation Facility Enhancement Plan; and (6) provisions for the protection and mitigation of adverse effects on identified archeological sites. At the Mallison Falls Project, S.D. Warren also proposes to provide seasonally adjusted minimum flows to the Mallison Falls bypassed reach and to monitor compliance with the minimum flows.

5. The Commission issued a public notice of the applications on April 23, 1999, requesting comments, protests, and motions to intervene. Timely motions to intervene in the multi-project proceeding were filed by the U.S. Department of the Interior (Interior); Friends of the Presumpscot River (Presumpscot Friends); Friends of Sebago Lake; Maine Council of the Atlantic Salmon Federation (Maine Council); the State of Maine, State Planning Office (State Planning Office); and Trout Unlimited.

6. Late motions to intervene were filed by the U.S. Environmental Protection Agency (EPA), Allan Desjardin, and American Rivers. The Commission granted these late-filed motions to intervene on April 14, 2003. In addition, a late motion to intervene was filed by Representative Janice E. Labrecque of the Maine House of Representatives and was granted on April 26, 2002. Presumpscot Friends oppose the relicensing of the Mallison Falls, Little Falls, and Saccarappa Projects.

7. On December 4, 2000, the Commission issued public notice that the applications were ready for environmental analysis and solicited comments, recommendations, and terms and conditions. In response, comments were filed by Interior, State Planning

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[2]The three minor licenses waive applicability of Section 15 of the FPA and S.D. Warren has filed for subsequent licenses. Therefore, under Section 16.21(a) of the Commission's regulations, 18 C.F.R. § 16.21(a), S.D. Warren may continue to operate these minor projects in accordance with the terms and conditions of the minor licenses after they expire, until the Commission acts on its applications.

Office, American Rivers and Presumpscot Friends (jointly), the City of Westbrook, Trout Unlimited, and Friends of Sebago Lake.[3] S.D. Warren filed reply comments on April 18, 2001. The issues raised by these comments are discussed more fully in the companion Saccarappa Project Order.

8. The Commission staff's multi-project Draft Environmental Impact Statement (DEIS) for the relicensing of the five projects was issued on October 5, 2001. Comments on the DEIS were filed by 12 entities and three individuals, and were considered in preparing the final multi-project EIS (FEIS).

9. On June 26, 2002, the Commission staff issued the FEIS. The alternatives considered in the FEIS are described in the companion Saccarappa Project Order. The FEIS concludes that the relicensing of the five Presumpscot River projects, as proposed by the applicant and with the additional staff-recommended measures, would be best adapted to a comprehensive plan for the proper use, conservation, and development of the Presumpscot River. The FEIS considered but rejected the alternative of removing one or more of the minor project dams, for reasons discussed in the Saccarappa Project Order. The FEIS finds that fish passage facilities at the five project dams would be warranted in the future, when fish passage at the downstream Cumberland Mills and Smelt Hill dams is achieved,[4] and recommends that the licensee be required to file a fish passage implementation plan for the projects. The FEIS also recommends that the licensee design and install upstream eel passage at all five projects, and includes the prescription of Interior's Fish and Wildlife Service (FWS) for implementing shutdown periods to provide for downstream eel passage.

10. Other measures recommended by the FEIS for the Mallison Falls Project include the provision of specific minimum flows to the bypassed reach, the preparation and implementation of a reservoir elevation and minimum flow monitoring plan, the undertaking of a recreational use monitoring study, and the development of a recreational facilities enhancement plan and a historic properties management plan (HPMP).

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[3] Interior included comments from the Fish and Wildlife Service (FWS) and the National Park Service (NPS). The State of Maine included comments from the Maine Department of Marine Resources (Maine DMR), the Maine Atlantic Salmon Commission (Maine ASC), and the Maine Department of Inland Fisheries and Wildlife (Maine DIFW).

[4] The Smelt Hill dam was removed in October 2002.

11. The Commission has considered all of the comments and interventions filed in this multi-project proceeding in determining whether, and under what conditions, to issue a subsequent license for the Mallison Falls Project.

Project Description

12. The Mallison Falls Project is located on the Presumpscot River in southern Maine near the Towns of Gorham and South Windham in Cumberland County. The Presumpscot River originates at the outlet of Sebago Lake and extends approximately 25 miles to the Atlantic Ocean at Casco Bay. Seven tributaries feed the Presumpscot River between Sebago Lake and the Saccarappa Project, the most downstream of the projects.

13. The five subject projects span a river reach of about 12 miles from Windham (about three miles downstream of Sebago Lake) to Westbrook, Maine (about 10 miles upstream from Casco Bay). The Mallison Falls Project, at river mile (RM) 16.4, is five miles upstream of the Saccarappa Project and is less than one half mile downstream of the Little Falls Project. S.D. Warren's hydroelectric projects operate continuously to generate electricity that is used at S.D. Warren's paper mill at Westbrook. Capacity and energy in excess of that used by the mill is sold on the open market. The Mallison Falls Project generates approximately 4,200,000 kilowatt-hours (kWh) of electricity annually.

14. The Mallison Falls Project consists of the following facilities: (1) a 358-foot-long, 14-foot-high diversion dam, consisting of a 113.5-foot-long cut granite spillway section, a 174.5-foot-long reinforced concrete spillway section, and a 70-foot-long canal headgate structure; (2) a 675-foot-long, 41-foot-wide, and 6-foot-deep intake canal; (3) a 33-foot-wide by 51-foot-long powerhouse containing two vertical Francis turbines direct-connected to generators, each with an installed capacity of 400 kW for a total rated generating capacity of 800 kW; (4) an 11-kV transmission line tied into the Gambo Project transmission line; (5) a 675-foot-long bypass reach between the dam and powerhouse tailwaters;[5] and (6) a 0.5-mile-long impoundment extending from the Mallison Falls dam upstream to the tailwaters of the Little Falls Project, with a surface area of approximately 8 acres.

[5]The lower 375 feet of the bypass reach is backwatered by discharges from the Mallison Falls powerhouse and by the downstream Saccarappa Project impoundment.

15. The Mallison Falls Project is operated in a run-of-river mode so that the impoundment is maintained at near constant levels year round. The powerhouse is manually operated and uses flows that originate at S.D. Warren's upstream Eel Weir Project No. 2984 (not subject to relicensing in this proceeding) at the outlet of Sebago Lake and various minor tributaries to the Presumpscot River downstream from Sebago Lake, and that passthrough intermediate projects. As currently licensed, there are no required minimum flow releases to the bypass reach at the Mallison Falls Project.

Miscellaneous Statutory Requirements

16. In issuing this license, we have considered numerous applicable statutory requirements. These include: water quality certification under Section 401 of the Clean Water Act, 33 U.S.C. § 1341(a)(1); Section 307 of the Coastal Zone Management Act, 16 U.S.C. § 1456(c)(3)(A) (CZMA); Essential Fish Habitat under Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. § 1855(b)(2) (Fishery Conservation Act); Section 7(a)(2) of the Endangered Species Act, 16 U.S.C. § 1536(a)(2) (ESA); historic properties under Section 106 of the National Historic Preservation Act (NHPA); and Sections 18 (fishway prescriptions) and 10(a)(2)(A) (comprehensive plans) of the Federal Power Act (FPA). The Saccarappa Project order contains a full explanation of how these statutory requirements are satisfied in the issuance of new or subsequent licenses for the five projects. We summarize that explanation here.

17. The single water quality certification issued by the Maine Department of Environmental Protection and the single fishway prescription submitted by FWS, in each case for all five projects, are attached to each license order as Appendices A and B, respectively.[6] Each license contains an article reserving the Commission's authority to require such fishways as Interior may prescribe under Section 18 in the future. No consistency certification is necessary under the CZMA, because the projects are not in the Maine coastal zone and Maine has not defined an area outside the coastal zone for reviewing federal licensed activities that may affect the coastal zone. The National Marine Fisheries Service has not commented on or filed recommendations for the applications in respect to the Fishery Conservation Act, and we conclude that relicensing the projects as proposed and with staff's recommendations would have no adverse effect

[6] As to the fishway prescription, each license contains the general provisions applicable to all five projects and the provisions applicable to that specific project. For ease of administering the license, we have altered the numbering and placement of tables in the prescriptions as submitted by FWS.

on essential fish habitat. The small whorled pogonia plant, the only federally-listed threatened or endangered species occurring in any of the project areas has been found at the Dundee Project, and we find that the relicensing of the Dundee Project, with the conditions described in that order, will not affect this species. The Commission has satisfied its responsibilities under Section 106 of the NHPA by executing with the Maine State Historic Preservation Officer a Programmatic Agreement for managing historic properties that may be affected by the relicensing of the projects. Finally, we find that issuance of the licenses does not create an inconsistency with any of the relevant federal and state comprehensive plans that have been filed with the Commission.

Dam Removal

18. A number of non-governmental agencies and individuals advocate the removal of the Saccarappa, Mallison Falls, and Little Falls dams. The staff evaluated several dam removal scenarios in the FEIS. We conclude that the removal of any of these three dams is not warranted. Our analysis and rationale is contained in the Saccarappa Project Order.

Recommendations of Federal and State Fish and Wildlife Agencies Under FPA Section 10(j)

19. Section 10(j) of the FPA, 16 U.S.C. § 803(j)(1), requires the Commission, when issuing a license, to include license conditions based upon recommendations of federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act, 16 U.S.C. §§ 661, et seq., to "adequately and equitably protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat)" affected by the project. If the Commission believes that any such recommendation may be inconsistent with the purpose and requirements of Part I of the FPA, or other applicable law, Section 10(j)(2) of the FPA, 16 U.S.C. § 803(j)(2), requires the Commission and the agencies to attempt to resolve such inconsistencies, giving due weight to the recommendations, expertise, and statutory responsibilities of such agencies. If the Commission still does not adopt a recommendation, it must explain how the recommendation is inconsistent with Part I of the FPA or other applicable law and how the conditions imposed by the Commission adequately and equitably protect, mitigate damages to, and enhance fish and wildlife resources.

20. Only FWS filed Section 10(j) recommendations for the Presumpscot River projects.[7] The license issued here for the Mallison Falls Project contains conditions

[7] The FWS filed one set of recommendations under Section 10(j) pertaining to all five of the projects.

consistent with recommendations for: (1) run-of-river operation; (2) a project operations and flow monitoring plan; and (3) recreation use monitoring.[8]

21. Commission staff made an initial determination that some of the recommendations of FWS were inconsistent with the substantial evidence standard of Section 313(b) and the comprehensive planning and public interest standards of Sections 4(e) and 10(a) of the FPA. In the DEIS, staff concluded that FWS's recommendations for (1) year-round minimum flows in the Dundee, Mallison Falls, and Gambo bypassed reaches; and (2) shoreline management plans at each of the five projects were inconsistent with Part I of the FPA. Commission staff concluded that there was no evidence that these measures are needed, that they would not provide environmental benefits commensurate with their costs, and that the alternative measures Commission staff recommended would adequately protect fish and wildlife.

22. By letter dated October 1, 2001, Commission staff advised FWS of its preliminary determinations. In an attempt to resolve the apparent inconsistencies, Commission staff met with representatives of FWS, the Maine DEP, and S.D. Warren on February 19, 2002. Below, we discuss Commission staff's attempt to resolve the apparent inconsistencies for the Mallison Falls Project.

A. Minimum Flows

23. FWS recommends a year-round minimum flow of 63 cubic feet per second (cfs) for the Mallison Falls bypassed reach in order to maximize available habitat for a year-round trout fishery. In the DEIS, Commission staff recommended a seasonally adjusted minimum flow for the bypassed reach at the Mallison Falls Project: 20 cfs from November through March, 40 cfs in April and October, and 60 cfs from May through September. The objective of staff's flow recommendation is to provide sufficient flows to maximize habitat in the bypassed reach during the open-water fishing season and to provide adequate over-winter flows to protect aquatic habitat and any holdover trout, thus allowing the Maine Department of Inland Fisheries and Wildlife (Maine DIFW) to develop a stocked trout fishery in the bypassed reach.

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[8] FWS recommends recreation use monitoring and filing a report on recreation use every 6 years. In the FEIS, Commission staff properly determined that these two recommendations do not fall within the scope of Section 10(j). Under Section 10(a) of the FPA, we are adopting recreation use monitoring and reporting provisions for the Mallison Falls Project, as recommended by Commission staff, which differ slightly from those recommended by FWS (Article 410).

24. Staff's recommended flow is significantly lower than FWS's recommended flow for the late fall, winter, and early spring periods.[9] Staff concluded that a lower flow from October through April would provide a reasonable level of habitat over the late fall, winter and early spring months, when the number of holdover trout would likely be lower than during the peak of the fishing season.

25. At the Section 10(j) meeting, FWS reiterated its recommendation for higher year-round minimum flows. FWS indicated that staff's flow recommendation does not consider the potential for an over-winter fishery advocated by Maine DIFW. FWS also suggested that additional flow studies may be necessary to determine minimum flow needs for anadromous fish that were not previously considered. However, FWS did not identify any new information for staff to consider. Commission and FWS staff agreed conceptually to a strategy that would involve an interim flow with future flow studies when specific triggering events occur. However, the Commission and FWS staff could not reach consensus on the actual interim minimum flow.

26. Releasing a minimum flow to the Mallison Falls bypassed reach would provide 675 feet of riverine habitat not currently available in the Presumpscot River. This additional habitat would be capable of supporting a significant fishery for stocked salmonids and other resident species in close proximity to the heavily-populated urban areas of Portland and Westbrook. As discussed in the FEIS, such a cold-water fishery has been established successfully upstream at Eel Weir.[10]

27. As the FEIS notes, a key element to the success of the Eel Weir fishery is the over-wintering flows, which currently are lower than the flows provided during the open-water angling season. Such flows sustain over-wintering or holdover trout, as well as the macroinvertebrate populations that serve as food for both over-wintering and summer resident fishes. However, a fish's metabolic needs are less in the winter than other times of the year. Thus, flow needs during the late fall to early spring period would be less than during the open-water angling season. Moreover, fewer fish would be present during the winter season than during the peak of the fishing season, soon after stocking, when the number of anglers would also be high.

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[9] FWS did not object to staff's recommended flow of 60 cfs for May through September, nor was the difference discussed at the 10(j) meeting, so we presume FWS is in agreement with this recommendation.

[10] FEIS at 257-258.

28. The FWS-recommended year-round minimum flows would maximize habitat for brook and brown trout in the Mallison Falls bypassed reach, and would provide nearly 99 percent of the maximum wetted area in the reach. We concur that higher flows are warranted for the open-water angling season. However, FWS has not provided sufficient evidence to indicate that a similar flow is necessary over the winter period to support any winter fishery that may develop in the reach. Further, requiring high year-round flows as proposed by FWS would cost S.D. Warren about $8,480 annually, $7,770 of which is in lost generation. Therefore, we conclude that the FWS's recommendation for a 63-cfs minimum flow for the winter months is inconsistent with the comprehensive development standard of Sections 4(e) and 10(a) of the FPA, and with the substantial evidence standard of Section 313(b) of the FPA.

29. In the FEIS, Commission staff recommends a seasonal flow regime of 40 cfs from October through April and 60 cfs from May through September.[11] The water quality certification issued for this project by Maine DEP requires a minimum flow of 60 cfs from May through October and 40 cfs from November through April. Thus, staff's final recommendation conforms to the certification except for the certification's higher flow for October. Conditions in a water quality certification are required to be made conditions of a license. Further, an over-winter flow of 40-cfs would provide good weighted usable area and relatively high wetted area, sufficient to sustain over-wintering trout, landlocked salmon and macroinvertebrates in the bypassed reach. These flows would provide significant habitat and fishery benefits at a more reasonable cost to the licensee than the over-winter flow recommended by FWS.

30. Therefore, Article 403 requires the licensee to release a minimum flow of 60 cfs from May 1 through October 31 and 40 cfs from November 1 through April 30. We are also requiring, in Article 403, additional flow studies, should specific triggering events, as described in the FEIS, occur in the future.

B. Shoreline Management

31. FWS recommends that S.D. Warren develop a Shoreline Management Plan (SMP) that would include all licensee-owned lands abutting the project within 500 feet of the high water elevation that are determined to be needed for project-related purposes, such as fish and wildlife habitat protection; providing public access for recreation; or

[11] In the FEIS, staff recommended increasing the minimum flow from November to March from 20 cfs to 40 cfs.

protecting sensitive, unique, or scenic areas.[12] However, FWS did not identify any such lands. Commission staff did not agree with the FWS recommendation for a SMP, including the 500-foot buffer zone, explaining in Section 4.3.5 of the DEIS that a SMP is typically required only for major projects when there is a need to resolve a current resource issue (e.g., when a threatened or endangered species is present near areas of project recreational use).

32. At the Section 10(j) meeting, FWS indicated that Commission staff's recommendation not to require a SMP for the Mallison Falls Project does not adequately consider either the changing resource values of the concerned agencies, or the expected increase in recreational use that would result from increased minimum flows in the river and improved water quality. In addition, FWS indicated that staff's SMP recommendation does not consider the Casco Bay watershed planning efforts. FWS indicated that it was more concerned that the scope of the planning effort involves all five of the Presumpscot River projects than with the specific width of the buffer zone. Commission and FWS staff agreed that the primary goal of a SMP would be to ensure that S.D. Warren continues its involvement in the Casco Bay Estuary Project (CBEP) planning process.

33. Neither FWS nor any other entity provided new information at or after the Section 10(j) meeting to justify the need for an SMP at the Mallison Falls Project to protect, enhance, or mitigate damage to fish and wildlife. Because no need has been shown for an SMP at the Mallison Falls Project for these purposes, we conclude that the recommendation for the development and implementation of an SMP would be inconsistent with the comprehensive development standard of Section 10(a) of the FPA and with the substantial evidence standard of Section 313(b) of the FPA. Licensing the project as proposed, with staff's recommendations and other agency conditions, will adequately protect, enhance, and mitigate damages to fish and wildlife, by providing for

[12] This recommendation falls under Section 10(j) only to the extent that it relates to the protection of, mitigation of damage to, and enhancement of, fish and wildlife, not to the extent that it relates to recreational or other purposes.

run-of-river operation, management of impoundment levels, and fish passage. Therefore, we will not require development of such a plan.[13]

Applicant's Plans and Capabilities

34. In accordance with Sections 10(a)(2)(C) and 15 of the FPA, 16 U.S.C. §§ 803(a)(2)(C) and 808, we have evaluated S.D. Warren and its record as a licensee with respect to the following: (A) compliance history and ability to comply with the new license; (B) safe management, operation, and maintenance of the project; (C) need for power; and (D) transmission service.

A. Compliance History and Ability to Comply with the New License

35. We have reviewed the relicense application and S.D. Warren's record of compliance with the terms and conditions of the existing license. We find that S.D. Warren's overall record of making timely filings and compliance with its license is satisfactory.

B. Safe Management, Operation, and Maintenance of the Project

36. We reviewed S.D. Warren's management, operation, and maintenance of the Mallison Falls Project. The project is exempt from the requirements of Part 12, Subparts C – Emergency Action Plans (EAP), of the Commission's regulations. In addition, the project is not subject to Part 12, Subpart D – Inspection by an Independent Consultant, of the Commission's regulations. We find that the project works are safe and that the owner's record of managing, operating, and maintaining these facilities presents no reason to believe that the applicant cannot continue to safely manage, operate, and maintain these facilities. The continued operation of the Mallison Falls Project would pose no threat to public safety if operated and maintained according to good engineering practices and the normal regulations governing our hydroelectric licenses.

[13] Although recreational purposes and uses are not within the scope of Section 10(j), coordination with the CBEP in the development of any revised final recreation plan for the project is a reasonable measure under Section 10(a) to ensure that S.D. Warren remains cognizant of local planning efforts as they relate to project recreational facilities and opportunities. In Article 409, we include the CBEP as an entity to be consulted in the preparation of the final recreational plan.

C. Need for Power

37. We assessed the need for power by reviewing the needs in the operating region in which the project is located - southern Maine, within the Northeast Power Coordinating Council (NPCC) region of North American Electric Reliability Council (NERC). NERC annually forecasts electrical supply and demand in the nation and the region for a 10-year period. NERC's report[14] on annual supply and demand projections indicates that, for the period 2000-2009, the demand for electric energy in the NPCC region will grow at an average rate of 1.2 percent annually.

38. The Mallison Falls Project generates about 4,200,000 kWh annually with an installed capacity of 800 kW. All of the power from the project is used at S.D. Warren's paper mill. The mill's annual electricity demand is about 180,000,000 kWh and the mill's load demand is about 21,000 kW.

39. If licensed, the project would continue to meet part of S.D. Warren's power needs. The project would displace existing and planned nonrenewable fossil-fueled generation, which contributes to the production of nitrous oxides and sulfurous oxides that contribute to air pollution, as well as carbon dioxide, which contributes to the phenomenon of global warming.

40. We find that the project power would continue to be useful in meeting part of the need for power in southern Maine in both the short and long term.

D. Transmission Service

41. The project includes: (1) a 2.3-kV generator lead; (2) a 2.3-kV/11-kV step-up transformer; and (3) an 11-kV transmission line joining the Gambo Project transmission line. S.D. Warren proposes no new transmission facilities at the project, and the project, as proposed, would not affect the existing licensed transmission facilities.

[14]Reliability Assessment 2000-2009: The Reliability of Bulk Electric Systems in North America, NERC, October 2000.

Comprehensive Development

42. Sections 4(e) and 10(a)(1) of the FPA, 16 U.S.C. §§ 797(e) and 803(a)(1), respectively, require the Commission, in acting on license applications, to give equal consideration to the developmental and environmental uses of the waterway on which a project is located. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

43. In determining whether a proposed project will be best adapted to a comprehensive plan for developing a waterway for beneficial public purposes, pursuant to Section 10(a)(1) of the FPA, the Commission considers a number of public interest factors, including the economic benefits of project power. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in Mead Corp., 72 FERC ¶ 61,027 (1995), we employ an analysis that uses current costs to compare the costs of the project and likely alternative power, with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. Our economic analysis provides a general estimate of the potential power benefits and costs of a project and reasonable alternatives to project-generated power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license. In making our decision, we consider the project power benefits, both with the applicant's proposed mitigation and enhancement measures and with our modifications and additions to the applicant's proposal.

44. Under the no-action alternative, the Mallison Falls Project would generate an average of 4,200,000 kWh of electricity annually, have an annual power value of $169,970 (40.47 mills/kWh), and a total annual cost of $155,680 (37.07 mills/kWh). This results in a net annual benefit of $14,300 (3.40 mills/kWh).

45. As proposed by S.D. Warren, the Mallison Falls Project would generate an average of 3,966,000 kWh of electricity annually, have an annual power value of $160,500 (40.47 mills/kWh), and a total annual cost of $177,650 (44.79 mills/kWh). This results in a net annual benefit of -$17,150 (-4.32 mills/kWh).

46. As proposed by S.D. Warren and with additional staff-recommended and agency-required measures, the Mallison Falls Project would generate an average of 3,599,000 kWh of electricity annually. The project would have an annual power value of $145,650 (40.47 mills/kWh) and a total annual cost of $548,330 (152.35 mills/kWh). This results in a net annual benefit of -$402,680 (-111.88 mills/kWh).

47. As discussed in the companion Saccarappa Project order, anadromous fish passage at the Mallison Falls Project is dependent on both the installation of fish passage facilities downstream at Cumberland Mills dam, an uncertain prospect, and the phased approach to fish passage installation based on the presence of specified trigger populations of target species passed at the Saccarappa Project dam. Therefore, it is possible that the prescribed anadromous fish passage facilities at the Mallison Falls dam will not be constructed. Under that scenario, the Mallison Falls Project would generate an average of 3,668,000 kWh of electricity annually. The project would have an annual power value of $148,440 (40.47 mills/kWh) and a total annual cost of approximately $187,010 (10.95 mills/kWh). Therefore, the resulting annual net benefit of the Mallison Falls Project without the fish passage facilities would be -$38,570 (-20.48 mills/kWh).

48. Under the dam removal alternative, S.D. Warren would no longer use the Mallison Falls Project to generate power. Hence, the annual power benefit would be the cost of purchasing replacement energy, or -$169,970. The only annual costs would be those associated with the removal of the dam, or $115,350. The resulting annual net benefit for the dam removal alternative would be about -$285,320.[15]

49. Based on our independent review and evaluation of the Mallison Falls Project, the recommendations of the resource agencies and other stakeholders, the dam removal alternative, and the no-action alternative, as documented in the FEIS, we have selected the proposed action with the additional staff-recommended and agency-required measures, as the preferred alternative. The project, as conditioned herein, will be best adapted to the comprehensive development of the waterway for beneficial public purposes.

50. We selected this alternative because: (1) issuance of a new license would allow S.D. Warren to maintain a beneficial, dependable, and inexpensive source of electric energy; (2) the electric energy generated by the project would continue to offset the use of fossil-fuel-fired generation and capacity, thereby conserving non-renewable resources and reducing atmospheric pollution; and (3) the required environmental measures would either protect or enhance water quality, fish and terrestrial resources (including wetlands),

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[15] Removal of Mallison Falls would also increase the cost at the Gambo and Little Falls projects because the transmission line from the Gambo powerhouse to S.D. Warren's mill facilities in Westbrook is used by all three projects. Currently, the $75,000 per year maintenance cost is divided equally among the three projects. If Mallison Falls were removed, the maintenance cost would be borne by the remaining two projects.

public use of recreation facilities and resources, land uses, and historic and archaeological resources in the Presumpscot River and the area affected by the project.

The preferred alternative includes the following measures:

(1) operation of the Mallison Falls Project in a run-of-river mode;

(2) release of seasonal minimum flows of 60 cfs (May – October) and 40 cfs (November – April), or inflow, whichever is less, to the bypassed reach, as well as the conducting of additional instream flow studies in the future to allow future adjustment of minimum flows;

(3) possible future installation of upstream and downstream fish passage facilities for American shad and river herring, as generally prescribed by FWS, and development of a fish passage implementation plan;

(4) design and installation of upstream eel passage facilities, and development and implementation of an eel passage implementation and monitoring plan;

(5) development and implementation of a plan for downstream eel passage, including provisions for project shutdowns and conducting a 3-year downstream migrating eel study to assess timing of peak eel movement;

(6) development of an impoundment drawdown management plan; and

(7) development of a recreational facilities enhancement plan and monitoring of recreation use after construction of the recreation facilities.

License Term

51. Section 15(e) of the FPA, 16 U.S.C. § 808 (e), specifies that any license issued shall be for a term that the Commission determines to be in the public interest, but not less than 30 years or more than 50 years from the date on which the license is issued. The Commission's policy establishes 30-year terms for projects with little or no proposed redevelopment, new construction, new capacity, or environmental mitigation and enhancement measures; 40-year terms for projects with a moderate amount thereof; and 50-year terms for projects with an extensive amount thereof. It is also the Commission's

policy to coordinate to a reasonable extent the license expiration dates of projects in a river basin, in order that subsequent relicense proceedings can also be coordinated. [16]

52. The new license for the Mallison Falls Project, as well as for the other four projects, requires a moderate amount of construction and environmental mitigation and enhancement measures, and we are therefore issuing the subsequent license for the Mallison Falls Project (and the other four projects) for a 40-year term. This determination does not include the costs of constructing the Phase 1 and Phase 2 fish passage facilities for anadromous fish, which is dependent upon the occurrence of certain events. Issuing licenses with 40-year terms for all five of the projects will continue to facilitate contemporaneous expiration of licenses of projects in the same river basin, and thereby further the Commission's policy for coordinated treatment of future relicensing proceedings.

The Commission orders:

(A) This license is issued to S.D. Warren Company (licensee), for a period of 40 years, effective the first day of the month in which this order is issued, to operate and maintain the Mallison Falls Project. This license is subject to the terms and conditions of the FPA, which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by Exhibit G, filed on January 22, 1999:

Exhibit G Drawing	FERC No. 2932-	Showing
G-1	1003	Project Area Map

(2) The project works consisting of: (a) a 358-foot-long by 14-foot-high reinforced concrete, masonry, and cut granite dam, comprised of a 113.5-foot-long cut granite section and a 174.5-foot-long reinforced concrete spillway section with a crest elevation of 90.6 feet U.S. Geological Survey (USGS) datum, as well as a 70-foot-long by 13-foot-high canal headgate structure with five 6-foot-high by 7.5-foot-wide gates; (b) a 0.5-mile-long impoundment, with a normal pool elevation of 90.6 feet USGS datum, a

[16] See 18 C.F.R. § 2.23 (2003).

surface area of about 8 acres and negligible storage; (c) a 675-foot-long, 41-foot-wide, 6-foot-deep bedrock-lined intake canal; (d) a 33-foot-wide by 51-foot-long reinforced concrete and masonry powerhouse; (e) two vertical Francis turbines direct-connected to the generators, each with an installed capacity of 400 kilowatts (kW) for a total installed capacity of 800 kW; (f) a 675-foot-long bypassed reach; (g) 2.3-kilovolt (kV) generator leads, a 2.3-kV/11-kV step-up transformer, and an 11-kV transmission line tied into the Gambo Project transmission line; and (h) other appurtenances.

The project works are more specifically described in Exhibit A of the application (pages A-1 to A-11) and shown by Exhibit F drawings, filed January 22, 1999:

Exhibit F Drawing	FERC No. 2932-	Description
F-1	1001	Plan of Dam, Headworks Details, and Cross Sections
F-2	1002	Plan of Powerhouse, Section and Elevations

(3) All of the structures, fixtures, equipment, or facilities used or useful in the operation and maintenance of the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, as approved by the Commission, and all riparian or other rights that are necessary or appropriate in the operation and maintenance of the project.

(C) Exhibits A, F, and G, listed above, are approved and made part of this license.

(D) This license is subject to the water quality certification conditions applicable to the Mallison Falls Project No. 2932 submitted by the State of Maine Department of Environmental Protection pursuant to Section 401(a) of the Clean Water Act, as those conditions are set forth in Appendix A to this order.

(E) This license is subject to the fishway prescription applicable to the Mallison Falls Project No. 2932 submitted by the Department of the Interior's U.S. Fish and Wildlife Service, as set forth in Appendix B to this order.

(F) The following sections of the FPA are waived and excluded from the license for this minor project: 4(b), except the second sentence; 4(e), insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army; 6, insofar as it relates to public notice and to the acceptance and expression in the license of terms and conditions of the FPA that are waived here; 10(c), insofar as it relates to depreciation

reserves; 10(d); 10(f); 14, except insofar as the power of condemnation is reserved; 15; 16; 19; 20; and 22.

(G) This license is subject to the articles set forth in Form L-9 (October 1975), entitled, "Terms and Conditions of License for Constructed Minor Project Affecting Navigable Waters of the United States," and the following additional articles.

Article 201. The licensee shall pay the United States the following annual charges: for the purposes of reimbursing the United States for the costs of administering Part I of the Federal Power Act, a reasonable amount as determined in accordance with the provisions of the Commissioner's regulations in effect from time to time. The authorized installed capacity for that purpose is 800 kilowatts (kW). This annual charge shall be effective as of the first day of the month in which the license is issued. Under regulations currently in effect, projects with authorized capacity of less than or equal to 1,500 kW will not be assessed an annual administrative charge.

Article 202. Within 45 days of the date of issuance of the license, the licensee shall file an original set and two duplicate sets of aperture cards of the approved drawings. The set of originals must be reproduced on silver or gelatin 35 mm microfilm. The duplicate sets are copies of the originals made on diazo-type microfilm. All microfilm must be mounted on type D (3-1/4" x 7-3/8") aperture cards. The licensee shall submit one copy of FORM-587 with the aperture cards.

Prior to microfilming, the Commission Drawing Number (2932-1001 through 2932-1003) shall be shown in the margin below the title block of the approved drawing. After mounting, the Commission Drawing Number must be typed on the upper right corner of each aperture card. Additionally, the Project Number, Commission Exhibit (e.g., F-1, G-1, etc.), Drawing Title, and date of this license must be typed on the upper left corner of each aperture card.

The original and one duplicate set of aperture cards must be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The remaining duplicate set of aperture cards shall be filed with the Commission's New York Regional Office.

Article 301. At least 60 days before starting construction of the fish passage facilities required by this license, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections-New York Regional Office Regional Engineer and two copies to the Commission (one of these shall be a courtesy copy to the Director, Division of Dam Safety and Inspections) of the final contract plans and specifications, including a blasting plan, if applicable. The Commission may require changes to the plans and specifications to assure construction is performed in a safe and environmentally

sound manner. Construction may not commence until authorized by the Regional Engineer.

Article 302. At least 60 days before starting construction of the fish passage facilities required by this license, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections-New York Regional Office Regional Engineer and two copies to the Commission (one of these shall be a courtesy copy to the Director, Division of Dam Safety and Inspections) of the Quality Control and Inspection Program (QCIP) for the Commission's review and approval. The QCIP shall include a sediment and erosion control plan.

Article 303. Before starting construction of the fish passage facilities required by this license, the licensee shall review and approve the design of contractor-designed cofferdams and deep excavations. At least 30 days before starting construction of the cofferdams, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections-New York Regional Office Regional Engineer and two copies to the Commission (one of these copies shall be a courtesy copy to the Commission's Director, Division of Dam Safety and Inspections) of the approved cofferdam construction drawings and specifications, and the letters of approval.

Article 304. At least 60 days before starting construction of the fish passage facilities required by this license, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections-New York Regional Office Regional Engineer and two copies to the Commission (one of these shall be a courtesy copy to the Director, Division of Dam Safety and Inspections) of the Temporary Emergency Action Plan (TEAP) for the Commission's review and approval. The TEAP shall describe emergency procedures in case of failure of a cofferdam, any large sediment control structure, or any other water retaining structure that could endanger construction workers or the public. The TEAP shall include a notification list of emergency response agencies, a plan drawing of the proposed cofferdam arrangement, the location of safety devices and escape routes, and a brief description of testing procedures.

Article 305. Within 90 days of completion of construction of the flow measuring equipment specified in Article 404, any fish passage facilities required by Articles 405, 406 and 407, and recreational facilities specified in Article 409, the licensee shall file, for Commission approval, revised Exhibits A, B, F, and G to describe and show the project facilities as-built. The licensee shall submit six copies to the Commission, one copy to the Commission's Regional Director, Division of Dam Safety and Inspections, and one to the Director, Office of Energy Projects.

Article 401. The licensee shall operate the project in a run-of-river mode, with an impoundment elevation of 90.6 feet U.S. Geological Survey datum, for the protection and enhancement of water quality and fisheries resources in the Presumpscot River. The licensee shall, at all times, act to minimize the fluctuation of the impoundment surface elevation by maintaining a discharge from the project so that, at any point in time, flows, as measured immediately downstream of the project tailrace, approximate the sum of the inflows to the project impoundment.

Run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon mutual agreement between the licensee, the Maine Department of Environmental Protection, and the U.S. Fish and Wildlife Service. If the flow is so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each incident.

Article 402. The licensee shall manage water levels in the Mallison Falls impoundment for the protection and enhancement of water quality and fishery resources in the Presumpscot River in accordance with Appendix A of this order. The licensee shall notify personnel at the Region A Fisheries Headquarters of the Maine Department of Inland Fisheries and Wildlife and the Commission 2 weeks prior to any planned drawdown and as soon as possible, but no later than 10 days after any unplanned (or emergency) drawdown.

Article 403. The licensee shall release, within 30 days of the installation of the flow monitoring equipment required by Article 404, a continuous minimum flow of 60 cubic feet per second (cfs), or inflow, whichever is less, to the bypassed reach, from May 1 through October 31 and 40 cfs, or inflow, whichever is less, from November 1 through April 30, as required by Condition 1.B. of Appendix A, for the protection and enhancement of water quality and fisheries in the Presumpscot River.

Releases from the project to the bypassed reach may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon mutual agreement between the licensee, the Maine Department of Environmental Protection (Maine DEP), and U.S. Fish and Wildlife Service (FWS). If the flow is so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident, and shall provide the reason for the modified flow.

The licensee shall develop a flow study plan for the project's bypassed reach. The purpose of the flow study is to evaluate the effectiveness of the minimum bypass flows required by this article to provide habitat for Atlantic salmon spawning and egg incubation, as well as production of juvenile Atlantic salmon. The licensee shall file,

with the Commission, for approval, the final flow study plan within 180 days of being notified by the Maine Atlantic Salmon Commission (MASC) that a salmon habitat assessment has been completed and an active restoration program for Atlantic salmon initiated in the Presumpscot River, or according to an alternative schedule established in the project operations and flow monitoring plan required under Article 404. The licensee may prepare a single plan that encompasses other licensee-owned projects on the Presumpscot River having similar license conditions and schedules.

The flow study plan shall include a description of the methodology to be used to assess the adequacy of the minimum bypass flows required by this article to provide habitat for Atlantic salmon. In addition, the plan shall include a schedule for: (1) implementing the plan; (2) consulting with the appropriate federal and state agencies concerning the results of the study and any additional measures needed to enhance salmon habitat in the bypassed reach (e.g., changes in flow, channel modifications); and (3) filing the results (in the form of a final report), agency comments, and the licensee's response to agency comments with the Commission. The final report shall: (1) describe the flow/habitat relationships for Atlantic salmon spawning, incubation, and juvenile rearing in the bypassed reach; (2) outline any proposals by the licensee and the resource agencies for changes in project operations or structures, if any, to enhance salmon habitat in the bypassed reach; and (3) discuss the basis and need for continued flow studies.

The licensee shall prepare the flow study plan after consultation in the MASC, the Maine DEP, and FWS. The licensee shall include, with the plan, documentation of agency consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific conditions.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

If the results of the flow study indicate that changes in project structures or operations, including alternative flow releases, are necessary to enhance Atlantic salmon habitat in the project's bypassed reach, the Commission may direct the licensee to modify project structures or operations, accordingly.

Article 404. Within 180 days of license issuance, the licensee shall file, with the Commission, for approval, a project operations and flow monitoring plan to document

compliance with run-of-river operation, the impoundment drawdown restrictions, and the bypass flows, as required by Articles 401, 402, and 403 of this license, respectively, and Conditions 1.A. and B., and 2.A. of Appendix A. The licensee may prepare a single plan that encompasses other licensee-owned projects on the Presumpscot River having similar license conditions and schedules.

The plan shall provide a means to: (1) independently verify compliance with run-of-river operation, as well as the impoundment drawdown and bypass flow requirements of this license; and (2) allow agencies to consult regarding the methods to be used. The plan shall identify the monitoring methods and locations of the monitoring equipment needed to ensure that the project is operated in a manner consistent with the requirements of this license.

The plan shall include, at a minimum;

(1) a provision to maintain the impoundment elevation at 90.6 feet U.S. Geological Survey datum and notify the Maine Department of Inland Fisheries and Wildlife of any planned drawdowns;

(2) a description (including location) of any existing equipment that will be used to record water surface elevations and flows, and the planned locations of any additional flow and water temperature measuring equipment needed to monitor project operations, flows and water temperatures;

(3) the design of the monitoring equipment, including any pertinent hydraulic calculations, technical specifications of proposed instrumentation, erosion and sediment control measures, as appropriate, and design drawings of the system;

(4) a description of the methods and schedule for installing, calibrating, operating and maintaining the monitoring equipment;

(5) specific measures that would ensure that the monitoring system operates under all conditions (including loss of external electric power to the project);

(6) a description of the relative extent of manned versus automatic operation of the monitoring equipment;

(7) proposed data collection and storage protocols, and a provision to report flow, water temperature, and water surface elevation data to the Commission and the consulted agencies in a timely manner;

(8) provisions to (a) monitor the timing and magnitude of spillage events in the bypassed reach, along with limited visual observations, to verify that stranded fish are not present in the bypassed reach after the cessation of high spill events, and (b) identify and implement corrective actions should stranding or flushing be observed;

(9) a provision to evaluate the effectiveness of the minimum bypass flows required by Article 403 to provide habitat for Atlantic salmon, as well as a schedule to develop and file the flow study plan required by Article 403 with the Commission and the MDEP; and

(10) a schedule for implementing the project operations and flow monitoring plan.

The licensee shall prepare the project operations and flow monitoring plan in consultation with the Maine Department of Environmental Protection (MDEP), the U.S. Fish and Wildlife Service (USFWS) and the U.S. Geological Survey. The licensee shall include, with the plan, documentation of agency consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific conditions.

The project operations and flow monitoring plan shall include provisions consistent with the emergency notification requirements for run-of-river operation, drawdowns, and bypass flows required by this license. In addition, should impoundment elevations, impoundment drawdowns or bypass flows, as measured according to the approved monitoring plan, deviate from license requirements, the plan shall include a provision whereby the licensee files, with the Commission, a report of the incident within 30 days of the incident. The licensee shall prepare the report in consultation with the MDEP and the USFWS.

The report shall, to the extent possible, identify the cause, severity, and duration of the incident, and any observed or reported adverse environmental impacts resulting from the incident. The report also shall include: (1) operational data necessary to determine

compliance with this article; (2) a description of any corrective measures implemented at the time of the occurrence and the measures implemented or proposed to ensure that similar incidents do not recur; and (3) comments or correspondence, if any, received from the MDEP and the USFWS regarding the incident. Based on the report and the Commission's evaluation of the incident, the Commission reserves the right to require modifications to project facilities and operations to ensure future compliance.

The Commission reserves the right to require changes to the project operations and flow monitoring plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission. Any structure built in accordance with this plan shall be shown on the as-built drawings filed pursuant to Article 305 of this license.

Article 405. The licensee shall develop and implement an upstream American eel passage plan. The plan shall include provisions to install, operate, maintain, and evaluate, as appropriate, upstream fish passage facilities for American eel at the Mallison Falls Project. The purpose of the plan is to enhance upstream passage at the Mallison Falls Project and movement throughout the Presumpscot River drainage. The licensee may prepare a single plan that encompasses other licensee-owned projects on the Presumpscot River having similar license conditions and schedules.

Within 180 days of license issuance, the licensee shall file, for Commission approval, an upstream American eel passage plan that includes, at a minimum:

(1) final detailed design drawings and other design criteria for the proposed upstream eel passage facility;

(2) the proposed location of the upstream eel passage facility, determined in consultation with the Maine Department of Marine Resources (MDMR) and the U.S. Fish and Wildlife Service (USFWS);

(3) quantification of the flows required to operate the upstream eel passage facility;

(4) an operation and maintenance plan, including a schedule for operating the installed upstream eel passage facility;

(5) an erosion and sedimentation control plan, if ground-disturbing activities are required as part of the eel passage design and construction; and

(6) a schedule for implementing the plan, which provides for installing the upstream eel passage facility within 2 years of license issuance.

The upstream American eel passage plan also shall include provisions to evaluate the effectiveness of the upstream eel fish passage facility. The monitoring provisions of the plan shall include a description of the study methodology employed, as well as a schedule for: (1) implementing the monitoring provisions; (2) consulting with the appropriate federal and state agencies concerning the results of the monitoring; and (3) filing the results (in the form of a final report), along with any recommended changes to the facility, agency comments, and the licensee's response to agency comments with the Commission.

If the results of the monitoring indicate that changes in project structures or operations are necessary to facilitate upstream eel passage, the Commission may direct the licensee to make such reasonable changes in the design of the facilities and/or operations, as necessary.

The licensee shall prepare the upstream American eel passage plan in consultation with the MDMR, the Maine Department of Environmental Protection, and the USFWS. The licensee shall include, with the plan, documentation of agency consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies= comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee=s reasons, based on site-specific information.

The Commission reserves the right to require changes to the upstream American eel passage plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission. Any structure built in accordance with this plan shall be shown on the as-built drawings filed pursuant to Article 305 of this license.

Article 406. Beginning September 1, 2004, and annually thereafter, the licensee shall cease generation at sunset for at least 8 hours per night from September 1 through October 31, as required by Prescription 5 of Appendix B. The licensee shall determine the timing of the generation shutdown each year in consultation with the Maine Department of Marine Resources (MDMR) and the U.S. Fish and Wildlife Service (USFWS). The purpose of the shutdown period is to provide out-migrating American eel safe and timely passage downstream past the project via flows over the project dam.

The licensee shall, in consultation with the MDMR and the USFWS, conduct a 3-year study to determine the specific timing of the generation shutdown, so as to provide the optimum benefit for eel out-migration. Within 180 days of license issuance, the licensee shall file, with the Commission, for approval, a plan to monitor eel out-migration in the Presumpscot River. The licensee may prepare a single plan that encompasses other licensee-owned projects on the Presumpscot River having similar license conditions and schedules. The monitoring plan shall include, at a minimum:

(1) a provision to monitor eel out-migration past the project for the first 3 years after initiating the generation shutdowns in accordance with this article;

(2) a description of the study methodology employed; and

(3) a schedule for: (a) implementing the plan and monitoring provisions; (b) consultation with the appropriate federal and state agencies concerning the results of the monitoring; and (c) filing the results (in the form of a final report), along with any recommendations for changes in the timing of generation shutdowns, agency comments, and the licensee's response to agency comments with the Commission.

The licensee shall prepare the downstream American eel passage and monitoring plan in consultation with the MDMR, the Maine Department of Environmental Protection (MDEP), and the USFWS. The licensee shall include, with the plan, documentation of agency consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies= comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee=s reasons, based on site-specific information.

The Commission reserves the right to require changes to the downstream American eel passage and monitoring plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

If the results of the monitoring indicate that changes in the timing of generation shutdowns are necessary to effectively pass eels downstream past the project, the licensee may petition the MDEP and the USFWS to adjust the timing and duration of the generation shut downs. The Commission, based on the monitoring results and any recommendations filed by the licensee and agencies, may direct the licensee to make such

reasonable changes in project facilities and operations, as necessary. Any structure built in accordance with this article shall be shown on the as-built drawings filed pursuant to Article 305 of this license.

Article 407. Within 180 days of license issuance, the licensee shall file, with the Commission, for approval, a fish passage implementation plan for the installation, operation, maintenance, and evaluation, as appropriate, of upstream and downstream anadromous fish passage facilities at the Mallison Falls Project. The purpose of the plan is to monitor the need for fish passage at the five Presumpscot River projects to enhance populations of Atlantic shad and blueback herring in the Presumpscot River. The licensee shall prepare a single plan for its Dundee, Gambo, Little Falls, Mallison Falls, and Saccarappa projects to ensure coordination of fish passage among the projects.

The plan shall include, at a minimum:

(1) a schedule and format for filing an annual status report with the Commission, on the progress of anadromous fish restoration efforts in the Presumpscot River, including efforts to provide fish passage at the downstream Cumberland Mills dam and fish counts at any or all downstream dams where fish passage has been installed;

(2) a description of the specific criteria (e.g., the number of fish passing the next downstream dam) that would trigger the development of individual fish passage design plans for the five Presumpscot River dams; and

(3) an estimated schedule (or proposed time intervals) for installing fish passage facilities at each of the five project dams, once the Commission determines that fish passage is required in accordance with the U.S. Fish and Wildlife Service's (USFWS) fishway prescription.

The licensee shall prepare the fish passage implementation plan after consultation with the Maine Department of Environmental Protection, the Maine Department of Marine Resources, the Maine Atlantic Salmon Commission, the Maine Department of Inland Fisheries and Wildlife, and the U.S. Fish and Wildlife Service. The licensee shall include, with the plan, documentation of agency consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies= comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the

licensee does not adopt a recommendation, the filing shall include the licensee=s reasons, based on site-specific information.

The Commission reserves the right to require changes to the fish passage implementation plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 408. Authority is reserved, by the Commission, to require the licensee to construct, operate, and maintain, or to provide for the construction, operation, and maintenance of, such fishways as may be prescribed by the Secretary of the Interior during the term of the license under Section 18 of the Federal Power Act.

Article 409. Within 1 year of license issuance, the licensee shall file, for Commission approval, a Recreational Facilities Enhancement Plan for the Mallison Falls Project. The licensee may prepare a single plan that encompasses other licensee-owned projects on the Presumpscot River having similar license conditions and schedules.

The revised plan shall provide final details of the licensee's plans and schedules to construct, operate, and maintain the following recreational enhancements at the project consistent with conceptual plans provided in Section 2.5.3 and shown in Figures E.2.5-1 of the license application:

(1) a formal canoe portage trail located on the Gorham shoreline, with signage;

(2) signage for formal parking at existing car-top boat access downstream of the dam;

(3) a car-top boat access upstream of the dam at the canoe portage take-out location, and parking at the corner of Mallison Road and Canal Street with signage;

(4) a car-top boat launch and take-out next to the bridge abutment and roadside pull out;

(5) walk-in angler access to the bypassed reach; and

(6) a provision to mechanically remove vegetation.

This plan should include, at a minimum, the following elements: (1) final design drawings and a construction schedule for each of the facilities listed above; (2) specifications of the materials to be used and any special features and landscaping

procedures that would enhance area aesthetics; (3) site-specific measures to control erosion and sedimentation during, and subsequent to, construction of the proposed facilities; and (4) a discussion of how the needs of the disabled were considered in the planning and design of each recreation facility

The licensee shall prepare the plan in consultation with the Maine Department of Environmental Protection (MDEP), the Maine Department of Conservation (MDOC), the Maine Department of Inland Fisheries and Wildlife (MDIFW), the Maine Department of Marine Resources (MDMR), the Maine Historic Preservation Commission (MHPC), the National Park Service (NPS), the town of Windham, Gorham Trails, the Casco Bay Estuary Project (CBEP), and U.S. Fish and Wildlife Service (USFWS).

The licensee shall include with the plan documentation of consultation, copies of comments and recommendations received on the plan after it has been prepared and provided to the MDEP, MDOC, MDIFW, MDMR, MHPC, NPS, the town of Windham, Gorham Trails, CBEP, and USFWS; and specific descriptions of how the MDEP, MDOC, MDIFW, MDMR, MHPC, NPS, the town of Windham, Gorham Trails, CBEP, and USFWS are accommodated by the plan. The licensee shall allow a minimum of 30 days for the consulted entities to comment and make recommendations prior to filing the plan with the Commission for approval. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. No ground-disturbing or land-clearing activities for new recreational facilities shall begin until the Commission notifies the licensee that the plan is approved. Upon approval, the licensee shall implement the plan, including any changes required by the Commission. Any facilities built in accordance with this plan shall be shown on the as-built drawings filed pursuant to Article 305 of this license.

Article 410. Within 3 years of license issuance the licensee shall file, for Commission approval, a plan for monitoring recreational use at the project. The purpose of the recreational-use monitoring plan is to determine the adequacy of the recreational enhancements required in Article 409 to meet recreational demand at the project. The licensee may prepare a single plan that encompasses other licensee-owned projects on the Presumpscot River having similar license conditions and schedules.

The plan, at a minimum, shall include:

(1) a statement of methodology including the type and frequency of monitoring measures;

(2) provisions to monitor boating and angler use;

(3) provisions to assess the recreational needs at the project;

(4) an implementation schedule that would ensure completion of the monitoring of recreational use so that a recreational use report, based on the monitoring data, and any recommendations shall be filed with the Commission by December 31, 2009. The recreational use report may be filed in conjunction with the ALicensed Hydropower Development Recreation Report@ (Form 80) for the licensee-owned Gambo and Dundee Projects (P-2931 and P-2942, respectively);

(5) a provision for subsequent monitoring and filing, with the Commission, of a recreational use report every 12 years thereafter, and if there is a need for additional facilities, measures proposed by the licensee to accommodate recreation needs in the project area. The recreational use report may be filed in conjunction with the Form 80 for licensee-owned Gambo and Dundee Projects (P-2931 and P-2942, respectively); and

(6) a schedule for consulting with the Maine Department of Conservation (MDOC), the Maine Department of Inland Fisheries and Wildlife (MDIFW), the Maine Department of Marine Resources (MDMR), U.S. Fish and Wildlife Service (USFWS), prior to the recreational use report being filed with the Commission. The licensee shall file the summary of consultation and any proposed action with the Commission. If the licensee does not adopt any recommendations proposed by the above listed agencies, the filing shall include the licensee's reasons, based on site-specific conditions.

The licensee shall develop the recreational use monitoring plan in consultation with the MDOC, MDIFW, MDMR, and the USFWS. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after they have been prepared and provided to the MDOC, MDIFW, MDMR, and the USFWS, and specific descriptions of how the MDOC, MDIFW, MDMR, and the USFWS comments are accommodated by the plans. The licensee shall allow a minimum of 30 days for the MDOC, MDIFW, MDMR, and the USFWS to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific conditions.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 411. The licensee shall implement the "Programmatic Agreement Among the Federal Energy Regulatory Commission, and the State of Maine, State Historic Preservation Officer, for Managing Historic Properties That May Be Affected By A License Issuing to the S.D. Warren Company For the Continued Operation and Maintenance of the Presumpscot River Projects in Maine," executed on July 15, 2002, including but not limited to the Historic Properties Management Plan (HPMP) for the project. In the event that the Programmatic Agreement is terminated, the licensee shall implement the provisions of its approved HPMP. The Commission reserves the authority to require changes to the HPMP at any time during the term of the license. If the Programmatic Agreement is terminated prior to Commission approval of the HPMP, the licensee shall obtain approval before engaging in any ground disturbing activities or taking any other action that may affect any historic properties within the project's area of potential effect.

Article 412. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, such action includes, as necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and water for which the licensee may grant permission without prior Commission approval are:

(1) landscape plantings;

(2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings;

(3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and

(4) food plots and other wildlife enhancement.

To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements.

Before granting permission for construction of bulkheads or retaining walls, the licensee shall:

(1) inspect the site of the proposed construction;

(2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and

(3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline.

To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for:

(1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained;

(2) storm drains and water mains;

(3) sewers that do not discharge into project waters;

(4) minor access roads;

(5) telephone, gas, and electric utility distribution lines;

(6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary;

(7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and

(8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir.

No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for:

(1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained;

(2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained;

(3) other pipelines that cross project lands or waters but do not discharge into project waters;

(4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained;

(5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina;

(6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and

(7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year.

At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Energy Projects, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer;

(2) before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved exhibit R or approved report on recreational resources of an exhibit E; or, if the project does not have an approved exhibit R or

approved report on recreational resources, that the lands to be conveyed do not have recreational value;

(3) the instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters; and

(4) the Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(H) The licensee shall serve copies of any Commission filing required by this order on any entity specified in the order to be consulted on matters relating to that filing. Proof of service on these entities must accompany the filing with the Commission.

(I) This order is final unless a request for rehearing is filed within 30 days from the date of its issuance, as provided in Section 313(a) of the Federal Power Act. The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date specified in this order, except as specifically ordered by the

Commission. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

By the Commission.

(S E A L)

Linda Mitry,
Acting Secretary.

Appendix A

Water Quality Certification Conditions for the Sacarrappa (P-2897), Mallison Falls (P-2932), Little Falls (P-2941), Gambo (P-2931), and Dundee (P-2942) Hydroelectric Projects, Issued April 30, 2003, by the State of Maine Department of Environmental Protection

THEREFORE, the Department APPROVES the applications of S.D. WARREN COMPANY and GRANTS CERTIFICATION that there is a reasonable assurance that the continued operation of the PRESUMPSCOT RIVER HYDRO PROJECTS, as described above, will not violate applicable water quality standards, SUBJECT TO THE FOLLOWING CONDITIONS:

1. **Water Levels And Flows**

   A. Except as temporarily modified by (1) approved maintenance activities, (2) extreme hydrologic conditions, as defined below, or (3) emergency electrical system conditions, as defined below or (4) agreement between the applicant and other appropriate state and/or federal agencies, all projects shall be operated in a run-of-river mode, with outflow approximately equal to inflow on an instantaneous basis except during flashboard failure or replacement, and with impoundment levels maintained within 1 foot of full pond when flashboards are in place and within 1 foot of spillway crest elevation when flashboards are not in place.

   B. Except as temporarily modified by (1) approved maintenance activities, (2) extreme hydrologic conditions, as defined below, or (3) emergency electrical system conditions, as defined below or (4) agreement between the applicant and other appropriate state and/or federal agencies, the following minimum flow releases shall be provided annually into the project bypass reaches:

      - Dundee: 60 cfs from May 1 through October 31 and 40 cfs from November 1 through April 30.
      - Gambo: 60 cfs year-round.
      - Little Falls: Existing leakage (approximately 26 cfs).

- Mallison Falls: 60 cfs from May 1 through October 31 and
  40 cfs from November 1 through April 30.

- Saccarappa: Existing leakage (approximately 13 cfs).

Minimum bypass flows shall consist of uncontrolled leakage, spillage, and any flows released into the bypass reaches through any upstream and downstream eel passage and anadromous fish passage facilities provided at the projects. To the extent possible, all minimum flows shall be provided as spillage at the project dams, in order to provide maximum reaeration.

C. "Extreme Hydrologic Conditions" means the occurrence of events beyond the Licensee's control such as but not limited to abnormal precipitation, extreme runoff, flood conditions, ice conditions or other hydrologic conditions such that the operational restrictions and requirements contained herein are impossible to achieve or are inconsistent with the safe operation of the Project.

D. "Emergency Electrical System Conditions" means operating emergencies beyond Licensee's control which require changes in flow regimes to eliminate such emergencies which may in some circumstances include but are not limited to equipment failure or other abnormal temporary operating condition, generating unit operation or third-party mandated interruptions under power supply emergencies; and orders from local, state or federal law enforcement or public safety authorities.

E. The applicant shall, within 6 months of issuance of a New License for the project by FERC or upon such other schedule as established by FERC, submit plans for providing and monitoring run-of-river operations, impoundment levels, and minimum bypass flows as required by Parts A and B of this condition. These plans shall be reviewed by and must receive the approval of the DEP Bureau of Land and Water Quality.

F. Upon completion of a habitat assessment by the Atlantic Salmon Commission and notification to the applicant of initiation of active Atlantic salmon restoration activities in the Presumpscot River, the applicant shall conduct a study to evaluate the effectiveness of the minimum bypass flows required by Part B of this condition in providing habitat for various life stages of Atlantic salmon.

G. The applicant shall, within 6 months after notification from the Atlantic Salmon Commission on initiation of active Atlantic salmon restoration activities in the Presumpscot River, or upon such other schedule as established by FERC, submit

plans for a study to evaluate the effectiveness of minimum bypass flows required by Part B of this condition in providing habitat for Atlantic salmon, prepared in consultation with ASC. This study shall include evaluation of the effectiveness of bypass flows in providing habitat for Atlantic salmon spawning and egg incubation and production of juvenile Atlantic salmon. This plan shall be reviewed by and must receive approval of the DEP prior to implementation. In reviewing the plan, the DEP will consider the recommendations of the ASC.

H. The applicant shall, in accordance with a schedule set forth in the study plan or upon such other schedule as established by FERC, submit the results of any bypass flow effectiveness study, along with any recommendations for changes in the minimum bypass flows required by this condition. After reviewing the study results, and after notice to the applicant and opportunity for hearing, the Department reserves the right to require such changes in the minimum bypass flows established in this certification as may be deemed necessary to provide Atlantic salmon habitat in the bypass reaches.

2. **Impoundment Drawdown And Refill Procedures**

A. The applicant shall, unless necessary to address emergency situations or to address dam safety and/or public safety concerns, avoid maintenance drawdowns of the project impoundments during the months of May and June.

B. The applicant shall implement the following procedures for refilling the project impoundments after any impoundment drawdowns:

- If allowed under the FERC-approved Sebago lake level management plan, outflows shall be temporarily increased from Sebago Lake to refill the impoundments while flows from each project are maintained as required by the flow/temperature curve component of the lake level management plan.

- If increased outflows from Sebago Lake are not allowed under the FERC-approved Sebago lake level management plan, a maximum of 25% of the outflow from Sebago Lake shall be used to refill the impoundments while flows from each project are maintained at 75% or more of the outflow from Sebago Lake.

3. **Upstream Eel Passage**

A. Upstream eel passage facilities shall be installed and operational at all projects within 2 years following the issuance of a new FERC license for the projects.

B. The applicant shall, at least 60 days prior to construction or upon such other schedule as established by FERC, submit final design and operational plans for the upstream eel passage facilities required by Part A of this condition, prepared in consultation with the Department of Marine Resources. These plans shall be reviewed by and must receive the approval of DEP prior to construction. In reviewing the plans, the DEP will consider the recommendations of DMR.

C. The applicant shall, in consultation with the Department of Marine Resources, conduct a study or studies to determine the effectiveness of the upstream eel passage facilities required by this condition.

D. The applicant shall, concurrent with the commencement of facilities operation or upon such other schedule as established by FERC, submit plans for a study or studies to determine the effectiveness of the upstream eel passage facilities required by Part A of this condition, prepared in consultation with the Department of Marine Resources. These plans shall be reviewed by and must receive the approval of DEP prior to implementation. In reviewing the plans, the DEP will consider the recommendations of DMR.

E. The applicant shall, in accordance with a schedule set forth in the study plan or upon such other schedule as established by FERC, submit the results of any upstream eel passage effectiveness studies, along with any recommendations for changes in the design and/or operation of any passage facilities installed pursuant to this condition.

F. The applicant shall be responsible for taking such actions as are needed to effectively pass eels upstream through the projects. After reviewing the study results, and after notice to the applicant and opportunity for hearing, the Department reserves the right to require reasonable changes in the design and/or operation of the upstream eel passage facilities installed pursuant to this condition as may be deemed necessary to effectively pass eels upstream through the projects.

4. **Downstream Eel Passage**

A. The applicant shall, immediately following the issuance of a new FERC license for the projects, institute operational measures to provide downstream eel passage at all projects. These measures must include suspending generation at each project for at least 4 hours per night for at least four one-week periods during the downstream eel migration period. The timing of the generation shutdown shall be determined each year, in consultation with the Department of Marine Resources, to maximize the expected benefit for downstream eel migration.

B. The applicant shall, in consultation with the Department of Marine Resources, conduct a 3-year study to determine the exact timing of the generation shutdown, so as to result in the optimum benefit for downstream eel migration.

C. The applicant shall, within 60 days following the issuance of a new FERC license for the project or upon such other schedule as established by FERC, submit plans for a study to determine the exact timing of the generation shutdown required by Part B of this condition, prepared in consultation with the Department of Marine Resources. These plans shall be reviewed by and must receive the approval of DEP prior to implementation. In reviewing the plans, the DEP will consider the recommendations of DMR.

D. The applicant shall, in accordance with a schedule set forth in the study plan or upon such other schedule as established by FERC, submit the results of the downstream eel passage study, along with any recommendations for the exact timing of the generation shutdowns required by this condition.

E. The applicant shall be responsible for taking such actions as are needed to effectively pass eels downstream through the projects. After reviewing the study results, and after notice to the applicant and opportunity for hearing, the Department reserves the right to require changes in the timing of the operational shutdowns required by this condition as may be deemed necessary to effectively pass eels downstream through the projects.

F. In the event that downstream passage facilities are installed at a project pursuant to Condition 5 below, the applicant may, in consultation with the Department of Marine Resources, conduct a study to determine the effectiveness of these facilities in passing eels downstream through the project. Upon request by the applicant, and after reviewing the study results and the recommendations of DMR, the Department reserves the right to reduce or terminate the operational shutdowns required by this condition.

5. **Upstream And Downstream Anadromous Fish Passage**

Saccarappa Project

A. The applicant shall install and operate the following upstream fish passage facilities at the project:

- Phase I. A Denil "fish ladder," or other passage facilities of comparable efficiency in passing the target species, designed to pass at least 18,000 American shad, 109,000 blueback herring, and 273 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after passage is available at the downstream Cumberland Mills Dam.

- Phase II. Convert or replace the Phase I passage facilities with a fish lift, or other passage facilities of comparable efficiency in passing the target species, designed to pass up to 58,000 American shad, 353,000 blueback herring, and 426 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after (1) notification from the Department of Marine Resources, the Department of Inland Fisheries and Wildlife, and the Atlantic Salmon Commission of initiation of Phase II restoration above Gambo Dam and (2) the capacity of the installed Phase I passage facilities has been reached for any of the target species.

B. The applicant shall install and operate downstream passage facilities designed to pass American shad, blueback herring, and Atlantic salmon at the project. These facilities shall be operational concurrent with the completion of upstream anadromous fish passage facilities at the project or within 2 years following notification by the Department of Marine Resources or the Atlantic Salmon Commission of sustained stocking of anadromous fish above the Saccarappa Dam, whichever comes first.

Mallison Falls Project

A. The applicant shall install and operate the following upstream fish passage facilities at the project:

- Phase I. A Denil "fish ladder," or other passage facilities of comparable efficiency in passing the target species, designed to pass at least 4,200

American shad, 26,000 blueback herring, and 32 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after passage of at least 2,960 American shad or 18,020 blueback herring in any single year at the downstream Saccarappa Project.

- Phase II. Convert or replace the Phase I passage facilities with a fish lift, or other passage facilities of comparable efficiency in passing the target species, designed to pass up to 44,000 American shad, 270,000 blueback herring, and 185 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after (1) notification from the Department of Marine Resources, the Department of Inland Fisheries and Wildlife, and the Atlantic Salmon Commission of initiation of Phase II restoration above Gambo Dam and (2) the capacity of the installed Phase I passage facilities has been reached for any of the target species.

B. The applicant shall install and operate downstream passage facilities designed to pass American shad, blueback herring, and Atlantic salmon at the project. These facilities shall be operational concurrent with the completion of upstream anadromous fish passage facilities at the project or within 2 years following notification by the Department of Marine Resources or the Atlantic Salmon Commission of sustained stocking of anadromous fish above the Mallison Falls Dam, whichever comes first.

Little Falls Project

A. The applicant shall install and operate the following upstream fish passage facilities at the project:

- Phase I. A Denil "fish ladder," or other passage facilities of comparable efficiency in passing the target species, designed to pass at least 3,100 American shad, 19,000 blueback herring, and 15 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after passage of at least 2,960 American shad or 18,020 blueback herring in any single year at the downstream Saccarappa Project.

- Phase II. Convert or replace the Phase I passage facilities with a fish lift, or other passage facilities of comparable efficiency in passing the

target species, designed to pass up to 43,000 American shad, 263,000 blueback herring, and 168 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after (1) notification from the Department of Marine Resources, the Department of Inland Fisheries and Wildlife, and the Atlantic Salmon Commission of initiation of Phase II restoration above Gambo Dam and (2) the capacity of the installed Phase I passage facilities has been reached for any of the target species.

B. The applicant shall install and operate downstream passage facilities designed to pass American shad, blueback herring, and Atlantic salmon at the project. These facilities shall be operational concurrent with the completion of upstream anadromous fish passage facilities at the project or within 2 years following notification by the Department of Marine Resources or the Atlantic Salmon Commission of sustained stocking of anadromous fish above the Little Falls Dam, whichever comes first.

Gambo Project

A. The applicant shall install and operate the following upstream fish passage facilities at the project:

- Phase I. No upstream fish passage facilities required.

- Phase II. A fish lift, or other passage facilities of comparable efficiency in passing the target, designed to pass up to 40,000 American shad, 244,000 blueback herring, and 153 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after (1) notification from the Department of Marine Resources, the Department of Inland Fisheries and Wildlife, and the Atlantic Salmon Commission of initiation of Phase II restoration above Gambo Dam and (2) passage of at least 620 American shad or 3,800 blueback herring in any single year at the downstream Little Falls Project.

B. The applicant shall install and operate downstream passage facilities designed to pass American shad, blueback herring, and Atlantic salmon at the project. These facilities shall be operational concurrent with the completion of upstream anadromous fish passage facilities at the project or within 2 years following notification by the Department of Marine Resources or the Atlantic Salmon

Commission of sustained stocking of anadromous fish above the Gambo Dam, whichever comes first.

Dundee Project

A. The applicant shall install and operate the following upstream fish passage facilities at the project:

- Phase I. No upstream fish passage facilities required.

- Phase II. A fish lift, or other passage facilities of comparable efficiency in passing the target species, designed to pass up to 20,000 American shad, 122,000 blueback herring, and 64 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after (1) notification from the Department of Marine Resources, the Department of Inland Fisheries and Wildlife, and the Atlantic Salmon Commission of initiation of Phase II restoration above Gambo Dam and (2) passage of at least 4,020 American shad or 24,460 blueback herring in any single year at the downstream Gambo Project.

B. The applicant shall install and operate downstream passage facilities designed to pass American shad, blueback herring, and Atlantic salmon at the project. These facilities shall be operational concurrent with the completion of upstream anadromous fish passage facilities at the project or within 2 years following notification by the Department of Marine Resources or the Atlantic Salmon Commission of sustained stocking of anadromous fish above the Dundee Dam, whichever comes first.

All Projects

C. The applicant shall, at least 180 days prior to construction or upon such other schedule as established by FERC, submit final design and operational plans for the upstream and downstream anadromous fish passage facilities required by Parts A and B of this condition, prepared in consultation with the Department of Marine Resources and the Atlantic Salmon Commission. These plans shall be reviewed by and must receive the approval of DEP prior to construction. In reviewing the plans, the DEP will consider the recommendations of the ASC and DMR.

D. The applicant shall, in consultation with the Department of Marine Resources and the Atlantic Salmon Commission, conduct a study or studies to determine the

effectiveness of the upstream and downstream anadromous fish passage facilities required by this condition.

E. The applicant shall, concurrent with the commencement of facilities operation or upon such other schedule as established by FERC, submit plans for a study or studies to determine the effectiveness of the upstream and downstream anadromous fish passage facilities required by Parts A and B of this condition, prepared in consultation with the Department of Marine Resources and the Atlantic Salmon Commission. These plans shall be reviewed by and must receive the approval of DEP prior to implementation. In reviewing the plans, the DEP will consider the recommendations of the ASC and DMR.

F. The applicant shall, in accordance with a schedule set forth in the study plan or upon such other schedule as established by FERC, submit the results of any upstream and downstream anadromous fish passage effectiveness studies, along with any recommendations for changes in the design and/or operation of any passage facilities installed pursuant to this condition.

G. The applicant shall be responsible for taking such actions as are needed to effectively pass anadromous fish upstream and downstream through the projects, insofar as passage is required in accordance with Parts A and B of this condition. After reviewing the results of the study, and after notice to the applicant and opportunity for hearing, the Department reserves the right to require reasonable changes in the design and/or operation of the upstream and downstream anadromous fish passage facilities installed pursuant to this condition as may be deemed necessary to effectively pass anadromous fish upstream and downstream through the projects.

6. **Reaeration Measures**

A. The applicant shall, commencing with the issuance of a new FERC license for the project, institute the spillage of 50 cfs at the Dundee Dam and 100 cfs at the Gambo Dam, or take other equivalent measures as may be approved by the Department, in order to meet Class B dissolved oxygen standards in the river from Dundee Dam to Saccarappa Dam under dry weather conditions. Spillage must occur whenever river temperatures exceed 22 degrees Celsius, as measured at the Gambo Dam before 8 AM, and shall be in addition to the minimum bypass flows required by Condition 1 above.

B. The applicant shall, within 6 months of issuance of a New License for the project by FERC or upon such other schedule as established by FERC, submit plans for

providing and monitoring spillage or other approved reaeration measures as required by Part A of this condition. These plans shall be reviewed by and must receive the approval of the DEP Bureau of Land and Water Quality.

C. The applicant shall, in consultation with the Department, conduct a study or studies to determine the effectiveness of the spillage or other measures required by this condition in meeting Class B dissolved oxygen standards.

D. The applicant shall, within 60 days following the issuance of a new FERC license for the project or upon such other schedule as established by FERC, submit plans for a study or studies to determine the effectiveness of the spillage or other measures taken pursuant to Part A of this condition in meeting Class B dissolved oxygen standards. These plans shall be reviewed by and must receive the approval of DEP prior to implementation.

E. The applicant shall, in accordance with a schedule set forth in the study plan or upon such other schedule as established by FERC, submit the results of any studies to determine the effectiveness of the spillage or other measures taken pursuant to Part A of this condition to meet Class B dissolved oxygen standards in the river from Dundee Dam to Saccarappa Dam, along with any recommendations for changes in measures taken pursuant to this condition.

F. The applicant shall be responsible for taking such actions as are needed to meet dissolved oxygen standards in the river from Dundee Dam to Saccarappa Dam, insofar as the project dams cause or contribute to a violation of these standards under dry weather conditions. After reviewing the study results, and after notice to the applicant and opportunity for hearing, the Department will reopen and modify the terms of this certification to require reasonable changes in the design and/or operation of the projects as may be deemed necessary to meet Class B dissolved oxygen standards in the river from Dundee Dam to Saccarappa Dam under dry weather conditions.

7. **Recreational Facilities**

A. The applicant shall develop and implement a Recreational Facility Enhancement Plan for each project, which shall include, at a minimum, the following measures to maintain and/or enhance recreational access and use in the project areas:

Dundee Project

- Rerouting, stabilizing, and maintaining the existing canoe portage trail;
- Seeking an easement to provide walk-in angler access to the project bypass reach; and

- Investigating whether an existing access easement can be altered to permit fishery agency access for stocking purposes.

Gambo Project

- Enhancing and maintaining the existing informal canoe portage trail;

- Developing an interpretive sign to explain the history of the Oriental Powder Mill Complex;

- Providing walk-in angler access to the bypass reach;

- Developing parking and signs for carry-in boat access at the portage take-out location; and

- Assisting the Town of Gorham in regrading and enhancing the Gambo Road approach to the former bridge area immediately upstream from the dam.

Little Falls

- Establishing and maintaining a canoe portage trail;

- Assist Gorham Trails in developing parking, signage, and access for a carry-in boat launch at the Gorham Land Trust Property off of the Tow Path Road; and

- Donate approximately 0.8 acres of land on the island located off-shore of the Hawkes Property to the Gorham Land Trust.

Mallison Falls

- Establishing and maintaining a formal canoe portage trail;
- Providing signs for parking and access at the existing carry-in boat access site at the project powerhouse;
- Developing parking, signage, and access for a carry-in boat access site above the project dam;
- Seeking permission from the Department of Transportation and the Town of Gorham to provide a roadside pullout and carry-in boat access site next to the bridge abutment above the project dam; and
- Continuing to seek an easement or other opportunities to provide walk-in angler access to the bypass reach.

B. The applicant shall, within 12 months following the issuance of a new FERC license for the project or upon such other schedule as established by FERC, submit a Recreational Facility Enhancement Plan for each project as required by Part A of this condition. This plan shall be prepared in consultation with the Department of Conservation and the Department of Inland Fisheries and Wildlife, and shall include a schedule for implementation. This plan shall be reviewed by and must receive approval of the DEP.

8. **Limits Of Approval**

This approval is limited to and includes the proposals and plans contained in the applications and supporting documents submitted and affirmed to by the applicant.

9. **Compliance With All Applicable Laws**

The applicant shall secure and appropriately comply with all applicable federal, state and local licenses, permits, authorizations, conditions, agreements and orders required for the operation of the projects in accordance with the terms of this certification.

10. **Effective Date**

This water quality certification shall be effective concurrent with the effective date of the licenses issued for the projects by the Federal Energy Regulatory Commission.

Appendix B

UNITED STATES DEPARTMENTOF THE INTERIOR'S DECISION DOCUMENT, PRESCRIPTIONS FOR FISHWAYS PURSUANT TO SECTION 18 OF THE FEDERAL POWER ACT

10. Prescription for Fishways

Pursuant to Section 18 of the Federal Power Act, as amended, the Secretary of the Department of the Interior, as delegated to the Service, exercises her authority to prescribe the construction, operation, and maintenance of such fishways as deemed necessary.

10.1 General Prescriptions for the Presumpscot River Projects

A. This prescription for fishways is based on the assumption that fish passage or dam removal would be achieved at the downstream Smelt Hill Dam and the Cumberland Mills Dam, and that the Commission will not order the removal of the Saccarappa, Mallison Falls, and/or Little Falls Projects, as described in the DEIS. (DEIS, p. 28). Several interested parties, including the Department, have urged the removal of one or more of these projects. If, in its public interest consideration and licensing decision, the Commission orders the removal of one or more of these projects, the Department will modify its Prescription for Fishways accordingly.

B. Fishways shall be constructed, operated, and maintained to provide safe, timely, and effective passage for Atlantic salmon, American shad, blueback herring, and American eels at the licensee's expense.

To ensure the immediate and timely contribution of the fishways to the ongoing and planned anadromous and catadromous fish restoration and enhancement program in the Presumpscot River, the following are included and shall be incorporated by the licensee to ensure the effectiveness of the fishways pursuant to Section 1701(b) of the 1992 National Energy Policy Act (P.L. 102-486, Title XVII, 106 Stat. 3008).

C. Design Populations

The total number of returning fish reaching the lowermost of the five projects covered in this relicensing would depend on a number of factors, including whether fishways are installed or dam removals are used to achieve passage. Overall fishway efficiency and cumulative losses of fish attempting to use the upstream and downstream fish passage

facilities also would affect the total potential restored run of shad, river herring, salmon, and eels.

1. Shad and River Herring

Based on current estimates, restored runs of shad and river herring in the Presumpscot River could approach 75,000 shad, 200,000 alewives, and 450,000 blueback herring. The numbers of fish expected to pass each of the dams on the river are contained in the Department's Administrative Record and are summarized below (See Table 1).

2. Atlantic Salmon

Projections for restored runs of Atlantic salmon runs have been calculated, along with minimum levels of escapement at each dam needed to ensure that restoration and management goals are met. Those numbers of fish also are summarized below. It is unlikely, however, that the run of salmon would be large enough to affect the design of fishways at any of the five project dams. The more numerous species (shad and herring) typically determine the kind of fish passage that should be built at a hydroelectric project.

3. American Eel

American eels already are present in the area occupied by the five projects. While the Department does not have a precise estimate of the numbers of eels that would be expected to use fish passage at the projects, such passage would enhance the eel stocks and help achieve overall management goals. In addition, upstream passage needs for eels differ from those of salmon, shad, and river herring. Separate upstream eel fishways typically are installed at barriers in addition to those that are provided for anadromous fish.

Table 1. Summary of Fishway Design Populations

Project	Species	Phase 1*	Phase 2*
Saccarappa	American shad	18,000	58,000
	Blueback herring	109,000	353,000
	Atlantic salmon	273	426
	American eel	undetermined	undetermined
Mallison Falls	American shad	4,200	44,000
	Blueback herring	26,000	270,000
	Atlantic salmon	32	185
	American eel	undetermined	undetermined
Little Falls	American shad	3,100	43,000
	Blueback herring	19,000	263,000
	Atlantic salmon	15	168
	American eel	undetermined	undetermined
Gambo	American shad	--	40,000
	Blueback herring	--	244,000
	Atlantic salmon	--	153
	American eel	undetermined	undetermined
Dundee	American shad	--	22,000
	Blueback herring	--	122,000
	Atlantic salmon	--	64
	American eel	undetermined	undetermined

Note: Data provided by State agencies rounded to nearest (1,000) above 10,000.
(*) See Paragrpah 10.1.E on Scheduling.

4. Other Species

Fish passage provided at one or more of the five projects would be expected to pass trout, landlocked salmon, and other riverine species. The numbers of riverine fish using the fishways are likely to be small, relative to anadromous and catadromous species.

D. Upstream fishways shall be operationa1 during the designated migration period at river flows up to 3,000 cfs (see Table 2), as measured at the USGS gage at Westbrook (#01064118). Downstream fishways shall be operated during the designated migration period whenever units are operated at the Presumpscot River projects.

Table 2. Upstream and downstream migration periods for species covered in this Prescription for Fishways. *

Species	Upstream Migration Period	Downstream Migration Period
Atlantic salmon	April 15 – November 15	April 1 – June 30 (smolts & kelts) October 15 – December 31 (kelts)
American shad	May 1 – July 15	August 1 – November 15 (juv.) May 15 – August 1 (adult)
Alewife & blueback herring	May 1 – July 15	July 15 – November 15 (juv.) May 15 – August 1 (adult)
American eel	April 1 – June 30 **	July 15 – November 15 ***

* Any of these migration periods may be changed during the term of the license by the Service, based on new information, in consultation with the other fishery agencies and the licensee.

** The eel upstream migration period will need to be refined as more information is made available. The Service is calling for the licensee to study the duration and timing of upstream eel migration through the projects so that the effectiveness of this period can be evaluated.

*** July 15 – November 15 is the period set by the State of Maine for harvesting silver eels. The Service is initially using a reduced period, September 1 – October 31 as the downstream migration period for eels. The Service is calling for the licensee to study the magnitude and timing of downstream eel migration through the projects so that the effectiveness of the reduced period can be evaluated.

E. Scheduling

The timing of installation of fish passage at all five projects would be based on the growth of migratory and riverine fish populations in the Presumpscot River. American eels already are present in the river and would benefit from the immediate implementation of safe, timely, and effective upstream and downstream fishways. The Commission's DEIS also recommends permanent upstream eel fishways at all five projects (DEIS, p. 225).

A fishway must be installed at Saccarappa Dam as soon as passage is achieved at Smelt Hill and Cumberland Mills. The Commission will need to include appropriate license articles requiring preparation of detailed design plans, installation schedules, and studies to evaluate effectiveness of all upstream and downstream measures to be developed in consultation with the Service and other resource agencies. In order to allow for proper consultation with resource agencies and approval by the Commission of all design plans, permanent fish passage must be operational at the Saccarappa Dam within 2 years of the completion of fishway installation at Cumberland Mills Dam (or within 2 years of its removal or breaching). If Saccarappa Dam is not relicensed, and is subsequently removed, the Commission must place similar requirements for implementing fish passage at the license for the next upstream project (Mallison Falls). The number of fish counted at each barrier that would be sufficient to trigger installation of fishways at upstream dams is provided below in Table 3.

Upstream fish passage for the American eels shall be fully operational no later than 2 years after the date of issuance of a new license. Downstream passage (shutdowns) shall be implemented as soon as the licenses are effective (30 days after date of issuance). This will ensure that the existing eel resource in the Presumpscot River benefits from passage improvements as soon as practicable.

Table 3. Schedule for implementation of fish passage at Presumpscot River Projects.

Project	Phase 1	Phase 2
Saccarappa	Anadromous Fish: Upstream passage completed 2 years after passage is available at Cumberland Mills Dam. Downstream passage will be completed concurrent with the completion of upstream passage. However, in the event that the Department notifies the licensee that sustained annual stocking of anadromous fish above the project has begun or will begin within 2 years, the downstream passage facility shall be constructed within 2 years of this notice. American Eel: Upstream passage within 2 years of	Anadromous Fish: Upstream passage upgrade of capacity in accordance with design populations for Phase 2.

	licensing. Downstream passage (shutdowns) within 30 days of licensing. (*)	
Mallison Falls and Little Falls	Anadromous Fish: Upstream passage will be completed 2 years after 2,960 American shad or 18,020 blueback herring are passed in any single season at Saccarappa Dam. (**)(***) Downstream passage will be completed concurrent with the completion of upstream passage. However, in the event that the Department notifies the licensee that sustained annual stocking of anadromous fish above the project has begun or will begin within 2 years, the downstream passage facility shall be constructed within 2 years of this notice. American Eel: Upstream passage within 2 years of licensing Downstream passage (shutdowns) within 30 days of licensing. (*)	Anadromous Fish: Upstream passage upgrade of capacity in accordance with design populations for Phase 2.
Gambo	American Eel: Upstream passage within 2 years of licensing Downstream passage (shutdowns) within 30 days of licensing. (*)	Anadromous Fish: Upstream passage, pending agency review of Phase 1 for the downstream projects, will be completed 2 years after 620 American shad or 3,800 blueback herring are passed in any single season at Little Falls Dam. Downstream passage will be completed concurrent with the completion of upstream passage. However, in the event that the Department notifies the licensee that

		sustained annual stocking of anadromous fish above the project has begun or will begin within 2 years, the downstream passage shall be constructed within 2 years of this notice.
Dundee	American Eel: Upstream passage within 2 years of licensing Downstream passage (shutdowns) within 30 days of licensing. (*)	Anadromous Fish: Upstream passage, pending agency review of Phase 1 for the downstream projects, will be completed 2 years after 4,020 American shad or 24,460 blueback herring are passed in any single season at Gambo Dam. Downstream passage will be completed concurrent with the completion of upstream passage. However, in the event that the Department notifies the licensee that sustained annual stocking of anadromous fish above the project has begun or will begin within 2 years, the downstream passage shall be constructed within 2 years of this notice.

(*) Initially, downstream passage will be via spill resulting from project shutdown for 8 hours per day beginning at sunset from September 1 through October 31. The timing and magnitude of eel migration through the projects is to be evaluated and reported by the licensee and changed as deemed necessary and appropriate by the Service. There will be consultation at each step.

(**) The trigger numbers represent 20 percent of the estimated production of these species for each reach.

(***) Design of upstream fishways will be based on potential size of the runs of shad and blueback herring. In the event that the shad and blueback herring trigger numbers

are not reached, the Service, in consultation with the MASC, will assess the options for passing any runs of Atlantic salmon that may be present.

F. The timely installation of the prescribed fishway structures, facilities, or devices is a measure directly related to those structures, facilities, or devices and is necessary to ensure the effectiveness of such structures, facilities, or devices. Therefore, the Department's Prescription includes the express requirement that the licensee (1) notify, and (2) obtain approval from the Service for any extensions of time to comply with the provisions included in the Department's Prescriptions for fishways.

G. Regarding the timing of seasonal fishway operations, fishways shall be maintained and operated, at the licensee's expense, to maximize fish passage effectiveness throughout the upstream and downstream migration periods for Atlantic salmon, American shad, blueback herring, and American eel. The migration periods for these fish species in the Presumpscot River are shown above in Table 2.

H. The licensee shall keep the fishways in proper order and shall keep fishway areas clear of trash, logs, and material that would hinder passage. Anticipated maintenance shall be performed sufficiently before a migratory period such that fishways can be tested and inspected, and would operate effectively prior to and during the migratory periods. In consultation with the Service and other fishery agencies, the licensee shall develop a fishway maintenance plan describing the anticipated maintenance, a maintenance schedule, and contingencies. The plan shall be submitted to the Service for final review and approval, and the plan shall contain the consultation comments of the fishery agencies. If any agency recommendation is not incorporated, the licensee's explanation shall be in the plan that is filed with the Commission. Upon approval by the Service, the licensee shall submit the plan to the Commission for approval.

I. The licensee shall develop plans for and conduct fishway effectiveness evaluations in consultation with the Service and other fishery agencies on all prescribed fish passage. The plans and results of effectiveness studies shall be submitted to the Service for final review and approval, and the plan shall contain the consultation comments of the fishery agencies. If any agency recommendation is not incorporated, the licensee's explanation shall be in the plan that is filed with the Commission. Upon approval by the Service, the licensee shall submit the plan to the Commission for approval.

J. The licensee shall provide personnel of the Service, and other Service-designated representatives, access to the project site and to pertinent project records for the purpose of inspecting the fishways to determine compliance with the fishway prescriptions.

K. The licensee shall develop, in consultation with and submit for approval by the Service, all functional and final design plans, construction schedules, and any hydraulic model studies for the fishways or modifications to existing fishways described herein.

10.2 Specific Prescriptions for the Presumpscot River Projects

10.2.1 Mallison Falls Project (FERC #2941)

10.2.2.1 Phase 1

10.2.2.1.1 Upstream Fishways

Prescription item #1 – Construct a Denil "fish ladder" (4 ft. W x 1-on-8 slope) at the Mallison Falls spillway. The fish ladder is to include facilities for counting, trapping, and sorting.

Prescription item #2 – Provide up to 25 cfs attraction flow at the gated entrance of the Denil fish ladder. A zone-of-passage flow of up to 80 cfs also is needed to provide access for fish migrating up to the spillway.

Prescription item #3 – Install a separate upstream fishway for American eels; the specific location of this eelway at the project and other design criteria to be determined by the U.S. Fish and Wildlife Service following consultation with the licensee and Maine Department of Marine Resources.

10.2.2.1.2 Downstream Fishways

Prescription item #4 – Install trashracks with a 1-inch clear opening at the powerhouse turbine intake and gated surface bypass discharging up to 30 cfs during the downstream migration periods.

Prescription item #5 – Shutdown generation at sunset for at least 8 hours per night from September 1 through October 31 to provide out-migrating American eels safe and timely passage downstream via flows over the dam. To aid in the effectiveness evaluation of this item, monitor and report the timing and magnitude of eel out-migration past the project for 3 years.

10.2.2.2 Phase II

Prescription item #6 – Convert the Phase I Denil fish ladder at the spillway to a fishlift (hopper capacity: 600 gallon) when the capacity of the Denil fish ladder is reached (20,000 shad or 200,000 river herring). The Phase II fishlift will continue to have a gated entrance capable of discharging up to 30-cfs attraction flow, and retain existing or modified facilities for counting, trapping, and sorting.

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105 FERC * 61,011
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;
William L. Massey, and Nora Mead Brownell.

S.D. Warren Company Project No.2932-003

ORDER ISSUING SUBSEQUENT LICENSE

(Issued October 2, 2003)

1. This order issues a subsequent license to S.D. Warren Company (S.D.Warren) for the 800-kilowatt (kW) Mallison Falls Project No. 2932, located on the Presumpscot River in Cumberland County, Maine. In separate orders issued concurrently with this one, we are issuing subsequent licenses to S.D. Warren for the Saccarappa and Little Falls Projects Nos. 2897 and 2941, respectively, and new licenses for the Dundee and Gambo Projects Nos. 2942 and 2931, respectively, all of which projects are also on the Presumpscot River. In the order issuing a subsequent license for the Saccarappa Project, we discuss the multi-project proceeding in which the five projects were evaluated, as well as issues common to some or all of the five projects. The present order summarizes the procedural background and addresses remaining issues that pertain to the Mallison Falls Project alone.

Background

2. The Mallison Falls Project was constructed in 1900, although the Mallison Falls dam has been in existence for over 250 years. The original license for the Mallison Falls Project was issued in 1980,[1] with an expiration date of May 1, 2000. However, in 1996, at S.D. Warren's request, all of the licenses for the Presumpscot River projects were modified to expire on January 26, 2001, to enable a coordinated review at relicensing. See S.D. Warren, 74 FERC * 62,036 (1996). The Mallison Falls Project continues to

3. operate under the terms and conditions of its existing license until the Commission acts on the applications for relicense.[2]

4. S.D. Warren filed applications for new licenses for the five Presumpscot River projects on January 22, 1999. S.D. Warren proposes the continued operation of all five of the projects, but does not propose to install any new capacity at any of the projects. S.D. Warren proposes the following environmental measures for Mallison Falls and the other four projects: (1) continuation of run-of-river operations and daily headpond monitoring; (2) avoidance of impoundment drawdowns during May and June; (3) implementation of impoundment refill procedures after drawdown; (4) institution of operational measures to provide downstream eel passage; (5) implementation of a Recreation Facility Enhancement Plan; and (6) provisions for the protection and mitigation of adverse effects on identified archeological sites. At the Mallison Falls Project, S.D. Warren also proposes to provide seasonally adjusted minimum flows to the Mallison Falls bypassed reach and to monitor compliance with the minimum flows.

5. The Commission issued a public notice of the applications on April 23, 1999, requesting comments, protests, and motions to intervene. Timely motions to intervene in the multi-project

proceeding were filed by the U.S. Department of the Interior (Interior); Friends of the Presumpscot River (Presumpscot Friends); Friends of Sebago Lake; Maine Council of the Atlantic Salmon Federation (Maine Council); the State of Maine, State Planning Office (State Planning Office); and Trout Unlimited.

6. Late motions to intervene were filed by the U.S. Environmental Protection Agency (EPA), Allan Desjardin, and American Rivers. The Commission granted these late-filed motions to intervene on April 14, 2003. In addition, a late motion to intervene was filed by Representative Janice E. Labrecque of the Maine House of Representatives and was granted on April 26, 2002. Presumpscot Friends oppose the relicensing of the Mallison Falls, Little Falls, and Saccarappa Projects.

7. On December 4, 2000, the Commission issued public notice that the applications were ready for environmental analysis and solicited comments, recommendations, and terms and conditions. In response, comments were filed by Interior, State Planning Office, American Rivers and Presumpscot Friends (jointly), the City of Westbrook, Trout Unlimited, and Friends of Sebago Lake.[3] S.D. Warren filed reply comments on April 18, 2001. The issues raised by these comments are discussed more fully in the companion Saccarappa Project Order.

8. The Commission staff's multi-project Draft Environmental Impact Statement (DEIS) for the relicensing of the five projects was issued on October 5, 2001. Comments on the DEIS were filed by 12 entities and three individuals, and were considered in preparing the final multi-project EIS (FEIS).

9. On June 26, 2002, the Commission staff issued the FEIS. The alternatives considered in the FEIS are described in the companion Saccarappa Project Order. The FEIS concludes that the relicensing of the five Presumpscot River projects, as proposed by the applicant and with the additional staff-recommended measures, would be best adapted to a comprehensive plan for the proper use, conservation, and development of the Presumpscot River. The FEIS considered but rejected the alternative of removing one or more of the minor project dams, for reasons discussed in the Saccarappa Project Order. The FEIS finds that fish passage facilities at the five project dams would be warranted in the future, when fish passage at the downstream Cumberland Mills and Smelt Hill dams is achieved,[4] and recommends that the licensee be required to file a fish passage implementation plan for the projects. The FEIS also recommends that the licensee design and install upstream eel passage at all five projects, and includes the prescription of Interior's Fish and Wildlife Service (FWS) for implementing shutdown periods to provide for downstream eel passage.

10. Other measures recommended by the FEIS for the Mallison Falls Project include the provision of specific minimum flows to the bypassed reach, the preparation and implementation of a reservoir elevation and minimum flow monitoring plan, the undertaking of a recreational use monitoring study, and the development of a recreational facilities enhancement plan and a historic properties management plan (HPMP).

11. The Commission has considered all of the comments and interventions filed in this multi-project proceeding in determining whether, and under what conditions, to issue a subsequent license for the Mallison Falls Project.

Project Description

12. The Mallison Falls Project is located on the Presumpscot River in southern Maine near the Towns of Gorham and South Windham in Cumberland County. The Presumpscot River originates at the outlet of Sebago Lake and extends approximately 25 miles to the Atlantic Ocean at Casco Bay. Seven tributaries feed the Presumpscot River between Sebago Lake and the Saccarappa Project, the most downstream of the projects.

13. The five subject projects span a river reach of about 12 miles from Windham (about three miles downstream of Sebago Lake) to Westbrook, Maine (about 10 miles upstream from Casco Bay). The Mallison Falls Project, at river mile (RM) 16.4, is five miles upstream of the Saccarappa Project and is less than one half mile downstream of the Little Falls Project. S.D. Warren's hydroelectric projects operate continuously to generate

electricity that is used at S.D. Warren's paper mill at Westbrook. Capacity and energy in excess of that used by the mill is sold on the open market. The Mallison Falls Project generates approximately 4,200,000 kilowatt-hours (kWh) of electricity annually.

14. The Mallison Falls Project consists of the following facilities: (1) a 358-foot-long, 14-foot-high diversion dam, consisting of a 113.5-foot-long cut granite spillway section, a 174.5-foot-long reinforced concrete spillway section, and a 70-foot-long canal headgate structure; (2) a 675-foot-long, 41-foot-wide, and 6-foot-deep intake canal; (3) a 33-foot-wide by 51-foot-long powerhouse containing two vertical Francis turbines direct-connected to generators, each with an installed capacity of 400 kW for a total rated generating capacity of 800 kW; (4) an 11-kV transmission line tied into the Gambo Project transmission line; (5) a 675-foot-long bypass reach between the dam and powerhouse tailwaters;[5] and (6) a 0.5-mile-long impoundment extending from the Mallison Falls dam upstream to the tailwaters of the Little Falls Project, with a surface area of approximately 8 acres.

15. The Mallison Falls Project is operated in a run-of-river mode so that the impoundment is maintained at near constant levels year round. The powerhouse is manually operated and uses flows that originate at S.D. Warren's upstream Eel Weir Project No. 2984 (not subject to relicensing in this proceeding) at the outlet of Sebago Lake and various minor tributaries to the Presumpscot River downstream from Sebago Lake, and that passthrough intermediate projects. As currently licensed, there are no required minimum flow releases to the bypass reach at the Mallison Falls Project.

Miscellaneous Statutory Requirements

16. In issuing this license, we have considered numerous applicable statutory requirements. These include: water quality certification under Section 401 of the Clean Water Act, 33 U.S.C. * 1341(a)(1); Section 307 of the Coastal Zone Management Act, 16 U.S.C. * 1456(c)(3)(A) (CZMA); Essential Fish Habitat under Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. * 1855(b)(2) (Fishery Conservation Act); Section 7(a)(2) of the Endangered Species Act, 16 U.S.C. * 1536(a)(2) (ESA); historic properties under Section 106 of the National Historic Preservation Act (NHPA); and Sections 18 (fishway prescriptions) and 10(a)(2)(A) (comprehensive plans) of the Federal Power Act (FPA). The Saccarappa Project order contains a full explanation of how these statutory requirements are satisfied in the issuance of new or subsequent licenses for the five projects. We summarize that explanation here.

17. The single water quality certification issued by the Maine Department of Environmental Protection and the single fishway prescription submitted by FWS, in each case for all five projects, are attached to each license order as Appendices A and B, respectively.[6] Each license contains an article reserving the Commission's authority to require such fishways as Interior may prescribe under Section 18 in the future. No consistency certification is necessary under the CZMA, because the projects are not in the Maine coastal zone and Maine has not defined an area outside the coastal zone for reviewing federal licensed activities that may affect the coastal zone. The National Marine Fisheries Service has not commented on or filed recommendations for the applications in respect to the Fishery Conservation Act, and we conclude that relicensing the projects as proposed and with staff's recommendations would have no adverse effect on essential fish habitat. The small whorled pogonia plant, the only federally-listed threatened or endangered species occurring in any of the project areas has been found at the Dundee Project, and we find that the relicensing of the Dundee Project, with the conditions described in that order, will not affect this species. The Commission has satisfied its responsibilities under Section 106 of the NHPA by executing with the Maine State Historic Preservation Officer a Programmatic Agreement for managing historic properties that may be affected by the relicensing of the projects. Finally, we find that issuance of the licenses does not create an inconsistency with any of the relevant federal and state comprehensive plans that have been filed with the Commission.

Dam Removal

18. A number of non-governmental agencies and individuals advocate the removal of the Saccarappa, Mallison Falls, and Little Falls dams. The staff evaluated several dam removal scenarios in the FEIS. We conclude that the removal of any of these three dams is not warranted. Our analysis and rationale is contained in the Saccarappa Project Order.

Recommendations of Federal and State Fish and Wildlife Agencies Under FPA Section 10(j)

19. Section 10(j) of the FPA, 16 U.S.C. * 803(j)(1), requires the Commission, when issuing a license, to include license conditions based upon recommendations of federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act, 16 U.S.C. ** 661, et seq., to "adequately and equitably protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat)" affected by the project. If the Commission believes that any such recommendation may be inconsistent with the purpose and requirements of Part I of the FPA, or other applicable law, Section 10(j)(2) of the FPA, 16 U.S.C. * 803(j)(2), requires the Commission and the agencies to attempt to resolve such inconsistencies, giving due weight to the recommendations, expertise, and statutory responsibilities of such agencies. If the Commission still does not adopt a recommendation, it must explain how the recommendation is inconsistent with Part I of the FPA or other applicable law and how the conditions imposed by the Commission adequately and equitably protect, mitigate damages to, and enhance fish and wildlife resources.

20. Only FWS filed Section 10(j) recommendations for the Presumpscot River projects.[7] The license issued here for the Mallison Falls Project contains conditions consistent with recommendations for: (1) run-of-river operation; (2) a project operations and flow monitoring plan; and (3) recreation use monitoring.[8]

21. Commission staff made an initial determination that some of the recommendations of FWS were inconsistent with the substantial evidence standard of Section 313(b) and the comprehensive planning and public interest standards of Sections 4(e) and 10(a) of the FPA. In the DEIS, staff concluded that FWS's recommendations for (1) year-round minimum flows in the Dundee, Mallison Falls, and Gambo bypassed reaches; and (2) shoreline management plans at each of the five projects were inconsistent with Part I of the FPA. Commission staff concluded that there was no evidence that these measures are needed, that they would not provide environmental benefits commensurate with their costs, and that the alternative measures Commission staff recommended would adequately protect fish and wildlife.

22. By letter dated October 1, 2001, Commission staff advised FWS of its preliminary determinations. In an attempt to resolve the apparent inconsistencies, Commission staff met with representatives of FWS, the Maine DEP, and S.D. Warren on February 19, 2002. Below, we discuss Commission staff's attempt to resolve the apparent inconsistencies for the Mallison Falls Project.

A. Minimum Flows

23. FWS recommends a year-round minimum flow of 63 cubic feet per second (cfs) for the Mallison Falls bypassed reach in order to maximize available habitat for a year-round trout fishery. In the DEIS, Commission staff recommended a seasonally adjusted minimum flow for the bypassed reach at the Mallison Falls Project: 20 cfs from November through March, 40 cfs in April and October, and 60 cfs from May through September. The objective of staff's flow recommendation is to provide sufficient flows to maximize habitat in the bypassed reach during the open-water fishing season and to provide adequate over-winter flows to protect aquatic habitat and any holdover trout, thus allowing the Maine Department of Inland Fisheries and Wildlife (Maine DIFW) to develop a stocked trout fishery in the bypassed reach.

24. Staff's recommended flow is significantly lower than FWS's recommended flow for the late fall, winter, and early spring periods.[9] Staff concluded that a lower flow from October through April would provide a reasonable level of habitat over the late fall, winter and early spring months, when the number of

holdover trout would likely be lower than during the peak of the fishing season.

25. At the Section 10(j) meeting, FWS reiterated its recommendation for higher year-round minimum flows. FWS indicated that staff's flow recommendation does not consider the potential for an over-winter fishery advocated by Maine DIFW. FWS also suggested that additional flow studies may be necessary to determine minimum flow needs for anadromous fish that were not previously considered. However, FWS did not identify any new information for staff to consider. Commission and FWS staff agreed conceptually to a strategy that would involve an interim flow with future flow studies when specific triggering events occur. However, the Commission and FWS staff could not reach consensus on the actual interim minimum flow.

26. Releasing a minimum flow to the Mallison Falls bypassed reach would provide 675 feet of riverine habitat not currently available in the Presumpscot River. This additional habitat would be capable of supporting a significant fishery for stocked salmonids and other resident species in close proximity to the heavily-populated urban areas of Portland and Westbrook. As discussed in the FEIS, such a cold-water fishery has been established successfully upstream at Eel Weir.[10]

27. As the FEIS notes, a key element to the success of the Eel Weir fishery is the over-wintering flows, which currently are lower than the flows provided during the open-water angling season. Such flows sustain over-wintering or holdover trout, as well as the macroinvertebrate populations that serve as food for both over-wintering and summer resident fishes. However, a fish's metabolic needs are less in the winter than other times of the year. Thus, flow needs during the late fall to early spring period would be less than during the open-water angling season. Moreover, fewer fish would be present during the winter season than during the peak of the fishing season, soon after stocking, when the number of anglers would also be high.

28. The FWS-recommended year-round minimum flows would maximize habitat for brook and brown trout in the Mallison Falls bypassed reach, and would provide nearly 99 percent of the maximum wetted area in the reach. We concur that higher flows are warranted for the open-water angling season. However, FWS has not provided sufficient evidence to indicate that a similar flow is necessary over the winter period to support any winter fishery that may develop in the reach. Further, requiring high year-round flows as proposed by FWS would cost S.D. Warren about $8,480 annually, $7,770 of which is in lost generation. Therefore, we conclude that the FWS's recommendation for a 63-cfs minimum flow for the winter months is inconsistent with the comprehensive development standard of Sections 4(e) and 10(a) of the FPA, and with the substantial evidence standard of Section 313(b) of the FPA.

29. In the FEIS, Commission staff recommends a seasonal flow regime of 40 cfs from October through April and 60 cfs from May through September.[11] The water quality certification issued for this project by Maine DEP requires a minimum flow of 60 cfs from May through October and 40 cfs from November through April. Thus, staff's final recommendation conforms to the certification except for the certification's higher flow for October. Conditions in a water quality certification are required to be made conditions of a license. Further, an over-winter flow of 40-cfs would provide good weighted usable area and relatively high wetted area, sufficient to sustain over-wintering trout, landlocked salmon and macroinvertebrates in the bypassed reach. These flows would provide significant habitat and fishery benefits at a more reasonable cost to the licensee than the over-winter flow recommended by FWS.

30. Therefore, Article 403 requires the licensee to release a minimum flow of 60 cfs from May 1 through October 31 and 40 cfs from November 1 through April 30. We are also requiring, in Article 403, additional flow studies, should specific triggering events, as described in the FEIS, occur in the future.

B. Shoreline Management

31. FWS recommends that S.D. Warren develop a Shoreline Management Plan (SMP) that would include all licensee-owned lands abutting the project within 500 feet of the high water elevation that are determined to be needed for project-related purposes,

such as fish and wildlife habitat protection; providing public access for recreation; or protecting sensitive, unique, or scenic areas.[12] However, FWS did not identify any such lands. Commission staff did not agree with the FWS recommendation for a SMP, including the 500-foot buffer zone, explaining in Section 4.3.5 of the DEIS that a SMP is typically required only for major projects when there is a need to resolve a current resource issue (e.g., when a threatened or endangered species is present near areas of project recreational use).

32. At the Section 10(j) meeting, FWS indicated that Commission staff's recommendation not to require a SMP for the Mallison Falls Project does not adequately consider either the changing resource values of the concerned agencies, or the expected increase in recreational use that would result from increased minimum flows in the river and improved water quality. In addition, FWS indicated that staff's SMP recommendation does not consider the Casco Bay watershed planning efforts. FWS indicated that it was more concerned that the scope of the planning effort involves all five of the Presumpscot River projects than with the specific width of the buffer zone. Commission and FWS staff agreed that the primary goal of a SMP would be to ensure that S.D. Warren continues its involvement in the Casco Bay Estuary Project (CBEP) planning process.

33. Neither FWS nor any other entity provided new information at or after the Section 10(j) meeting to justify the need for an SMP at the Mallison Falls Project to protect, enhance, or mitigate damage to fish and wildlife. Because no need has been shown for an SMP at the Mallison Falls Project for these purposes, we conclude that the recommendation for the development and implementation of an SMP would be inconsistent with the comprehensive development standard of Section 10(a) of the FPA and with the substantial evidence standard of Section 313(b) of the FPA. Licensing the project as proposed, with staff's recommendations and other agency conditions, will adequately protect, enhance, and mitigate damages to fish and wildlife, by providing for

run-of-river operation, management of impoundment levels, and fish passage. Therefore, we will not require development of such a plan.[13]

Applicant's Plans and Capabilities

34. In accordance with Sections 10(a)(2)(C) and 15 of the FPA, 16 U.S.C. ** 803(a)(2)(C) and 808, we have evaluated S.D. Warren and its record as a licensee with respect to the following: (A) compliance history and ability to comply with the new license; (B) safe management, operation, and maintenance of the project; (C) need for power; and (D) transmission service.

A. Compliance History and Ability to Comply with the New License

35. We have reviewed the relicense application and S.D. Warren's record of compliance with the terms and conditions of the existing license. We find that S.D. Warren's overall record of making timely filings and compliance with its license is satisfactory.

B. Safe Management, Operation, and Maintenance of the Project

36. We reviewed S.D. Warren's management, operation, and maintenance of the Mallison Falls Project. The project is exempt from the requirements of Part 12, Subparts C - Emergency Action Plans (EAP), of the Commission's regulations. In addition, the project is not subject to Part 12, Subpart D - Inspection by an Independent Consultant, of the Commission's regulations. We find that the project works are safe and that the owner's record of managing, operating, and maintaining these facilities presents no reason to believe that the applicant cannot continue to safely manage, operate, and maintain these facilities. The continued operation of the Mallison Falls Project would pose no threat to public safety if operated and maintained according to good engineering practices and the normal regulations governing our

hydroelectric licenses.

C. Need for Power

37. We assessed the need for power by reviewing the needs in the operating region in which the project is located - southern Maine, within the Northeast Power Coordinating Council (NPCC) region of North American Electric Reliability Council (NERC). NERC annually forecasts electrical supply and demand in the nation and the region for a 10-year period. NERC's report[14] on annual supply and demand projections indicates that, for the period 2000-2009, the demand for electric energy in the NPCC region will grow at an average rate of 1.2 percent annually.

38. The Mallison Falls Project generates about 4,200,000 kWh annually with an installed capacity of 800 kW. All of the power from the project is used at S.D. Warren's paper mill. The mill's annual electricity demand is about 180,000,000 kWh and the mill's load demand is about 21,000 kW.

39. If licensed, the project would continue to meet part of S.D. Warren's power needs. The project would displace existing and planned nonrenewable fossil-fueled generation, which contributes to the production of nitrous oxides and sulfurous oxides that contribute to air pollution, as well as carbon dioxide, which contributes to the phenomenon of global warming.

40. We find that the project power would continue to be useful in meeting part of the need for power in southern Maine in both the short and long term.

D. Transmission Service

41. The project includes: (1) a 2.3-kV generator lead; (2) a 2.3-kV/11-kV step-up transformer; and (3) an 11-kV transmission line joining the Gambo Project transmission line. S.D. Warren proposes no new transmission facilities at the project, and the project, as proposed, would not affect the existing licensed transmission facilities.

Comprehensive Development

42. Sections 4(e) and 10(a)(1) of the FPA, 16 U.S.C. ** 797(e) and 803(a)(1), respectively, require the Commission, in acting on license applications, to give equal consideration to the developmental and environmental uses of the waterway on which a project is located. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

43. In determining whether a proposed project will be best adapted to a comprehensive plan for developing a waterway for beneficial public purposes, pursuant to Section 10(a)(1) of the FPA, the Commission considers a number of public interest factors, including the economic benefits of project power. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in Mead Corp., 72 FERC * 61,027 (1995), we employ an analysis that uses current costs to compare the costs of the project and likely alternative power, with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. Our economic analysis provides a general estimate of the potential power benefits and costs of a project and reasonable alternatives to project-generated power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license. In making our decision, we consider the project power benefits, both with the applicant's proposed mitigation and enhancement measures and with our modifications and additions to the applicant's proposal.

44. Under the no-action alternative, the Mallison Falls Project would generate an average of 4,200,000 kWh of electricity annually, have an annual power value of $169,970 (40.47 mills/kWh), and a total annual cost of $155,680 (37.07

mills/kWh). This results in a net annual benefit of $14,300 (3.40 mills/kWh).

45. As proposed by S.D. Warren, the Mallison Falls Project would generate an average of 3,966,000 kWh of electricity annually, have an annual power value of $160,500 (40.47 mills/kWh), and a total annual cost of $177,650 (44.79 mills/kWh). This results in a net annual benefit of -$17,150 (-4.32 mills/kWh).

46. As proposed by S.D. Warren and with additional staff-recommended and agency-required measures, the Mallison Falls Project would generate an average of 3,599,000 kWh of electricity annually. The project would have an annual power value of $145,650 (40.47 mills/kWh) and a total annual cost of $548,330 (152.35 mills/kWh). This results in a net annual benefit of -$402,680 (-111.88 mills/kWh).

47. As discussed in the companion Saccarappa Project order, anadromous fish passage at the Mallison Falls Project is dependent on both the installation of fish passage facilities downstream at Cumberland Mills dam, an uncertain prospect, and the phased approach to fish passage installation based on the presence of specified trigger populations of target species passed at the Saccarappa Project dam. Therefore, it is possible that the prescribed anadromous fish passage facilities at the Mallison Falls dam will not be constructed. Under that scenario, the Mallison Falls Project would generate an average of 3,668,000 kWh of electricity annually. The project would have an annual power value of $148,440 (40.47 mills/kWh) and a total annual cost of approximately $187,010 (10.95 mills/kWh). Therefore, the resulting annual net benefit of the Mallison Falls Project without the fish passage facilities would be -$38,570 (-20.48 mills/kWh).

48. Under the dam removal alternative, S.D. Warren would no longer use the Mallison Falls Project to generate power. Hence, the annual power benefit would be the cost of purchasing replacement energy, or -$169,970. The only annual costs would be those associated with the removal of the dam, or $115,350. The resulting annual net benefit for the dam removal alternative would be about -$285,320.[15]

49. Based on our independent review and evaluation of the Mallison Falls Project, the recommendations of the resource agencies and other stakeholders, the dam removal alternative, and the no-action alternative, as documented in the FEIS, we have selected the proposed action with the additional staff-recommended and agency-required measures, as the preferred alternative. The project, as conditioned herein, will be best adapted to the comprehensive development of the waterway for beneficial public purposes.

50. We selected this alternative because: (1) issuance of a new license would allow S.D. Warren to maintain a beneficial, dependable, and inexpensive source of electric energy; (2) the electric energy generated by the project would continue to offset the use of fossil-fuel-fired generation and capacity, thereby conserving non-renewable resources and reducing atmospheric pollution; and (3) the required environmental measures would either protect or enhance water quality, fish and terrestrial resources (including wetlands), public use of recreation facilities and resources, land uses, and historic and archaeological resources in the Presumpscot River and the area affected by the project.

The preferred alternative includes the following measures:

(1) operation of the Mallison Falls Project in a run-of-river mode;

(1) release of seasonal minimum flows of 60 cfs (May - October) and 40 cfs (November - April), or inflow, whichever is less, to the bypassed reach, as well as the conducting of additional instream flow studies in the future to allow future adjustment of minimum flows;

(2) possible future installation of upstream and downstream fish passage facilities for American shad and river herring, as generally prescribed by FWS, and development of a fish passage implementation plan;

(3) design and installation of upstream eel passage facilities, and development and implementation of an eel passage implementation and monitoring plan;

(4) development and implementation of a plan for downstream eel passage, including provisions for project shutdowns and conducting a 3-year downstream migrating eel study to assess timing of peak eel movement;

(5) development of an impoundment drawdown management plan; and

(6) development of a recreational facilities enhancement plan and monitoring of recreation use after construction of the recreation facilities.

License Term

1. Section 15(e) of the FPA, 16 U.S.C. * 808 (e), specifies that any license issued shall be for a term that the Commission determines to be in the public interest, but not less than 30 years or more than 50 years from the date on which the license is issued. The Commission's policy establishes 30-year terms for projects with little or no proposed redevelopment, new construction, new capacity, or environmental mitigation and enhancement measures; 40-year terms for projects with a moderate amount thereof; and 50-year terms for projects with an extensive amount thereof. It is also the Commission's policy to coordinate to a reasonable extent the license expiration dates of projects in a river basin, in order that subsequent relicense proceedings can also be coordinated. [16]

2. The new license for the Mallison Falls Project, as well as for the other four projects, requires a moderate amount of construction and environmental mitigation and enhancement measures, and we are therefore issuing the subsequent license for the Mallison Falls Project (and the other four projects) for a 40-year term. This determination does not include the costs of constructing the Phase 1 and Phase 2 fish passage facilities for anadromous fish, which is dependent upon the occurrence of certain events. Issuing licenses with 40-year terms for all five of the projects will continue to facilitate contemporaneous expiration of licenses of projects in the same river basin, and thereby further the Commission's policy for coordinated treatment of future relicensing proceedings.

The Commission orders:

(A) This license is issued to S.D. Warren Company (licensee), for a period of 40 years, effective the first day of the month in which this order is issued, to operate and maintain the Mallison Falls Project. This license is subject to the terms and conditions of the FPA, which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by Exhibit G, filed on January 22, 1999:

Exhibit G Drawing	FERC No. 2932-	Showing
G-1	1003	Project Area Map

(2) The project works consisting of: (a) a 358-foot-long by 14-foot-high reinforced concrete, masonry, and cut granite dam, comprised of a 113.5-foot-long cut granite section and a 174.5-foot-long reinforced concrete spillway section with a crest elevation of 90.6 feet U.S. Geological Survey (USGS) datum, as well as a 70-foot-long by 13-foot-high canal headgate structure with five 6-foot-high by 7.5-foot-wide gates; (b) a 0.5-mile-long impoundment, with a normal pool elevation of 90.6 feet USGS datum, a surface area of about 8 acres and negligible storage; (c) a 675-foot-long, 41-foot-wide, 6-foot-deep bedrock-lined intake canal; (d) a 33-foot-wide by 51-foot-long reinforced concrete and masonry powerhouse; (e) two vertical Francis turbines direct-connected to the generators, each with an installed capacity of 400 kilowatts (kW) for a total installed capacity of 800 kW; (f) a 675-foot-long bypassed reach; (g) 2.3-

kilovolt (kV) generator leads, a 2.3-kV/11-kV step-up transformer, and an 11-kV transmission line tied into the Gambo Project transmission line; and (h) other appurtenances.

The project works are more specifically described in Exhibit A of the application (pages A-1 to A-11) and shown by Exhibit F drawings, filed January 22, 1999:

Exhibit F Drawing	FERC No. 2932-	Description
F-1	1001	Plan of Dam, Headworks Details, and Cross Sections
F-2	1002	Plan of Powerhouse, Section and Elevations

(3) All of the structures, fixtures, equipment, or facilities used or useful in the operation and maintenance of the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, as approved by the Commission, and all riparian or other rights that are necessary or appropriate in the operation and maintenance of the project.

(C) Exhibits A, F, and G, listed above, are approved and made part of this license.

(D) This license is subject to the water quality certification conditions applicable to the Mallison Falls Project No. 2932 submitted by the State of Maine Department of Environmental Protection pursuant to Section 401(a) of the Clean Water Act, as those conditions are set forth in Appendix A to this order.

(E) This license is subject to the fishway prescription applicable to the Mallison Falls Project No. 2932 submitted by the Department of the Interior's U.S. Fish and Wildlife Service, as set forth in Appendix B to this order.

(F) The following sections of the FPA are waived and excluded from the license for this minor project: 4(b), except the second sentence; 4(e), insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army; 6, insofar as it relates to public notice and to the acceptance and expression in the license of terms and conditions of the FPA that are waived here; 10(c), insofar as it relates to depreciation reserves; 10(d); 10(f); 14, except insofar as the power of condemnation is reserved; 15; 16; 19; 20; and 22.

(G) This license is subject to the articles set forth in Form L-9 (October 1975), entitled, "Terms and Conditions of License for Constructed Minor Project Affecting Navigable Waters of the United States," and the following additional articles.

Article 201. The licensee shall pay the United States the following annual charges: for the purposes of reimbursing the United States for the costs of administering Part I of the Federal Power Act, a reasonable amount as determined in accordance with the provisions of the Commissioner's regulations in effect from time to time. The authorized installed capacity for that purpose is 800 kilowatts (kW). This annual charge shall be effective as of the first day of the month in which the license is issued. Under regulations currently in effect, projects with authorized capacity of less than or equal to 1,500 kW will not be assessed an annual administrative charge.

Article 202. Within 45 days of the date of issuance of the license, the licensee shall file an original set and two duplicate sets of aperture cards of the approved drawings. The set of originals must be reproduced on silver or gelatin 35 mm microfilm. The duplicate sets are copies of the originals made on diazo-type microfilm. All microfilm must be mounted on type D (3-1/4" x 7-3/8") aperture cards. The licensee shall submit one copy of FORM-587 with the aperture cards.

Prior to microfilming, the Commission Drawing Number (2932-1001 through 2932-1003) shall be shown in the margin below the title block of the approved drawing. After mounting, the

Commission Drawing Number must be typed on the upper right corner of each aperture card. Additionally, the Project Number, Commission Exhibit (e.g., F-1, G-1, etc.), Drawing Title, and date of this license must be typed on the upper left corner of each aperture card.

The original and one duplicate set of aperture cards must be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The remaining duplicate set of aperture cards shall be filed with the Commission's New York Regional Office.

Article 301. At least 60 days before starting construction of the fish passage facilities required by this license, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections-New York Regional Office Regional Engineer and two copies to the Commission (one of these shall be a courtesy copy to the Director, Division of Dam Safety and Inspections) of the final contract plans and specifications, including a blasting plan, if applicable. The Commission may require changes to the plans and specifications to assure construction is performed in a safe and environmentally sound manner. Construction may not commence until authorized by the Regional Engineer.

Article 302. At least 60 days before starting construction of the fish passage facilities required by this license, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections-New York Regional Office Regional Engineer and two copies to the Commission (one of these shall be a courtesy copy to the Director, Division of Dam Safety and Inspections) of the Quality Control and Inspection Program (QCIP) for the Commission's review and approval. The QCIP shall include a sediment and erosion control plan.

Article 303. Before starting construction of the fish passage facilities required by this license, the licensee shall review and approve the design of contractor-designed cofferdams and deep excavations. At least 30 days before starting construction of the cofferdams, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections-New York Regional Office Regional Engineer and two copies to the Commission (one of these copies shall be a courtesy copy to the Commission's Director, Division of Dam Safety and Inspections) of the approved cofferdam construction drawings and specifications, and the letters of approval.

Article 304. At least 60 days before starting construction of the fish passage facilities required by this license, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections-New York Regional Office Regional Engineer and two copies to the Commission (one of these shall be a courtesy copy to the Director, Division of Dam Safety and Inspections) of the Temporary Emergency Action Plan (TEAP) for the Commission's review and approval. The TEAP shall describe emergency procedures in case of failure of a cofferdam, any large sediment control structure, or any other water retaining structure that could endanger construction workers or the public. The TEAP shall include a notification list of emergency response agencies, a plan drawing of the proposed cofferdam arrangement, the location of safety devices and escape routes, and a brief description of testing procedures.

Article 305. Within 90 days of completion of construction of the flow measuring equipment specified in Article 404, any fish passage facilities required by Articles 405, 406 and 407, and recreational facilities specified in Article 409, the licensee shall file, for Commission approval, revised Exhibits A, B, F, and G to describe and show the project facilities as-built. The licensee shall submit six copies to the Commission, one copy to the Commission's Regional Director, Division of Dam Safety and Inspections, and one to the Director, Office of Energy Projects.

Article 401. The licensee shall operate the project in a run-of-river mode, with an impoundment elevation of 90.6 feet U.S. Geological Survey datum, for the protection and enhancement of water quality and fisheries resources in the Presumpscot River. The licensee shall, at all times, act to minimize the fluctuation of the impoundment surface elevation by maintaining a discharge from the project so that, at any point in time, flows, as measured immediately downstream of the project tailrace, approximate the sum of the inflows to the project impoundment.

Run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon mutual agreement between the licensee, the Maine Department of Environmental Protection, and the U.S. Fish and Wildlife Service. If the flow is so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each incident.

Article 402. The licensee shall manage water levels in the Mallison Falls impoundment for the protection and enhancement of water quality and fishery resources in the Presumpscot River in accordance with Appendix A of this order. The licensee shall notify personnel at the Region A Fisheries Headquarters of the Maine Department of Inland Fisheries and Wildlife and the Commission 2 weeks prior to any planned drawdown and as soon as possible, but no later than 10 days after any unplanned (or emergency) drawdown.

Article 403. The licensee shall release, within 30 days of the installation of the flow monitoring equipment required by Article 404, a continuous minimum flow of 60 cubic feet per second (cfs), or inflow, whichever is less, to the bypassed reach, from May 1 through October 31 and 40 cfs, or inflow, whichever is less, from November 1 through April 30, as required by Condition 1.B. of Appendix A, for the protection and enhancement of water quality and fisheries in the Presumpscot River.

Releases from the project to the bypassed reach may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon mutual agreement between the licensee, the Maine Department of Environmental Protection (Maine DEP), and U.S. Fish and Wildlife Service (FWS). If the flow is so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident, and shall provide the reason for the modified flow.

The licensee shall develop a flow study plan for the project's bypassed reach. The purpose of the flow study is to evaluate the effectiveness of the minimum bypass flows required by this article to provide habitat for Atlantic salmon spawning and egg incubation, as well as production of juvenile Atlantic salmon. The licensee shall file, with the Commission, for approval, the final flow study plan within 180 days of being notified by the Maine Atlantic Salmon Commission (MASC) that a salmon habitat assessment has been completed and an active restoration program for Atlantic salmon initiated in the Presumpscot River, or according to an alternative schedule established in the project operations and flow monitoring plan required under Article 404. The licensee may prepare a single plan that encompasses other licensee-owned projects on the Presumpscot River having similar license conditions and schedules.

The flow study plan shall include a description of the methodology to be used to assess the adequacy of the minimum bypass flows required by this article to provide habitat for Atlantic salmon. In addition, the plan shall include a schedule for: (1) implementing the plan; (2) consulting with the appropriate federal and state agencies concerning the results of the study and any additional measures needed to enhance salmon habitat in the bypassed reach (e.g., changes in flow, channel modifications); and (3) filing the results (in the form of a final report), agency comments, and the licensee's response to agency comments with the Commission. The final report shall: (1) describe the flow/habitat relationships for Atlantic salmon spawning, incubation, and juvenile rearing in the bypassed reach; (2) outline any proposals by the licensee and the resource agencies for changes in project operations or structures, if any, to enhance salmon habitat in the bypassed reach; and (3) discuss the basis and need for continued flow studies.

The licensee shall prepare the flow study plan after consultation in the MASC, the Maine DEP, and FWS. The licensee shall include, with the plan, documentation of agency consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum

of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific conditions.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

If the results of the flow study indicate that changes in project structures or operations, including alternative flow releases, are necessary to enhance Atlantic salmon habitat in the project's bypassed reach, the Commission may direct the licensee to modify project structures or operations, accordingly.

Article 404. Within 180 days of license issuance, the licensee shall file, with the Commission, for approval, a project operations and flow monitoring plan to document compliance with run-of-river operation, the impoundment drawdown restrictions, and the bypass flows, as required by Articles 401, 402, and 403 of this license, respectively, and Conditions 1.A. and B., and 2.A. of Appendix A. The licensee may prepare a single plan that encompasses other licensee-owned projects on the Presumpscot River having similar license conditions and schedules.

The plan shall provide a means to: (1) independently verify compliance with run-of-river operation, as well as the impoundment drawdown and bypass flow requirements of this license; and (2) allow agencies to consult regarding the methods to be used. The plan shall identify the monitoring methods and locations of the monitoring equipment needed to ensure that the project is operated in a manner consistent with the requirements of this license.

The plan shall include, at a minimum;

(1) a provision to maintain the impoundment elevation at 90.6 feet U.S. Geological Survey datum and notify the Maine Department of Inland Fisheries and Wildlife of any planned drawdowns;

(2) a description (including location) of any existing equipment that will be used to record water surface elevations and flows, and the planned locations of any additional flow and water temperature measuring equipment needed to monitor project operations, flows and water temperatures;

(3) the design of the monitoring equipment, including any pertinent hydraulic calculations, technical specifications of proposed instrumentation, erosion and sediment control measures, as appropriate, and design drawings of the system;

(4) a description of the methods and schedule for installing, calibrating, operating and maintaining the monitoring equipment;

(5) specific measures that would ensure that the monitoring system operates under all conditions (including loss of external electric power to the project);

(6) a description of the relative extent of manned versus automatic operation of the monitoring equipment;

(7) proposed data collection and storage protocols, and a provision to report flow, water temperature, and water surface elevation data to the Commission and the consulted agencies in a timely manner;

(8) provisions to (a) monitor the timing and magnitude of spillage events in the bypassed reach, along with limited visual observations, to verify that stranded fish are not present in the bypassed reach after the cessation of high spill events, and (b) identify and implement corrective actions should stranding or flushing be observed;

(9) a provision to evaluate the effectiveness of the minimum bypass flows required by Article 403 to provide habitat for Atlantic salmon, as well as a schedule to develop and file the flow study plan required by Article 403 with the Commission and the MDEP; and

(10) a schedule for implementing the project operations and flow monitoring plan.

The licensee shall prepare the project operations and flow monitoring plan in consultation with the Maine Department of Environmental Protection (MDEP), the U.S. Fish and Wildlife Service (USFWS) and the U.S. Geological Survey. The licensee shall include, with the plan, documentation of agency consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific conditions.

The project operations and flow monitoring plan shall include provisions consistent with the emergency notification requirements for run-of-river operation, drawdowns, and bypass flows required by this license. In addition, should impoundment elevations, impoundment drawdowns or bypass flows, as measured according to the approved monitoring plan, deviate from license requirements, the plan shall include a provision whereby the licensee files, with the Commission, a report of the incident within 30 days of the incident. The licensee shall prepare the report in consultation with the MDEP and the USFWS.

The report shall, to the extent possible, identify the cause, severity, and duration of the incident, and any observed or reported adverse environmental impacts resulting from the incident. The report also shall include: (1) operational data necessary to determine compliance with this article; (2) a description of any corrective measures implemented at the time of the occurrence and the measures implemented or proposed to ensure that similar incidents do not recur; and (3) comments or correspondence, if any, received from the MDEP and the USFWS regarding the incident. Based on the report and the Commission's evaluation of the incident, the Commission reserves the right to require modifications to project facilities and operations to ensure future compliance.

The Commission reserves the right to require changes to the project operations and flow monitoring plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission. Any structure built in accordance with this plan shall be shown on the as-built drawings filed pursuant to Article 305 of this license.

Article 405. The licensee shall develop and implement an upstream American eel passage plan. The plan shall include provisions to install, operate, maintain, and evaluate, as appropriate, upstream fish passage facilities for American eel at the Mallison Falls Project. The purpose of the plan is to enhance upstream passage at the Mallison Falls Project and movement throughout the Presumpscot River drainage. The licensee may prepare a single plan that encompasses other licensee-owned projects on the Presumpscot River having similar license conditions and schedules.

Within 180 days of license issuance, the licensee shall file, for Commission approval, an upstream American eel passage plan that includes, at a minimum:

(1) final detailed design drawings and other design criteria for the proposed upstream eel passage facility;

(2) the proposed location of the upstream eel passage facility, determined in consultation with the Maine Department of Marine Resources (MDMR) and the U.S. Fish and Wildlife Service (USFWS);

(3) quantification of the flows required to operate the upstream eel passage facility;

(4) an operation and maintenance plan, including a schedule for operating the installed upstream eel passage facility;

(5) an erosion and sedimentation control plan, if ground-disturbing activities are required as part of the eel passage design and construction; and

(6) a schedule for implementing the plan, which provides for installing the upstream eel passage facility within 2 years of license issuance.

The upstream American eel passage plan also shall include provisions to evaluate the effectiveness of the upstream eel fish passage facility. The monitoring provisions of the plan shall include a description of the study methodology employed, as well as a schedule for: (1) implementing the monitoring provisions; (2) consulting with the appropriate federal and state agencies concerning the results of the monitoring; and (3) filing the results (in the form of a final report), along with any recommended changes to the facility, agency comments, and the licensee's response to agency comments with the Commission.

If the results of the monitoring indicate that changes in project structures or operations are necessary to facilitate upstream eel passage, the Commission may direct the licensee to make such reasonable changes in the design of the facilities and/or operations, as necessary.

The licensee shall prepare the upstream American eel passage plan in consultation with the MDMR, the Maine Department of Environmental Protection, and the USFWS. The licensee shall include, with the plan, documentation of agency consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies= comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee=s reasons, based on site-specific information.

The Commission reserves the right to require changes to the upstream American eel passage plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission. Any structure built in accordance with this plan shall be shown on the as-built drawings filed pursuant to Article 305 of this license.

Article 406. Beginning September 1, 2004, and annually thereafter, the licensee shall cease generation at sunset for at least 8 hours per night from September 1 through October 31, as required by Prescription 5 of Appendix B. The licensee shall determine the timing of the generation shutdown each year in consultation with the Maine Department of Marine Resources (MDMR) and the U.S. Fish and Wildlife Service (USFWS). The purpose of the shutdown period is to provide out-migrating American eel safe and timely passage downstream past the project via flows over the project dam.

The licensee shall, in consultation with the MDMR and the USFWS, conduct a 3-year study to determine the specific timing of the generation shutdown, so as to provide the optimum benefit for eel out-migration. Within 180 days of license issuance, the licensee shall file, with the Commission, for approval, a plan to monitor eel out-migration in the Presumpscot River. The licensee may prepare a single plan that encompasses other licensee-owned projects on the Presumpscot River having similar license conditions and schedules. The monitoring plan shall include, at a minimum:

(1) a provision to monitor eel out-migration past the project for the first 3 years after initiating the generation shutdowns in accordance with this article;

(2) a description of the study methodology employed;

and

(3) a schedule for: (a) implementing the plan and monitoring provisions; (b) consultation with the appropriate federal and state agencies concerning the results of the monitoring; and (c) filing the results (in the form of a final report), along with any recommendations for changes in the timing of generation shutdowns, agency comments, and the licensee's response to agency comments with the Commission.

The licensee shall prepare the downstream American eel passage and monitoring plan in consultation with the MDMR, the Maine Department of Environmental Protection (MDEP), and the USFWS. The licensee shall include, with the plan, documentation of agency consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies= comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee=s reasons, based on site-specific information.

The Commission reserves the right to require changes to the downstream American eel passage and monitoring plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

If the results of the monitoring indicate that changes in the timing of generation shutdowns are necessary to effectively pass eels downstream past the project, the licensee may petition the MDEP and the USFWS to adjust the timing and duration of the generation shut downs. The Commission, based on the monitoring results and any recommendations filed by the licensee and agencies, may direct the licensee to make such reasonable changes in project facilities and operations, as necessary. Any structure built in accordance with this article shall be shown on the as-built drawings filed pursuant to Article 305 of this license.

Article 407. Within 180 days of license issuance, the licensee shall file, with the Commission, for approval, a fish passage implementation plan for the installation, operation, maintenance, and evaluation, as appropriate, of upstream and downstream anadromous fish passage facilities at the Mallison Falls Project. The purpose of the plan is to monitor the need for fish passage at the five Presumpscot River projects to enhance populations of Atlantic shad and blueback herring in the Presumpscot River. The licensee shall prepare a single plan for its Dundee, Gambo, Little Falls, Mallison Falls, and Saccarappa projects to ensure coordination of fish passage among the projects.

The plan shall include, at a minimum:

(1) a schedule and format for filing an annual status report with the Commission, on the progress of anadromous fish restoration efforts in the Presumpscot River, including efforts to provide fish passage at the downstream Cumberland Mills dam and fish counts at any or all downstream dams where fish passage has been installed;

(2) a description of the specific criteria (e.g., the number of fish passing the next downstream dam) that would trigger the development of individual fish passage design plans for the five Presumpscot River dams; and

(3) an estimated schedule (or proposed time intervals) for installing fish passage facilities at each of the five project dams, once the Commission determines that fish passage is required in accordance with the U.S. Fish and Wildlife Service's (USFWS) fishway prescription.

The licensee shall prepare the fish passage implementation plan after consultation with the Maine Department of Environmental Protection, the Maine Department of Marine

Resources, the Maine Atlantic Salmon Commission, the Maine Department of Inland Fisheries and Wildlife, and the U.S. Fish and Wildlife Service. The licensee shall include, with the plan, documentation of agency consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies= comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee=s reasons, based on site-specific information.

The Commission reserves the right to require changes to the fish passage implementation plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 408. Authority is reserved, by the Commission, to require the licensee to construct, operate, and maintain, or to provide for the construction, operation, and maintenance of, such fishways as may be prescribed by the Secretary of the Interior during the term of the license under Section 18 of the Federal Power Act.

Article 409. Within 1 year of license issuance, the licensee shall file, for Commission approval, a Recreational Facilities Enhancement Plan for the Mallison Falls Project. The licensee may prepare a single plan that encompasses other licensee-owned projects on the Presumpscot River having similar license conditions and schedules.

The revised plan shall provide final details of the licensee's plans and schedules to construct, operate, and maintain the following recreational enhancements at the project consistent with conceptual plans provided in Section 2.5.3 and shown in Figures E.2.5-1 of the license application:

(1) a formal canoe portage trail located on the Gorham shoreline, with signage;

(2) signage for formal parking at existing car-top boat access downstream of the dam;

(3) a car-top boat access upstream of the dam at the canoe portage take-out location, and parking at the corner of Mallison Road and Canal Street with signage;

(4) a car-top boat launch and take-out next to the bridge abutment and roadside pull out;

(5) walk-in angler access to the bypassed reach; and

(6) a provision to mechanically remove vegetation.

This plan should include, at a minimum, the following elements: (1) final design drawings and a construction schedule for each of the facilities listed above; (2) specifications of the materials to be used and any special features and landscaping procedures that would enhance area aesthetics; (3) site-specific measures to control erosion and sedimentation during, and subsequent to, construction of the proposed facilities; and (4) a discussion of how the needs of the disabled were considered in the planning and design of each recreation facility

The licensee shall prepare the plan in consultation with the Maine Department of Environmental Protection (MDEP), the Maine Department of Conservation (MDOC), the Maine Department of Inland Fisheries and Wildlife (MDIFW), the Maine Department of Marine Resources (MDMR), the Maine Historic Preservation Commission (MHPC), the National Park Service (NPS), the town of Windham, Gorham Trails, the Casco Bay Estuary Project (CBEP), and U.S. Fish and Wildlife Service (USFWS).

The licensee shall include with the plan documentation of consultation, copies of comments and recommendations received on the plan after it has been prepared and provided to the MDEP, MDOC, MDIFW, MDMR, MHPC, NPS, the town of Windham, Gorham Trails, CBEP, and USFWS; and specific descriptions of how the MDEP, MDOC, MDIFW, MDMR, MHPC, NPS, the town of Windham, Gorham Trails, CBEP, and USFWS are accommodated by the plan. The licensee shall allow

a minimum of 30 days for the consulted entities to comment and make recommendations prior to filing the plan with the Commission for approval. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. No ground-disturbing or land-clearing activities for new recreational facilities shall begin until the Commission notifies the licensee that the plan is approved. Upon approval, the licensee shall implement the plan, including any changes required by the Commission. Any facilities built in accordance with this plan shall be shown on the as-built drawings filed pursuant to Article 305 of this license.

Article 410. Within 3 years of license issuance the licensee shall file, for Commission approval, a plan for monitoring recreational use at the project. The purpose of the recreational-use monitoring plan is to determine the adequacy of the recreational enhancements required in Article 409 to meet recreational demand at the project. The licensee may prepare a single plan that encompasses other licensee-owned projects on the Presumpscot River having similar license conditions and schedules.

The plan, at a minimum, shall include:

(1) a statement of methodology including the type and frequency of monitoring measures;

(2) provisions to monitor boating and angler use;

(3) provisions to assess the recreational needs at the project;

(4) an implementation schedule that would ensure completion of the monitoring of recreational use so that a recreational use report, based on the monitoring data, and any recommendations shall be filed with the Commission by December 31, 2009. The recreational use report may be filed in conjunction with the ALicensed Hydropower Development Recreation Report* (Form 80) for the licensee-owned Gambo and Dundee Projects (P-2931 and P-2942, respectively);

(5) a provision for subsequent monitoring and filing, with the Commission, of a recreational use report every 12 years thereafter, and if there is a need for additional facilities, measures proposed by the licensee to accommodate recreation needs in the project area. The recreational use report may be filed in conjunction with the Form 80 for licensee-owned Gambo and Dundee Projects (P-2931 and P-2942, respectively); and

(6) a schedule for consulting with the Maine Department of Conservation (MDOC), the Maine Department of Inland Fisheries and Wildlife (MDIFW), the Maine Department of Marine Resources (MDMR), U.S. Fish and Wildlife Service (USFWS), prior to the recreational use report being filed with the Commission. The licensee shall file the summary of consultation and any proposed action with the Commission. If the licensee does not adopt any recommendations proposed by the above listed agencies, the filing shall include the licensee's reasons, based on site-specific conditions.

The licensee shall develop the recreational use monitoring plan in consultation with the MDOC, MDIFW, MDMR, and the USFWS. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after they have been prepared and provided to the MDOC, MDIFW, MDMR, and the USFWS, and specific descriptions of how the MDOC, MDIFW, MDMR, and the USFWS comments are accommodated by the plans. The licensee shall allow a minimum of 30 days for the MDOC, MDIFW, MDMR, and the USFWS to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific conditions.

The Commission reserves the right to require changes to the

plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 411. The licensee shall implement the "Programmatic Agreement Among the Federal Energy Regulatory Commission, and the State of Maine, State Historic Preservation Officer, for Managing Historic Properties That May Be Affected By A License Issuing to the S.D. Warren Company For the Continued Operation and Maintenance of the Presumpscot River Projects in Maine," executed on July 15, 2002, including but not limited to the Historic Properties Management Plan (HPMP) for the project. In the event that the Programmatic Agreement is terminated, the licensee shall implement the provisions of its approved HPMP. The Commission reserves the authority to require changes to the HPMP at any time during the term of the license. If the Programmatic Agreement is terminated prior to Commission approval of the HPMP, the licensee shall obtain approval before engaging in any ground disturbing activities or taking any other action that may affect any historic properties within the project's area of potential effect.

Article 412. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, such action includes, as necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and water for which the licensee may grant permission without prior Commission approval are:

(1) landscape plantings;
(2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings;

(3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and

(4) food plots and other wildlife enhancement.

To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements.

Before granting permission for construction of bulkheads or retaining walls, the licensee shall:

(1) inspect the site of the proposed construction;

(2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and

(3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline.

To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for:

(1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained;

(2) storm drains and water mains;

(3) sewers that do not discharge into project waters;

(4) minor access roads;

(5) telephone, gas, and electric utility distribution lines;

(6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary;

(7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and

(8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir.

No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for:

(1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained;

(2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained;

(3) other pipelines that cross project lands or waters but do not discharge into project waters;

(4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained;

(5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina;

(6) recreational development consistent with an

approved Exhibit R or approved report on recreational resources of an Exhibit E; and

(7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year.

At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Energy Projects, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer;

(2) before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved exhibit R or approved report on recreational resources of an exhibit E; or, if the project does not have an approved exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value;

(3) the instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters; and

(4) the Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations

of the United States included within the project boundary.

(H) The licensee shall serve copies of any Commission filing required by this order on any entity specified in the order to be consulted on matters relating to that filing. Proof of service on these entities must accompany the filing with the Commission.

(I) This order is final unless a request for rehearing is filed within 30 days from the date of its issuance, as provided in Section 313(a) of the Federal Power Act. The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date specified in this order, except as specifically ordered by the Commission. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

By the Commission.

(S E A L)

Linda Mitry,
Acting Secretary.

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Appendix A

Water Quality Certification Conditions for the Sacarrappa (P-2897), Mallison Falls (P-2932), Little Falls (P-2941), Gambo (P-2931), and Dundee (P-2942) Hydroelectric Projects, Issued April 30, 2003, by the State of Maine Department of Environmental Protection

THEREFORE, the Department APPROVES the applications of S.D. WARREN COMPANY and GRANTS CERTIFICATION that there is a reasonable assurance that the continued operation of the PRESUMPSCOT RIVER HYDRO PROJECTS, as described above, will not violate applicable water quality standards, SUBJECT TO THE FOLLOWING CONDITIONS:

1. Water Levels And Flows

A. Except as temporarily modified by (1) approved maintenance activities, (2) extreme hydrologic conditions, as defined below, or (3) emergency electrical system conditions, as defined below or (4) agreement between the applicant and other appropriate state and/or federal agencies, all projects shall be operated in a run-of-river mode, with outflow approximately equal to inflow on an instantaneous basis except during flashboard failure or replacement, and with impoundment levels maintained within 1 foot of full pond when flashboards are in place and within 1 foot of spillway crest elevation when flashboards are not in place.

B. Except as temporarily modified by (1) approved maintenance activities, (2) extreme hydrologic conditions, as defined below, or (3) emergency electrical system conditions, as defined below or (4) agreement between the applicant and other appropriate state and/or federal agencies, the following minimum flow releases shall be provided annually into the project bypass reaches:

* Dundee: 60 cfs from May 1 through October 31 and 40 cfs from November 1 through April 30.

* Gambo: 60 cfs year-round.

* Little Falls: Existing leakage (approximately 26 cfs).

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Mallison Falls: 60 cfs from May 1 through October 31 and 40 cfs from November 1 through April 30.

* Saccarappa: Existing leakage (approximately 13 cfs).

Minimum bypass flows shall consist of uncontrolled leakage, spillage, and any flows released into the bypass reaches through any upstream and downstream eel passage and anadromous fish passage facilities provided at the projects. To the extent possible, all minimum flows shall be provided as spillage at the project dams, in order to provide maximum reaeration.

C. "Extreme Hydrologic Conditions" means the occurrence of events beyond the Licensee's control such as but not limited to abnormal precipitation, extreme runoff, flood conditions, ice conditions or other hydrologic conditions such that the operational restrictions and requirements contained herein are impossible to achieve or are inconsistent with the safe operation of the Project.

D. "Emergency Electrical System Conditions" means operating emergencies beyond Licensee's control which require changes in flow regimes to eliminate such emergencies which may in some circumstances include but are not limited to equipment failure or other abnormal temporary operating condition, generating unit operation or third-party mandated interruptions under power supply emergencies; and orders from local, state or federal law enforcement or public safety authorities.

E. The applicant shall, within 6 months of issuance of a New License for the project by FERC or upon such other schedule as established by FERC, submit plans for providing and monitoring run-of-river operations, impoundment levels, and minimum bypass flows as required by Parts A and B of this condition. These plans shall be reviewed by and must receive the approval of the DEP Bureau of Land and Water Quality.

F. Upon completion of a habitat assessment by the Atlantic Salmon Commission and notification to the applicant of initiation of active Atlantic salmon restoration activities in the Presumpscot River, the applicant shall conduct a study to evaluate the effectiveness of the minimum bypass flows required by Part B of this condition in providing habitat for various life stages of Atlantic salmon.

G. The applicant shall, within 6 months after notification from the Atlantic Salmon Commission on initiation of active Atlantic salmon restoration activities in the Presumpscot River, or upon such other schedule as established by FERC, submit plans for a study to evaluate the effectiveness of minimum bypass flows required by Part B of this condition in providing habitat for Atlantic salmon, prepared in consultation with ASC. This study shall include evaluation of the effectiveness of bypass flows in providing habitat for Atlantic salmon spawning and egg incubation and production of juvenile Atlantic salmon. This plan shall be reviewed by and must receive approval of the DEP prior to implementation. In reviewing the plan, the DEP will consider the recommendations of the ASC.

H. The applicant shall, in accordance with a schedule set forth in the study plan or upon such other schedule as established by FERC, submit the results of any bypass flow effectiveness study, along with any recommendations for changes in the minimum bypass flows required by this condition. After reviewing the study results, and after notice to the applicant and opportunity for hearing, the Department reserves the right to require such changes in the minimum bypass flows established in this certification as may be deemed necessary to provide Atlantic salmon habitat in the bypass reaches.

2. Impoundment Drawdown And Refill Procedures

A. The applicant shall, unless necessary to address emergency situations or to address dam safety and/or public safety concerns, avoid maintenance drawdowns of the project impoundments during the months of May and June.

A. The applicant shall implement the following procedures for

refilling the project impoundments after any impoundment drawdowns:

* If allowed under the FERC-approved Sebago lake level management plan, outflows shall be temporarily increased from Sebago Lake to refill the impoundments while flows from each project are maintained as required by the flow/temperature curve component of the lake level management plan.

* If increased outflows from Sebago Lake are not allowed under the FERC-approved Sebago lake level management plan, a maximum of 25% of the outflow from Sebago Lake shall be used to refill the impoundments while flows from each project are maintained at 75% or more of the outflow from Sebago Lake.

3. Upstream Eel Passage

A. Upstream eel passage facilities shall be installed and operational at all projects within 2 years following the issuance of a new FERC license for the projects.

B. The applicant shall, at least 60 days prior to construction or upon such other schedule as established by FERC, submit final design and operational plans for the upstream eel passage facilities required by Part A of this condition, prepared in consultation with the Department of Marine Resources. These plans shall be reviewed by and must receive the approval of DEP prior to construction. In reviewing the plans, the DEP will consider the recommendations of DMR.

C. The applicant shall, in consultation with the Department of Marine Resources, conduct a study or studies to determine the effectiveness of the upstream eel passage facilities required by this condition.

D. The applicant shall, concurrent with the commencement of facilities operation or upon such other schedule as established by FERC, submit plans for a study or studies to determine the effectiveness of the upstream eel passage facilities required by Part A of this condition, prepared in consultation with the Department of Marine Resources. These plans shall be reviewed by and must receive the approval of DEP prior to implementation. In reviewing the plans, the DEP will consider the recommendations of DMR.

E. The applicant shall, in accordance with a schedule set forth in the study plan or upon such other schedule as established by FERC, submit the results of any upstream eel passage effectiveness studies, along with any recommendations for changes in the design and/or operation of any passage facilities installed pursuant to this condition.

F. The applicant shall be responsible for taking such actions as are needed to effectively pass eels upstream through the projects. After reviewing the study results, and after notice to the applicant and opportunity for hearing, the Department reserves the right to require reasonable changes in the design and/or operation of the upstream eel passage facilities installed pursuant to this condition as may be deemed necessary to effectively pass eels upstream through the projects.

4. Downstream Eel Passage

A. The applicant shall, immediately following the issuance of a new FERC license for the projects, institute operational measures to provide downstream eel passage at all projects. These measures must include suspending generation at each project for at least 4 hours per night for at least four one-week periods during the downstream eel migration period. The timing of the generation shutdown shall be determined

each year, in consultation with the Department of Marine Resources, to maximize the expected benefit for downstream eel migration.

B. The applicant shall, in consultation with the Department of Marine Resources, conduct a 3-year study to determine the exact timing of the generation shutdown, so as to result in the optimum benefit for downstream eel migration.

C. The applicant shall, within 60 days following the issuance of a new FERC license for the project or upon such other schedule as established by FERC, submit plans for a study to determine the exact timing of the generation shutdown required by Part B of this condition, prepared in consultation with the Department of Marine Resources. These plans shall be reviewed by and must receive the approval of DEP prior to implementation. In reviewing the plans, the DEP will consider the recommendations of DMR.

D. The applicant shall, in accordance with a schedule set forth in the study plan or upon such other schedule as established by FERC, submit the results of the downstream eel passage study, along with any recommendations for the exact timing of the generation shutdowns required by this condition.

E. The applicant shall be responsible for taking such actions as are needed to effectively pass eels downstream through the projects. After reviewing the study results, and after notice to the applicant and opportunity for hearing, the Department reserves the right to require changes in the timing of the operational shutdowns required by this condition as may be deemed necessary to effectively pass eels downstream through the projects.

F. In the event that downstream passage facilities are installed at a project pursuant to Condition 5 below, the applicant may, in consultation with the Department of Marine Resources, conduct a study to determine the effectiveness of these facilities in passing eels downstream through the project. Upon request by the applicant, and after reviewing the study results and the recommendations of DMR, the Department reserves the right to reduce or terminate the operational shutdowns required by this condition.

5. Upstream And Downstream Anadromous Fish Passage

Saccarappa Project

A. The applicant shall install and operate the following upstream fish passage facilities at the project:

* Phase I. A Denil "fish ladder," or other passage facilities of comparable efficiency in passing the target species, designed to pass at least 18,000 American shad, 109,000 blueback herring, and 273 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after passage is available at the downstream Cumberland Mills Dam.

* Phase II. Convert or replace the Phase I passage facilities with a fish lift, or other passage facilities of comparable efficiency in passing the target species, designed to pass up to 58,000 American shad, 353,000 blueback herring, and 426 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after (1) notification from the Department of Marine Resources, the Department of Inland Fisheries and Wildlife, and the Atlantic Salmon Commission of initiation of Phase II restoration above Gambo Dam and (2) the capacity of the installed Phase I passage facilities has been reached for any of the target species.

B. The applicant shall install and operate downstream passage facilities designed to pass American shad, blueback herring, and Atlantic salmon at the project. These facilities shall be operational concurrent with the completion of upstream anadromous fish passage facilities at the project or within

2 years following notification by the Department of Marine Resources or the Atlantic Salmon Commission of sustained stocking of anadromous fish above the Saccarappa Dam, whichever comes first.

Mallison Falls Project

A. The applicant shall install and operate the following upstream fish passage facilities at the project:

* Phase I. A Denil "fish ladder," or other passage facilities of comparable efficiency in passing the target species, designed to pass at least 4,200 American shad, 26,000 blueback herring, and 32 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after passage of at least 2,960 American shad or 18,020 blueback herring in any single year at the downstream Saccarappa Project.

* Phase II. Convert or replace the Phase I passage facilities with a fish lift, or other passage facilities of comparable efficiency in passing the target species, designed to pass up to 44,000 American shad, 270,000 blueback herring, and 185 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after (1) notification from the Department of Marine Resources, the Department of Inland Fisheries and Wildlife, and the Atlantic Salmon Commission of initiation of Phase II restoration above Gambo Dam and (2) the capacity of the installed Phase I passage facilities has been reached for any of the target species.

B. The applicant shall install and operate downstream passage facilities designed to pass American shad, blueback herring, and Atlantic salmon at the project. These facilities shall be operational concurrent with the completion of upstream anadromous fish passage facilities at the project or within 2 years following notification by the Department of Marine Resources or the Atlantic Salmon Commission of sustained stocking of anadromous fish above the Mallison Falls Dam, whichever comes first.

Little Falls Project

A. The applicant shall install and operate the following upstream fish passage facilities at the project:

* Phase I. A Denil "fish ladder," or other passage facilities of comparable efficiency in passing the target species, designed to pass at least 3,100 American shad, 19,000 blueback herring, and 15 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after passage of at least 2,960 American shad or 18,020 blueback herring in any single year at the downstream Saccarappa Project.

* Phase II. Convert or replace the Phase I passage facilities with a fish lift, or other passage facilities of comparable efficiency in passing the target species, designed to pass up to 43,000 American shad, 263,000 blueback herring, and 168 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after (1) notification from the Department of Marine Resources, the Department of Inland Fisheries and Wildlife, and the Atlantic Salmon Commission of initiation of Phase II restoration above Gambo Dam and (2) the capacity of the installed Phase I passage facilities has been reached for any of the target species.

B. The applicant shall install and operate downstream passage facilities designed to pass American shad, blueback herring,

and Atlantic salmon at the project. These facilities shall be operational concurrent with the completion of upstream anadromous fish passage facilities at the project or within 2 years following notification by the Department of Marine Resources or the Atlantic Salmon Commission of sustained stocking of anadromous fish above the Little Falls Dam, whichever comes first.

Gambo Project

A. The applicant shall install and operate the following upstream fish passage facilities at the project:

* Phase I. No upstream fish passage facilities required.

* Phase II. A fish lift, or other passage facilities of comparable efficiency in passing the target, designed to pass up to 40,000 American shad, 244,000 blueback herring, and 153 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after (1) notification from the Department of Marine Resources, the Department of Inland Fisheries and Wildlife, and the Atlantic Salmon Commission of initiation of Phase II restoration above Gambo Dam and (2) passage of at least 620 American shad or 3,800 blueback herring in any single year at the downstream Little Falls Project.

B. The applicant shall install and operate downstream passage facilities designed to pass American shad, blueback herring, and Atlantic salmon at the project. These facilities shall be operational concurrent with the completion of upstream anadromous fish passage facilities at the project or within 2 years following notification by the Department of Marine Resources or the Atlantic Salmon Commission of sustained stocking of anadromous fish above the Gambo Dam, whichever comes first.

Dundee Project

A. The applicant shall install and operate the following upstream fish passage facilities at the project:

* Phase I. No upstream fish passage facilities required.

* Phase II. A fish lift, or other passage facilities of comparable efficiency in passing the target species, designed to pass up to 20,000 American shad, 122,000 blueback herring, and 64 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after (1) notification from the Department of Marine Resources, the Department of Inland Fisheries and Wildlife, and the Atlantic Salmon Commission of initiation of Phase II restoration above Gambo Dam and (2) passage of at least 4,020 American shad or 24,460 blueback herring in any single year at the downstream Gambo Project.

B. The applicant shall install and operate downstream passage facilities designed to pass American shad, blueback herring, and Atlantic salmon at the project. These facilities shall be operational concurrent with the completion of upstream anadromous fish passage facilities at the project or within 2 years following notification by the Department of Marine Resources or the Atlantic Salmon Commission of sustained stocking of anadromous fish above the Dundee Dam, whichever comes first.

All Projects

C. The applicant shall, at least 180 days prior to construction or upon such other schedule as established by FERC, submit final design and operational plans for the upstream and downstream anadromous fish passage facilities required by Parts A and B of this condition, prepared in consultation

with the Department of Marine Resources and the Atlantic Salmon Commission. These plans shall be reviewed by and must receive the approval of DEP prior to construction. In reviewing the plans, the DEP will consider the recommendations of the ASC and DMR.

D. The applicant shall, in consultation with the Department of Marine Resources and the Atlantic Salmon Commission, conduct a study or studies to determine the effectiveness of the upstream and downstream anadromous fish passage facilities required by this condition.

E. The applicant shall, concurrent with the commencement of facilities operation or upon such other schedule as established by FERC, submit plans for a study or studies to determine the effectiveness of the upstream and downstream anadromous fish passage facilities required by Parts A and B of this condition, prepared in consultation with the Department of Marine Resources and the Atlantic Salmon Commission. These plans shall be reviewed by and must receive the approval of DEP prior to implementation. In reviewing the plans, the DEP will consider the recommendations of the ASC and DMR.

F. The applicant shall, in accordance with a schedule set forth in the study plan or upon such other schedule as established by FERC, submit the results of any upstream and downstream anadromous fish passage effectiveness studies, along with any recommendations for changes in the design and/or operation of any passage facilities installed pursuant to this condition.

G. The applicant shall be responsible for taking such actions as are needed to effectively pass anadromous fish upstream and downstream through the projects, insofar as passage is required in accordance with Parts A and B of this condition. After reviewing the results of the study, and after notice to the applicant and opportunity for hearing, the Department reserves the right to require reasonable changes in the design and/or operation of the upstream and downstream anadromous fish passage facilities installed pursuant to this condition as may be deemed necessary to effectively pass anadromous fish upstream and downstream through the projects.

6. Reaeration Measures

A. The applicant shall, commencing with the issuance of a new FERC license for the project, institute the spillage of 50 cfs at the Dundee Dam and 100 cfs at the Gambo Dam, or take other equivalent measures as may be approved by the Department, in order to meet Class B dissolved oxygen standards in the river from Dundee Dam to Saccarappa Dam under dry weather conditions. Spillage must occur whenever river temperatures exceed 22 degrees Celsius, as measured at the Gambo Dam before 8 AM, and shall be in addition to the minimum bypass flows required by Condition 1 above.

B. The applicant shall, within 6 months of issuance of a New License for the project by FERC or upon such other schedule as established by FERC, submit plans for providing and monitoring spillage or other approved reaeration measures as required by Part A of this condition. These plans shall be reviewed by and must receive the approval of the DEP Bureau of Land and Water Quality.

C. The applicant shall, in consultation with the Department, conduct a study or studies to determine the effectiveness of the spillage or other measures required by this condition in meeting Class B dissolved oxygen standards.

D. The applicant shall, within 60 days following the issuance of a new FERC license for the project or upon such other schedule as established by FERC, submit plans for a study or studies to determine the effectiveness of the spillage or other measures taken pursuant to Part A of this condition in meeting Class B dissolved oxygen standards. These plans shall be reviewed by and must receive the approval of DEP prior to implementation.

E. The applicant shall, in accordance with a schedule set forth

in the study plan or upon such other schedule as established by FERC, submit the results of any studies to determine the effectiveness of the spillage or other measures taken pursuant to Part A of this condition to meet Class B dissolved oxygen standards in the river from Dundee Dam to Saccarappa Dam, along with any recommendations for changes in measures taken pursuant to this condition.

F. The applicant shall be responsible for taking such actions as are needed to meet dissolved oxygen standards in the river from Dundee Dam to Saccarappa Dam, insofar as the project dams cause or contribute to a violation of these standards under dry weather conditions. After reviewing the study results, and after notice to the applicant and opportunity for hearing, the Department will reopen and modify the terms of this certification to require reasonable changes in the design and/or operation of the projects as may be deemed necessary to meet Class B dissolved oxygen standards in the river from Dundee Dam to Saccarappa Dam under dry weather conditions.

7. Recreational Facilities

A. The applicant shall develop and implement a Recreational Facility Enhancement Plan for each project, which shall include, at a minimum, the following measures to maintain and/or enhance recreational access and use in the project areas:

Dundee Project

* Rerouting, stabilizing, and maintaining the existing canoe portage trail;
* Seeking an easement to provide walk-in angler access to the project bypass reach; and
* Investigating whether an existing access easement can be altered to permit fishery agency access for stocking purposes.

Gambo Project

* Enhancing and maintaining the existing informal canoe portage trail;
* Developing an interpretive sign to explain the history of the Oriental Powder Mill Complex;
* Providing walk-in angler access to the bypass reach;
* Developing parking and signs for carry-in boat access at the portage take-out location; and
* Assisting the Town of Gorham in regrading and enhancing the Gambo Road approach to the former bridge area immediately upstream from the dam.

Little Falls

* Establishing and maintaining a canoe portage trail;
* Assist Gorham Trails in developing parking, signage, and access for a carry-in boat launch at the Gorham Land Trust Property off of the Tow Path Road; and
* Donate approximately 0.8 acres of land on the island located off-shore of the Hawkes Property to the Gorham Land Trust.

Mallison Falls

* Establishing and maintaining a formal canoe portage trail;
* Providing signs for parking and access at the

existing carry-in boat access site at the project powerhouse;

* Developing parking, signage, and access for a carry-in boat access site above the project dam;

* Seeking permission from the Department of Transportation and the Town of Gorham to provide a roadside pullout and carry-in boat access site next to the bridge abutment above the project dam; and

* Continuing to seek an easement or other opportunities to provide walk-in angler access to the bypass reach.

B. The applicant shall, within 12 months following the issuance of a new FERC license for the project or upon such other schedule as established by FERC, submit a Recreational Facility Enhancement Plan for each project as required by Part A of this condition. This plan shall be prepared in consultation with the Department of Conservation and the Department of Inland Fisheries and Wildlife, and shall include a schedule for implementation. This plan shall be reviewed by and must receive approval of the DEP.

8. Limits Of Approval

This approval is limited to and includes the proposals and plans contained in the applications and supporting documents submitted and affirmed to by the applicant.

9. Compliance With All Applicable Laws

The applicant shall secure and appropriately comply with all applicable federal, state and local licenses, permits, authorizations, conditions, agreements and orders required for the operation of the projects in accordance with the terms of this certification.

10. Effective Date

This water quality certification shall be effective concurrent with the effective date of the licenses issued for the projects by the Federal Energy Regulatory Commission.

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Appendix B

UNITED STATES DEPARTMENTOF THE INTERIOR'S DECISION DOCUMENT, PRESCRIPTIONS FOR FISHWAYS PURSUANT TO SECTION 18 OF THE FEDERAL POWER ACT

10. Prescription for Fishways

Pursuant to Section 18 of the Federal Power Act, as amended, the Secretary of the Department of the Interior, as delegated to the Service, exercises her authority to prescribe the construction, operation, and maintenance of such fishways as deemed necessary.

10.1 General Prescriptions for the Presumpscot River Projects

A. This prescription for fishways is based on the assumption that fish passage or dam removal would be achieved at the downstream Smelt Hill Dam and the Cumberland Mills Dam, and that the Commission will not order the removal of the Saccarappa, Mallison Falls, and/or Little Falls Projects, as described in the DEIS. (DEIS, p. 28). Several interested parties, including the Department, have urged the removal of one or more of these projects. If, in its public interest consideration and licensing decision, the Commission orders the removal of one or more of these projects, the Department will modify its Prescription for Fishways accordingly.

B. Fishways shall be constructed, operated, and maintained to provide safe, timely, and effective passage for Atlantic salmon, American shad, blueback herring, and American eels at the licensee's expense.

To ensure the immediate and timely contribution of the fishways to the ongoing and planned anadromous and catadromous fish restoration and enhancement program in the Presumpscot River, the following are included and shall be incorporated by the licensee to ensure the effectiveness of the fishways pursuant to Section 1701(b) of the 1992 National Energy Policy Act (P.L. 102-486, Title XVII, 106 Stat. 3008).

C. Design Populations

The total number of returning fish reaching the lowermost of the five projects covered in this relicensing would depend on a number of factors, including whether fishways are installed or dam removals are used to achieve passage. Overall fishway efficiency and cumulative losses of fish attempting to use the upstream and downstream fish passage facilities also would affect the total potential restored run of shad, river herring, salmon, and eels.

1.Shad and River Herring

Based on current estimates, restored runs of shad and river herring in the Presumpscot River could approach 75,000 shad, 200,000 alewives, and 450,000 blueback herring. The numbers of fish expected to pass each of the dams on the river are contained in the Department's Administrative Record and are summarized below (See Table 1).

2.Atlantic Salmon

Projections for restored runs of Atlantic salmon runs have been calculated, along with minimum levels of escapement at each dam needed to ensure that restoration and management goals are met. Those numbers of fish also are summarized below. It is unlikely, however, that the run of salmon would be large enough to affect the design of fishways at any of the five project dams. The more numerous species (shad and herring) typically determine the kind of fish passage that should be built at a hydroelectric project.

3.American Eel

American eels already are present in the area occupied by the five projects. While the Department does not have a precise estimate of the numbers of eels that would be expected to use fish passage at the projects, such passage would enhance the eel stocks and help achieve overall management goals. In addition, upstream passage needs for eels differ from those of salmon, shad, and river herring. Separate upstream eel fishways typically are installed at barriers in addition to those that are provided for anadromous fish.

Table 1. Summary of Fishway Design Populations

Project	Species	Phase 1*	Phase 2*

Saccarappa	American shad	18,000	58,000
	Blueback herring	109,000	353,000
	Atlantic salmon	273	426
	American eel	undetermined	undetermined
Mallison Falls	American shad	4,200	44,000
	Blueback herring	26,000	270,000
	Atlantic salmon	32	185
	American eel	undetermined	undetermined
Little Falls	American shad	3,100	43,000
	Blueback herring	19,000	263,000
	Atlantic salmon	15	168
	American eel	undetermined	undetermined
Gambo	American shad	--	40,000
	Blueback herring	--	244,000
	Atlantic salmon	--	153
	American eel	undetermined	undetermined
Dundee	American shad	--	22,000
	Blueback herring	--	122,000
	Atlantic salmon	--	64
	American eel	undetermined	undetermined

Note: Data provided by State agencies rounded to nearest (1,000) above 10,000.
(*) See Paragrpah 10.1.E on Scheduling.

4.Other Species

Fish passage provided at one or more of the five projects would be expected to pass trout, landlocked salmon, and other riverine species. The numbers of riverine fish using the fishways are likely to be small, relative to anadromous and catadromous species.

D. Upstream fishways shall be operationa1 during the designated migration period at river flows up to 3,000 cfs (see Table 2), as measured at the USGS gage at Westbrook (#01064118). Downstream fishways shall be operated during the designated migration period whenever units are operated at the Presumpscot River projects.

Table 2. Upstream and downstream migration periods for species covered in this Prescription for Fishways. *

Species	Upstream Migration Period	Downstream Migration Period
Atlantic salmon	April 15 - November 15	April 1 - June 30 (smolts & kelts) October 15 - December 31 (kelts)
American shad	May 1 - July 15	August 1 - November 15 (juv.) May 15 - August 1 (adult)
Alewife & blueback herring	May 1 - July 15	July 15 - November 15 (juv.) May 15 - August 1 (adult)
American eel	April 1 - June 30 **	July 15 - November

15 *** |

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* Any of these migration periods may be changed during the term of the license by the Service, based on new information, in consultation with the other fishery agencies and the licensee.

** The eel upstream migration period will need to be refined as more information is made available. The Service is calling for the licensee to study the duration and timing of upstream eel migration through the projects so that the effectiveness of this period can be evaluated.

*** July 15 - November 15 is the period set by the State of Maine for harvesting silver eels. The Service is initially using a reduced period, September 1 - October 31 as the downstream migration period for eels. The Service is calling for the licensee to study the magnitude and timing of downstream eel migration through the projects so that the effectiveness of the reduced period can be evaluated.

E. Scheduling

The timing of installation of fish passage at all five projects would be based on the growth of migratory and riverine fish populations in the Presumpscot River. American eels already are present in the river and would benefit from the immediate implementation of safe, timely, and effective upstream and downstream fishways. The Commission's DEIS also recommends permanent upstream eel fishways at all five projects (DEIS, p. 225).

A fishway must be installed at Saccarappa Dam as soon as passage is achieved at Smelt Hill and Cumberland Mills. The Commission will need to include appropriate license articles requiring preparation of detailed design plans, installation schedules, and studies to evaluate effectiveness of all upstream and downstream measures to be developed in consultation with the Service and other resource agencies. In order to allow for proper consultation with resource agencies and approval by the Commission of all design plans, permanent fish passage must be operational at the Saccarappa Dam within 2 years of the completion of fishway installation at Cumberland Mills Dam (or within 2 years of its removal or breaching). If Saccarappa Dam is not relicensed, and is subsequently removed, the Commission must place similar requirements for implementing fish passage at the license for the next upstream project (Mallison Falls). The number of fish counted at each barrier that would be sufficient to trigger installation of fishways at upstream dams is provided below in Table 3.

Upstream fish passage for the American eels shall be fully operational no later than 2 years after the date of issuance of a new license. Downstream passage (shutdowns) shall be implemented as soon as the licenses are effective (30 days after date of issuance). This will ensure that the existing eel resource in the Presumpscot River benefits from passage improvements as soon as practicable.

Table 3. Schedule for implementation of fish passage at Presumpscot River Projects.

Project	Phase 1	Phase 2
Saccarappa	Anadromous Fish: Upstream passage completed 2 years after passage is available at Cumberland Mills Dam. Downstream passage will be completed concurrent with the completion of upstream passage. However, in the	Anadromous Fish: Upstream passage upgrade of capacity in accordance with design populations for Phase 2.

		event that the Department notifies the licensee that sustained annual stocking of anadromous fish above the project has begun or will begin within 2 years, the downstream passage facility shall be constructed within 2 years of this notice.	
		American Eel: Upstream passage within 2 years of licensing. Downstream passage (shutdowns) within 30 days of licensing. (*)	
	Mallison Falls and Little Falls	Anadromous Fish: Upstream passage will be completed 2 years after 2,960 American shad or 18,020 blueback herring are passed in any single season at Saccarappa Dam. (**)(***) Downstream passage will be completed concurrent with the completion of upstream passage. However, in the event that the Department notifies the licensee that sustained annual stocking of anadromous fish above the project has begun or will begin within 2 years, the downstream passage facility shall be constructed within 2 years of this notice.	Anadromous Fish: Upstream passage capacity in accordance with design populations for Phase 2.
		American Eel: Upstream passage within 2 years of licensing Downstream passage (shutdowns) within 30 days of licensing. (*)	
	Gambo	American Eel: Upstream passage within 2 years of licensing Downstream passage (shutdowns)	Anadromous Fish: Upstream passage, pending agency review of Phase 1 for the downstream

		within 30 days of licensing. (*)	projects, will be completed 2 years after 620 American shad or 3,800 blueback herring are passed in any single season at Little Falls Dam. Downstream passage will be completed concurrent with the completion of upstream passage. However, in the event that the Department notifies the licensee that sustained annual stocking of anadromous fish above the project has begun or will begin within 2 years, the downstream passage shall be constructed within 2 years of this notice.
	Dundee	American Eel:	Anadromous Fish:
		Upstream passage within 2 years of licensing	Upstream passage, pending agency review of Phase 1 for the downstream
		Downstream passage (shutdowns)	projects, will be completed
		within 30 days of licensing. (*)	2 years after 4,020 American shad or 24,460 blueback herring are passed in any single season at Gambo Dam. Downstream passage will be completed concurrent with the completion of upstream passage. However, in the event that the Department notifies the licensee that sustained annual stocking of anadromous fish above the project has begun or will begin within 2 years, the downstream

passage			
			shall be constructed within
			2 years of this notice.

(*) Initially, downstream passage will be via spill resulting from project shutdown for 8 hours per day beginning at sunset from September 1 through October 31. The timing and magnitude of eel migration through the projects is to be evaluated and reported by the licensee and changed as deemed necessary and appropriate by the Service. There will be consultation at each step.

(**) The trigger numbers represent 20 percent of the estimated production of these species for each reach.

(***) Design of upstream fishways will be based on potential size of the runs of shad and blueback herring. In the event that the shad and blueback herring trigger numbers are not reached, the Service, in consultation with the MASC, will assess the options for passing any runs of Atlantic salmon that may be present.

F. The timely installation of the prescribed fishway structures, facilities, or devices is a measure directly related to those structures, facilities, or devices and is necessary to ensure the effectiveness of such structures, facilities, or devices. Therefore, the Department's Prescription includes the express requirement that the licensee (1) notify, and (2) obtain approval from the Service for any extensions of time to comply with the provisions included in the Department's Prescriptions for fishways.

G. Regarding the timing of seasonal fishway operations, fishways shall be maintained and operated, at the licensee's expense, to maximize fish passage effectiveness throughout the upstream and downstream migration periods for Atlantic salmon, American shad, blueback herring, and American eel. The migration periods for these fish species in the Presumpscot River are shown above in Table 2.

H. The licensee shall keep the fishways in proper order and shall keep fishway areas clear of trash, logs, and material that would hinder passage. Anticipated maintenance shall be performed sufficiently before a migratory period such that fishways can be tested and inspected, and would operate effectively prior to and during the migratory periods. In consultation with the Service and other fishery agencies, the licensee shall develop a fishway maintenance plan describing the anticipated maintenance, a maintenance schedule, and contingencies. The plan shall be submitted to the Service for final review and approval, and the plan shall contain the consultation comments of the fishery agencies. If any agency recommendation is not incorporated, the licensee's explanation shall be in the plan that is filed with the Commission. Upon approval by the Service, the licensee shall submit the plan to the Commission for approval.

I. The licensee shall develop plans for and conduct fishway effectiveness evaluations in consultation with the Service and other fishery agencies on all prescribed fish passage. The plans and results of effectiveness studies shall be submitted to the Service for final review and approval, and the plan shall contain the consultation comments of the fishery agencies. If any agency recommendation is not incorporated, the licensee's explanation shall be in the plan that is filed with the Commission. Upon approval by the Service, the licensee shall submit the plan to the Commission for approval.

J. The licensee shall provide personnel of the Service, and other Service-designated representatives, access to the project site and to pertinent project records for the purpose of inspecting the fishways to determine compliance with the fishway prescriptions.

K. The licensee shall develop, in consultation with and submit for approval by the Service, all functional and final design plans, construction schedules, and any hydraulic model studies for the fishways or modifications to existing fishways described herein.

10.2 Specific Prescriptions for the Presumpscot River Projects

10.2.1Mallison Falls Project (FERC #2941)

10.2.2.1 Phase 1

10.2.2.1.1Upstream Fishways

Prescription item #1 - Construct a Denil "fish ladder" (4 ft. W x 1-on-8 slope) at the Mallison Falls spillway. The fish ladder is to include facilities for counting, trapping, and sorting.

Prescription item #2 - Provide up to 25 cfs attraction flow at the gated entrance of the Denil fish ladder. A zone-of-passage flow of up to 80 cfs also is needed to provide access for fish migrating up to the spillway.

Prescription item #3 - Install a separate upstream fishway for American eels; the specific location of this eelway at the project and other design criteria to be determined by the U.S. Fish and Wildlife Service following consultation with the licensee and Maine Department of Marine Resources.

10.2.2.1.2Downstream Fishways

Prescription item #4 - Install trashracks with a 1-inch clear opening at the powerhouse turbine intake and gated surface bypass discharging up to 30 cfs during the downstream migration periods.

Prescription item #5 - Shutdown generation at sunset for at least 8 hours per night from September 1 through October 31 to provide out-migrating American eels safe and timely passage downstream via flows over the dam. To aid in the effectiveness evaluation of this item, monitor and report the timing and magnitude of eel out-migration past the project for 3 years.

10.2.2.2 Phase II

Prescription item #6 - Convert the Phase I Denil fish ladder at the spillway to a fishlift (hopper capacity: 600 gallon) when the capacity of the Denil fish ladder is reached (20,000 shad or 200,000 river herring). The Phase II fishlift will continue to have a gated entrance capable of discharging up to 30-cfs attraction flow, and retain existing or modified facilities for counting, trapping, and sorting.

Footnotes

[1]S.D. Warren Company, 11 FERC * 62,111 (1980).

[2]The three minor licenses waive applicability of Section 15 of the FPA and S.D. Warren has filed for subsequent licenses. Therefore, under Section 16.21(a) of the Commission's regulations, 18 C.F.R. * 16.21(a), S.D. Warren may continue to operate these minor projects in accordance with the terms and conditions of the minor licenses after they expire, until the Commission acts on its applications.

[3]Interior included comments from the Fish and Wildlife Service (FWS) and the National Park Service (NPS). The State of Maine included comments from the Maine Department of Marine Resources (Maine DMR), the Maine Atlantic Salmon Commission (Maine ASC), and the Maine Department of Inland Fisheries and Wildlife (Maine DIFW).

[4] The Smelt Hill dam was removed in October 2002.

[5]The lower 375 feet of the bypass reach is backwatered by discharges from the Mallison Falls powerhouse and by the downstream Saccarappa Project impoundment.

[6] As to the fishway prescription, each license contains the general provisions applicable to all five projects and the provisions applicable to that specific project. For ease of administering the license, we have altered the numbering and placement of tables in the prescriptions as submitted by FWS.

[7] The FWS filed one set of recommendations under Section 10(j) pertaining to all five of the projects.

[8] FWS recommends recreation use monitoring and filing a report on recreation use every 6 years. In the FEIS, Commission staff properly determined that these two recommendations do not fall within the scope of Section 10(j). Under Section 10(a) of the FPA, we are adopting recreation use monitoring and reporting provisions for the Mallison Falls Project, as recommended by Commission staff, which differ slightly from those recommended by FWS (Article 410).

[9] FWS did not object to staff's recommended flow of 60 cfs for May through September, nor was the difference discussed at the 10(j) meeting, so we presume FWS is in agreement with this recommendation.

[10] FEIS at 257-258.

[11] In the FEIS, staff recommended increasing the minimum flow from November to March from 20 cfs to 40 cfs.

[12] This recommendation falls under Section 10(j) only to the extent that it relates to the protection of, mitigation of damage to, and enhancement of, fish and wildlife, not to the extent that it relates to recreational or other purposes.

[13] Although recreational purposes and uses are not within the scope of Section 10(j), coordination with the CBEP in the development of any revised final recreation plan for the project is a reasonable measure under Section 10(a) to ensure that S.D. Warren remains cognizant of local planning efforts as they relate to project recreational facilities and opportunities. In Article 409, we include the CBEP as an entity to be consulted in the preparation of the final recreational plan.

[14]Reliability Assessment 2000-2009: The Reliability of Bulk Electric Systems in North America, NERC, October 2000.

[15] Removal of Mallison Falls would also increase the cost at the Gambo and Little Falls projects because the transmission line from the Gambo powerhouse to S.D. Warren's mill facilities in Westbrook is used by all three projects. Currently, the $75,000 per year maintenance cost is divided equally among the three projects. If Mallison Falls were removed, the maintenance cost would be borne by the remaining two projects.

[16] See 18 C.F.R. * 2.23 (2003).

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