No. 13-1750

United States Court of Appeals for the First Circuit

FRIENDS OF MERRYMEETING BAY and ENVIRONMENT MAINE,
Plaintiffs-Appellants,

v.

MERIMIL LIMITED PARTNERSHIP, FPL ENERGY MAINE HYDRO LLC, and BROOKFIELD RENEWABLE SERVICES MAINE LLC,
Defendants-Appellees,

NEXTERA ENERGY RESOURCES LLC and NEXTERA ENERGY MAINE OPERATING SERVICES LLC,
Defendants.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF MAINE

BRIEF OF APPELLANTS

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CORPORATE DISCLOSURE STATEMENT

Appellants Friends of Merrymeeting Bay and Environment Maine are nonprofit corporations that have not issued shares of stock to the public and have no corporate parent.

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REASONS WHY ORAL ARGUMENT SHOULD BE HEARD

Pursuant to Local Rule of Appellate Procedure 34.0(a), Appellants Friends of Merrymeeting Bay and Environment Maine request oral argument on this matter. Because resolution of this appeal turns on consideration of facts admitted into the summary judgment record that the District Court failed to analyze, oral argument will enable the parties to fully argue the relevant factual record. In addition, oral argument will provide an opportunity for the parties to focus on, and respond to, the factual and legal issues of greatest concern to the Court.

JURISDICTIONAL STATEMENT

Plaintiffs-Appellants ("Plaintiffs") brought a Clean Water Act ("CWA") citizen enforcement suit against Defendants-Appellees and their predecessors-in-interest (collectively, "Defendants") for violating the water quality certifications governing the operation of Defendants' Weston, Shawmut, and Lockwood hydroelectric projects on the Kennebec River in Maine. The District Court had jurisdiction over this matter pursuant to 33 U.S.C. § 1365(a) and (f)(5) (authorizing citizens to enforce Clean Water Act water quality certifications in district court) and 28 U.S.C. § 1331 (federal question jurisdiction).[1] In the same case, Plaintiffs also asserted an Endangered Species Act ("ESA") claim pursuant to 16 U.S.C. § 1540(g), but that claim is not at issue on this appeal.

[1] The federal courts have jurisdiction under the CWA citizen suit provision to adjudicate violations alleged to be "ongoing" (*i.e.* "continuous or intermittent") at the time suit is filed, Gwaltney of Smithfield, Ltd. v. Chesapeake Bay Found., Inc., 484 U.S. 49, 66 (1987). Violations are considered "ongoing" unless the underlying causes of the violation have been "completely eradicated" prior to the commencement of the citizen suit, Chesapeake Bay Found., Inc. v. Gwaltney of Smithfield, Ltd., 844 F.2d 170, 171 (4th Cir. 1988); Sierra Club v. Union Oil Co. of California, 853 F.2d 667, 671 (9th Cir. 1988). Liability attaches upon the citizen plaintiff's proof of such violations, Natural Res. Def. Council v. Texaco Ref. & Mktg., Inc., 2 F.3d 493, 501 (3rd Cir. 1993); Carr v. Alta Verde Indus., Inc., 931 F.2d 1055, 1062 (5th Cir. 1991), and extends to all similarly proven pre- and post-complaint violations, Sierra Club v. Union Oil, 853 F.2d at 670, subject to the five-year federal statute of limitations, Sierra Club v. Chevron U.S.A., Inc., 834 F.2d 1517, 1521-23 (9th Cir. 1987). Once jurisdiction has been established, post-filing events do not moot a CWA citizen suit unless there is no relief the court could order to address the effects of the violations established by the plaintiff. Decker v. Nw. Env. Def. Ctr., 133 S. Ct. 1326, 1335 (2013); U.S. Pub. Interest Research Group v. Atl. Salmon of Maine, LLC, 339 F.3d 23, 33-34 (1st Cir. 2003).

This is an appeal from the District Court's January 14, 2013, Order on Cross Motions for Summary Judgment ("SJ Order") (Singal, J.) denying Plaintiffs' motion for summary judgment on liability on their CWA claim and granting Defendants' motion for summary judgment on the CWA claim. Joint Appendix ("J.A.") 155-183. (Plaintiffs are not appealing the portion of the SJ Order addressing their ESA claim.) After the parties resolved the ESA claim, the District Court entered judgment for Defendants on June 5, 2013. J.A. 194-195. Plaintiffs timely filed this appeal on June 10, 2013. J.A. 196-197. This Court has jurisdiction over this appeal pursuant to 28 U.S.C. § 1291. The Judgment disposed of Plaintiffs' claims in their entirety, and the SJ Order is an appealable final order.

ISSUES PRESENTED

The Clean Water Act water quality certifications governing operation of Defendants' Kennebec River hydroelectric dams provide: "In the event that adult shad and/or Atlantic salmon begin to inhabit the impoundment above the … project, and to the extent the licensee desires to achieve interim downstream passage of out-migrating adult Atlantic salmon and/or adult shad by means of passage through turbine(s), licensee must first demonstrate through site-specific quantitative studies…that passage through turbines(s) will not result in significant injury and/or mortality…" Plaintiffs brought a citizen suit under the CWA, claiming that Defendants violated this provision of their water quality

certifications. On cross motions for summary judgment, the District Court granted summary judgment for Defendants, ruling that Defendants did not "desire" to pass adult salmon or shad through their turbines.

1. In determining whether Plaintiffs raised a genuine issue of material fact regarding Defendants' "desire" to use their turbines as an interim passage route, did the District Court err by excluding from its analysis of Defendants' motion for summary judgment evidence that: (a) Atlantic salmon and/or shad are in fact passing through the turbines, (b) Defendants know such passage occurs, and (c) Defendants have not taken sufficient steps to prevent that passage?

2. Should summary judgment have been granted for Plaintiffs because they presented undisputed evidence that: (a) adult Atlantic salmon and shad inhabit the impoundment upstream of these hydroelectric projects; (b) Defendants desire to provide downstream passage for some of these fish through the projects' turbines, as they are aware that their efforts to divert fish away from the turbines are inadequate yet have decided not to take other measures (such as placing grates in front of the turbine intakes, or shutting down the turbines during salmon and shad migration seasons) to eliminate the turbines as a means of downstream passage for these fish; and (c) Defendants have not demonstrated through the required site-specific quantitative studies that turbine passage will not harm these fish?

STATEMENT OF THE CASE

Plaintiffs' Claims

Defendants-Appellees Brookfield Renewable Services Maine, LLC, FPL Energy Maine Hydro, LLC, and The Merimil Limited Partnership (collectively, "Brookfield") own and operate the Weston, Shawmut, and Lockwood hydroelectric projects (collectively, the "Projects") on the Kennebec River in Maine. Previously, the interest in these Projects now held by Brookfield Renewable Services Maine, LLC, was held by NextEra Energy Resources, LLC, and NextEra Energy Maine Operating Services, LLC (collectively, the "NextEra parties").

On January 31, 2011, after having provided statutory pre-suit notice[2], Plaintiffs, two conservation groups, filed a Complaint against the NextEra parties and The Merimil Limited Partnership ("Merimil") containing claims under both the ESA and the CWA. J.A. 21-40.

1. In their ESA claim, Plaintiffs alleged that Defendants' operation of the Projects is "taking" endangered Atlantic salmon by killing and wounding them in violation of the take prohibition of ESA § 9(a), 16 U.S.C. § 1538(a). A take is

[2] Defendants concede that Plaintiffs provided adequate pre-suit notice. J.A. 77 (Stipulated Facts ¶19); J.A. 116 (Defendants' Response to Plaintiffs' Statement of Undisputed Material Facts [Docket 107] ¶¶ 2, 3). Further, the District Court found that Plaintiffs have Article III standing to bring this case. J.A. 163-168 (SJ Order at 9-14).

excused only if done in strict compliance with a formally-issued Incidental Take Statement ("ITS") pursuant to Section 7 of the ESA or Incidental Take Permit ("ITP") pursuant to Section 10 of the ESA. 16 U.S.C. § 1536(o)(2) (ITS); 16 U.S.C. § 1539(g) (ITP). The Complaint alleged that Defendants had obtained neither an ITS nor an ITP, and thus were not authorized to take salmon. This claim is not at issue in this appeal.[3]

2. Plaintiffs' CWA claim concerns water quality certifications issued by the State of Maine that govern certain aspects of the Projects' operations. Water quality certifications are issued pursuant to Section 401 of the CWA, 33 U.S.C. § 1341. The key terms of the water quality certifications at issue in this case were jointly negotiated by the operators of certain hydroelectric dams on the Kennebec River (including the operators of these Projects), certain federal and state agencies, and certain other stakeholders (but not Plaintiffs) in 1998 and memorialized in an agreement known as the Kennebec Hydro Developers Group Agreement ("KHDG Agreement"), which was then expressly incorporated into the certifications.

Plaintiffs allege that the Defendants are violating the following provision of the certifications:

> INTERIM DOWNSTREAM FISH PASSAGE: The [licensee] shall continue and where needed improve existing operational measures to

[3] Plaintiffs also asserted an ESA claim against a fourth dam then owned by the NextEra parties; that claim is also not at issue in this appeal.

> diminish entrainment[4], allow downstream passage, and eliminate significant injury to out-migrating anadromous fish in accordance with the terms of the KHDG Settlement Agreement[, which provides, in pertinent part, as follows:]
>
> In the event that adult shad and/or Atlantic salmon begin to inhabit the impoundment above the … project, and to the extent that licensee [Defendants] desires to achieve interim downstream passage of outmigrating adult Atlantic salmon and/or adult shad by means of passage through turbine(s), licensee must first demonstrate through site-specific quantitative studies…that passage through turbine(s) will not result in significant injury and/or mortality (immediate or delayed).

J.A. 104 (SF 195, 196).[5]

On March 29, 2011, the NextEra parties and Merimil filed a Motion to Dismiss or in the Alternative to Stay (Docket 13). On May 10, 2011, after having provided statutory pre-suit notice to FPL Energy Maine Hydro, LLC, ("FPL Energy"), Plaintiffs filed an Amended Complaint adding FPL Energy as a defendant. J.A. 41-62. FPL Energy then filed its own Motion to Dismiss or in the Alternative to Stay on May 31, 2011 (Docket 29). The District Court denied both

[4] "Entrainment" is another term for the downstream passage of fish through hydroelectric turbines.

[5] The parties have stipulated that this language incorporating the KHDG Agreement appears, in identical fashion, in each Project's water quality certification, and is binding on the Licensee. J.A. 104 (SF 193-196). The parties also placed the water quality certifications for the Weston and Lockwood Projects into the joint summary judgment record; these can be found in the Joint Appendix at 218-230 and 231-249, and relevant portions thereof are in the addendum to this brief. The full KHDG Agreement is also in the Joint Appendix, at 198-217, and relevant portions thereof are in the addendum to this brief.

motions on September 9, 2011 (Docket 39). Thereafter, on September 23, 2011, the four defendants filed a single Answer. J.A. 63-73.

The Cross Motions For Summary Judgment

The parties filed cross motions for summary judgment on all claims. A joint record (Docket Entries 78.1-82.5, and 85), including Stipulations of Fact ("SF") (J.A. 74-114), was submitted with the motions.

With regard to the Clean Water Act claim, Plaintiffs argued that Defendants are violating the water quality certifications at the Projects because: (1) Defendants admit that adult Atlantic salmon and/or American shad inhabit the impoundment upstream of the Projects during migration seasons; (2) Defendants admit that they provide downstream passage for these fish through the Projects' turbines; (3) Defendants are aware that the systems to divert fish away from the turbines at the Projects are only partially successful, yet Defendants have decided not to take measures (such as placing grates in front of the turbine intakes, or shutting off the turbines during migration season) to eliminate the turbines as a means of downstream passage for these fish; and (4) Defendants admit that they have not performed the required site-specific quantitative studies and have not demonstrated that turbine passage will not cause significant harm to these fish. Plaintiffs' Motion for Partial Summary Judgment (Docket 94) at 18-19. Defendants, in turn, argued that "there is no evidence that the Licensees do in fact desire to pass fish

through the turbines," and that they should thus be awarded summary judgment on the CWA claim. Defendants' Motion for Summary Judgment (Docket 88) at 15; see also id. at 14 (Defendants "rely on the total absence of any record evidence that the Licensees do in fact desire to pass fish through the turbines.").

The District Court denied Plaintiffs' motion and granted Defendants' motion, ruling:

> It is what the licensee, the Defendants, desire – or want – that triggers the remainder of the clause's requirements. The reasonable interpretation of this clause carries a subjective component.…
>
> Plaintiffs attempt to substitute "knowledge" for "desire." That is, Plaintiffs argue that because Defendants know that some Atlantic salmon and/or shad may be passing through the turbines, Defendants desire to have the fish pass through the turbines. Had the parties to the [KHDG] Agreement [which is incorporated into the Projects' water quality certifications] intended Defendants' knowledge of Atlantic salmon or shad passing through the turbines to trigger the requisite studies, the parties could have so stated.

J.A. 181-182 (SJ Order). Noting that "[t]wo of the three dams have floating booms to aid [fish] in bypassing the turbines," the Court found that Defendants did not "desire" that salmon or shad pass through the dams' turbines. J.A. 182.

> Plaintiffs present evidence that Atlantic salmon and/or shad are in fact passing through the turbines and Defendants have not taken sufficient steps to prevent that passage. Even assuming the truth of the evidence, it is not germane to the Court's inquiry. Knowledge does not equate to desire. Accordingly, Defendants have demonstrated an absence of evidence to support the CWA claim and Plaintiffs have failed to raise a genuine issue of material fact.

J.A. 182.

On the ESA claim, the District Court denied the parties' cross motions for summary judgment. J.A. 182. On March 14, 2013, Plaintiffs filed a motion for preliminary injunction (Docket 148) regarding a portion of their ESA claim. While that motion was pending, the parties filed a stipulation (J.A. 184-186) dismissing the NextEra parties from the case, and Plaintiffs filed a concomitant assented to motion to substitute (J,A, 187-189) confirming that the interest in the Projects that had been held by the NextEra parties had been transferred to an affiliate of Defendant-Appellee Brookfield Renewable Services Maine, LLC. In accordance with this stipulation and assented to motion, the District Court entered an order (J.A. 190-191) granting Plaintiffs' motion to substitute Brookfield Renewable Services Maine, LLC, as a party defendant in place of the NextEra parties. On April 30, 2013, the District Court ruled on Plaintiffs' motion for a preliminary injunction, finding that "there is a consensus among the experts" that "turbine mortality is occurring" to salmon "at each of the Projects," but declining to award injunctive relief (Docket 163 at 11, 23). Thereafter, on May 30, 2013, the parties filed a stipulation (J.A. 192-193) dismissing the ESA claim with prejudice, and preserving Plaintiffs' rights to appeal the dismissal of the CWA claim (and the underlying summary judgment order) to this Court. The District Court entered its

Judgment (J.A. 194-195) on June 5, 2013, and this timely appeal followed, J.A. 196-197.[6]

STATEMENT OF FACTS

Adult Atlantic Salmon And American Shad In The Kennebec River

Atlantic salmon are anadromous, meaning they are born in fresh water, migrate to the ocean, and then return to fresh water to spawn. J.A. 82 (SF 52). The Atlantic salmon population of Maine's Kennebec River was placed on the ESA's endangered species list on June 19, 2009. J.A. 79 (SF 29). Adult Atlantic salmon spawn in a tributary to the Kennebec River known as the Sandy River, with each returning adult female laying thousands of eggs there in the late fall. J.A. 82, 83 (SF 53, 55, 64). Post-spawning adults, known as "kelts," migrate downstream in the Kennebec in April, May, November, and December. J.A. 82, 84 (SF 54, 70, 73).

After the eggs hatch, the resultant juvenile salmon spend one to three years feeding and growing until they undergo a series of body chemistry changes; at this point, they become "smolts" ready to enter salt water. J.A. 82 (SF 56, 57). Smolts migrate down the Kennebec in the spring. J.A. 84 (SF 70, 71). The smolts that survive this migration spend one to three years in the ocean, developing into mature adult salmon ready to return to their natal rivers to complete the spawning

[6] The District Court's Judgment with regard to Plaintiffs' ESA claim is not a subject of this appeal.

cycle. J.A. 82 (SF 60). Generally, returning adult salmon migrate upstream in the Kennebec from May to October. J.A. 83 (SF 63). Atlantic salmon are capable of completing this spawning and migration cycle more than once over the course of a lifetime. J.A. 84 (SF 74).

American shad are also an anadromous species. J.A. 84 (S.F. 75). Adult shad return to the Kennebec River from the ocean from May to mid-July, and then out-migrate down the Kennebec after spawning. J.A. 84 (SF 75, 76). Adult shad migrate down the Kennebec River from June through July. J.A. 84 (SF 77).

Because the Projects block their upstream migration, adult salmon and shad returning to the Kennebec River are trapped at the Lockwood Project, the first Kennebec River dam upstream of the Merrymeeting Bay estuary, and trucked upstream. J.A. 134-135 (Defendants' Response to Plaintiffs' Statement of Additional Facts in Opposition to Defendants' Motion for Summary Judgment (Docket 121) ¶ 28) (Lockwood dam does not currently provide upstream passage); J.A. 75, 85, 103 (SF 3, 81-82, 190). Returning adult Atlantic salmon trapped at Lockwood are sluiced into trucks and transported to, and deposited in, the Sandy River spawning grounds located upstream of the Projects. J.A. 85, 86 (SF 80, 81, 87). From 2006-2011, many dozens of adult salmon returned to the Kennebec River and were counted when trapped at Lockwood for trucking to the Sandy River. J.A. 85 (SF 81). Starting in 2007, returning adult American shad trapped at

Lockwood have been trucked to, and deposited in, spawning areas in the Kennebec River upstream of the Hydro Kennebec Project, which is the next hydroelectric dam upstream of the Lockwood Project on the Kennebec River. J.A. 75, 85 (SF 3, 82); J.A. 124-125 (Defendants' Response to Plaintiffs' Statement of Undisputed Material Facts [Docket 107] ¶ 12).

The Lockwood, Shawmut, and Weston Hydroelectric Projects

The hydroelectric dams at issue in this action are the Lockwood, Shawmut, and Weston Projects, which are, respectively, the first, third, and fourth hydroelectric projects upstream of the Merrymeeting Bay estuary on the Kennebec River in Maine. J.A. 75, 76 (SF 1, 3, 6, 9). All of these Projects have turbines that generate electricity when river water flows through and spins them. J.A. 87, 88, 89 (SF 92-93, 100-101, 108-109). The Weston and Shawmut Projects are owned by Defendant-Appellee FPL Energy Maine Hydro, LLC, which is also the holder of the Federal Energy Regulatory Commission ("FERC") licenses to operate these Projects. J.A. 77 (SF 18). The Lockwood Project is owned by Defendant-Appellee The Merimil Limited Partnership, which also holds the FERC License to operate that project. J.A. 76 (SF 17). Defendant-Appellee Brookfield Renewable Services Maine, LLC, is the management entity operating the projects on a day-to-day basis, having taken over this role from earlier Defendant NextEra Maine Operating Services, LLC on March 1, 2013. J.A. 77-78 (SF 21-27); J.A. 187-188,

191.[7] The second hydroelectric dam upstream of Merrymeeting Bay on the Kennebec River, the Hydro Kennebec Project, is operated by another Brookfield entity, and is the subject of Case No. 13-1220, which has been consolidated with this appeal in this Court.

The Lockwood and Shawmut Projects span the width of the Kennebec River, and the Weston Project's two dams span the north and south channels of the Kennebec River at the point where the river is divided by Weston Island. J.A. 75, 76 (SF 4, 7, 10). By damming the river, the Lockwood Project creates an 81.5-acre impoundment that extends up to the Hydro Kennebec Project, the Shawmut Project creates a 1,310-acre impoundment that extends upstream about 12 miles, and the Weston Project creates a 930-acre impoundment which extends upstream about 12.4 miles. J.A. 75, 76 (SF 5, 8, 13).

Downstream Fish Passage at the Projects Generally

All Atlantic salmon migrating downstream from the Sandy River must successfully pass the Weston, Shawmut, Hydro Kennebec, and Lockwood Projects, in that order, to reach Merrymeeting Bay and then the ocean. J.A. 84 (SF 70). All American shad migrating downstream from above the Hydro Kennebec Project on the Kennebec River must successfully pass the Hydro Kennebec and Lockwood

[7] The KHDG Agreement provides: "KHDG dam owners agree that the terms and conditions contained in this Agreement *shall bind* and inure to the benefit of *all entities that might become successors, assigns or purchasers of any licensee*." J.A. 204 (KHDG Agreement at 7, ¶ III. J.) (emphasis added).

Projects, in that order, to reach Merrymeeting Bay and then the ocean. J.A. 75, 84 (SF 3, 76).

At each Project, downstream migrating salmon and shad reaching the project have three potential means of passing the project: through the turbines, through a fish bypass, or via spill (*if* spill is occurring). J.A. 87 (SF 90). At each Project, fish cannot pass via spill unless there is water flowing over the project's spillway; spill occurs only when the flow of the river is high enough that it exceeds the maximum flow capacity of the project's turbines and fish bypass. J.A. 88, 89 (SF 99, 107, 115). Accordingly, when there is no spill, downstream migrating salmon and shad can pass these Projects *only* through the turbines or the fish bypass.

Passage through turbines at hydroelectric projects (turbine entrainment) can kill or injure fish in multiple ways. J.A. 91 (SF 125). Generally speaking, the larger a fish is, the more likely it will be struck by a turbine blade (and thus be killed or injured) during turbine entrainment. J.A. 95 (SF 148); see also J.A. 94 (SF 140) (computer model used to estimate fish mortality from turbine passage is based on "blade strike probabilities"). Adult Atlantic salmon in the Kennebec River are generally from 20 to 34 inches in length; Atlantic salmon smolts in the Kennebec are generally from five to nine inches in length; and adult American shad in the Kennebec are larger than Atlantic salmon smolts but smaller than Atlantic salmon adults. J.A. 82-83, 84 (SF 58, 61-62, 78).

Downstream Fish Passage at the Weston Project

The Weston Project has four "Francis"-type turbines. J.A. 89 (SF 108). Two of these have 13 "buckets" (blades) each, and each of these buckets rotates at 100 revolutions per minute ("rpm"), or almost twice per second. J.A. 89 (SF 109). The other two turbines in use at Weston have 16 buckets each, each of which also rotates at 100 rpm. Id. Each of the turbine intakes at Weston is screened by a trash rack with vertical bars that are spaced at a distance of 4 inches apart, which is wide enough to allow nearly all downstream migrating kelts in the Kennebec River to swim through the racks and access the turbines as a means of downstream passage. J.A. 89 (SF 111-112). The Weston Project also has a surface sluice that serves as a downstream fish bypass; as of May 2012, the flow through the sluice is kept at approximately 6% of the flow through the project's turbines. J.A. 89 (SF 113-14). Thus, under no-spill conditions 94% of river flow is through the turbines. Previously, bypass flow was kept at just 2% of the flow through the project's turbines. J.A. 393 (Rule 30(b)(6) Deposition of Robert Richter on behalf of FPL Energy and Merimil [Docket 82-4 – 82-5] ["Richter Dep."] at 553-54).

In the summer of 2011 (after this lawsuit was filed), Defendant-Appellee FPL Energy for the first time installed a guidance boom in the Weston Project's forebay, upstream from the turbines, that was intended to operate in conjunction with the project's downstream fish bypass. J.A. 109 (SF 225). Before the boom

was installed, FPL Energy was told by both the United States Fish and Wildlife Service and the Maine Bureau of Sea Run Fisheries and Habitat that this type of boom – a "Tuffboom"– is "prone to failure, debris loading, and overtopping," and has not been shown to be effective. J.A. 109-110 (SF 229, 230). The District Court found that, once installed, the Weston guidance boom "ha[s] not always functioned properly." J.A. 161. In August 2011, one of the attachment points on the Tuffboom at Weston was damaged by high river flows, creating a space in the boom large enough for migrating fish to pass through. J.A. 109 (SF 227). In October 2011, one of the connection point welds on the Tuffboom at Weston failed, causing the entire boom to open and creating a large space for migrating fish to pass through. J.A. 109 (SF 228).

Based on the relative flows of water passing through the bypass and through the turbines at Weston, FPL Energy estimates that, during median flow conditions in the Kennebec River during kelt migration periods, 1% of downstream migrating kelts pass Weston via the bypass, 32.2% pass via spill, and roughly 66% pass via the turbines when the guidance boom is not operational. J.A. 110 (SF 231).[8] FPL

[8] The estimates referenced herein are contained in a "White Paper" prepared by FPL Energy and its consultants that was submitted to federal regulatory agencies as part of the ESA process and intended by the authors to be "scientifically defensible." J.A. 80-81, 110 (SF 42-46, 231-232). As such, they are party admissions. Fed. R. Evid. 801(d)(2); Coalition for a Sustainable Delta v. Fed. Emergency Mgmt. Agency ("FEMA"), 812 F. Supp. 2d 1089, 1095 (E.D. Cal.

Energy also estimates that, during periods when there is no spill at the Project, roughly 2% of downstream migrating kelts pass Weston via the bypass and roughly 98% pass via the turbines when the boom is not operational. J.A. 110 (SF 232).

Although it has acknowledged that shutting down the Weston turbines during migration periods would reduce injury to downstream migrating salmon, J.A. 392 (Richter Dep. at 548-49) (describing a proposal to shut down the turbines at the Projects as a means of reducing salmon mortality and "provid[ing] additional passage" for salmon), FPL Energy has never shut down the turbines at Weston to keep adult salmon from passing through them, J.A. 110 (SF 233).

Downstream Fish Passage at the Shawmut Project

The Shawmut Project has eight turbines, six of which are Francis-type turbines and two of which are "propeller"-type turbines. J.A. 88 (SF 100). Each of the unit intakes at Shawmut is screened by a trash rack with vertical bars. The trash racks screening the intakes to the Francis turbines have a space of 1.5 inches between the bars; the trash racks screening the intakes to the propeller turbines have a space of 3.5 inches between the bars. J.A. 88 (SF 103). In general, downstream migrating kelts in the Kennebec are too large to fit through a 1.5-inch trash rack spacing, but most fit through a 3.5-inch spacing, which allows them to

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2011) (draft biological assessment prepared in anticipation of ESA consultation with National Marine Fisheries Service admissible as a party admission).

access the propeller turbines as a means of downstream passage. J.A. 88 (SF 104). Each of the two propeller turbines at Shawmut has 3 blades, each of which spins at 160 rpm, or almost three times per second, when generating electricity. J.A. 88 (SF 101).

The Shawmut Project has a 4-foot-wide by 22-inch-deep surface sluice in the project's forebay, which was initially designed as a means of passing floating debris but is now also used as a fish bypass. J.A. 88 (SF 105); J.A. 110 (SF 234). No boom has been installed at Shawmut to help guide downstream migrating salmon or shad to the bypass. J.A. 110 (SF 234). The combined hydraulic capacity of the eight turbine units at Shawmut (that is, the river flow through the turbines when they are operating at maximum capacity) is roughly 6,700 cfs. J.A. 88 (SF 102). The surface sluice at Shawmut that serves as a fish bypass has a maximum flow rate of about 35 cfs, or less than 1% of the maximum flow to the turbines. J.A. 88 (SF 106).

Unlike Weston, the Shawmut Project has a separate "headworks" section that conveys river water to the turbines through a long "forebay" channel (sometimes called a "power canal") that is separated from the spillway section. J.A. 75 (SF 7). Accordingly, even when spill is occurring, downstream migrating salmon and shad that enter the forebay channel at Shawmut cannot pass by spill over the spillway (and thus must pass the project either through the turbines or via

the fish bypass) unless they manage to swim back upstream, against the current, to escape the forebay channel. J.A. 87 (SF 91).

Based on the relative flows of water passing through the bypass and turbines at Shawmut, FPL Energy estimates that, during median flow conditions in the Kennebec River during kelt migration periods, 29.6% of downstream migrating kelts pass Shawmut via spill, 1% pass via the bypass, and roughly 70% attempt (subject to screening by the trash racks) to pass via the turbines. J.A. 110-111 (SF 235).[9] FPL Energy also estimates that, of the downstream migrating kelts passing the Shawmut Project through the forebay channel and powerhouse (which, during no-spill conditions, is *all* of the downstream migrating kelts passing the project), more than 99% attempt (subject to screening by the trash racks) to pass through the turbines, based on the assumption that kelts travel with the flow. J.A. 111 (SF 236). Although FPL Energy has acknowledged that shutting down the Shawmut turbines during migration periods would reduce injury to downstream migrating salmon, J.A. 392 (Richter Dep. at 548-49), it has never shut down the turbines at Shawmut to keep adult salmon from passing through them, J.A. 111 (SF 237).

[9] The estimates referenced herein are contained in a "White Paper" prepared by FPL Energy and its consultants that was submitted to federal regulatory agencies as part of the ESA process and intended by the authors to be "scientifically defensible." J.A. 80-81, 110-111 (SF 42-46, 235-236). As such, they are party admissions. Fed. R. Evid. 801(d)(2); Coalition for a Sustainable Delta v. FEMA, 812 F. Supp. 2d at 1095.

Downstream Fish Passage at the Lockwood Project

The Lockwood Project has seven turbines. Six are Francis-type turbines and one is a "Kaplan"-type turbine (a type of propeller turbine). J.A. 87 (SF 92). Each of the turbine intakes at Lockwood is screened by a trash rack with vertical bars. The trash racks screening the intakes to the Francis turbines have a spacing of 2.0 inches between the bars; the trash rack screening the intakes to the Kaplan turbine has a spacing of 3.5 inches between the bars. J.A. 87 (SF 95). In general, downstream migrating kelts in the Kennebec are too large to fit through a 2-inch trash rack spacing, but most fit through a 3.5-inch spacing, which allows them to access the Kaplan turbine as a means of downstream passage. J.A. 87 (SF 96). Adult American shad, which are smaller than Atlantic salmon kelts, can access the Kaplan turbine and can likely access the Francis turbines as well. J.A. 84 (SF 78). Each of the Francis turbines at Lockwood has 11 buckets, each of which rotates at 133 rpm, or roughly twice per second, when generating electricity. J.A. 87 (SF 93). The Kaplan turbine at Lockwood has five blades, each of which rotates at 144 rpm, or roughly 2.5 times per second, when generating electricity. J.A. 87 (SF 93).

The Lockwood Project had no downstream fish bypass until the late summer of 2009, when a 7 foot by 9 foot rectangular opening was cut into the side of the forebay wall. J.A. 87, 105 (SF 97, 200). The combined hydraulic capacity of the seven turbines at Lockwood is roughly 5,600 cfs, J.A. 87 (SF 94), while the

Lockwood downstream fish bypass has a maximum flow rate of about 340 cfs, J.A. 87 (SF 98). Merimil has installed floating guidance booms over the past few years for the purpose of guiding fish toward the bypass, but the District Court found that these booms "have not always functioned properly." J.A. 161.

The Lockwood booms have been beset by problems. Initially, at the time of the installation of the fish bypass in the late summer of 2009, Merimil installed a 300-foot-long "Slickbar" boom in the project's forebay upstream of the turbines. J.A. 105 (SF 200). This boom included a ten-foot deep hanging curtain, the top four feet of which were made of impervious rubber, and the bottom six feet made of synthetic fiber netting. Id. Merimil removed the Slickbar boom from Lockwood in 2010 because it had been malfunctioning. J.A. 105, 106 (SF 201, 205). The Slickbar boom had problems with "overtopping": high river flows caused the floats on the boom to be pulled down below the water's surface, providing an opportunity for fish to pass over the boom. J.A. 105 (SF 202). In addition, the curtain would rip, creating holes large enough for fish to swim through. J.A. 105-106 (SF 203). On some occasions, Merimil removed the Slickbar boom and curtain from the Lockwood forebay for periods of time to allow for repair. J.A. 106 (SF 204).

In May 2010, Merimil replaced the Slickbar boom at Lockwood with a "Tuffboom," the same type of boom later installed at the Weston Project. J.A. 106

(SF 205); see also supra. at pp. 15-16 (discussing Weston boom). The Lockwood Tuffboom boom is approximately the same length and depth as the old Slickbar boom, is positioned at essentially at the same spot in the Lockwood forebay as was the Slickbar boom, and has a 10-foot deep curtain, the top four feet of which are made of perforated metal plate, and the bottom six feet of which are made of synthetic fiber netting. J.A. 106 (206-207). Although the Tuffboom is generally sturdier and more buoyant than the Slickbar boom, it, too, has experienced malfunctions. In March 2011, the attachment point between the Tuffboom and the downstream bypass at Lockwood broke loose, and was not re-attached until sometime in April. J.A. 106 (SF 208). In late April 2011, the Tuffboom was found to be tilting in such a way as to potentially impair its proper functioning. J.A. 106 (SF 209). In early June 2011, Merimil discovered that a weighting chain on the bottom of the Tuffboom had ripped free of the curtain, which may have diminished the effectiveness of the boom's screening. J.A. 106 (SF 210). And in the spring of 2011, Merimil noticed that the trash rack bars covering the bypass sluice at Lockwood were rattling and vibrating in a way that could deter fish from using the bypass. J.A. 106 (SF 211). Because of these problems with the Lockwood Tuffboom, Merimil determined that the system needed upgrades. J.A. 106 (SF 212).

Like Shawmut, the Lockwood Project has a separate headworks section (sometimes called a "power canal") that conveys river water to the turbines through a long forebay channel that is separated from the spillway section, J.A. 75 (SF 4), and downstream migrating salmon and shad that enter the forebay channel cannot pass by spill unless they manage to swim back upstream, against the current, to escape the forebay channel, J.A. 87 (SF 91).

In May and June 2011, Normandeau Associates performed an on-site study for Merimil at Lockwood to determine the effectiveness of the Tuffboom at guiding fish to the bypass. J.A. 107 (SF 213). River flow was high enough during the study to cause water to flow over the project's spillway (a "spill" condition). J.A. 107 (SF 213). In the study, some Atlantic salmon smolts were released into the Kennebec River upstream of the Lockwood Project and some were released directly into the project's forebay; their downstream progress was tracked via radio telemetry. J.A. 107 (SF 214). Of the 155 fish released upstream of the project and determined to have passed the project during the study, 119 (76.8%) passed via spill, 20 (12.9%) passed via the turbines, 8 (5.2%) passed via the bypass, and 8 (5.2%) had undetermined passage routes. J.A. 107 (SF 215). Of the 64 fish present in the Lockwood forebay during the study (which included fish from both release groups), 52 (81.2%) passed via the turbines and only 12 (18.8%) passed via the bypass. J.A. 107 (SF 216).

Based on the results of this study, the National Marine Fisheries Service ("NMFS") informed Merimil in December 2011:

> Overall, the downstream bypass system was not effective at passing smolts. The majority of smolts entering the power canal passed via turbine entrainment. Atlantic salmon passage via turbine entrainment would have greater impacts to the species than a highly effective, well-designed and functioning downstream fish bypass system.

J.A. 107 (SF 217). With regard to Merimil's planned upgrades to the Tuffboom, NMFS stated:

> We understand that the Licensee [Merimil] plans several modifications to the existing downstream bypass in an attempt to increase its[] effectiveness. We are not confident that the proposed modifications will significantly improve effectiveness of the downstream bypass or reduce turbine entrainment. Based upon the results of studies evaluating the effectiveness of floating booms at the Lockwood and Hydro-[Kennebec] Project in the Kennebec River, NMFS questions whether this technology can be an effective behavioral guidance for migratory fish species. Given this, the Licensee may want to consider physical exclusion at the site. Physical exclusion has been proven effective at significantly reducing turbine entrainment of Atlantic salmon and other diadromous fish species.

J.A. 107-108 (SF 218). Similarly, the Maine Department of Marine Resources ("MDMR") informed Mermil in December 2011 that it was "disappointed with the poor utilization of downstream bypass facility" demonstrated by the 2011 study at Lockwood. J.A. 108 (SF 219). MDMR noted the "poor guidance and bypass utilization observed in 2011," and urged Merimil to "consider measures to ensure safe, timely and effective downstream passage." Id. In general, NMFS has informed Defendants that bypass efficiencies of 30% to 80% (measured as the

percentage of those downstream migrating fish that do not pass by spill that pass the project through a fish bypass rather than through the turbines) are not sufficient to protect migrating fish. J.A. 102 (SF 185).

Based on the results of the 2011 radio telemetry study at Lockwood, Merimil estimates that, during median flow conditions in the Kennebec River during kelt migration periods, and excluding the influence of kelts' route selection, 38.7% of downstream migrating kelts pass Lockwood via spill, 11.5% pass via the bypass, and 49.8% attempt (subject to screening by the trash racks) to pass via the turbines. J.A. 108 (SF 221).[10] Merimil also estimates that, of the downstream migrating kelts passing the Lockwood Project through the forebay channel during median flow conditions, and excluding the influence of kelts' route selection, 18.8% pass via the bypass and 81.2% attempt to pass via the turbines. J.A. 108 (SF 222).

Although it has acknowledged that shutting down the Lockwood turbines during migration periods would reduce injury to downstream migrating salmon, J.A. 392 (Richter Dep. at 548-49), Merimil has never shut down the turbines at Lockwood to keep adult salmon or shad from passing through them, J.A. 109 (SF 224).

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[10] The estimates referenced herein are contained in a "White Paper" prepared by Merimil and its consultants that was submitted to federal regulatory agencies as part of the ESA process and intended by the authors to be "scientifically defensible." J.A. 80-81, 108 (SF 42-46, 221-222). As such, they are party admissions. Fed. R. Evid. 801(d)(2); Coalition for a Sustainable Delta v. FEMA, 812 F. Supp. 2d at 1095.

The Clean Water Act Water Quality Certifications

Water quality certifications, such as those at issue in this case, are one of the measures prescribed by Congress to ensure compliance with the water quality standards required by the Clean Water Act. Congress declared that the objective of the CWA "is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). The CWA sets a "national goal" of "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water." 33 U.S.C. § 1251(a)(2). To further the objective and goals of the CWA, Congress directed states – or, if they fail to do so, the Environmental Protection Agency ("EPA") – to adopt water quality standards that "protect the public health or welfare, enhance the quality of water and serve the purposes of [the CWA]." 33 U.S.C. § 1313(c)(2)(A); id. at §§ 1313(a)(3)(C) and 1313(b)(1); 40 C.F.R. §§ 131.2 and 131.3(i); Friends of Merrymeeting Bay v. Olsen, 839 F. Supp. 2d 366, 370 (D. Me. 2012) ("Under the CWA, states are responsible for establishing water quality standards for all of their water bodies").

State water quality standards must specify designated uses of its waters (such as habitat for fish or other aquatic life) and set forth criteria to protect such uses. 33 U.S.C. § 1313(c)(2)(A); 40 C.F.R. §§ 131.2 and 131.3(i); Olsen, 839 F. Supp. 2d at 370. In Maine, the Legislature sets water quality standards. 38

M.R.S.A. § 464(1) and (2); Olsen, 839 F. Supp. 2d at 371. The areas of the Kennebec River in which the Projects are situated have been designated by the Legislature as Class B or Class C waterways, depending on the precise location. 38 M.R.S.A. §§ 467.4A (9), (10), (10-A), & (10-A)(a).[11] Under either of these classifications, the river must be "suitable" as a "habitat for fish."

> *Class C waters must be of such quality that they are suitable* for the designated uses of drinking water supply after treatment; fishing; agriculture; recreation in and on the water; industrial process and cooling water; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and *as a habitat for fish and other aquatic life*.

38 M.R.S.A. § 465.4.A (emphasis added).

> *Class B waters must be of such quality that they are suitable* for the designated uses of drinking water supply after treatment; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12 section 403; navigation; and *as habitat for fish and other aquatic life. The habitat must be characterized as unimpaired.*

38 M.R.S.A. § 465.3.A (emphasis added). "'Unimpaired' means without a diminished capacity to support aquatic life." 38 M.R.S.A. § 466(11). These classifications were approved by EPA under 33 U.S.C. § 1313(c), thus becoming "part of the federal law," Arkansas v. Oklahoma, 503 U.S. 91, 110 (1992).

Provisions for fish passage, such as the portions of the water quality

[11] In general, the areas of the river "impounded" by the Projects (i.e., the impoundments – or reservoirs – above each project) are designated Class C, while the other stretches of the river are designated Class B.

certifications at issue here, "clearly bear on the attainment of the designated uses of fishing, recreation and fish habitat," and thus are integral to Maine's water quality standards. S.D. Warren Co. v. Maine Dep't of Envtl. Prot., 2004 Me. Super. LEXIS 115, at *10 (Cumberland County May 4, 2004), aff'd, 2005 Me. 27, 868 A.2d 210 (Me. 2005), aff'd, 547 U.S. 370 (2006) (quoting Bangor Hydro-Electric Co. v. Bd. of Envtl. Prot., 595 A.2d 438, 443 (Me. 1991)); see Olsen, 839 F. Supp. 2d at 374, n.8. Maine environmental regulators regularly require hydroelectric dams to provide passage for fish in order to assure attainment of the designated uses contained in water quality standards. E.g., Save Our Sebasticook, Inc. v. Bd. of Envtl. Prot., 2007 Me. 102, 105, 928 A.2d 736, 739 (Me. 2007) (fish passage required at Sebasticook River dam); S.D. Warren, 2004 Me. Super. LEXIS 115, at *10-14 (fish passage required at Presumpscot River dams).

Under Section 401 of the CWA, 33 U.S.C. § 1341, federally-licensed projects that discharge to navigable waters, such as federally-licensed hydroelectric projects, must obtain a water quality certification as a condition of their operation. The water quality certification becomes part of the hydroelectric facility's FERC license. See generally S.D. Warren Co. v. Maine Bd. of Envtl. Prot., 547 U.S. 370 (2006). The Section 401 water quality certification program is administered by

EPA, and the certifications themselves are issued by the individual states. 33 U.S.C. § 1341(a).[12]

One purpose of the water quality certification is to ensure that the operation of the federally-licensed facility will not prevent attainment of water quality standards, S.D. Warren, 547 U.S. at 374 n.1, including the water quality classifications adopted as part of those standards, PUD No. 1 of Jefferson County v. Washington Dep't of Ecology, 511 U.S. 700, 713-14 (1994) (upholding minimum river flow requirements in water quality certification for hydroelectric dam because they promoted attainment of designated use of river for "[s]almonid [and other fish] migration, rearing, spawning, and harvesting.").[13] Accordingly, water quality certifications contain operating limitations (such as those at issue

[12] Although the federal licensing agencies, such as FERC here, are obligated by Section 401 to incorporate the state-issued water quality certification into the federal license (if they issue it), they have no statutory authority over the contents or interpretation of the certification. See generally Am. Rivers, Inc. v. Federal Energy Regulatory Comm'n, 129 F.3d 99, 107 (2nd Cir. 1997) (FERC has no authority to modify the terms of a water quality certification for a federally-licensed hydroelectric project, and FERC's interpretation of CWA Section 401 is not entitled to judicial deference).

[13] The narrative requirements of water quality certifications are enforceable in a federal citizen enforcement suit, such as this one, brought under 33 U.S.C. §§ 1365(a) & (f)(5). See PUD No. 1 of Jefferson County, 511 U.S. at 712-15 (narrative provisions in water quality certifications are enforceable); Oregon Natural Desert Ass'n v. Dombeck, 172 F.3d 1092, 1095 (9th Cir. 1998) (water quality certifications are explicitly included among the "standards or limitations" enforceable in citizen suits).

here). 33 U.S.C. § 1341(d); S.D. Warren, 547 U.S. at 386 (water quality certifications "impos[e] conditions on federal licenses").

> Here, the water quality certifications for the three Projects all provide:
>
> INTERIM DOWNSTREAM FISH PASSAGE: The [licensee] shall continue and where needed improve existing operational measures to diminish entrainment, allow downstream passage, and *eliminate significant injury to out-migrating anadromous fish in accordance with the terms of the KHDG Settlement Agreement.*

J.A. 104 (SF 195) (emphasis added). The full text of the provisions of the KHDG Settlement Agreement thus incorporated into the water quality certifications is as follows:

> Downstream passage []
>
> a. Interim passage beginning upon the effective date of this Agreement:
>
> (1) Generally. *Licensee will continue and where needed improve existing interim operational measures (e.g.* controlled spills*, temporary turbine shutdowns), to diminish entrainment, allow downstream passage of outmigrating* alewife, *Atlantic salmon*, blueback herring *and American shad, and eliminate significant injury or mortality (immediate or delayed) to out-migrating species*. Licensee agrees to consult with state and federal agencies to develop an approved plan for interim downstream passage facilities and/or operational measures to minimize impacts on downstream migrating fish, with evaluation based on qualitative observations.
>
> (2) *Passage through turbines. Licensee and the resource agencies agree that fish passage by means of sluiceways and/or controlled spills are the first and preferred approach to interim downstream fish passage at [the Project]*. In the event that fish passage using these methods is not successful[FN], and to the extent that licensee desires to achieve or continue interim downstream passage of out-migrating

> alewife, and/or juvenile Atlantic salmon or shad by means of passage through turbine(s), licensee must demonstrate, through site-specific qualitative studies designed and conducted in consultation with the resource agencies, that passage through turbine(s) will not result in significant injury and/or mortality (immediate or delayed). If, after three years of such studies, the resource agencies, based on good cause shown, do not believe that the qualitative studies conclusively demonstrate that turbine passage is not resulting in significant injury and/or mortality, and licensee desires to achieve interim downstream passage of these species through turbine(s), licensee must demonstrate through site-specific quantitative studies that turbine passage will not result in significant injury and/or mortality (immediate or delayed). The quantitative studies shall be designed and conducted in consultation with the resource agencies.
>
> *In the event that adult shad and/or Atlantic salmon begin to inhabit the impoundment above the ... project, and to the extent that licensee desires to achieve interim downstream passage of out-migrating adult Atlantic salmon and/or adult shad by means of passage through turbine(s), licensee must first demonstrate through site-specific quantitative studies designed and conducted in consultation with the resource agencies that passage through turbine(s) will not result in significant injury and/or mortality (immediate or delayed). In no event shall licensee be required to make this quantitative demonstration for adult shad and adult Atlantic salmon before May 1, 2006.*
>
> [FN] Construction of new diversionary devices to achieve success is not required by this Agreement.

J.A. 206-208 (Lockwood), 210-211 (Shawmut), 211-213 (Weston) (emphasis added in each); see also J.A. 104 (SF 196). The portions regarding passage of adult salmon and shad through turbines are specifically at issue in this appeal.

Plaintiffs' Clean Water Act Claim

Plaintiffs alleged in the Amended Complaint that (1) adult Atlantic salmon inhabit the impoundment upstream of each of the Projects, (2) adult American shad

inhabit the impoundment upstream of the Lockwood Project, (3) Defendants desire to use the Projects' turbines as one means for these fish to pass the Projects, and (4) Defendants have not conducted Project-specific quantitative studies demonstrating that such turbine passage does not cause significant injury and/or mortality (immediate or delayed) to these fish. J.A. 55-56 (Am. Compl. ¶¶ 37-41).

Plaintiffs requested an order: (a) requiring Defendants to comply with the prohibition in their water quality certifications against adult salmon and shad turbine passage unless and until they are able to demonstrate through the required studies that such passage is safe; and (b) providing such other relief as the Court deems appropriate. J.A. 60, 61 (Am. Compl. Relief Requests c & f). Mere performance of site-specific quantitative studies on the effects of turbine passage on adult salmon and shad would not be sufficient to achieve compliance with the water quality certifications. Rather, entrainment of adult salmon or shad through turbines is not allowed under the terms of the certifications unless and until Defendants "*first demonstrate*" through such studies "that passage through turbine(s) will not result in significant injury and/or mortality (immediate or delayed)." In other words, the water quality certifications presume that turbine passage for adult salmon and shad is unsafe *unless* site-specific quantitative studies prove otherwise. Accordingly, Plaintiffs seek to prevent Defendants from continuing to allow turbine passage in the absence of the requisite studies

demonstrating that such passage is sufficiently safe, and seek to compel Defendants to remediate the harm caused by their past and ongoing violations of their water quality certifications.

SUMMARY OF ARGUMENT

The Clean Water Act water quality certifications governing Defendants' Weston, Shawmut, and Lockwood hydroelectric projects require that, "to the extent that [Defendants] desire[] to achieve interim downstream passage of out-migrating adult Atlantic salmon and/or adult shad by means of passage through turbine(s)," Defendants "must first demonstrate through site-specific quantitative studies" that such passage "will not result in significant injury and/or mortality."

First, the District Court's grant of summary judgment to Defendants on Plaintiffs' claim to enforce this requirement was based solely on its finding that Defendants did not "desire" to achieve downstream passage of adult salmon or shad at these projects through the Projects' turbines. However, the District Court expressly and improperly refused to consider the types of objective evidence routinely held to be relevant in determining a party's subjective desire. Failure to consider such evidence is contrary to judicial authority, to the language and structure of the water quality certifications themselves, and to the certifications' purpose of ensuring suitable habitat for salmon and shad.

Applying the correct "totality of the circumstances" approach to the undisputed evidence in the summary judgment record, as this Court recently did in United States v. Gen. Elec. Co., 670 F.3d 377 (1st Cir. 2012), and viewing those facts in the light most favorable to Plaintiffs, it is clear that, at a minimum, Plaintiffs raised a genuine issue of material fact as to whether Defendants "desire" turbine passage to be one of the means by which migrating salmon and shad are passed downstream at the Weston, Shawmut, and Lockwood Projects.

Second, the undisputed material facts in the record entitle Plaintiffs to a ruling of summary judgment in their favor. As the District Court found, Defendants do not contest two of the three elements of Plaintiffs' claim (that adult salmon and/or shad inhabit the impoundments above the three Projects, and that the required injury and mortality studies have not been done). And when the totality of the circumstances are considered, it cannot reasonably be maintained that Defendants have *no* "desire" to use the hydroelectric turbines as one means of passage for downstream migrating fish at these Projects. "*To the extent that*" Defendants desire to pass adult salmon and/or shad downstream through their turbines, Defendants "must *first* demonstrate" that this level of turbine passage will not cause significant harm, and they have made no such showing.

Defendants concede that passage through turbines is one of the three means by which migrating fish are passed downstream at the Projects, and that it is often

the *principal* means of downstream passage. Defendants know (and have been told by the regulatory agencies) that the measures they have taken to discourage fish from accessing their turbines are inadequate. Defendants have employed "guidance booms" – meant to steer fish away from turbines – at only two of the Projects, and those devices have been both ineffective when in place and prone to malfunction and consequent removal. Defendants also know (and have been told by the regulatory agencies) that other measures – such as turbine screens or temporary turbine shutdowns – would effectively prevent turbine access, but Defendants have chosen not to employ them. Rather, Defendants have continued to operate the turbines, and continued to provide them as a means of downstream passage during salmon and shad migration seasons, in direct and conscious violation of their water quality certifications.

ARGUMENT

I. STANDARD OF REVIEW

This Court "review[s] a grant or denial of summary judgment by the district court *de novo*," and "[t]he presence of cross-motions neither dilutes nor distorts [the *de novo*] standard of review." OneBeacon Am. Ins. Co. v. Commercial Union Assur. Co. of Canada, 684 F.3d 237, 241 (1st Cir. 2012) (citations and internal quotes omitted; brackets in the original).

As the District Court correctly explained, a party is entitled to summary judgment if, on the record before the Court, it appears "that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). An issue is "genuine" if "the evidence is such that a reasonable jury could return a verdict for the nonmoving party." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). A "material fact" is one that has "the potential to affect the outcome of the suit under the applicable law." Nereida–Gonzalez v. Tirado–Delgado, 990 F.2d 701, 703 (1st Cir. 1993) (citing Anderson, 477 U.S. at 248) (additional citation omitted).

The party moving for summary judgment must demonstrate an absence of evidence to support the nonmoving party's case. Celotex Corp. v. Catrett, 477 U.S. 317, 325 (1986). In determining whether this burden is met, the Court must view the record in the light most favorable to the nonmoving party and give that party the benefit of all reasonable inferences in its favor. Alliance of Auto. Mfrs. v. Gwadosky, 430 F.3d 30, 34 (1st Cir. 2005); Santoni v. Potter, 369 F.3d 594, 598 (1st Cir. 2004). The above-described standard "is not affected by the presence of cross-motions for summary judgment." Gwadosky, 430 F.3d at 34 (citation omitted). "[T]he court must mull each motion separately, drawing inferences against each movant in turn." Cochran v. Quest Software, Inc., 328 F.3d 1, 6 (1st Cir. 2003) (citation omitted).

The District Court erred in its application of the relevant standards to the cross-motions for summary judgment here. In its consideration of both motions, it disregarded facts of the type that, as a matter of law, have been held to be material to the determination of a party's "desire" – here, to Defendants' intentions regarding fish passage through the Projects' turbines. As described in Section II below, properly admitted but disregarded facts regarding Defendants' knowledge and actions are material to Defendants' motion and, particularly when viewed in the light most favorable to Plaintiffs, certainly raise a genuine issue as to what Defendants' actual "desire" is, precluding summary judgment for Defendants. As described in Section III below, those same facts are both undisputed and, as a matter of law, material to Plaintiffs' motion. Once those facts are considered, a reasonable jury could not return a verdict for Defendants, requiring that summary judgment be granted for Plaintiffs.[14]

[14] As the District Court impliedly recognized, the interpretation of the operative language of the water quality certifications (and the underlying KHDG Agreement) is a question of law. While Plaintiffs are not aware of a decision directly addressing the question with regard to CWA water quality certifications, the federal courts have long held, in an analogous context, that construction of CWA wastewater discharge permits is a question of law. See e.g. United States v. Weitzenhoff, 35 F.3d 1275, 1287 (9th Cir. 1993) (district court's decision to allow jury to construe the terms of a CWA wastewater discharge permit issued by the State of California was "manifestly erroneous," because interpretation of the terms of such a permit is a question of law for the court); Natural Res. Def. Council, Inc. ("NRDC") v. County of Los Angeles, --- F.3d ---, 2013 WL 4017155, at *11 (9th Cir. 2013) ("[CWA permit] terms are to be given their ordinary meaning, and when

II. THE DISTRICT COURT ERRED IN GRANTING DEFENDANTS' MOTION FOR SUMMARY JUDGMENT BY RULING THAT THE KNOWING ACTS OF DEFENDANTS TO ENABLE TURBINE PASSAGE ARE "NOT GERMANE" TO THE QUESTION OF WHETHER DEFENDANTS "DESIRE" TO PASS ADULT SALMON AND SHAD THROUGH THEIR TURBINES.

In its ruling on the CWA claim, the District Court found: "Defendants do not contest that adult Salmon and shad inhabit the impoundments above the Kennebec River dams or that the requisite site-specific quantitative studies have not been performed to show that turbine passage will not result in injury and/or mortality to the fish." J.A. 181 (SJ Order at 27). Further, the District Court assumed that "Atlantic salmon and/or shad are in fact passing through the turbines and Defendants have not taken sufficient steps to prevent that passage." J.A. 182 (SJ Order at 28). The District Court's grant of summary judgment in favor of Defendants was based solely on its finding that Defendants did not "desire" to achieve downstream passage of adult salmon (and, at Lockwood, adult shad) through the Projects' turbines:

> [T]he Defendants' desire is that the fish bypass the turbines. Two of the three dams have floating booms to aid in bypassing the turbines. (JSF ¶¶ 220, 225, 234.) Robert Charles Richter, III, testifying for Defendants, stated that the Defendants had not completed the studies referenced in the Agreement because Defendants' 'desire is not to pass [the fish] through the turbines.' (Richter Dep. (ECF No. 82-4) at 3124.)

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the terms of a [permit] are clear, the intent of the parties must be ascertained from the [permit] itself.") (citation and internal quotes omitted).

J.A. 182 (SJ Order at 28).

In reaching this conclusion, the District Court both misunderstood the nature of Plaintiffs' arguments and discounted the significance of the evidence Plaintiffs presented. Contrary to the District's Court opinion, Plaintiffs did not argue that "desire" is an ambiguous term. Plaintiffs agree with the District Court that the common meaning of "desire" is "'[t]o wish or long for; want.'" J.A. 181 (SJ Order at 27). Plaintiffs agree that what Defendants *want* – how they *actually intend* to achieve downstream passage of adult salmon and shad – is the issue to be resolved.[15] Further, contrary to the District Court's characterization, Plaintiffs are not attempting "to substitute 'knowledge' or 'expectations' for 'desire'" in the language of the water quality certifications. J.A. 182 (SJ Order at 28). Rather, Plaintiffs, in line with a wide range of legal authority on the issue, believe that a party's "knowledge" and "expectations" provide crucial *objective evidence* of a party's actual desire – evidence the District Court improperly disregarded.

[15] Although Plaintiffs noted in their District Court papers that the CWA is a strict liability statute, Opposition to Defendants' Motion for Summary Judgment (Docket 111) at 20, they also clearly argued that "the facts show that NextEra does desire to pass fish through its turbines," id. The strict liability nature of the CWA supports Plaintiffs' position that, when a subjective term such as "desire" is included as part of a requirement imposed under the statute, objective facts and circumstances (and not subjective professions of intent) provide the best evidence of compliance or non-compliance.

A. A Party's "Desire" Is Measured By the Party's Objective Manifestations of Desire, and Not By Its Professions of Desire.

While Plaintiffs are unaware of a decision under the CWA addressing whether a party "desires" a particular result, courts have in numerous other contexts resolved questions of intent, and of "desire" in particular, by using a "totality of the circumstances" approach. The District Court did not apply such an approach here. Instead, the District Court expressly refused to consider the types of evidence routinely held to be relevant in determining a party's desire.

In general, "subjective intent may be inferred from the objective circumstances." United States v. Sherman, 551 F.3d 45, 50 (1st Cir. 2008); De Leon-Reynoso v. Ashcroft, 293 F.3d 633, 637 (3d Cir. 2002) (quoting with approval then-Judge Alito's observation at oral argument that "subjective intent is generally inferred from objective facts"); Kosilek v. Spencer, 899 F. Supp. 2d 190, 208-209 (D. Mass. 2012) (subjective state of mind "is often inferred from behavior" [citation omitted]). Similarly, intent "may be inferred from the totality of relevant facts." Aucella v. Town of Winslow, 583 A.2d 215 (Me. 1990) (citing Washington v. Davis, 426 U.S. 229, 241-42 (1976)) (regarding invidious intent to discriminate); United States v. Vavlitis, 9 F.3d 206, 214 (1st Cir. 1993) ("[f]raudulent intent may be established by circumstantial evidence and by reasonable inferences from facts and situations"); Stone v. Perry, 60 Me. 48 (1872) (in replevin action, "intent of the parties can be inferred from their acts or the

circumstances"); Ne. Ins. Group v. Leonard, 1998 Me. Super. LEXIS 16, at *6 (Cumberland County January 20, 1998) (in insurance coverage case, court stated that intent to injure is inferred from nature of a party's actions in committing a crime).

Courts routinely use a "totality of the circumstances" test to determine whether a person "desires" a particular outcome. Sofar v. Johnston , 237 F.3d 411, 455 (5th Cir. 2000) (test used to determine whether criminal defendant "desired" to have counsel present); Scott Elliot Smith, LPA v. Travelers Casualty Ins. Co., 2012 U.S. Dist. LEXIS 68181, at *5 (S.D. Ohio, May 16, 2012) (test used to determine whether plaintiffs "desired" to defeat diversity jurisdiction by amending complaint); Taylor v. Bd. of Educ. of City School Dist. of New Rochelle, 191 F. Supp. 181, 194-195 (S.D.N.Y. 1961) ("purposeful desire" to segregate established by "course of conduct" "viewed in its totality"); see also State of Maine v. Lemay, 2012 Me. 86, ¶ 21, 46 A.3d 1113, 1119 (Me. 2012) (evidence of flight permits an inference that defendant "desired" to avoid prosecution).

The District Court did not consider the totality of the circumstances in deciding whether Defendants "desire" that their turbines provide a means of downstream passage for adult salmon and shad. Rather, the District Court explicitly refused to consider circumstances clearly relevant to assessing Defendants' intent. Stating that "[k]nowledge does not equate to desire," J.A.182,

the District Court either dismissed or overlooked the principle that a party's knowledge can provide strong *evidence* of desire. Leavitt v. Corr. Med. Serv., Inc., 645 F.3d 484, 497 (1st Cir. 2011) (Eighth Amendment claim requires proof that prison officials have a "sufficiently culpable state of mind," which is a "subjective inquiry" that can be satisfied by showing the officials had "actual knowledge" of harm to inmate); AUSA Life Ins. Co. v. Ernst and Young, 206 F.3d 202, 221 (2d Cir. 2000) (in a Securities and Exchange Act § 10(b) action, court stated, "we can easily find that [the defendant] possessed the requisite intent to deceive, manipulate, or defraud" where it knew that its actions placed its fiduciaries at undisclosed risk); Gagnon v. Coombs, 39 Mass. App. Ct. 144, 151, 654 N.E.2d 54, 59 (Mass. App. 1995) (the scope of agency that a principal "desires" can be inferred from the facts known to the principal and agent).

In a recent case, this Court examined a company's "knowledge" and actions in determining whether the company had the "intent" to dispose of a hazardous substance within the meaning of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"). In United States v. Gen. Elec. Co. ("GE"), 670 F.3d 377 (1st Cir. 2012), the U.S. sued GE for costs incurred by the government in remediating the Fletcher's Paint Works and Storage Facility Superfund Site. The Environmental Protection Agency had found leaking barrels of Pyranol, a hazardous substance, on a site owned by Fred Fletcher, a chemical

scrapper, and had conducted a cleanup of the site under CERCLA. The U.S. claimed GE was liable for the cleanup costs because it had "arranged" for the disposal of the Pyranol by selling it to Fletcher.

To be an "arranger" within the meaning of CERCLA, GE had to have "intended" to dispose of the Pyranol. Id. at 383. This Court, citing Burlington Northern & Santa Fe Ry. Co. v. United States, 556 U.S. 599 (2009), stated, "an entity's knowledge that a product it sells will be discarded may be a probative factor of its intent to 'dispose of' that product," though knowledge alone is not sufficient to prove intent. GE, 670 F.3d at 383. This Court analyzed in detail whether GE knew that some of the Pyranol it sold to Fletcher was of no use to him because of its poor quality, and found that was indeed the case. Id. at 388-391. In light of this knowledge, this Court found, GE's "history of purposeful inaction in relation to the scrap Pyranol left at the Fletcher Site" undercut its claim "that it did not harbor the intent necessary" to be an arranger. Id. at 390; see id. ("GE made no effort…to retrieve, cleanup, or otherwise properly dispose of the thousands of drums of scrap Pyranol Fletcher had claimed were unusable to him"); see also id. at 389 (the "collective effect" of GE's conduct, "rather than prevent or reduce the likelihood of disposal, was to ensure it"). This Court thus concluded that GE had the requisite intent to be an "arranger" of hazardous substance disposal within the meaning of CERCLA.

Similarly, rather than precluding salmon and shad from accessing their turbines, the collective effect of Defendants' conduct has been to *ensure* such access. Contrary to the weight of authority, however, the District Court held that Defendants' knowledge and expectation that (1) adult salmon and/or shad are in fact passing through the Projects' turbines, and (2) their efforts to divert fish away from the Projects' turbines are ineffective, are "not germane to the Court's inquiry." J.A. 182 (SJ Order at 28). Moreover, the District Court made no reference to Defendants' decision to continue to run their turbines knowing fish would access them. The complete exclusion of these facts from the District Court's analysis is underscored by its finding that there was an "absence of evidence" that Defendants do desire to pass fish through their turbines. J.A. 182 (SJ Order at 28).

B. The District Court's Refusal to Consider Objective Evidence of Defendants' "Desire" Regarding Turbine Passage Is Inconsistent with the Language, Structure, and Purpose of the Water Quality Certifications and the KHDG Agreement.

As the District Court correctly noted, "[a]n interpretation which gives a reasonable, lawful, and effective meaning to all the terms is preferred to an interpretation which leaves a part unreasonable, unlawful, or of no effect." J.A. 181-182 (SJ Order at 27-28) (quoting OfficeMax v. Levesque, 658 F.3d 94, 99 (1st

Cir. 2011) (quoting Restatement (Second) of Contracts § 203(a))).[16] Yet the District Court largely ignored the context within which the term "desire" is used in the KHDG Agreement, and did not consider the purpose of the Agreement and of the water quality certifications into which it is incorporated. Especially when the relevant language of the KHDG Agreement is considered in its entirety, it is clear that the purpose of the provision in question is to help ensure that the Kennebec River is a suitable habitat for salmon and shad, and not simply to ensure that the operators of these dams have benign hopes and dreams about fish passage.[17] This, in turn, provides strong additional support for the principle that Defendants' "desire" is to be measured here by the actions they have – and have not – taken to keep salmon and shad out of their turbines. Quite simply, an interpretation that gave precedence to Defendants' simple *professions* of "desire" over the objective *evidence* of their "desire" would make a mockery out of the fishery protections carefully built into the KHDG Agreement and water quality certifications.

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[16] See also NRDC v. County of Los Angeles, --- F.3d ---, 2013 WL 4017155, at *11 (courts "must interpret [CWA wastewater discharge permits] in a manner that gives full meaning and effect to all of the [permit's] provisions and avoid a construction of the [permit] that focuses only on a few isolated provisions.") (citation and internal quotes omitted).

[17] The "Purposes" section of the KHDG Agreement states, in relevant part, that its purposes are to "rapidly assist in the restoration of [anadromous fish] species in the Kennebec River" and to "avoid extensive litigation over fish passage methodologies, timetables and funding." J.A. 199 (KHDG Agreement at 2, ¶ II).

As set forth above, each water quality certification contains a section, entitled "INTERIM DOWNSTREAM FISH PASSAGE," that requires the Project licensee to "*eliminate significant injury* to out-migrating anadromous fish in accordance with the terms of the KHDG Settlement Agreement." J.A. 104 (SF 195) (emphasis added). The incorporated sections of the KHDG Agreement relating to interim downstream passage at the Projects, in turn, begin with a general requirement that the licensees at each of these Projects employ "operational" measures, such as "temporary turbine shutdowns," as a means to "diminish entrainment" and to "allow downstream passage of outmigrating… Atlantic salmon…and American shad," and thus to "eliminate significant injury or mortality (immediate or delayed) to [these] species." J.A. 206-207 (Lockwood), 210 (Shawmut), 212 (Weston). There follows a separate second section, entitled "turbine passage," that begins with a clear statement that turbines are a disfavored route of passage at each of these dams:

> Licensee and the resource agencies agree that fish passage by means of sluiceways and/or controlled spills are the first and preferred approach to interim downstream fish passage…

J.A. 207 (Lockwood), 210 (Shawmut), 212 (Weston). The water quality certifications also single out adult fish for the highest level of protection. Passage of adults through the turbines is barred unless Defendants *first* complete rigorous *quantitative* studies proving that such passage is safe. Id. In contrast, the

provisions for juvenile fish allow the licensees a grace period during which they may *qualitatively* assess the effects of turbine passage.[18] Id. These detailed protections in the certifications would have no practical effect if the licensees could avoid them merely by *professing* no "desire" to pass adult fish through their turbines.

Further, the statutory purpose of a water quality certification is to secure and maintain compliance with the CWA water quality standards. Here, the water quality standard for the Kennebec River specifies that the river must be "suitable" as a "habitat for fish" (see supra at page 27). The river cannot be a suitable habitat for (already endangered) salmon and shad if their adult migration routes force them through rapidly spinning hydroelectric turbines that subject them to a high risk of death or injury. The protective language of the KHDG Agreement was intended to avoid just such a result. If the licensees' professions of subjective desire could allow them to avoid the stipulated protections for adult salmon and shad, the statutory goal of compliance with water quality standards would be significantly frustrated.

[18] This extra layer of protection for adults is well-justified by the fact that, as Defendants themselves acknowledge, adults (because they are larger) are more likely than juveniles to be killed or injured passing through the Projects' turbines. See J.A. 95 (SF 148); J.A. 350 (Richter Dep. at 380-81) (probability that adult salmon passing through the Lockwood turbines will be struck by a turbine blade "is very high").

C. The Undisputed Facts in the Record Prevent the Issuance of Summary Judgment for Defendants.

Plaintiffs presented undisputed evidence that Defendants knew that turbine entrainment is a (and often *the*) principal route of passage for downstream migrating fish at all three Projects. At a formal administrative hearing on the water quality certifications held in March 2007, shortly after the certifications' restrictions on adult salmon and shad passage went into effect, two different NextEra representatives confirmed that turbines are among the "existing downstream passages for…anadromous fish at the Kennebec River Projects." J.A. 105 (SF 198-99). Currently, Defendants acknowledge that: (1) turbines remain one of the three routes by which downstream migrating fish pass the Projects, e.g., J.A. 87 (SF 90); (2) one of the other three routes – passage via spill – is not available at any of the Projects unless the river flow exceeds the Project's hydraulic capacity, J.A. 88, 89 (SF 99, 107, 115); (3) no matter how high the river flow, passage by spill is unavailable to fish entering the Shawmut or Lockwood forebay channel (unless they manage to swim back upstream, against the current, to escape the channel), J.A. 87 (SF 91); (4) adult salmon have access to some or all the turbines at all three of the Projects, and adult shad have access to the turbines at Lockwood, J.A. 84, 87, 88, 89 (SF 78, 95-96, 103-04, 111-12); (5) a guidance boom was not installed at Weston until the summer of 2011, it is periodically nonfunctional, and (depending on river flow) roughly 66% to 98% of adult salmon

passing that project do so via the turbines when the boom is not operational, J.A. 109-110 (SF 227-232); (6) no guidance boom has ever been installed at Shawmut, and (depending on river flow) roughly 70% to 99% of adult salmon passing that project do so via the turbines, J.A. 110-111 (SF 235-36); (7) the guidance boom installed at Lockwood in 2009 was nonfunctional and had to be replaced, the replacement boom installed in 2010 has continued to experience functional problems, and (depending on river flow) from 49.8% to 81.2% of adult salmon passing the Lockwood Project do so via the turbines even when that guidance boom is operational, J.A. 105-106, 106, 108 (SF 201-05, 208-211, 221-22). Nonetheless, despite being notified by federal and state fisheries agencies that their bypass systems are inadequate to ensure safe passage for anadromous fish, J.A. 102, 107-108 (SF 185, 217-219), that the type of boom employed at Weston and Lockwood is "prone to failure," J.A. 109-110 (SF 229-230), and that "physical exclusion" is a more effective means of keeping fish from entering the turbines, J.A. 107-108 (SF 218), Defendants decided not to utilize either physical exclusion (such as placing a grating in front of the turbine intakes) or temporary turbine shutdowns to keep adult salmon or adult shad from accessing the Projects' turbines. Rather, Defendants continued, without interruption, to operate the turbines during migration seasons, and thus to make them available as one of the downstream passage routes for out-migrating salmon and shad. Defendants'

knowledge and conduct – running the turbines during migration seasons, failing to upgrade bypass systems they knew were incapable of keeping adult fish away from the turbines – was, like GE's knowledge and conduct in dealing with Pyranol, material evidence that Defendants desire to pass adult fish through their turbines. At a minimum, these facts and circumstances raise a genuine issue of material fact as to whether Defendants "desire" that passage through turbines be one of the means by which migrating salmon and shad are passed downstream at the Weston, Shawmut, and Lockwood Projects.

III. PLAINTIFFS ARE ENTITLED TO SUMMARY JUDGMENT AS A MATTER OF LAW.

These same undisputed facts entitle Plaintiffs to a ruling of summary judgment in their favor. When the totality of the circumstances are considered, it cannot reasonably be maintained that Defendants have *no* "desire" to use their hydroelectric turbines as a means of passage for downstream migrating salmon at the Weston and Shawmut Projects, and as a means of passage for salmon and shad at the Lockwood Project. And, under the express terms of their water quality certifications, "*to the extent that*" Defendants desire to pass adult salmon and/or shad downstream through their turbines, they "must first demonstrate" that this level of turbine passage will not cause significant harm. J.A. 104 (SF 195-96) (emphasis added). As the District Court found, Defendants themselves acknowledge that they have not made such a showing.

The relevant record before this Court, set forth in detail at pages 13-25 and 48-49, supra,, demonstrates that Defendants know that salmon and shad access their turbines, that they know that the measures they have taken to prevent such access are inadequate, that they are aware that other measures – such as turbine screening and temporary turbine shutdowns – would be effective, and that, despite the language in the KHDG Agreement specifically requiring the adoption of such measures, Defendants have chosen not to employ them. Additional proof that Defendants "desire" to pass salmon and shad through the Projects' turbines can be seen in the timing of the (limited) actions they have taken to guide fish away from the turbines at the Projects.

The KHDG Agreement was signed in 1998, and was incorporated into the water quality certifications for the Weston, Shawmut, and Lockwood Projects shortly thereafter. The specific protections of the KHDG Agreement for adult salmon and shad became operative when "adult shad and/or Atlantic salmon beg[a]n to inhabit the impoundment above the … project." J.A. 104 (SF 196). Adult salmon were trucked to the Sandy River (above all three Projects and the Hydro Kennebec Project) beginning in 2006, thus triggering the relevant KHDG protections for adult salmon. J.A. 85 (SF 81). Adult shad were trucked to a point above the Hydro Kennebec Project beginning in 2007, thus triggering the relevant KHDG protections for adult shad at Lockwood (and at Hydro Kennebec). J.A.

124-125 (Defendants' Response to Plaintiffs' Statement of Undisputed Material Facts [Docket 107] ¶ 12). At none of the Projects, however, did Defendants take timely action to keep adult salmon (or shad) from passing through turbines. Rather, as discussed above, Defendants testified at a 2007 adjudicatory hearing that turbines remained one of the downstream passage routes for anadromous fish at all three Projects, J.A. 105 (SF 198-99), and they have moved only sporadically (and half-heartedly) since that time to reduce the incidence of turbine passage at the Projects.

At Weston – the Project furthest upstream, and thus the first Project encountered by downstream-migrating fish – Defendants were well aware that adult salmon had ready access to all four of the Project's Francis turbines. J.A. 89 (SF 111-12). Yet, despite the fact that turbine passage remained the principal downstream passage route for salmon, J.A. 110 (SF 231-32), Defendants waited until the summer of 2011 – some six migration seasons after the KHDG requirements had gone into effect (and months after the filing of this action) – to install a guidance boom, albeit one that is prone to failure and has been deemed inadequate by state and federal agencies. J.A. 109-110 (SF 225, 229-230).

Even less was done at Shawmut, the next Project encountered by downstream-migrating salmon. Although Defendants knew that adult salmon have ready access to the Project's two propeller turbines, J.A. 88 (SF 103-04),

Defendants chose not to install a dedicated fish bypass at the Project, choosing instead to rely on an existing surface sluice – designed for the passage of floating debris – which has a flow rate less than 1% of that through the turbines. J.A. 88, 110 (SF 105-106, 234). Moreover, despite the fact that turbine entrainment remains the principal downstream passage route for salmon, J.A. 110-111 (SF 235-36), Defendants have not installed a guidance boom or other diversionary device to guide fish away from the Shawmut Project's turbines and toward the surface sluice.

At Lockwood, the furthest downstream of the Projects, Defendants knew that adult salmon and shad had ready access to the Project's Kaplan turbine, J.A. 87 (SF 95-96), and that adult shad also likely had access to the Project's six Francis turbines, J.A. 84 (SF 78). Yet it was not until the late summer of 2009, well into the fourth migration season after the KHDG requirements for adult salmon had gone into effect, and three migration seasons after the requirements for adult shad became effective, that Defendants installed a downstream fish bypass and guidance boom at Lockwood. J.A. 105 (SF 200). As discussed in detail above, see supra at pages 21-25, the Lockwood bypass system has proven inadequate to the task; it is often inoperable, and it allows significant turbine passage even when functioning, J.A. 107 (SF 215-217).

Nonetheless, despite the failure of these half measures, despite being told by NMFS that the Projects likely are killing and injuring downstream-migrating salmon, J.A. 102 (SF 183-184), and despite the explicit call in the KHDG Agreement for "temporary turbine shutdowns," *not once* in the period from spring 2006 through spring 2012 did Defendants close down any of the turbines at any of the Projects to keep adult salmon or shad from passing through them. This is the true measure of their "desire" regarding turbine passage.

CONCLUSION

The grant of summary judgment for Defendants should be reversed, and Plaintiffs' summary judgment motion should be granted.

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE WITH RULE 32(a)

1. This brief complies with the type volume limitation of Fed. R Civ. App. P. 32(a)(7)(B) because this brief contains 13,493 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii).

2. This brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because this brief has been prepared in a proportionally spaced typeface in Fourteen Point Times New Roman.

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CERTIFICATE OF SERVICE

I hereby certify that on September 9, 2013, I caused the Brief of Appellants to be electronically filed with the Court's CM/ECF system, which automatically sends notification to the following counsel of record for Defendants-Appellees:

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ADDENDUM

UNITED STATES DISTRICT COURT
DISTRICT OF MAINE

FRIENDS OF MERRYMEETING BAY, et al.,	)	
Plaintiffs,	)	
	)	Docket no. 2:11-cv-38-GZS
v.	)	
NEXTERA ENERGY RESOURCES, LLC, et al.,	)	
Defendants.	)	

ORDER ON CROSS MOTIONS FOR SUMMARY JUDGMENT

Before the Court are cross-motions for summary judgment filed by Defendants NextEra Energy Resources, LLC, NextEra Energy Maine Operating Services, LLC, FPL Energy Maine Hydro LLC, and the Merimil Limited Partnership (collectively, "Defendants") and Friends of Merrymeeting Bay and Environment Maine (collectively, "Plaintiffs"). As explained herein, the Court GRANTS IN PART and DENIES IN PART Defendants' Motion For Summary Judgment And Incorporated Memorandum Of Law (ECF No. 88) ("Defendants' Motion For Summary Judgment") and DENIES Plaintiffs' Motion For Partial Summary Judgment And Incorporated Memorandum Of Law In Support Of Motion For Partial Summary Judgment (ECF No. 94) ("Plaintiffs' Motion For Partial Summary Judgment").[1]

[1] Also before the Court are Plaintiffs' Motion To Strike Defendants' Statement Of Additional Facts In Reply To Defendants' Motion For Summary Judgment (ECF No. 125) and Defendants' Opposition To Plaintiffs' Motion To Strike Defendants' Statement Of Additional Facts In Reply To Defendants' Motion For Summary Judgment (ECF No. 126). In accordance with Local Rule 56, Defendants filed a statement of material facts with their motion for summary judgment (ECF No. 89). Plaintiff responded with an opposing statement and a set of additional facts (ECF No. 112). Defendants then filed a reply statement of facts and also included five additional facts (ECF No. 121). Plaintiffs have moved to strike Defendants' five additional facts on the grounds that they are not permitted by Local Rule 56. Plaintiffs are correct. However, the Local Rules also specifically disallow motions to strike. Local Rule 56(e). Accordingly, the Court did not consider the five additional facts filed by Defendants in reaching the

The Court additionally notes that on December 26, 2012, more than five months after the conclusion of summary judgment briefing, Plaintiffs filed their Supplement To Plaintiffs' Motion For Partial Summary Judgment And To Plaintiffs' Opposition To Defendants' Motion For Summary Judgment and four additional documents (ECF Nos. 128, 129, 130 and 131) (together, "Plaintiffs' Supplement"). The Court hereby STRIKES Plaintiffs' Supplement (ECF Nos. 128, 129, 130 and 131) as belated and improperly filed.[2]

I. LEGAL STANDARD

Generally, a party is entitled to summary judgment if, on the record before the Court, it appears "that there is no genuine dispute as to any material fact and that the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). "[T]he mere existence of *some* alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment; the requirement is that there be no *genuine* issue of *material* fact." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 247-48 (1986). An issue is "genuine" if "the

conclusions set forth in this Order. Consideration of those five additional facts would not have altered the outcome of the motions currently before the Court. Therefore, Plaintiffs' Motion To Strike is DENIED AS MOOT.

[2] Plaintiffs did not request leave of the Court to file the Supplement or any additional documents. Absent such a motion, Defendants lacked any opportunity to respond to the documents or allegations. Even if leave had been requested, the Court would likely have denied the request since there is no apparent good cause for Plaintiffs' December 26 filing of documents received between October 17, 2012 and November 2, 2012. (See Declaration of Charles C. Caldart (ECF No. 128-1) ¶¶3-6.) In addition to these procedural failings, Plaintiffs did not provide the Court with any additional statements of material fact or indicate how any of the documents provided support any particular statement of material fact already filed. See D. Me. Local Rule 7(f). Instead, Plaintiffs state in a footnote that: "[t]he documents submitted here are all supportive of one or more of the statements of fact submitted by Plaintiffs (either independently or jointly with Defendants) as part of the summary judgment record." (Plaintiffs' Supplement at 2 n.1.) Where Plaintiffs do cite to a specific portion of the accompanying 100-page "Downstream Passage Effectiveness for the Passage of Atlantic Salmon Smolts at the Weston, Shawmut, and Lockwood Projects, Kennebec River, Maine" ("Draft Report"), they misconstrue the Draft Report. Compare Plaintiffs' Supplement at 3-4 ("The [Draft Report] found that some percentage of the smolts passing downstream at the [Projects] dropped out of the water column and became stationary immediately after passing each project, thus indicating that acute turbine mortality likely occurred at each facility." (internal citations omitted)) with Draft Report at 34 (Page ID # 4853) (stating that a certain percentage of smolts were found "to be stationary downstream of the Project (likely mortality, predation or regurgitated tags)" and noting that the failure of additional smolts to reach a downstream monitoring station could be the result of five different causes, only one of which was mortality). Ultimately, Plaintiffs also appear to ignore the statement on the first page of the Draft Report that "the design of this study was not appropriate to properly assess the whole station passage survival of smolts at or between the Weston, Shawmut or Lockwood Projects." (See Draft Report (ECF No. 129) at 1 (Page ID #4820)). In short, for a multitude of reasons, the Court will not consider Plaintiffs' Supplement in deciding the pending motions.

evidence is such that a reasonable jury could return a verdict for the nonmoving party." Id. at 248. A "material fact" is one that has "the potential to affect the outcome of the suit under the applicable law." Nereida–Gonzalez v. Tirado–Delgado, 990 F.2d 701, 703 (1st Cir. 1993) (citing Anderson, 477 U.S. at 248) (additional citation omitted).

The party moving for summary judgment must demonstrate an absence of evidence to support the nonmoving party's case. Celotex Corp. v. Catrett, 477 U.S. 317, 325 (1986). In determining whether this burden is met, the Court must view the record in the light most favorable to the nonmoving party and give that party the benefit of all reasonable inferences in its favor. Santoni v. Potter, 369 F.3d 594, 598 (1st Cir. 2004).

Once the moving party has made this preliminary showing, the nonmoving party must "produce specific facts, in suitable evidentiary form, to establish the presence of a trialworthy issue." Triangle Trading Co. v. Robroy Indus., Inc., 200 F.3d 1, 2 (1st Cir. 1999) (citation and internal punctuation omitted); see also Fed. R. Civ. P. 56(e). "Mere allegations, or conjecture unsupported in the record, are insufficient." Barros-Villahermosa v. United States, 642 F.3d 56, 58 (1st Cir. 2011) (quoting Rivera–Marcano v. Normeat Royal Dane Quality A/S, 998 F.2d 34, 37 (1st Cir. 1993)); see also Wilson v. Moulison N. Corp., 639 F.3d 1, 6 (1st Cir. 2011) ("A properly supported summary judgment motion cannot be defeated by conclusory allegations, improbable inferences, periphrastic circumlocutions, or rank speculation.") (citations omitted). "As to any essential factual element of its claim on which the nonmovant would bear the burden of proof at trial, its failure to come forward with sufficient evidence to generate a trialworthy issue warrants summary judgment to the moving party." In re Spigel, 260 F.3d 27, 31 (1st Cir. 2001) (quoting In re Ralar Distribs., Inc., 4 F.3d 62, 67 (1st Cir. 1993)).

The above-described "standard is not affected by the presence of cross-motions for summary judgment." Alliance of Auto. Mfrs. v. Gwadosky, 430 F.3d 30, 34 (1st Cir. 2005) (citation omitted). "[T]he court must mull each motion separately, drawing inferences against each movant in turn." Cochran v. Quest Software, Inc., 328 F.3d 1, 6 (1st Cir. 2003) (citation omitted); see also Alliance of Auto. Mfrs., 430 F.3d at 34 ("[L]ike the district court, we must scrutinize the record in the light most favorable to the summary judgment loser and draw all reasonable inferences therefrom to that party's behoof.").

II. FACTUAL BACKGROUND

This case arises out of the interaction between an endangered species, the Atlantic salmon, and four dams located on two rivers in Maine. Pursuant to Local Rule 56(g), and for the purpose of determining whether summary judgment is appropriate, the parties have stipulated to facts material to the motions before the Court.[3] At this point, the Court provides only a limited overview of the dispute, supplementing with additional facts where required later in this Order.

[3] In the Joint Stipulated Facts For Summary Judgment (ECF No. 85) ("Joint Stipulated Facts" or "JSF"), the parties state: "The Parties make these stipulated admissions solely for the purposes of these motions." Id. at 1. The parties then cite Local Rule 56(g), which provides that, "[f]acts deemed admitted solely for purposes of summary judgment shall not be deemed admitted for purposes other than determining whether summary judgment is appropriate." Local Rule 56(g). Despite submitting these 250 stipulations of fact for the purpose of deciding the summary judgment motions before the Court, Defendants assert in a footnote to Defendants' Opposition To Plaintiffs' Motion For Partial Summary Judgment With Incorporated Memorandum Of Law (ECF No. 106) ("Defendants' Opposition To Plaintiffs' Motion") that the statements made are not necessarily admissible nor should they be taken for the truth of the matter asserted. (Id. at 11 n.7.) Defendants' assertions are contrary to their submission of stipulations in accord with Local Rule 56(g) and their statements in that submission. Further, Defendants rely upon the Joint Stipulated Facts in their own motion for summary judgment and motion in limine. (See Defs.' Mot. For Summ. J. at 2-5, 7, 10-11, 13-14; Defs.' Mot. And Incorporated Mem. Of Law To Preclude Test. And Reports Of Pls.' Expert Witness, Jeffrey Hutchings (ECF No. 93) at 5.) Defendants cannot simultaneously claim that the statements are not admissible and then seek summary judgment and the exclusion of expert testimony based on those very statements. Accordingly, the Court considered and relied on the Joint Stipulated Facts for the purpose of deciding the motions before the Court. In any event, the Court finds that the statements challenged by Defendants would be admissible as public records or reports under Federal Rule of Evidence 803(8). (See Pls.' Reply (ECF No. 122) at 3-5.)

A. Dams Along The Kennebec River And The Androscoggin River

The Kennebec and Androscoggin Rivers empty into the estuary of the Merrymeeting Bay, located along the coast of Maine. The Lockwood Project, the Shawmut Project and the Weston Project are three hydroelectric projects, or dams, located on the mainstem Kennebec River. The Lockwood Project is the first hydroelectric project upstream of Merrymeeting Bay on the Kennebec River. The Shawmut and Weston Projects are dams located upstream of the Lockwood Project on the Kennebec River. The Brunswick Project is the first hydroelectric project upstream of the Merrymeeting Bay on the Androscoggin River. While four dams are at issue in this case, there are other upstream dams located along these rivers.[4]

The Lockwood Project is owned by Defendant Merimil Limited Partnership, which is also the holder of the license to operate the Lockwood Project from the Federal Energy Regulatory Commission ("FERC"). The Shawmut, Weston and Brunswick Projects are owned by Defendant FPL Energy Maine Hydro LLC, which also holds the FERC licenses to operate those Projects. Defendant NextEra Energy Maine Operating Services, LLC serves as the day-to-day operator for each of the dams at issue in this case.

B. Atlantic Salmon

Atlantic salmon are anadromous, meaning that they are born in fresh water, migrate to the ocean and return to fresh water to spawn. Adult Atlantic salmon return from the ocean to their native rivers and migrate upstream in the Kennebec and Androscoggin Rivers between May and

[4] For example, the Hydro Kennebec Project, the second dam upstream of Merrymeeting Bay along the Kennebec River, is not at issue in this case, but its effect on Atlantic salmon is currently being litigated before this Court in Friends of Merrymeeting Bay, et al. v. Brookfield Power US Asset Management, LLC, No. 2:11-cv-00035-GZS. In addition, the Brunswick Project is located approximately four and a half miles downstream from the Pejepscot Project, the second hydroelectric project upstream of Merrymeeting Bay on the Androscoggin River.

October. Smolts[5] migrate downstream in the Kennebec and Androscoggin Rivers in the spring en route to the ocean.

The Maine Department of Marine Resources ("MDMR") has stocked hatchery Atlantic salmon eggs in the Sandy River, an upstream spawning habitat for Atlantic salmon on the Kennebec River, since 2003 and stocked nearly one million eggs that year. In addition, there has been a limited Atlantic salmon fry stocking program in tributaries of the Androscoggin River upstream of the Brunswick Project.

On June 19, 2009, the National Marine Fisheries Service ("NMFS") and the United States Fish and Wildlife Service ("USFWS") (collectively, the "Services") issued a final rule including the Atlantic salmon populations of the Kennebec, Androscoggin and Penobscot Rivers as part of the Gulf of Maine Distinct Population Segment ("GOM DPS"), thereby formally designating those populations of Atlantic salmon endangered under the Endangered Species Act ("ESA"). That same day, NMFS issued a final rule designating "critical habitat" for the Kennebec, Androscoggin and Penobscot Atlantic salmon. The portions of the Kennebec River where the Lockwood, Shawmut and Weston Projects are located, and the portion of the Androscoggin River where the Brunswick Project is located, are part of the critical habitat designated on June 19, 2009.

C. Downstream and Upstream Passage At The Dams

On the Kennebec River, downstream-migrating Atlantic salmon encounter the Weston, Shawmut and Lockwood Projects, in addition to an additional dam not at issue in this case. On

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[5] Three to six weeks after Atlantic salmon eggs hatch, young salmon emerge from their redds, or series of nests, seeking food. At that point, they are called "fry." Fry quickly develop into "parr," with camouflaging vertical stripes. The parr feed and grow for one to three years in their native streams or rivers before undergoing a series of physiological and morphological changes to become "smolts" ready to enter salt water. Smolts migrate downstream to the ocean where they develop over one to three years into mature adult salmon before returning to fresh water to complete the spawning cycle. Post-spawning adult salmon are called "kelts."

the Androscoggin River, Atlantic salmon encounter the Brunswick Project, in addition to other dams not at issue in this case.

Downstream-migrating salmon can pass hydroelectric projects by three basic means: through the turbines, through the fish bypass and via the spill. Each project at issue in this case has multiple turbines of various types. Each project also has a fish bypass. The Lockwood and Weston Projects have guidance booms that operate in conjunction with the fish bypasses at those dams.[6] However, those guidance booms have not always functioned properly, requiring repairs and replacements at times. (JSF ¶¶ 200-212, 225-230.)

Upstream-migrating salmon on the Kennebec River encounter the Lockwood Project. Near the west bank of the Kennebec at the Lockwood Project is a fish lift. MDMR personnel trap and transport any Atlantic salmon that find the fish lift to the Sandy River, upstream of the Shawmut and Weston Projects. In 2011, 60 adult Atlantic salmon were trapped at the Lockwood Project. Upstream-migrating salmon in the Androscoggin River encounter the Brunswick Project, where an upstream passage system is in place. At the Brunswick Project, fish can use a "vertical slot" fish ladder to swim to the top of the dam, where they are crowded into a hoist and lifted into a holding tank. The fish are released into a flume upstream of the Brunswick Project. In 2011, 45 adult Atlantic salmon were trapped at the Brunswick Project. Some of the adult Atlantic salmon that return to the Androscoggin are likely returning to the river in which they spawned.

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[6] For example, the Lockwood Project has a "Tuffboom" guidance boom that includes a 10-foot deep curtain, the top ten feet of which are made of a perforated metal place and the bottom six feet are made of synthetic fiber netting. (JSF ¶ 206.) A guidance boom is intended to assist in guiding downstream migrating fish towards a fish bypass and away from a hydroelectric project's turbines. (See, e.g., JSF ¶ 220.)

D. Friends Of Merrymeeting Bay and Environment Maine

Friends of Merrymeeting Bay ("FOMB") is a Maine conservation organization that conducts research, advocacy, land conservation, education and litigation activities in order to preserve, protect, and improve the ecological, aesthetic, historical, recreational and commercial values of Merrymeeting Bay and its watershed on behalf of its approximately 400 members. Environment Maine is a statewide environmental advocacy group that is engaged in education, research lobbying, litigation and citizen organizing to encourage the conservation and protection of Maine's waterways on behalf of its approximately 3,500 members. FOMB and Environment Maine each have numerous members who live or own homes near the Kennebec and Androscoggin Rivers and Merrymeeting Bay, and who participate in recreational activities on or near those water bodies.

Ed Friedman and Kathleen McGee, who have been members of FOMB and Environment Maine since before this action was filed, live within sight of Merrymeeting Bay. Friedman and McGee enjoy kayaking, canoeing, fishing, hiking, photographing and observing the aquatic life and wildlife in and around the Kennebec and Androscoggin Rivers and Merrymeeting Bay. Their enjoyment and use of these waters is impaired by the reduced numbers of Atlantic salmon. Friedman is a long-time Maine guide who has conducted kayaking tours and instruction in the Merrymeeting Bay watershed since the mid-1980s. A healthy population of Atlantic salmon in Merrymeeting Bay, which does not currently exist, would positively impact Friedman's business. (Friedman Dep. (ECF No. 96-9) at 4081-82, 4097-98.)[7]

[7] Defendants object to Friedman's deposition on the grounds that the deposition was taken in connection with Friends of Merrymeeting Bay, et al. v. Topsham Hydro Partners Limited Partnership, No. 2:11-cv-37-GZS, a related case to the one currently before the Court. (Defendants' Response To Plaintiffs' Statement Of Undisputed Material Facts (ECF No. 107) at 14.) Defendants' objection is without merit. "Sworn deposition testimony may be used to support or oppose a motion for summary judgment regardless of whether the testimony was taken in a prior proceeding" as long as the testimony is based on personal knowledge. Dickinson v. UMass Mem'l Med. Group, No. 09-40149-FDS, 2011 WL 1155497, at *8 (D. Mass. Mar. 24, 2011). There is no dispute that Friedman testified

E. The Litigation

On May 10, 2011, Plaintiffs filed their Amended Complaint (ECF No. 27) asserting causes of action under the ESA (Count I) and the Clean Water Act (Count II) against Defendants. Specifically, in Count I, Plaintiffs claim that Defendants are "taking" endangered Atlantic salmon through the operation of the four dams at issue in this case in violation of the ESA. In Count II, Plaintiffs claim that Defendants are violating the Clean Water Act through their operations at the Lockwood, Weston and Shawmut Projects on the Kennebec River.

On May 25, 2012, Defendants moved for summary judgment on all of Plaintiffs' claims (ECF No. 88). Defendants argue that they are entitled to summary judgment because Plaintiffs lack standing to bring this suit, Plaintiffs are unable to show an entitlement to injunctive relief and that Defendants are not violating the Clean Water Act. On May 26, 2012, Plaintiffs moved for Partial Summary Judgment seeking a liability ruling on Counts I and II (ECF No. 94.). In conjunction with these motions, the parties also briefed three motions in limine with regard to proffered expert testimony and a motion to strike (ECF Nos. 91, 92, 93 and 125).[8]

III. DISCUSSION

A. Standing Under The Endangered Species Act

At the threshold, Defendants argue that Plaintiffs lack standing because no relief that this Court could provide would ensure recovery of the Atlantic salmon as a species. Accordingly, Defendants argue, Plaintiffs fail the redressability prong of the standing inquiry.

To satisfy Article III's standing requirements, "Plaintiffs must show (1) that they have suffered an injury in fact, (2) that the injury is fairly traceable to the defendant's allegedly

based on personal knowledge. The Court additionally notes that the crossover use of the depositions of common witnesses was contemplated by the Court's earlier order. (See Order on Pls. Mot. to Consolidate (ECF No. 56) at 2.)

[8] The Court addressed the three motions in limine in its separate Order On Motions In Limine.

unlawful actions, and (3) that it is likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." Animal Welfare Inst. v. Martin, 623 F.3d 19, 25 (1st Cir. 2010) (internal quotations omitted). Moreover, because Plaintiffs' standing to bring this suit is challenged on summary judgment, Plaintiffs "can no longer rest on . . . 'mere allegations,' but must 'set forth' by affidavit or other evidence 'specific facts,' Fed. Rule Civ. P. 56(e), which for purposes of the summary judgment motion will be taken to be true." Lujan v. Defenders of Wildlife, 504 U.S. 555, 561 (1992).

To satisfy the injury in fact requirement, Plaintiffs must show that Defendants have invaded "a legally protected interest that is 'concrete and particularized.'" Friends of the Earth, Inc. v. Gaston Copper Recycling Corp., 204 F.3d 149, 156 (4th Cir. 2000) (quoting Lujan, 504 U.S. at 560). Here, Plaintiffs' members aver that they live within sight of Merrymeeting Bay and that those members kayak, canoe, fish, hike and photograph in the vicinity of the Bay. Further, evidence before the Court establishes that Plaintiffs' members observe aquatic and wildlife in and around the Kennebec and Androscoggin Rivers and Merrymeeting Bay. This stated "desire to use or observe an animal species, even for purely esthetic purposes, is undeniably a cognizable interest for purpose of standing." Lujan, 504 U.S. at 562-63; see also Martin, 623 F.3d at 25 (finding Plaintiffs satisfied the injury in fact requirement where Plaintiffs' affidavits revealed that "the members frequently visit wildlife refuges and parks in Maine to try to observe lynx and other wildlife species"). Plaintiffs provide that their enjoyment and use of those waters is impaired by the reduced numbers of Atlantic salmon. Mr. Friedman, a long-time Maine guide, testified that a healthy population of Atlantic salmon, which does not currently exist, would positively impact his business. (Friedman Dep. at 4081-82, 4097-98.) The Supreme Court has established "that environmental plaintiffs adequately allege injury in fact when they aver that

they use the affected area and are persons for whom the aesthetic and recreational values of the area will be lessened by the challenged activity." Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc., 528 U.S. 167, 183 (2000) (internal citations and quotations omitted). Plaintiffs have adequately shown an injury to their interests.

For purposes of summary judgment, Defendants concede that if Plaintiffs can establish that a take has occurred, Plaintiffs have satisfied the injury in fact requirement. (Defs.' Mot. For Summ. J. at 9.) This concession, however, misconstrues the injury required for standing under the ESA. Plaintiffs need not establish that the environment or the Atlantic salmon have been injured to establish an injury in fact. Instead, "[t]he relevant showing for purposes of Article III standing . . . is not injury to the environment but injury to the plaintiff. To insist upon the former rather than the latter as part of the standing inquiry . . . is to raise the standing hurdle higher than the necessary showing for success on the merits." Laidlaw Envtl. Servs. (TOC), Inc., 528 U.S. at 181.

The second prong of the standing inquiry considers whether "the injury is fairly traceable to the defendant's allegedly unlawful actions." Martin, 623 F.3d at 25 (internal punctuation omitted). The purpose of the second prong is to ensure that there is a "genuine nexus between a plaintiff's injury and a defendant's alleged illegal conduct" and that plaintiffs' injury is not caused by a third party, not presently before the Court. Gaston Copper Recycling Corp., 204 F.3d at 161; see also Lujan, 504 U.S. at 560. Plaintiffs need not prove to a scientific certainty that defendants' actions caused the injury. Gaston Copper Recycling Corp., 204 F.3d at 161. Indeed, "[t]he 'fairly traceable' standard is not equivalent to a requirement of tort causation." Id. (internal quotations and citations omitted).

Here, Plaintiffs have sufficiently shown that their injury is fairly traceable to Defendants' actions. The Services have stated to the Maine Department of Marine Resources, and Defendants, that "Dams directly and substantially reduce survival rates of Atlantic salmon . . . . Dams also directly kill and injure a significant number of salmon on both upstream and downstream migrations." (JSF ¶¶ 180-81.) For purposes of standing, Plaintiffs have adduced evidence to show that dams contribute to the decreased number of Atlantic salmon present in the Kennebec and Androscoggin rivers and Merrymeeting Bay. Notably, Defendants do not seriously contest that Plaintiffs satisfy the second element of the standing inquiry, pausing only to "question" whether Plaintiffs can show traceability in a footnote. (Defs.' Mot. For Summ. J. at 9 n.10.) The Court notes, however, that the determination that Plaintiffs have shown traceability for standing purposes in this action is only an initial hurdle. Plaintiffs still maintain the burden of showing on the merits that the Defendants have actually caused a taking of Atlantic salmon in violation of the ESA.

Finally, Plaintiffs must demonstrate that it is "likely as opposed to merely speculative, that the injury will be redressed by a favorable decision." Lujan, 504 U.S. at 561. Defendants place the most heft behind arguing that Plaintiffs have failed to show redressability on the grounds that no relief this Court could provide would ensure the recovery of Atlantic salmon. Indeed, Defendants assert that "Plaintiffs cannot establish that it is likely that the salmon will recover, even if the dams were completely removed." (Defs.' Mot. For Summ. J. at 10.) Defendants' arguments, however, cast the relief sought too broadly. It is beyond question that Plaintiffs would like to see Atlantic salmon recover as a whole species and no longer listed as an endangered species, but, through this lawsuit, Plaintiffs seek only to have their aesthetic and recreational enjoyment of Atlantic salmon increased. An injunction would redress their injury, at

least in part. Assuming that the dams "take" Atlantic salmon, as Defendant have done with regard to standing, if the dams were to cease use of their turbines during Atlantic salmon migration (or any other number of measures Plaintiffs have suggested), it is likely that fewer Atlantic salmon would be harmed by the dams. See Strahan v. Coxe, 939 F. Supp. 963, 979 (D. Mass. 1996) (finding redressability where the cessation of use of gillnets and lobster gear in Massachusetts waters would likely decrease the number of endangered whales harmed through entanglements), aff'd in part, rev'd on other grounds, 127 F.3d 155.

Plaintiffs need not establish that their requested relief will bring about the recovery of the Atlantic salmon. See, e.g., Coho Salmon v. Pacific Lumber Co., 61 F. Supp. 2d 1001, 1014-15 (N.D. Cal. 1999) (rejecting the argument that Plaintiffs lacked redressability where the suggested relief was "not certain to result in the increased coho salmon population"). If a plaintiff was required to show that its requested relief would ensure recovery of the species in order to have standing under the ESA, courts would be powerless to consider any measure that would attempt to halt the extinction of a species. That is not what Congress intended. See Tennessee Valley Auth. v. Hill, 437 U.S. 153, 184 (1978) ("The plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost.")

Defendants similarly argue that Plaintiffs lack standing because they have not shown what the impact of their suggested relief will be on the whole station survival rate of Atlantic salmon passing the dams. (Defs.' Mot. For Summ. J. at 10.) In other words, Defendants argue that Plaintiffs cannot show how well any of their suggested relief "will work." (Id. at 11.) Again, an injunction could redress Plaintiffs' injuries by decreasing the number of salmon that are likely injured and killed by the dams. In a Clean Water Act case, the Third Circuit similarly stated that "[p]laintiffs need not show that the waterway will be returned to pristine condition in

order to satisfy the minimal requirements of Article III." Pub. Interest Research Grp. of N.J. v. Powell Dufferyn Terminals, Inc., 913 F.2d 64, 73 (3rd Cir. 1990). Likewise here, Plaintiffs do not have to show that their suggested remedies will ensure the recovery of the species. In conclusion, Plaintiffs have sufficiently established standing at this stage of the litigation.[9]

B. Count I: Alleged Violations Of The Endangered Species Act

Plaintiffs seek a liability ruling with respect to Count I of their Amended Complaint (ECF No. 27) regarding alleged violations of the ESA. FOMB and Environment Maine contend that Defendants' Lockwood, Shawmut and Weston Hydroelectric Projects on the Kennebec River and Defendants' Brunswick Hydroelectric Project on the Androscoggin River are engaging in unauthorized takings of Atlantic salmon in violation of the ESA.

Congress has declared that the purpose of the ESA is "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved" and "to provide a program for the conservation of such endangered species and threatened species." 16 U.S.C. § 1531(b). Accordingly, when it was passed, the ESA represented "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation." Tennessee Valley Auth., 437 U.S. at 180. Under the ESA, "[v]irtually all dealings with endangered species, including taking, possession, transportation, and sale, were prohibited, except in extremely narrow circumstances." Id. (internal citations omitted). To further the protection afforded by the ESA, the statute includes a citizen suit provision, allowing interested

[9] Although not addressed or challenged by Defendants, an association such as FOMB or Environment Maine has "standing to bring suit on behalf of its members when its members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization's purpose, and neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit." Laidlaw Envtl. Servs. (TOC), Inc., 528 U.S. at 181. Here, FOMB's purpose is to preserve, protect, and improve the ecological, aesthetic, historical, recreational and commercial values of Merrymeeting Bay. Environment Maine's purpose is to encourage the conservation and protection of Maine's waterways. The interests invoked in this litigation in observing Atlantic salmon free from takings at the dams are germane to these purposes. Neither the claims asserted nor the requested relief would require participation from any individual member of FOMB or Environment Maine. Accordingly, FOMB and Environment Maine have standing to bring this suit.

persons to bring suit to force compliance with the ESA. Id. at 180-81; see also 16 U.S.C. § 1540(g).

Section 9 of the ESA makes it unlawful for any person to "take" any threatened or endangered species of fish or wildlife within the United States, unless an incidental take statement or incidental take permit is obtained pursuant to Section 7 or Section 10 of the ESA, respectively. 16 U.S.C. §§ 1536, 1539. "Take" is defined to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Id. § 1532(19). The definition of "take" was intended to "apply broadly to cover indirect as well as purposeful actions." Babbit v. Sweet Home Chapter Of Cmtys. For A Greater Or., 515 U.S. 687, 704 (1995). The Secretary of the Interior has defined "harm" in the definition of "take" to mean: "an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering." 50 C.F.R. § 17.3; see also Babbit, 515 U.S. at 708 (upholding the Secretary's definition of harm to include "significant habitat modification or degradation that actually kills or injures wildlife").

1. The Standard For Establishing A Taking

In the First Circuit, "[t]he proper standard for establishing a taking under the ESA, far from being a numerical probability of harm, has been unequivocally defined as a showing of 'actual harm.'" American Bald Eagle v. Bhatti, 9 F.3d 163, 165 (1st Cir. 1993). In Bhatti, Plaintiffs challenged a deer hunt on the Quabbin Reservation in Eastern Massachusetts on the ground that it posed a significant risk to the bald eagles at the Quabbin Reservation in violation of the ESA. Id. at 164. In that case, Plaintiffs presented an attenuated casual chain lacking any proof whereby bald eagles could be injured if some of the deer shot by hunters with lead slugs

were not recovered but died in the feeding area of the bald eagles; those unrecovered deer would then contain lead in their bodies; bald eagles could then feed on those deer, ingest some of the lead and be harmed by the lead. Id. at 164. Plaintiffs failed to show that any of the bald eagles actually ingested lead or ate deer containing lead. Id. at 166. The First Circuit declined to find a taking, stating that "there must be actual injury to the listed species" to find harm. Id. Further, "courts have granted injunctive relief only where petitioners have shown that the alleged activity has actually harmed the species or if continued will actually, as opposed to potentially, cause harm to the species." Id. In elucidating the standard, the First Circuit noted that a showing of a "significant risk of harm" was a lower degree of certainty than that required to establish a taking. Id. at 166 n.5.[10]

To establish a taking on summary judgment, Plaintiffs need to show that there is no genuine dispute that Atlantic salmon have been actually harmed. Evidence of a single, actual injury to an Atlantic salmon will suffice to show a taking under the ESA. Strahan v. Coxe, 127 F.3d 155, 165 (1st Cir. 1997) (providing that "a single injury to one whale is a taking under the ESA").

2. The Presence Of Atlantic Salmon

Before turning to evidence of taking of Atlantic salmon in this case, the Court pauses to note that there must be Atlantic salmon in the vicinity of the dams before a taking can occur. See, e.g., Beech Ridge Energy LLC, 675 F. Supp. 2d at 567-576 (examining potential caves in which the endangered Indiana bat could hibernate, the physical characteristics of the planned

[10] The standard established by the First Circuit to show a taking under the ESA differs substantially from the standard established in other courts. For example, in Animal Welfare Inst. v. Beech Ridge Energy, LLC, the district court looked to the Ninth Circuit in finding that to establish a taking under the ESA, a plaintiff "must establish, by a preponderance of the evidence, that the challenged activity is reasonably certain to imminently harm, kill, or wound the listed species." 675 F. Supp. 2d 540, 563 (D. Md. 2009) ("Beech Ridge") (referencing Marbled Murrelet v. Pacific Lumber Co., 83 F.3d 1060 (9th Cir. 1996)).

project site, mist-net surveys and acoustic data to determine that the endangered Indiana bat was present at the challenged project site). Plaintiffs have shown that a limited number of Atlantic salmon are in the vicinity of the dams at issue in this case. Atlantic salmon eggs are stocked annually in the Sandy River, an upstream spawning habitat for Atlantic salmon on the Kennebec River. (JSF ¶¶ 64-65.) Atlantic salmon fry also are stocked in the upstream tributaries of the Androscoggin River. (Id. ¶ 69.) The Court logically concludes that at least some of those Atlantic salmon make it downstream to the dams at issue in this case. Moreover, Atlantic salmon have been trapped at the lower most dams on each of the Kennebec and Androscoggin Rivers and then either trucked or lifted upstream. In 2011, 60 adult Atlantic salmon were trapped at the Lockwood Project on the Kennebec River. (Id. ¶ 81.) That same year, 45 adult Atlantic salmon were trapped at the Brunswick Project on the Androscoggin River. (Id. ¶ 86.) Accordingly, Atlantic salmon are in the vicinity of these dams.

3. Evidence Of Taking Atlantic Salmon In This Case

The evidence presented on summary judgment shows that there is a genuine issue of material fact as to whether the Defendants are taking Atlantic salmon at the dams. Defendants do not have an incidental take statement or an incidental take permit for any of the Projects that would exempt from ESA liability any taking of Atlantic salmon at the Projects. See 16 U.S.C. §§ 1536(o)(2), 1539. (See also JSF ¶ 34.) However, Defendants are, and have been for a number of years, engaged in the process of applying for an incidental take statement or an incidental take permit to cover the operation of the dams. (Id. ¶¶ 35-36.) As part of the application process, Defendants and their hired consultants have developed draft "White Papers" that contain estimated survival rates for Atlantic salmon that pass through the dams at issue in

this case.[11] The White Papers are intended by Defendants to be scientifically defensible. (Id. ¶ 43.)

The White Papers use two methods of estimating injury and mortality for Atlantic salmon smolts that may pass through the Projects. First, the "empirical turbine mortality method" used "mark-recapture" studies done at dams not at issue in this case with turbines and operational characteristics that Defendants deemed similar to the Projects at issue in this case. (Id. ¶¶ 126-27.) No mark-recapture studies of Atlantic salmon have been conducted at any of the four Projects at issue in this case (Id. ¶ 127.) For the mark-recapture studies that were completed at other dams, test salmon were tagged above a hydroelectric project, released into a downstream route, collected after passing through the dam, held and then physically examined for signs of injury or mortality. (Id. ¶ 128.) The test salmon were evaluated one hour after passage to evaluate immediate mortality or injury and then 48 hours after passage to evaluate delayed mortality. (Id. ¶ 129.)

The results of those mark-recapture studies conducted at dams not at issue in this case reveal that any salmon that may pass through the Projects via the turbines have a statistical chance of being injured or killed. For example, based on studies done at other dams, it is estimated that 85.1% of any downstream migrating smolts that pass through the Francis turbines at the Lockwood Project, which are six of the seven turbines at that Project, survive after one hour and 76.2% are uninjured after one hour. (Id. ¶¶ 92, 132, 133.) At the Brunswick Project,

[11] More specifically, as part of the application process, Defendants and the Services convened a group comprised of personnel from the Services, the MDMR and non-governmental environmental groups. (JSF ¶ 37.) That group reviewed documents submitted by Defendants as part of the process of applying for an incidental take statement or incidental take permit and provided feedback. Defendants submitted a preliminary draft Habitat Conservation Plan ("HCP") to that group as part of the application process. (Id. ¶ 39.) To inform the HCP, Defendants and their hired consulting firms prepared a series of draft papers known as "White Papers" to provide an assessment of estimated "whole station survival" under certain assumptions at each of the four projects. (Id. ¶¶ 40, 42.) The White Papers derived predicted whole station survival at each project by estimating the percentages of downstream migrating salmon that may pass through each project via the turbines, the fish bypass and the spill and then predicting the number of salmon that may be injured or killed through such passage. (Id. ¶ 42.)

which has three propeller turbines, it is estimated that 94.7% of any downstream migrating smolts that pass through the propeller turbines survive after one hour, 92.8% survive after 48 hours and 92.5% are uninjured after one hour.[12] (Id. ¶¶ 116, 138, 139.) The mark-recapture studies also estimate that any Atlantic salmon that may pass through the dams via bypass or spillway have a chance of being injured or killed. For example, based on studies conducted at other dams, it is estimated that 81.6% of any downstream migrating smolts that pass via the bypass or spillway are not injured or killed by the passage.[13] (Id. ¶¶ 159, 161.)

Second, the "Advanced Hydro Turbine model" was used to estimate potential turbine mortality for Atlantic salmon smolts that may pass through the Projects. The Advanced Hydro Turbine model calculates the statistical probability of a turbine blade strike on a fish that passes through a turbine based on certain operation characteristics at the Projects and the anticipated body lengths of smolts and kelts in the Kennebec and Androscoggin Rivers. (JSF ¶¶ 140, 141.) The results of the Advanced Hydro Turbine model show that smolts and the larger kelts that pass through the dams via the turbines have a statistical chance of being injured or killed.[14]

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[12] The mark-recapture studies contain the following additional results: Based on studies done at other hydroelectric projects, it is estimated that 94.7% of any downstream migrating smolts that pass through the Kaplan turbine at the Lockwood Project survive after one hour, 92.8% survive after 48 hours and 92.5% are uninjured after one hour. (Id. ¶¶ 132, 133.) At the Shawmut Project, it is estimated that 85.1% of any downstream migrating smolts that pass through the Francis turbines, which are six of the eight turbines at the Shawmut Project, survive after one hour and 76.2% are uninjured after one hour. (Id. ¶¶ 100, 134, 135.) It is further estimated that 94.7% of any downstream migrating smolts that pass through the propeller turbines at the Shawmut Project survive after one hour, 92.8% survive after 48 hours and 92.5% are uninjured after one hour. (Id. ¶¶ 134, 135.) At the Weston Project, which has four Francis turbines, it is estimated that 91.5% of any downstream migrating smolts that pass through the Francis turbines survive after one hour, 91.3% survive after 48 hours and 93.8% are uninjured after one hour. (Id. ¶¶ 108, 136, 137.)

[13] The full results of the mark-recapture studies for smolts and kelts passing via a bypass or spillway include the following additional results: For each of the four projects at issue in this case, based on studies performed at other hydroelectric projects, it is estimated that 97.1% of any downstream migrating smolts or kelts that pass via the bypass or the spillway survive after one hour and 96.3% survive after 48 hours. (JSF ¶¶ 158, 160.) No statistics were provided for overall injury or death to kelts by passage through a bypass or spillway.

[14] The full results of the Advanced Hydro Turbine model are as follows: For smolts at the Lockwood Project, it is estimated that approximately 82.0% of any downstream migrating smolts that pass through the Francis turbines would survive and 91.6% of any downstream migrating smolts that pass through the Kaplan turbine would survive. (JSF ¶ 144.) For kelts at the Lockwood Project, it is estimated that approximately 72.1% of any downstream

Combining the results of the mark-recapture studies done at dams not at issue in this case and the statistical probabilities developed in the Advanced Hydro Turbine model with historic river flow data, the White Papers contain estimates of whole station survival rates for smolts and kelts that pass through the Projects.[15] Overall, the White Papers estimate that between 90% and 95% of any downstream migrating smolts will survive passage over or through the dams, between 82% and 93% of any downstream migrating smolts will remain uninjured from such passage, and, that between 73% and 89% of any downstream migrating kelts will be uninjured after passing through or over the dams.[16] Even after altering the calculations to take into account different percentages of Atlantic salmon using different downstream passage routes and flow

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migrating kelts that pass through the Kaplan turbine would survive. (Id. ¶ 150.) No estimates were provided for any kelts that may pass through the Francis turbines. For smolts at the Shawmut Project, it is estimated that approximately 84.7% of any downstream migrating smolts that pass through the Francis turbines would survive and 94.3% of any downstream migrating smolts that pass through the propeller turbines would survive. (Id. ¶ 145.) For kelts at the Shawmut Project, it is estimated that approximately 81.1% of any downstream migrating kelts that pass through the propeller turbines survive. (Id. ¶ 151.) No estimates were provided for any kelts that may pass through the Francis turbines. For smolts at the Weston Project, it is estimated that approximately 88.2% of any downstream migrating smolts that pass through the Francis turbines would survive. (Id. ¶ 146.) For kelts at the Weston Project, it is estimated that approximately 59.6% of any downstream migrating kelts that pass through the Francis turbines would survive. (Id. ¶ 152.) For smolts at the Brunswick Project, it is estimated that approximately 92.7% of any downstream migrating smolts that pass through the propeller turbines would survive. (Id. ¶ 147.) For kelts at the Brunswick Project, it is estimated that approximately 75.9% of any downstream migrating kelts that pass through the propeller turbines would survive. (Id. ¶ 153.)

[15] Whole station survival is calculated based on the total number of salmon expected to survive passage through the turbines, through the bypass and via spill during "normally anticipated conditions" at each project. (JSF ¶ 162.) To evaluate potential mortality via bypass and spillway, the results of mark-recapture studies done at dams not at issue in this case were considered. (Id. ¶ 155.)

[16] The full predictions of the White Papers are as follows: For the Lockwood Project, the primary estimates predict that between 92% and 94% of any downstream migrating smolts and 88% of any downstream migrating kelts will survive passage through or over the Project and that 85% will be uninjured as a result of such passage. (JSF ¶¶ 166, 170.) For the Shawmut Project, the primary estimates predict that between 90% and 91% of any smolts migrating downstream and 89% of any kelts migrating downstream will survive passage over or through the Project and that 82% of any smolts will be uninjured as a result of such passage. (Id. ¶¶ 167, 170.) For the Weston Project, the primary estimates predict that between 90% and 93% of any smolts migrating downstream and 73% of any kelts migrating downstream will survive passage over or through the Project and that 83% of any smolts will be uninjured as a result of such passage. (Id. ¶¶ 168, 170.) For the Brunswick Project, the primary estimates predict that between 93% and 95% of any smolts migrating downstream and 85% of any kelts migrating downstream will survive passage over or through the Project and that 91% of any smolts will be uninjured as a result of such passage. (Id. ¶¶ 169, 170.)

levels in the rivers, under no conditions was a whole station survival estimate of 100% predicted at any of the projects. (JSF ¶¶ 171-75.)

Plaintiffs urge that these statistics establish that Defendants are engaged in taking Atlantic salmon at all four of the Projects at issue in this case. However, viewing the record in the light most favorable to Defendants, in this case the Court finds that statistics alone cannot establish an absence of genuine issues of material fact or that Plaintiffs are entitled to judgment as a matter of law. The statistics presented are either based on studies done at dams not at issue in this case or are calculations of numerical probabilities of harm that may befall Atlantic salmon. Neither is sufficient to establish ESA liability on summary judgment. Instead, there is a genuine issue of material fact as to whether there has been actual harm to Atlantic salmon at these four dams. To establish a taking, the First Circuit requires more than a "numerical probability of harm" or even a "significant risk of harm." Bhatti, 9 F.3d at 165, 166 n.5. Actual harm is required. Id. at 165. The Court recognizes that the evidence put forward by Plaintiffs in this case is a far cry from the "one in a million" chance of harm and attenuated causal chain that was insufficient to establish a taking in American Bald Eagle v. Bhatti. Id. at 165-66. Nonetheless, Plaintiffs must show that Atlantic salmon have been actually harmed before summary judgment will be granted in their favor. The statistics put forward by Plaintiffs show that there is a chance that any Atlantic salmon that pass through the dams may be injured or killed by such passage. A chance of harm does not establish a taking in the First Circuit.

In addition to the statistics, Plaintiffs point to statements made by the Services in an August 2009 letter and in the final administrative decision to include the Kennebec River and Androscoggin River populations of Atlantic salmon on the Endangered Species List. (JSF ¶¶ 179, 180-81.) Those documents contain statements that implicate dams generally as a threat to

Atlantic salmon. The documents do not contain statements to implicate the dams at issue in this case with any type of specificity. For example, the final administrative decision stated: "Dams are known to typically injure or kill between 10 and 30 percent of all fish entrained at turbines," and "Dams are among the leading causes of both historical declines and contemporary low abundance of the GOMS DPS of Atlantic salmon." (Id. ¶ 179.) The August 2009 letter stated: "Dams directly and substantially reduce survival rates of Atlantic salmon in the following ways" and then described in general terms the effects of dams on Atlantic salmon. (Id. ¶ 181.) These generalized statements that implicate dams in the plight of the Atlantic salmon are not sufficient alone, or with the studies discussed previously, to affirmatively establish liability on summary judgment.[17]

Plaintiffs point to Animal Welfare Institute v. Beech Ridge Energy LLC, 675 F. Supp. 2d 540 (D. Md. 2009), in support of their argument that the evidence presented in this case – circumstantial probabilities and general statements implicating dams – is sufficient to establish that a taking has occurred at the dams. (Pls.' Mot. For Partial Summ. J. at 15-16.) In Beech Ridge, the district court did indeed find it "a virtual certainty" that endangered Indiana bats would be harmed or injured by the challenged wind turbine project despite that no dead or injured bat had yet been found. Id. at 578-79. The court made that finding, however, with the benefit of a four-day trial that included the testimony of at least three credible expert witnesses and numerous studies and research, at least some of which were conducted at the challenged site.

[17] Lastly, Plaintiffs argue that Defendants are engaged in taking Atlantic salmon by blocking upstream passage on the Kennebec River. As Plaintiffs acknowledge, Defendants, in conjunction with the State of Maine, have a system for trapping Atlantic salmon at the Lockwood Project, the first upstream dam on the Kennebec, and transporting them to spawning grounds on the Kennebec River that are upstream of the Shawmut and Weston Projects. Plaintiffs then state, in a footnote: "The trap and truck system is lawful only because Maine has been issued a permit authorizing this take." (Pls.' Mot. For Partial Summ. J. at 17 n.27.) Without citation to any relevant legal authority, Plaintiffs argue that the Court should find a taking in violation of the ESA despite the lawful permit. In addition, Plaintiffs' general statements regarding the harm caused by obstructed fish passage are insufficient to establish liability for a taking. To the extent Plaintiffs seek summary judgment on this basis, it is DENIED.

See id. at 545-559, 564-567. Further, the district court in Beech Ridge applied a lower degree of certainty, "that the challenged activity is reasonably certain to imminently harm, kill, or wound the listed species," than that required by the First Circuit. Id. at 563. While the district court found that the plaintiffs would have established a taking under the more onerous First Circuit standard, the court also said "[b]ecause the risk of harm was highly speculative in [Bhatti], the First Circuit's observations regarding the degree of certainty of harm required by the ESA were not necessary to the decision." Id. at 563. This Court does not cast the First Circuit's guidance aside so lightly, particularly in the context of summary judgment.

In short, based on the evidence presented at this stage of the proceedings, there is a genuine issue of material fact as to whether the Defendants are engaged in taking Atlantic salmon by operation of the four dams at issue in this case. Accordingly, Plaintiffs' Motion For Partial Summary Judgment as to Count I is DENIED.

C. Count I: The Availability Of Injunctive Relief

Next, Defendants contend they are entitled to summary judgment on Count I because Plaintiffs cannot establish an entitlement to injunctive relief on their ESA claim. Defendants claim that injunctive relief is permitted for an ESA claim only where a plaintiff can establish that the takings are causing harm to the endangered species.

The First Circuit has rejected a per se rule regarding availability of injunctive relief in ESA cases, instead favoring a fact-sensitive analysis. Not every taking requires injunctive relief and the death of a single animal may present a situation where injunctive relief is appropriate. See, e.g., Water Keeper Alliance v. U.S. Dept. of Defense, 271 F.3d 21, 34 (1st Cir. 2001) (finding that "vague concerns as to long-term damage to the endangered species" were insufficient to establish irreparable harm); Animal Welfare Inst. v. Martin, 588 F. Supp. 2d 70,

106 (D. Me. 2008). Whether irreparable harm has been presented by a case requires an inquiry into the facts and circumstances of the case that takes into account the harm to wildlife and the effect of that harm on the species.

In Animal Welfare Institute v. Martin, 623 F.3d 19 (1st Cir. 2010), plaintiffs appealed the denial of their motion to enjoin Maine state officials from allowing the use of traps, including the foothold trap and the Conibear trap, arguing that the injunction was necessary to protect the Canada lynx, a threatened species. Id. at 21. As to the foothold trap, the court denied preliminary injunctive relief, rejecting plaintiffs' argument that an injunction must issue as a matter of law upon finding an incidental taking even in the absence of irreparable harm. Id. at 23. In contrast, the court granted preliminary injunctive relief as to the Conibear trap, finding irreparable harm in the death of a single lynx that had been killed in a Conibear trap in November 2008. Id. "Even though [plaintiffs] had not established that the death of one threatens the species as a whole, it had demonstrated that the current regulations are inadequate and it is predictable that if the regulations are not amended, other lynx will suffer irreparable harm." Id. (internal quotations and citations omitted). After a six-day hearing on the effects of both traps, the district court denied permanent injunctive relief and found that it was not likely that lynx would be taken in Conibear traps in light of the new regulations issued by the state of Maine pursuant to the preliminary injunction. Id. at 24. As to the foothold traps, the district court found that even if Canada lynx suffered injuries as a result of being trapped in the foothold traps, plaintiffs had not shown that those injuries threatened the species. Id. at 24-25. The district court denied injunctive relief. Id. at 25.

On appeal, the First Circuit endorsed the fact intensive analysis engaged in by the district court in determining when an injunction should issue. The First Circuit highlighted the different

conclusions reached by the district court – to issue a preliminary injunction as to Conibear traps but not as to foothold traps – in stating that "[t]he district court thus engaged in exactly the fact-sensitive analysis required by law." Id. at 27. Therefore, in the First Circuit, "the death of a single animal may call for an injunction in some circumstances, while in others the death of one member is an isolated event that would not call for judicial action because it has only a negligible impact on the species as a whole." Id. at 29. Further, "the degree to which there is irreparable injury is a factor to be balanced against the other injunction criteria." Animal Welfare Institute, 588 F. Supp. 2d at 106. In short, Defendants here misapprehend the law in claiming that Plaintiffs must necessarily reach the high bar of showing harm to Atlantic salmon as a species before the Court may issue any injunctive relief.

For purposes of their injunctive relief argument, Defendants concede that even if the dams at issue in this case are engaged in taking Atlantic salmon, Plaintiffs are not entitled to injunctive relief. (Defs.' Mot. For Summ. J. at 11-12.) Accordingly, assuming for purposes of Defendants' Motion that the dams are engaged in taking Atlantic salmon, Plaintiffs have presented the expert witness testimony of Dr. Jeffrey A. Hutchings that these presumed takings are negatively impacting Atlantic salmon on a species-wide level.[18] Indeed, Dr. Hutchings repeatedly stated that "[t]he mortality experienced by downstream migrating smolts and kelts and by upstream migrating returning adults attributable to dam facilities in the Merrymeeting Bay [Salmon Habitat Recovery Unit] will have an adverse impact on the survival and the prospects for recovery of the [Salmon Habitat Recovery Unit] and, thus, of the GOM DPS as a whole." (Opinion of Dr. Jeffrey A. Hutchings (ECF No. 79-6) at 1564; see also id. at 1574-76, 1577;

[18] The Court addressed Defendants' Motion And Incorporated Memorandum Of Law To Preclude Testimony And Reports Of Plaintiffs' Expert, Jeffrey Hutchings (ECF No. 93) in its Order On Motions In Limine.

Hutchings Dep., Vol. II (ECF No. 81-2) at 2503-2505.) Accordingly, to the extent Defendants request summary judgment on that basis, it is DENIED.

D. Count II: Alleged Violations Of The Clean Water Act

Both Plaintiffs and Defendants move for summary judgment on Count II of Plaintiffs' Amended Complaint. Count II claims that Defendants are violating the water quality certificates for the Lockwood, Weston and Shawmut Projects on the Kennebec River in violation of the Clean Water Act.

The objective of the Clean Water Act ("CWA") is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). Accordingly, under the CWA, hydroelectric dams must obtain a state "water quality certification" before they may obtain a license to operate from FERC. 33 U.S.C. § 1341. The water quality certification then becomes a condition of the FERC license. Id. §1341(d).

The water quality certifications for the Lockwood, Weston and Shawmut Projects on the Kennebec River each contain the following provision:

> INTERIM DOWNSTREAM FISH PASSAGE: The applicant shall continue and where needed improve existing operational measures to diminish entrainment, allow downstream fish passage, and eliminate significant injury to out-migrating anadromous fish in accordance with the terms of the KHDG [Kennebec Hydro Developers Group] Settlement Agreement.

(JSF ¶ 195.) The KHDG Settlement Agreement, in turn, provides:

> In the event that adult shad and/or adult Atlantic salmon begin to inhabit the impoundment above the . . . project, and to the extent that licensee desires to achieve interim downstream passage of out-migrating Atlantic salmon and/or adult shad by means of passage through the turbine(s), licensee must first demonstrate through site-specific quantitative studies designed and conducted in consultation with the resource agencies, that passage through turbine(s) will not result in significant injury and/or mortality (immediate or delayed). In no event

> shall licensee be required to make this quantitative demonstration for adult shad and adult Atlantic salmon before May 1, 2006.

(JSF ¶ 196.)

From the arguments presented, Defendants do not contest that adult Salmon and shad inhabit the impoundments above the Kennebec River dams or that the requisite site-specific quantitative studies have not been performed to show that turbine passage will not result in injury and/or mortality to the fish. Instead, both Plaintiffs and Defendants urge different meanings of the following phrase in the Agreement: "To the extent licensee *desires* to achieve interim downstream passage of out-migrating Atlantic salmon and/or adult shad by means of passage through the turbine(s) . . . ." (JSF ¶ 196, emphasis added.)

Although Plaintiffs paint this clause as ambiguous and needing of the Court's interpretation, the relevant portion -- "to the extent licensee desires" -- is not ambiguous. See Waltman & Co. v. Leavitt, 722 A.2d 862, 864 (Me. 1999) ("When a contract is reasonably subject to two or more interpretations, or its meaning is unclear, it is ambiguous.") It is what the licensee, the Defendants, desire – or want – that triggers the remainder of the clause's requirements. The reasonable interpretation of this clause carries a subjective component. See, e.g., American Heritage Dictionary 491 (5th ed. 2011) (defining "desire" as "[t]o wish or long for; want: *a reporter who desires an interview; a teen who desires to travel*"). Plaintiffs challenge that subjective intent is not relevant and that Defendants could simply shut the turbines down during migration and thereby avoid the need to conduct the studies. This interpretation, however, ignores the plain language of the Agreement and reads the relevant words out of the Agreement. Because the clause is in the Agreement, the Court will give it effect. See OfficeMax v. Levesque, 658 F.3d 94, 99 (1st Cir. 2011) ("[A]n interpretation which gives a reasonable, lawful, and effective meaning to all the terms is preferred to an interpretation which

leaves a part unreasonable, unlawful, or of no effect." (quoting Restatement (Second) of Contracts § 203(a))).

Alternatively, Plaintiffs attempt to substitute "knowledge" for "desire." That is, Plaintiffs argue that because Defendants know that some Atlantic salmon and/or shad may be passing through the turbines, Defendants desire to have the fish pass through the turbines. Had the parties to the Agreement intended Defendants' knowledge of Atlantic salmon or shad passing through the turbines to trigger the requisite studies, the parties could have so stated.

The evidence before the Court on summary judgment reveals that Defendants do not desire to pass Atlantic salmon and/or shad through the turbines. Instead, the Defendants' desire is that the fish bypass the turbines. Two of the three dams have floating booms to aid in bypassing the turbines. (JSF ¶¶ 220, 225, 234.) Robert Charles Richter, III, testifying for Defendants, stated that the Defendants had not completed the studies referenced in the Agreement because Defendants' "desire is not to pass [the fish] through the turbines." (Richter Dep. (ECF No. 82-4) at 3124.) Plaintiffs present evidence that Atlantic salmon and/or shad are in fact passing through the turbines and Defendants have not taken sufficient steps to prevent that passage. Even assuming the truth of the evidence, it is not germane to the Court's inquiry. Knowledge does not equate to desire. Accordingly, Defendants have demonstrated an absence of evidence to support the CWA claim and Plaintiffs have failed to raise a genuine issue of material fact. Therefore, Defendants are entitled to summary judgment on Count II.

V. CONCLUSION

For the reasons explained herein, Defendants' Motion For Summary Judgment (ECF No. 88) is DENIED as to Count I but GRANTED as to Count II. Plaintiffs' Motion For Partial Summary Judgment (ECF No. 94) is DENIED. Also, Plaintiffs' Motion To Strike Defendants'

Statement Of Additional Facts In Reply To Defendants' Motion For Summary Judgment (ECF No. 125) is DENIED AS MOOT.

SO ORDERED.

/s/ George Z. Singal
United States District Judge

Dated this 14th day of January, 2013.

UNITED STATES DISTRICT COURT
DISTRICT OF MAINE

FRIENDS OF MERRYMEETING BAY et al Plaintiffs, v. NEXTERA ENERGY RESOURCES INC et al Defendants,	)))))))))	Civil No. 2:11-cv-38-GZS

JUDGMENT

In accordance with the Order on Cross Motions for Summary Judgment entered on January 14, 2013, by U.S. District Judge George Z. Singal, and the Order Granting Motion to Substitute Party entered on April 5, 2013, by U.S. District Judge George Z. Singal; Judgment as to Count II of the Amended Complaint is entered for Defendants Merimil Limited Partnership, FPL Energy Maine Hydro, LLC, and Brookfield Renewable Services Maine, LLC.

In accordance with the Stipulation of Voluntary Dismissal filed on May 30, 2013, the parties stipulate to the dismissal, with prejudice, all claims against Defendants under the Endangered Species Act, as set forth in Count I of the Amended Complaint.

CHRISTA K. BERRY
CLERK

By: /s/ Lindsey Caron
Deputy Clerk

Dated: June 5, 2013

AGREEMENT BETWEEN MEMBERS OF THE KENNEBEC HYDRO DEVELOPERS GROUP, THE KENNEBEC COALITION, THE NATIONAL MARINE FISHERIES SERVICE, THE STATE OF MAINE AND THE U.S. FISH AND WILDLIFE SERVICE

I. Parties.

This Agreement (hereinafter "Agreement") is by and between:

A. each member of the association known as the Kennebec Hydro Developers Group ("KHDG"), to wit:

1. Central Maine Power Company, owner of the following hydroelectric facilities that are the subject of this Agreement: Fort Halifax (Federal Energy Regulatory Commission ("FERC") Project No. 2552); Shawmut (FERC Project No. 2322); and Weston (FERC Project No. 2325);

2. Kennebec Hydro Resources, Inc., on behalf of Merimil Limited Partnership, owner of the following hydropower facility that is the subject of this Agreement: Lockwood (FERC Project No. 2574) ;

3. UAH-Hydro Kennebec Limited Partnership, owner/agent of the following hydropower facility that is the subject of this Agreement: Hydro-Kennebec (FERC Project No.2611);

4. Ridgewood Maine Hydro Partners, L.P., owner of the following hydropower facility that is the subject of this Agreement: Burnham (FERC Project No. 11472);

5. Benton Falls Associates, owner of the following hydropower facility that is the subject of this Agreement: Benton Falls (FERC Project No. 5073);

B. each member of the association known as the Kennebec Coalition, to wit: American Rivers, Inc; the Atlantic Salmon Federation; Kennebec Valley Chapter of Trout Unlimited; the Natural Resources Council of Maine; and Trout Unlimited;

C. the National Marine Fisheries Service, U.S. Department of Commerce;

D. the following agencies of the State of Maine:

DEPOSITION EXHIBIT
NE-5
GP 3-26-12
PENGAD 800-631-6989

Maine Department of Inland Fisheries and Wildlife; Maine Department of Marine Resources; and the Maine State Planning Office; and

E. the United States Fish and Wildlife Service, U.S. Department of the Interior.

In this Agreement, reference to "the resource agencies" hereinafter is understood to mean the following parties: the Maine Department of Inland Fisheries and Wildlife, Maine Department of Marine Resources, Maine Atlantic Salmon Authority, National Marine Fisheries Service and United States Fish and Wildlife Service.

II. Purposes.

This Agreement is intended to accomplish the following purposes: to achieve a comprehensive settlement governing fisheries restoration, for numerous anadromous and catadromous species, that will rapidly assist in the restoration of these species in the Kennebec River after the termination on December 31, 1998 of the existing agreement between the State of Maine and the Kennebec Hydro Developers Group; to avoid extensive litigation over fish passage methodologies, timetables and funding; to assist in achieving the removal of the Edwards dam; and to fund the next phase of a restoration program for these species on the Kennebec River.

III. Elements that apply to all parts of this agreement:

A. Effective Date.

This Agreement will become effective upon:

1. signature by all parties of it; and

2. signature by all parties to this Agreement, and signature of Edwards Manufacturing Company, the City of Augusta, Maine, and the National Fish and Wildlife Foundation of appropriate settlement documents to be submitted to FERC pursuant to 18 C.F.R. §385.602.

B. Required Filings with Regulatory Agencies

The parties agree that, immediately after this Agreement and the Lower Kennebec River Comprehensive Hydropower Settlement Accord become effective, they will make joint, formal filings to FERC requesting that FERC:

1. incorporate all applicable terms of this Agreement into existing or proposed FERC licenses for hydropower facilities owned by KHDG

members;

2. only issue amended or new licenses for the KHDG facilities incorporating all applicable terms of this Agreement if, and at the same time as, FERC approves the transfer of the FERC license for the Edwards Dam from Edwards Manufacturing Company and the City of Augusta to the State of Maine;

3. defer action on the motion by Central Maine Power Company for rehearing of the Fort Halifax license, issued by FERC in November 1997, pending FERC's decision on both the transfer of the FERC license for the Edwards Dam to the State of Maine and FERC's incorporation of the applicable terms of this Agreement into existing or proposed FERC licenses for hydropower facilities owned by KHDG members;

4. allow Central Maine Power Company to withdraw its motion for rehearing of the Fort Halifax license in the event that FERC incorporates all of the applicable terms of this Agreement into existing or proposed FERC licenses for hydropower facilities owned by KHDG members; and

5. stay action on fish passage installation obligations at the Fort Halifax, Benton Falls, Lockwood and UAH-Hydro Kennebec facilities pending its decision on transfer of the FERC license for the Edwards Dam and incorporation of applicable terms of this Agreement into existing or proposed KHDG licenses.

The parties also agree that, immediately after the two aforementioned agreements become effective, they will make joint, formal filings to the Maine DEP requesting that the Maine DEP immediately incorporate all applicable terms of the final settlement Agreement into existing or proposed water quality certifications for the hydropower facilities owned by KHDG members.

KHDG members shall withdraw all motions and appeals upon the issuance of final non-appealable orders from FERC and the Maine DEP incorporating the terms of this Agreement into KHDG licenses.

C. Failure to Achieve Timely Approvals.

1. In the event that FERC or Maine DEP choose to alter or prohibit execution of any term and condition contained in this Agreement considered essential to any party (including all dates for performance) or have not issued final, non-appealable, FERC licenses and DEP water quality certifications (amended or new) for all KHDG projects by June 1, 1999; or

mortality at that site.

5. In the event that DMR does not receive the necessary appropriation or legislative spending authorization required to fund the studies discussed in paragraph III.G.1. & 2. above, the provisions in this Agreement governing American eel, found in paragraphs III.G.1 through III.G. 4, are null and void, but all other provisions of this Agreement remain in full force and effect. In the event that paragraphs III.G.1 through III.G.4 become null and void, any party may petition FERC to amend any license regarding upstream and downstream passage of eel.

H. Reporting.

Continuous progress assessments will be undertaken through annual reports which will be filed with FERC by KHDG dam owners, consistent with current practice by KHDG dam owners.

I. Support on Edwards removal.

KHDG dam owners agree to publicly and actively support removal of Edwards dam, as recommended in the Kennebec River Basin Maine FEIS, including stating such support in filings to FERC and other governmental agencies with responsibility for granting regulatory approval of the removal. Other activities in support of removal of the Edwards dam will be undertaken if mutually agreed upon by parties.

J. Successors, Assignees or Purchasers; notification

KHDG dam owners agree that the terms and conditions contained in this Agreement shall bind and inure to the benefit of all entitities that might become successors, assignees or purchasers of any licensee. Each KHDG dam owner agrees to provide notice of the existence of this Agreement, and a copy thereof, to any prospective buyer of its hydropower facility.

K. Termination of all prior agreements

The parties agree that this Agreement supercedes and terminates all prior agreements, whether written or oral, including specifically the *Agreement Between the State of Maine and Kennebec Hydro Developers Group*, dated January 22, 1987, relating to the subject matter herein. In the event that this Agreement becomes null and void pursuant to Paragraph III.C. of this Agreement, then the aforementioned *Agreement Between the State of Maine and Kennebec Hydro Developers Group* shall remain in effect pursuant to its terms and conditions, with

organizations' ability to collect available brood stock of Atlantic salmon from the Sebasticook River at the Fort Halifax dam, and from the Kennebec River at the Lockwood dam, to initiate a Kennebec River salmon hatchery operation. Licensee further recognizes and acknowledges that, assuming the prior removal of the Edwards dam, installation of an interim fish lift at the Lockwood dam in 2006 is needed, and Licensee will not seek to eliminate or defer this installation requirement before FERC or other regulatory bodies.

A part of the interim passage design and construction would include mechanisms (e.g., video monitoring) to allow operators and resource agencies to assess the effectiveness of the interim facility in trapping all species that seek passage. The interim lift shall be designed to empty into a trap and truck collection facility with adequate capacity for "holding" large quantities of fish, and not designed to discharge into the canal area.

In the event that the Edwards Dam has not been removed by May 1, 2006, any party to this Agreement retains the right to petition FERC to establish a new date for installation of an interim trap, lift, and transfer facility at Lockwood for American shad, Atlantic salmon and river herring. It is understood that this ability to petition for a new date in the event that Edwards has not been removed applies only to the installation of interim fish passage at Lockwood, and permanent fish passage at Fort Halifax, as specified at paragraph IV.E.1.d.2. herein.

2. Permanent upstream passage.

Permanent upstream passage at Lockwood and UAH-Hydro Kennebec shall be operational 2 years following the earlier to occur of either of the following biological triggers. In no event shall permanent upstream fish passage be required to be operational before May 1, 2010.

a. 8000 American shad in any single season captured at the interim trap, lift, and sort facility at Lockwood; or

b. a biological assessment trigger initiated for Atlantic salmon, alewife or blueback herring, as described in IV-A above.

3. Downstream passage at Lockwood

a. Interim passage beginning upon the effective date of this Agreement:

(1) Generally. Licensee will continue and where needed improve

existing interim operational measures (e.g. controlled spills, temporary turbine shutdowns, sluiceways), to diminish entrainment, allow downstream passage of out-migrating alewife, Atlantic salmon, blueback herring and American shad, and eliminate significant injury or mortality (immediate or delayed) to out-migrating species. Licensee agrees to consult with state and federal agencies to develop an approved plan for interim downstream passage facilities and/or operational measures to minimize impacts on downstream migrating fish, with evaluation based on qualitative observations.

(2) Passage through turbines. Licensee and the resource agencies agree that fish passage by means of sluiceways and/or controlled spills are the first and preferred approach to interim downstream fish passage at Lockwood. In the event that fish passage using these methods is not successful[1], and to the extent that licensee desires to achieve or continue interim downstream passage of out-migrating alewife, and/or juvenile Atlantic salmon or shad by means of passage through turbine(s), licensee must demonstrate, through site-specific qualitative studies designed and conducted in consultation with the resource agencies, that passage through turbine(s) will not result in significant injury and/or mortality (immediate or delayed). If, after three years of such studies, the resource agencies, based on good cause shown, do not believe that the qualitative studies conclusively demonstrate that turbine passage is not resulting in significant injury and/or mortality, and licensee desires to achieve interim downstream passage of these species through turbine(s), licensee must demonstrate through site-specific quantitative studies that turbine passage will not result in significant injury and/or mortality (immediate or delayed). The quantitative studies shall be designed and conducted in consultation with the resource agencies.

In the event that adult shad and/or adult Atlantic salmon begin to inhabit the impoundment above the Lockwood project, and to the extent that licensee desires to achieve interim downstream passage of out-migrating adult Atlantic salmon and/or adult shad by means of passage through turbine(s), licensee must first demonstrate, through site-specific quantitative studies designed and conducted in consultation with the resource agencies, that passage through

[1] Construction of new diversionary structures to achieve success is not required by this Agreement.

turbine (s) will not result in significant injury and/or mortality (immediate or delayed). In no event shall licensee be required to make this quantitative demonstration for adult shad and adult Atlantic salmon before May 1, 2006.

Licensee shall conduct studies (designed in consultation with the resource agencies) prior to the date by which permanent downstream passage facilities are to be operational to determine the effectiveness of various downstream passage techniques in preparation for the design and installation of permanent downstream facilities.

b. Permanent passage: Permanent downstream facilities will be operational on the date that permanent upstream passage is operational. Licensee will be permitted to install permanent downstream passage at an earlier date if it so chooses.

4. Downstream passage at UAH-Hydro Kennebec

a. Interim passage beginning upon the effective date of this Agreement:

(1) Generally. Licensee will continue and where needed improve existing interim operational measures (e.g. controlled spills, temporary turbine shutdowns), to diminish entrainment, allow downstream passage of out-migrating alewife, Atlantic salmon, blueback herring and American shad, and eliminate significant injury or mortality (immediate or delayed) to out-migrating species. Licensee agrees to consult with state and federal agencies to develop an approved plan for interim downstream passage facilities and/or operational measures to minimize impacts on downstream migrating fish, with evaluation based on qualitative observations.

(2) Passage through turbines. To the extent that licensee desires to achieve or continue interim downstream passage of out-migrating alewife, and/or juvenile Atlantic salmon or shad by means of passage through turbine(s), licensee must demonstrate, through site-specific qualitative studies designed and conducted in consultation with the resource agencies, that passage through turbine(s) will not result in significant injury and/or mortality (immediate or delayed). In the event that adult shad and/or adult Atlantic salmon begin to inhabit the impoundment above the UAH-

Hydro Kennebec project, and to the extent that licensee desires to achieve interim downstream passage of out-migrating adult Atlantic salmon and/or adult shad by means of passage through turbine(s), licensee must first demonstrate, through site-specific quantitative studies designed and conducted in consultation with the resource agencies, that passage through turbine (s) will not result in significant injury and/or mortality (immediate or delayed). In no event shall licensee be required to make this quantitative demonstration before May 1, 2006.

Licensee shall conduct studies (designed in consultation with the resource agencies) prior to the date by which permanent downstream passage facilities are to be operational to determine the effectiveness of various downstream passage techniques in preparation for the design and installation of permanent downstream facilities.

b. Permanent passage: Permanent downstream facilities will be operational on the date that permanent upstream passage is operational. Licensee will be permitted to install permanent downstream passage at an earlier date if it so chooses.

5. Applicability of this Agreement to FERC Relicensing of Lockwood.

The resource agencies and the Kennebec Coalition stipulate that the terms and conditions contained herein that are relevant to the relicensing at Lockwood (e.g., type of fish passage, dates for installation) will be the same terms and conditions that will be sought during relicensing, including the water quality certification process. Certain issues not covered in this Agreement (e.g. boat ramps, access, minimum flows) will still need to be resolved during the relicensing process.

C. SHAWMUT

1. Permanent upstream passage at Shawmut shall be operational 2 years following the earlier to occur of either of the following biological triggers. In no event shall permanent upstream fish passage be required to be operational before May 1, 2012.

a. 15,000 American shad passed in any single season in the permanent passage facility at UAH-Hydro Kennebec; or

b. a biological assessment trigger initiated for Atlantic salmon,

alewife or blueback herring as described in IV -A above.

2. Downstream passage:

a. Interim passage beginning upon the effective date of this Agreement:

(1) Generally. Licensee will continue and where needed improve existing interim operational measures (e.g. controlled spills, temporary turbine shutdowns, sluiceways), to diminish entrainment, allow downstream passage of out-migrating alewife, Atlantic salmon, blueback herring and American shad, and eliminate significant injury or mortality (immediate or delayed) to out-migrating species. Licensee agrees to consult with state and federal agencies to develop an approved plan for interim downstream passage facilities and/or operational measures to minimize impacts on downstream migrating fish, with evaluation based on qualitative observations.

(2) Passage through turbines. Licensee and the resource agencies agree that fish passage by means of sluiceways and/or controlled spills are the first and preferred approach to interim downstream fish passage at Shawmut. In the event that fish passage using these methods is not successful[2], and to the extent that licensee desires to achieve or continue interim downstream passage of out-migrating alewife, and/or juvenile Atlantic salmon or shad by means of passage through turbine(s), licensee must demonstrate, through site-specific qualitative studies designed and conducted in consultation with the resource agencies, that passage through turbine(s) will not result in significant injury and/or mortality (immediate or delayed). If, after three years of such studies, the resource agencies, based on good cause shown, do not believe that the qualitative studies conclusively demonstrate that turbine passage is not resulting in significant injury and/or mortality, and licensee desires to achieve interim downstream passage of these species through turbine(s), licensee must demonstrate through site-specific quantitative studies that turbine passage will not result in significant injury and/or mortality (immediate or delayed). The quantitative studies shall be designed and conducted in consultation with the resource agencies.

[2] Construction of new diversionary structures to achieve success is not required by this Agreement.

In the event that adult shad and/or adult Atlantic salmon begin to inhabit the impoundment above the Shawmut project, and to the extent that licensee desires to achieve interim downstream passage of out-migrating adult Atlantic salmon and/or adult shad by means of passage through turbine(s), licensee must first demonstrate, through site-specific quantitative studies designed and conducted in consultation with the resource agencies, that passage through turbine (s) will not result in significant injury and/or mortality (immediate or delayed). In no event shall licensee be required to make this quantitative demonstration for adult shad and adult Atlantic salmon before May 1, 2006.

Licensee shall conduct studies (designed in consultation with the resource agencies) prior to the date by which permanent downstream passage facilities are to be operational to determine the effectiveness of various downstream passage techniques in preparation for the design and installation of permanent downstream facilities.

b. Permanent passage: Permanent downstream facilities will be operational on the date that permanent upstream passage is operational. Licensees will be permitted to install permanent downstream passage at an earlier date if it so chooses.

D. WESTON

1. Permanent upstream passage at Weston shall be required to be operational 2 years following the earlier to occur of either of the following biological triggers. In no event shall permanent upstream fish passage be required to be operational before May 1, 2014.

   a. 35,000 American shad captured in any single season in the permanent upstream facility at Shawmut; or

   b. a biological assessment trigger initiated for Atlantic salmon, alewife or blueback herring as described in IV-A above.

2. Downstream passage:

   a. Interim passage beginning upon the effective date of this Agreement:

(1) Generally. Licensee will continue and where needed improve existing interim operational measures (e.g. controlled spills, temporary turbine shutdowns, sluiceways), to diminish entrainment, allow downstream passage of out-migrating alewife, Atlantic salmon, blueback herring and American shad, and eliminate significant injury or mortality (immediate or delayed) to out-migrating species. Licensee agrees to consult with state and federal agencies to develop an approved plan for interim downstream passage facilities and/or operational measures to minimize impacts on downstream migrating fish, with evaluation based on qualitative observations.

(2) Passage through turbines. Licensee and the resource agencies agree that fish passage by means of sluiceways and/or controlled spills are the first and preferred approach to interim downstream fish passage at Weston. In the event that fish passage using these methods is not successful[3], and to the extent that licensee desires to achieve or continue interim downstream passage of out-migrating alewife, and/or juvenile Atlantic salmon or shad by means of passage through turbine(s), licensee must demonstrate, through site-specific qualitative studies designed and conducted in consultation with the resource agencies, that passage through turbine(s) will not result in significant injury and/or mortality (immediate or delayed). If, after three years of such studies, the resource agencies, based on good cause shown, do not believe that the qualitative studies conclusively demonstrate that turbine passage is not resulting in significant injury and/or mortality, and licensee desires to achieve interim downstream passage of these species through turbine(s), licensee must demonstrate through site-specific quantitative studies that turbine passage will not result in significant injury and/or mortality (immediate or delayed). The quantitative studies shall be designed and conducted in consultation with the resource agencies.

In the event that adult shad and/or adult Atlantic salmon begin to inhabit the impoundment above the Weston project, and to the extent that licensee desires to achieve interim downstream passage of out-migrating adult Atlantic salmon and/or adult shad by means of passage through turbine(s), licensee must first demonstrate, through site-specific quantitative studies designed and conducted

[3] Construction of new diversionary structures to achieve success is not required by this Agreement.

in consultation with the resource agencies, that passage through turbine (s) will not result in significant injury and/or mortality (immediate or delayed). In no event shall licensee be required to make this quantitative demonstration for adult shad and adult Atlantic salmon before May 1, 2006.

Licensee shall conduct studies (designed in consultation with the resource agencies) prior to the date by which permanent downstream passage facilities are to be operational to determine the effectiveness of various downstream passage techniques in preparation for the design and installation of permanent downstream facilities.

b. Permanent passage: Permanent downstream facilities will be operational on the date that permanent upstream passage is operational. Licensee will be permitted to install permanent downstream passage at an earlier date if it so chooses.

E. SEBASTICOOK RIVER DAMS

1. FORT HALIFAX

a. Purpose in establishing new dates for installation of permanent fish passage.

Licensee recognizes and acknowledges that the success of the resource agencies' and Kennebec Coalition's efforts to restore shad to the Kennebec River Basin and achieve established fisheries management goals is dependent upon the State's ability to collect sufficient quantities of healthy shad brood stock from the Sebasticook River and the Kennebec River below the Lockwood dam, to use in DMR's Waldoboro hatchery and for stocking in upstream waters. Licensee further recognizes and acknowledges that, assuming the continued operation of the Fort Halifax dam and the prior removal of the Edwards dam, permanent fish lift capable of passing, unharmed, sufficient quantities of alewife, shad, and Atlantic salmon to meet stated fisheries management goals shall be operational at Fort Halifax in 2003. Licensee further recognizes and acknowledges that resources agencies and the Kennebec Coalition are

STATE OF MAINE
DEPARTMENT OF
ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION
AUGUSTA, MAINE
04333

ANGUS S. KING, JR.
GOVERNOR

DEPARTMENT ORDER

IN THE MATTER OF

CENTRAL MAINE POWER COMPANY	)	MAINE WATERWAY DEVELOPMENT AND
SKOWHEGAN, SOMERSET COUNTY, ME.	)	CONSERVATION ACT PERMIT AND
WESTON HYDRO PROJECT	)	WATER QUALITY CERTIFICATION
	)	
	)	FINDINGS OF FACT AND ORDER
#L-17472-33-C-M (Approval)	)	FISH PASSAGE MODIFICATION

Pursuant to the provisions of 38 MRSA Sections 464 et seq. and Sections 630 et seq., 06-096 CMR 450 (Administrative Rules for Hydropower Projects, effective date September 1, 1987), and Section 401 of the Federal Water Pollution Control Act (a.k.a. Clean Water Act), the Department of Environmental Protection has considered the application of CENTRAL MAINE POWER COMPANY with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

The applicant proposes to modify the fish passage conditions of the existing Maine Waterway Development and Conservation Act permit and water quality certification for the Weston Hydro Project to be consistent with the terms of the May 26, 1998 *Agreement Between Members of the Kennebec Hydro Developers Group, the Kennebec Coalition, the National Marine Fisheries Service, the State of Maine, and the US Fish and Wildlife Service ("KHDG Settlement Agreement")*. The Weston Project is licensed to Central Maine Power Company as FERC Project No. 2325, and is located on the Kennebec River in the Towns of Skowhegan, Norridgewock, Starks and Madison, Somerset County, Maine.

2. PROCEDURAL HISTORY

a. 1986 KHDG Agreement. In 1986, the applicant joined with several other hydropower project owners in entering into an agreement with the State's fisheries agencies regarding the restoration of anadromous fish to the Kennebec River system. Under the terms of the *Agreement Between the State of Maine and Kennebec Hydro Developers Group ("1986 KHDG Agreement")*, effective January 23, 1987, the project owners were to provide a total of $1.86 million over a 12-year period to facilitate restoration efforts (specifically, to finance the trapping, trucking and stocking of anadromous fish and studies of fish passage efficiencies and habitat needs) and to provide permanent fish passage at their dams during the 1999-2001 period in accordance with a revised restoration plan. The agreement covered four projects (Lockwood, Hydro-Kennebec, Shawmut, and Weston) on the Kennebec River and three projects (Fort Halifax, Benton Falls, and Burnham) on the Sebasticook River.

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CENTRAL MAINE POWER COMPANY SKOWHEGAN, SOMERSET COUNTY, ME. WESTON HYDRO PROJECT	6)))	MAINE WATERWAY DEVELOPMENT AND CONSERVATION ACT PERMIT AND WATER QUALITY CERTIFICATION
#L-17472-33-C-M (Approval)	)	FINDINGS OF FACT AND ORDER FISH PASSAGE MODIFICATION

B. EEL PASSAGE

(1) Study. The applicant shall, in consultation with the National Marine Fisheries Service and the US Fish and Wildlife Service, join other KHDG members and the Department of Marine Resources in undertaking a three-year research project to determine (a) the appropriate placement of upstream fish passage for American eel at each of the seven KHDG member-owned dams, and (b) appropriate downstream fish passage measures for American eel at each KHDG member-owned project.

(2) Consultation. Based on the results of the eel passage study and beginning no later than January 1, 2002 and ending no later than June 30, 2002, the applicant shall join other KHDG members in consulting with NMFS, USFWS, and DMR to attempt to reach agreement on the appropriate location of upstream eel passage at each KHDG member-owned dam, and the appropriate downstream eel passage measures to apply to each KHDG member-owned project.

(3) Upstream Passage. If agreement is reached by all consulting parties on the location of upstream eel passage at each project, the applicant shall install such passage facilities at the Weston Project during 2002.

(4) Downstream Passage. If agreement is reached by all consulting parties on appropriate downstream eel passage measures, the applicant shall join the other parties in requesting that FERC approve the agreed-to passage measures.

(5) Lack of Consensus. If no consensus is reached on eel passage issues by June 30, 2002, the applicant or any of the consulting parties shall be free to petition DEP or FERC to approve appropriate conditions relating to eel passage at the project.

(6) Lack of Funding. In the event that DMR does not receive the necessary appropriation or legislative spending authorization required to fund the eel passage study discussed above, all provisions of this condition regarding eel passage shall be null and void.

C. INTERIM DOWNSTREAM FISH PASSAGE

The applicant shall continue and where needed improve existing interim operational measures to diminish entrainment, allow downstream passage, and eliminate significant injury or mortality to out-migrating anadromous fish, in accordance with the terms of the *KHDG Settlement Agreement*.

D. PERMANENT UPSTREAM FISH PASSAGE

(1) Installation and operation. Permanent upstream fish passage facilities shall be installed and operational at the project no later than 2 years following (a) the passage of at least 35,000

CENTRAL MAINE POWER COMPANY SKOWHEGAN, SOMERSET COUNTY, ME. WESTON HYDRO PROJECT	)	MAINE WATERWAY DEVELOPMENT AND CONSERVATION ACT PERMIT AND WATER QUALITY CERTIFICATION
#L-17472-33-C-M (Approval)	)	FINDINGS OF FACT AND ORDER FISH PASSAGE MODIFICATION

(3) Results of studies. The applicant shall, in accordance with the schedule(s) established by FERC, submit the results of any fish passage effectiveness study or studies, along with any recommendations for changes in the design and/or operation of any interim or permanent upstream or downstream fish passage facilities constructed and/or operated pursuant to this approval. The Department reserves the right, after notice and opportunity for hearing, to require reasonable changes in the design and/or operation of these fish passage facilities as may be deemed necessary to adequately pass anadromous fish through the project site. Any such changes must be approved by FERC prior to implementation.

DONE AND DATED AT AUGUSTA, MAINE, THIS 31st DAY OF July, 1998.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Martha Kirkpatrick
Edward O. Sullivan, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 8/1/97

Date application accepted for processing: 8/7/97

FILED
AUG 4 1998
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

Date filed with Board of Environmental Protection: _____

This Order prepared by Dana Murch, Bureau of Land & Water Quality.

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200408275023 Received FERC OSEC 08/27/2004 12:41:00 PM Docket# P-2574-032

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DEPARTMENT ORDER

IN THE MATTER OF

MERIMIL LIMITED PARTNERSHIP	) MAINE WATER QUALITY PROGRAM;
Waterville and Winslow	) FEDERAL CLEAN WATER ACT
Kennebec County	)
LOCKWOOD HYDRO PROJECT	)
#L-20218-33-C-N (Approval)	) WATER QUALITY CERTIFICATION

Pursuant to the provisions of 38 MRSA Section 464 et seq. and Section 401 of the Federal Water Pollution Control Act (a.k.a. Clean Water Act), the Department of Environmental Protection has considered the application of MERIMIL LIMITED PARTNERSHIP with its supportive data, agency comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

   a. Application: Merimil Limited Partnership (Merimil) proposes the continued operation of the existing Lockwood Hydroelectric Project, located on the Kennebec River in the City of Waterville and Town of Winslow, Kennebec County, Maine (see Attachment A).

   b. Existing Project Features: The existing project consists of a dam, a forebay headgate structure, two powerhouses, an impoundment and appurtenant structures (see Attachment B). The dam was originally constructed in 1868, and was improved to a concrete dam in 1913. The original powerhouse was built in 1919. The second powerhouse was completed in 1989.

      i. The project structures include a concrete gravity dam with two spillway sections connected by a small island, a forebay headworks structure, a 450 foot long forebay canal, and two powerhouses with a total installed capacity of 6,915 kW and a hydraulic capacity of 5,660 cfs. The east spillway section is approximately 225 feet long and is topped by 15 inch high wooden flashboards. The crest of the flashboards is 52.16 feet (msl). The west spillway section is approximately 650 feet long, of which approximately 40 feet consists of a pier in the Rt. 201 bridge. The section of this spillway between the island and the bridge pier is topped by 15 inch high wooden flashboards with a crest of 52.16 feet. The section between the bridge pier and the forebay headworks currently has no flashboards and has a fixed crest elevation of 52.0 feet. The forebay headworks extends approximately 160 feet from the end of the western spillway section to the west bank of the river. The forebay canal is approximately 450 feet long.

20040827-5023 Received FERC OSEC 08/27/2004 12:41:00 PM Docket# P-2574-032

2. PROCEDURAL HISTORY

a. Original Approval. By Order #L-10121-35-A-N dated July 25, 1984, the Board of Environmental Protection approved a Maine Waterway Development and Conservation Act Permit and Water Quality Certification for the proposed redevelopment of and amendment of license for the existing Lockwood Hydro Project.

b. First Fish Passage Modification. The applicant then proposed to modify the fish passage conditions of the DEP permit/certification and FERC license for the Lockwood Project to be consistent with the terms of the 1986 KHDG Agreement. By Order #L-10121-35-E-M dated February 24, 1988, the Board modified the terms of its original approval for the Lockwood Project to be consistent with the 1986 KHDG Agreement.

c. Second Fish Passage Modification. The applicant subsequently proposed to modify the fish passage conditions of the DEP permit/certification and FERC license for the Lockwood Project to be consistent with the terms of the May 26, 1998 Agreement Between Members of the Kennebec Hydro Developers Group, the Kennebec Coalition, the National Marine Fisheries Service, the State of Maine, and the US Fish and Wildlife Service ("KHDG Settlement Agreement"). By Order #L-10121-35-G-M dated July 31, 1998, the Department modified the terms of its original approval for the Lockwood Project to be consistent with the 1998 KHDG Agreement.

2. JURISDICTION

a. Water Quality Certification. The proposed continued operation of the project qualifies as an "activity...which may result in (a) discharge into the navigable water (of the United States)" pursuant to the Clean Water Act (CWA), 33 USC 1251 et seq. Section 401 of the CWA requires that any applicant for a federal license or permit to conduct such an activity obtain a certification that the activity will comply with applicable State water quality standards.

This project was originally licensed by the Federal Power Commission (now FERC) in 1969. In 1985, FERC approved an amendment to the original license (FERC No. 2574) to increase the installed capacity from 4,800 kW to 6,915 kW and build a new powerhouse. The amendment included an extension of the term of the license to April 30, 2004. FPL Energy Maine Hydro LLC, on behalf of Merimil Limited Partnership, filed a new license application for the project with FERC on April 29, 2002.

The Department of Environmental Protection has been designated by the Governor of the State as the certifying agency for issuance of Section 401 water quality certification for all activities in the state not subject to Land Use Regulation Commission permitting and review. The Lockwood Project is located in organized municipalities that are not subject to LURC's regulatory jurisdiction. Therefore, the DEP is the certifying agency for the project.

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(6) Lack of Funding. In the event that DMR does not receive the necessary appropriation or legislative spending authorization required to fund the eel passage study discussed above, all provisions of this condition regarding eel passage shall be null and void.

C. INTERIM UPSTREAM FISH PASSAGE

The applicant shall install an interim trap, lift, and transfer facility for American shad, river herring (alewife and blueback herring), and Atlantic salmon at the Lockwood Project powerhouse, to be operational by May 1, 2006. This interim passage facility shall include video monitoring or other mechanisms to allow assessment of the effectiveness of the facility in trapping all species that seek passage, and shall be designed to empty into a trap and truck collection facility with adequate holding capacity.

D. INTERIM DOWNSTREAM FISH PASSAGE

The applicant shall continue and where needed improve existing interim operational measures to diminish entrainment, allow downstream passage, and eliminate significant injury or mortality to out-migrating anadromous fish, in accordance with the terms of the KHDG Settlement Agreement.

E. PERMANENT UPSTREAM FISH PASSAGE

(1) Installation and operation. Permanent upstream fish passage facilities shall be installed and operational at the project no later than 2 years following (a) the passage of at least 8,000 American shad in a single season through the interim trap, lift, and transfer facility at the Lockwood powerhouse or (b) development of an alternate trigger for fishway installation based on the biological assessment process for Atlantic salmon, alewife and blueback herring described below, whichever comes first, provided, however, that in no event shall permanent upstream fish passage facilities be required to be operational at the project before May 1, 2010.

(2) Biological assessment process. State and federal fisheries agencies will continue to assess the status and growth of the populations of shad and other anadromous fish in the Kennebec River drainage. Should the growth of Atlantic salmon, alewife or blueback herring spawning runs make it necessary to adopt an alternative approach for triggering fishway installation to the shad trigger used above, the agencies will meet with the applicant to attempt to reach consensus on the need for and timing and design of permanent upstream fish passage facilities at the project. Any disputes on the need for an alternate trigger for fishway installation will be handled through the FERC process.

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5. LIMITS OF APPROVAL

This approval is limited to and includes the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. All variances from the plans and proposals contained in said documents are subject to review and approval of the DEP prior to implementation.

6. 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 project in accordance with the terms of this certification.

7. EFFECTIVE DATE

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

DONE AND DATED AT AUGUSTA, MAINE, THIS *26th* DAY OF AUGUST, 2004.

By: */s/ Dawn R. Gallagher*
Dawn R. Gallagher, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of receipt of application: 4/16/04
Date application accepted for processing: 4/16/04
(Initial application received 4/25/02 and subsequently withdrawn and refiled, 4/18/03 and 4/16/04.)

Date filed with the Board of Environmental Protection: *August 26, 2004*

This Order prepared by Mark Margerum, Bureau of Land and Water Quality
\L-20218-33-C-N