UNITED STATES DISTRICT COURT
DISTRICT OF MAINE

FRIENDS OF MERRYMEETING BAY and ENVIRONMENT MAINE,

Plaintiffs,

v.

C.A. No. 11-cv-38-GZS

NEXTERA ENERGY RESOURCES, LLC; NEXTERA ENERGY MAINE OPERATING SERVICES, LLC; FPL ENERGY MAINE HYDRO, LLC and THE MERIMIL LIMITED PARTNERSHIP,

Defendants.

PLAINTIFFS' MOTION FOR A PRELIMINARY INJUNCTION AND INCORPORATED MEMORANDUM OF LAW

Plaintiffs Friends of Merrymeeting Bay ("FOMB") and Environment Maine hereby move for a preliminary injunction. They respectfully request that this Court enter the following order:

> Defendants shall halt the operation of all turbines at their Weston, Shawmut, and Lockwood hydroelectric projects on the Kennebec River, and their Brunswick project on the Androscoggin River, during the entirety of the downstream migration season of Atlantic salmon smolts this spring (from April 15 through June 5); provided, that Defendants may apply to the Court for permission to operate specific turbines at specific projects for only those limited periods of time necessary for the collection of turbine mortality data as required by the National Marine Fisheries Services ("NMFS") and must, during any such periods of time, increase flow to bypass and spill gates to the maximum levels described in NextEra's 2012 smolt passage study.

Plaintiffs further request that after the instant motion is decided, the Court put the case on the June trial calendar for a full trial on the merits. See Joint Status Report (ECF No. 135) (requesting June trial).

A memorandum of law supporting this motion is included herein. Documents already submitted in connection with the cross motions for summary judgment are referenced by their

ECF docket number and page identification numbers, and are not resubmitted.

FACTUAL BACKGROUND

This Court set forth the factual background in detail in its Order on Cross Motions for Summary Judgment ("SJ Order") [ECF No. 132] at 4-9 (Page ID # 4925-4935). Plaintiffs also note that the Court already finds "Atlantic salmon are in the vicinity of [the four] dams" and "logically concludes that at least some of those Atlantic salmon make it downstream to the dams at issue in this case." SJ Order at 17 [132] (PageID# 4938).[1]

By way of additional background, Plaintiffs note that just before the SJ Order was issued, the NextEra defendants ("NextEra") decided to abandon their efforts to apply for an Incidental Take Permit ("ITP") pursuant to § 10 of the Endangered Species Act ("ESA"), 16 U.S.C. § 1539 (this entailed, among other tasks, developing a "Habitat Conservation Plan" ("HCP") as part of the application). NextEra is now attempting to obtain an Incidental Take Statement ("ITS") to authorize take at the projects, pursuant to the procedure set forth in § 7 of the ESA, 16 U.S.C. § 1536. Under NextEra's "estimated timeline," a biological opinion ("BiOp") and ITS would be issued "by" August 5, 2013, *after* the upcoming spring migration season.[2]

To stop turbines from operating at the four projects, NextEra closes gates in front of the turbines. Deposition of NextEra consultant Wendy Bley ("Bley Dep") at 130:1-9 (Caldart Dec.

[1] That downstream migrating Atlantic salmon smolts and adults encounter NextEra's projects in the Kennebec and Androscoggin Rivers is confirmed by a number of sources. See, e.g., Declaration of Randy Bailey ("Bailey Dec."), submitted herewith, ¶¶ 14-15; Deposition of Defendants' 30(b)(6) designee Robert Richter ("Richter Dep."), Joint Record Exhibit 39 (ECF No. 82-4 – 82-5) at 38:24–39:5 (PageID#3069), 43-45 (PageID#3070); Exhibit 2 to Declaration of Joseph J. Mann in Support of Plaintiffs' Motion For Partial Summary Judgment ("May 25th Mann Dec."): "Draft Project Update - Androscoggin River Atlantic Salmon Tagging and Tracking Project" (MDMR, 2012) (ECF No. 96-2 at 2-16 (PageID# 4012-4026)); May 25th Mann Dec. Ex. 3 (ECF No. 96-3): 1/28/10 Email from Mike Brown of MDMR to Doug Watts and Topsham Hydro [PageID# 4027-9]; Deposition of NextEra consultant Wendy Bley at 39:11-40:13 (see fn. 2 for further identification of Ms. Bley). Ms. Bley's deposition is attached as Exhibit 1 to the Declaration of Charles C. Caldart in Support of Plaintiffs' Motion for Preliminary Injunction ("Caldart Dec.").

[2] 1/31/13 Letter from Chad Clark of NextEra to Mary Colligan of NMFS ("1/31/13 Clark Letter") at 3-4 (Caldart Dec. Ex. 2).

Ex. 1).[3] When the gates are closed, the water that would otherwise pass through the turbines is available to spill over the dam or flow through spillway gates and fish bypass structures, Bley Dep. at 130:10-15, allowing downstream migrating fish to avoid the turbines, id. at 130:19-24.

Additional facts are discussed in the argument set forth below. New evidence and evidence not submitted or considered on the cross summary judgment motions include NextEra's February 21, 2013 draft Biological Assessment; a 2012 passage study of the Lockwood, Shawmut, and Weston projects (and the findings of three government agencies based on that study); the Bley deposition; and three expert opinions (which include analysis of passage studies conducted at NextEra dams in 2007, 2011 and 2012).

ARGUMENT

I. PLAINTIFFS CONTINUE TO HAVE STANDING TO BRING THIS SUIT.

In its SJ Order, this Court ruled, "Plaintiffs have sufficiently established standing at this stage of the litigation." SJ Order at 14 [132] (Page ID #4935). The reasoning set forth in that Order is applicable here. Plaintiffs are filing herewith declarations from Ed Friedman (member and Chair of FOMB and member of Environment Maine), Kathleen McGee (member of FOMB and Environment Maine), and Emily Figdor (Director of Environment Maine), affirming that the declarations they submitted in connection with the summary judgment motions (ECF Nos. 99, 100, and 101, respectively) are still accurate. Accordingly, the Court should again find that Plaintiffs have standing.[4]

[3] Ms. Bley was the development coordinator and lead negotiator for NextEra's HCP. Bley Dep. at 13:12-19. She represented NextEra on an HCP technical advisory committee. Bley Dep. at 10:7-16. Previously, she was employed by a predecessor owner of the projects and worked at the four hydro projects at issue here. Bley Dep. at 8:17-9:5. Ms. Bley has over 20 years of experience supporting and managing hydropower licensing and Federal Energy Regulatory Commission ("FERC") compliance activities. Bley Dep. at 9:7-10.

[4] Plaintiffs provided to NextEra the pre-suit notice required by 16 U.S.C. § 1540(g)(2)(A)(i). Copies of Plaintiffs' notice letters were previously filed with the Court [ECF No. 97, 97-1, and 97-2] (PageID# 4214-4230).

II. THE LEGAL STANDARD FOR A PRELIMINARY INJUNCTION.

In seeking a preliminary injunction, Plaintiffs

> bear the burden of persuasion to show: '(1) the likelihood of success on the merits; (2) the potential for irreparable harm if the injunction is denied; (3) the balance of relevant impositions, i.e., the hardship to the nonmovant if enjoined as contrasted with the hardship to the movant if no injunction issues; and (4) the effect (if any) of the court's ruling on the public interest.' Iantosca v. Step Plan Servs., Inc., 604 F.3d 24, 29, n.5 (1st Cir. 2010) (citation omitted).

FOMB v. United States Dept. of Commerce, 810 F. Supp. 2d 320, 322 (D. Me. 2011). Likelihood of success is the most important part of the preliminary injunction assessment; but even if it is low, a court may consider injunctive relief based on a very significant showing of irreparable harm. Id.

III. PLAINTIFFS ARE VERY LIKELY TO SUCCEED ON THE MERITS.

Plaintiffs are very likely to succeed on their claim that NextEra is taking endangered Atlantic salmon at the four hydroelectric projects in violation of the ESA.

Section 9 of the ESA, 16 U.S.C. § 1538(a)(1)(B), flatly prohibits any person from "taking" endangered fish or wildlife, and "take" is "defined…in the broadest possible manner." Strahan v. Coxe, 127 F.3d 155, 162 (1st Cir. 1997). The term "take" "means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. § 1532(18).[5] A take can occur by direct or indirect means. Babbitt v. Sweet Home Chapter of Cmty. for a Greater Oregon, 515 U.S. 687, 704, 711 (1995).

A take is excused only if carried out in strict compliance with a formally issued incidental take statement ("ITS") or incidental take permit ("ITP"). 16 U.S.C. §§ 1536(o)(2) (ITS), 1539(g) (ITP). NextEra has neither an ITS nor an ITP for any of the four hydroelectric projects

[5] "Harm" is defined by regulation to mean "an act which actually kills or injures fish or wildlife," including habitat modification. 50 C.F.R. §§17.3 and 222.102. To "wound" is to inflict "[a]n injury to an organism, especially one in which the skin or another external surface is torn, pierced, cut, or otherwise broken." American Heritage Dictionary (5th ed. 2011), *available on line at* http://www.ahdictionary.com/word/search.html?q=wound.

at issue in this case. Deposition of Defendants' Rule 30(b)(6) designated deponent Robert Richter at 196-197 [82-4] (PageID# 3108); SJ Order at 17 [132] (PageID# 4938). Thus, any takes at the projects violate the ESA. "Evidence of a single, actual injury to an Atlantic salmon will suffice to show a taking under the ESA." SJ Order at 16 [132] (PageID# 4937) (citing Strahan v. Coxe, 127 F.3d at 165).

Evidence that a *specific* salmon was killed or injured is not required. Animal Welfare Inst. ("AWI") v. Beech Ridge Energy LLC, 675 F. Supp. 2d 540, 576-579 (D. Md. 2009). Rather, Plaintiffs must prove, by a preponderance of the evidence, either that the operation of these dams has already caused "actual injury" to salmon, "or if continued will actually, as opposed to potentially, cause [such] harm." American Bald Eagle v. Bhatti, 9 F.3d 163, 166 (1st Cir. 1993); Marbled Murrelet v. Pac. Lumber Co., 83 F.3d 1060, 1066 (9th Cir. 1996) ("reasonably certain threat of imminent harm to a protected species is sufficient for issuance of an injunction under Section 9 of the ESA"). See AWI, 675 F. Supp. 2d at 561 (applying a preponderance of the evidence standard to a civil take claim). The evidence here satisfies this standard. It consists of site-specific expert evaluations of each project's physical features, site-specific empirical studies conducted at these projects, empirical studies conducted at similar facilities, government findings of harm, the results of a well-known computer model that incorporates the specific features of each project, and NextEra's own admissions.

A. Statements By NextEra And Its Agents Establish Take At All Four Projects.

Deposition testimony and statements made in documents by NextEra personnel and NextEra's consultants establish that take is occurring at all four hydro projects.[6] In these

[6] See Fed. R. Evid. 801(d)(2)(A) (statement of party opponent in a representative capacity not hearsay) and 801(d)(2)(D) (statement of party opponent's agent or employee on a matter within the scope of that relationship while it existed not hearsay); see Coal. for a Sustainable Delta v. Fed. Emergency Mgmt. Agency, 812 F. Supp. 2d 1089, 1095 (statements in draft Biological Assessment deemed party admissions); see also Fed. R. Civ. P. 32(a)(3)

statements, which are based on detailed scientific analyses conducted by NextEra and its consultants, NextEra has admitted and explained the various ways its projects kill and wound Atlantic salmon, and has quantified this mortality and injury. This evidence is discussed below.

1. Atlantic salmon are killed and injured by all three available passage routes past the projects.

There are only three ways for smolts and post-spawning adults, or "kelts," to pass the projects: through the turbines, through a fish bypass structure, or via spill (over the spillway portion of the dam or through an opened spill gate). Richter Dep. at 50:24-25; 170:22-171:3 [82-4] (PageID# 3072; 3102); Bley Dep. at 192:17-193:20. As part of the HCP development process, which was based on "the best available scientific information," Richter Dep. at 310:19-311:6 [82-5] (PageID# 3138-9), NextEra determined that all three passage routes kill and injure downstream migrating Atlantic salmon smolts and kelts.

NextEra hired Normandeau Associates to determine the impact of the projects on salmon. Richter Dep. at 215:21-24 [82-4] (PageID# 3113). This work was presented in four "White Papers" (one for each project) that, in turn, were used to prepare a draft HCP covering all four projects. Richter Dep. at 284:11-14; 491:20-492:13 [82-5] (PageID# 3132; 3184). NextEra considers the White Papers to be "scientifically defensible." Id. at 293:10-13, 296:20-297:15; 310:19-311:6 [82-5] (PageID# 3134; 3135; 3138-9).[7] NextEra submitted the mortality and injury estimates in the White Papers to NMFS as its best estimation of each project's "take" of Atlantic salmon. Id. at 403-04 [82-5] (PageID# 3162). NextEra is now using the analyses in the White Papers and HCP in its efforts to obtain an ITS, see 1/31/13 Clark Letter at 4 ("We note

(adverse party may use for any purpose the deposition of a party, agent, or designee) and 32(a)(4) (deposition can be used when witness is more than 100 miles from courthouse; NextEra consultant Wendy Bley lives in Richmond, Virginia).

[7] NextEra personnel reviewed and approved the White Papers. Richter Dep at 398-9 [82-5] (PageID# 3160-1).

that much evaluation of current impacts based upon available science has already been completed and reviewed by NMFS under the prior Section 10 process"), and has incorporated these analyses into a draft Biological Assessment recently submitted to FERC, see "Draft Biological Assessment for Atlantic Salmon at the Lockwood, Shawmut, Weston, Brunswick, and Lewiston Falls Hydroelectric Projects," February 21, 2013 (" BA") (Caldart Dec. Ex. 3). Nowhere in the White Papers, the draft HCP, or the draft BA does NextEra claim that its dams do not kill and wound salmon.[8]

NextEra itself has explained exactly how smolts and kelts are killed and injured trying to pass these projects, and has determined that passage through turbines is the most dangerous route. BA at 57. In the HCP, NextEra states that blade "edge strikes" are considered the "primary mechanism of mortality when fish pass through turbines." Revised Draft "Habitat Conservation Plan For Atlantic Salmon, Shortnose Sturgeon and Atlantic Sturgeon at the Lockwood, Shawmut, Weston, Brunswick and Lewiston Falls Hydropower Projects on the Kennebec and Androscoggin Rivers, Maine," Sections 4-8 ("HCP §§ 4-8"), Joint Record Exhibit 7 (ECF No. 79-1) at 10 (PageID# 1332). NextEra also explains that "the principal causes of potential injury and mortality for fish passed through either a spillway or bypass sluice are shear forces, turbulence, rapid deceleration, terminal velocity, impact against the base of the spillway, scraping against the rough concrete face of the spillway and rapid pressure changes." Id.; see also Deposition of Richard Simmons of Normandeau at 38:5-14 (Caldart Dec. Exhibit 4) (spillway deaths occur when "the fish hits the apron at the bottom or things like that"). Among the injuries to salmon from passage at these projects are scale loss, gill damage, a severed body

[8] The Draft BA relies upon (and incorporates as Attachment B) the January 2012 version of the White Papers for each project. BA (Caldart Dec. Ex. 3) at ii (White Papers in BA's Table of Contents), 61 (fn 5 explains that the White Papers are still relevant, and notes the very minor changes that were made and where they can be found), 86-7 (Literature Cited), and Attachment B.

or backbone, and a bruised head or body. Review of the Revised-Draft Atlantic Salmon White Papers, Technical Advisory Committee Meeting (9/7/2011) (Caldart Dec. Ex. 21).

More specifically, as set forth in the White Papers, HCP, and draft BA, NextEra has made the following determinations:

Spillway mortality and injury. At each of the projects, 2.9% of the smolts that pass over the spillway die within one hour because of such passage, and 3.7% die within 48 hours because of such passage.[9]

Bypass mortality and injury. At each of the projects, 2.9% of the smolts that pass through a bypass die within one hour because of such passage, and 3.7% die within 48 hours because of such passage. [10]

Turbine mortality and injury. At Weston, 11.8% of the smolts passing through the project's turbines (which are all Francis-type turbines) are killed.[11] At Shawmut, 15.3% of the smolts passing through the project's Francis turbines are killed, and 5.7% of the smolts passing through the project's propeller-type turbines are killed.[12] At Lockwood, 18% of the smolts passing through the project's Francis-type turbines are killed, and 8.4% of the smolts passing

[9] BA at 63; "A Review Of Effects Of The Lockwood Project On The Kennebec River, Maine On Atlantic Salmon (*SalmoSalar*) Smolt And Kelt Downstream Passage And Adult Upstream Passage" (1/20/2012) ("Lockwood White Paper"), Joint Record Exhibit 2 (ECF No. 78-2) at 17-18, 21, 32 (PageID# 897-8, 901, 912); "A Review Of Effects Of The Shawmut Project On The Kennebec River, Maine On Atlantic Salmon (*SalmoSalar*) Smolt And Kelt Downstream Passage And Adult Upstream Passage" (1/20/2012) ("Shawmut White Paper"), Joint Record Exhibit 3 (ECF No. 78-3) at 13, 17, 21 (PageID# 1019, 1023, 1027); "A Review Of Effects Of The Weston Project On The Kennebec River, Maine On Atlantic Salmon (*SalmoSalar*) Smolt And Kelt Downstream Passage And Adult Upstream Passage" (1/20/2012) ("Weston White Paper"), Joint Record Exhibit 4 (ECF No. 78-4) at 13, 17-21 (PageID# 1149, 1153-7); "A Review Of Effects Of The Brunswick Project On The Androscoggin River, Maine On Atlantic Salmon (*SalmoSalar*) Smolt And Kelt Downstream Passage And Adult Upstream Passage" (1/20/2012) ("Brunswick White Paper"), Joint Record Exhibit 1 (ECF No. 78-1) at 20 (PageID# 7801).

[10] BA at 63; Lockwood White Paper at 18, 21, 32 [78-2] (PageID# 898, 901, 912); Shawmut White Paper at 13, 18, 20-1 [78-3] (PageID# 1019, 102, 1026-7); Weston White Paper at 13, 19-21 [78-4] (PageID# 1149, 1153-7); Brunswick White Paper at 21 [78-1] (PageID# 802).

[11] Weston White Paper at 20 [78-4] (PageID# 1156); HCP §4-8 at 10 [79-1] (PageID# 1332). All of the turbine mortality estimates referenced in this paragraph are also in the right-hand column in Table 8.2-2 on page 64 of the draft BA, although they are given as survival estimates (the inverse of mortality estimates).

[12] Shawmut White Paper at 21 [78-3] (PageID# 1027); HCP §4-8 at 10 [79-1] (PageID# 1332).

through the project's Kaplan-type turbine are killed.[13] At Brunswick, 7.3% of the smolts passing through the project's turbines (which are all propeller-type) are killed.[14] Kelt mortality rates are higher. BA at 70 (Table 8.2-9) (mortality ranges from 46.2% to 18.9%, depending on turbine).

In other words, NextEra's own analysis shows that a significant number of the smolts passing each project are killed or injured, no matter what route they use, with passage via project turbines clearly being the most dangerous route. The precise number killed and injured in any given year will vary with the size of the smolt population on each river, but there is no doubt that a take of smolts occurs every year. For example, the Maine Department of Marine Resources ("MDMR") estimates that 13,892 smolts were produced in the Sandy River in 2012. Biological Opinion for the Hydro-Kennebec Project (9/7/2012) ("Hydro Kennebec BiOp") at 60 (Caldart Dec. Ex. 5). To reach the sea, these smolts would have had to pass the Weston, Shawmut, and Lockwood projects and, as NextEra acknowledges here, many of them were killed or injured attempting to do so.

NextEra used two scientifically accepted methodologies to determine the take of salmon smolts and kelts passing through the turbines at these projects. The mortality estimates cited above are based on application of the Advance Hydro Turbine model (also called the "Franke model"), a computer model that uses the physical and operational characteristics of the specific turbines at a project and certain other operational characteristics of a project to calculate a project-specific estimate of turbine mortality. Richter Dep. at 317:5-12 [82-5] (PageID# 3140); BA at 63 ("site-specific" parameters used). NextEra also estimated turbine mortality using the results of empirical studies conducted at other hydroelectric projects deemed similar to NextEra's projects. NextEra considers the Franke model calculations more representative of the

[13] Lockwood White Paper at 21 [78-2] (PageID# 901); HCP §4-8 at 10 [79-1] (PageID# 1332).

[14] Brunswick White Paper at 22 [78-1] (PageID# 803); HCP §4-8 at 10 [79-1] (PageID# 1332).

actual mortality caused by its turbines, since they incorporate site-specific data. Richter Dep. at 317:9-12 [82-5] (PageID# 3140). However, the mortality rates generated by the two methods are similar, which adds internal reliability to the estimates.[15] Moreover, use of the empirical studies conducted at similar projects also allowed NextEra to estimate non-lethal injury (in addition to mortality), which gives a more complete picture of the level of "take" (including "harm" and "wound") caused by the projects' turbines. For example, NextEra estimates that, for any starting group of salmon smolts that passes through the Francis-type turbines at each of the three Kennebec River projects, over half (51%) will be killed or injured as a result of such passage.[16] Jeff Murphy of NMFS has informed NextEra that "practically any injury to a smolt may compromise its ability to osmoregulate [that is, to adapt to the changing salt concentration in its environment] as it enters salt water." Lockwood White Paper at C-8 [78-2] (PageID# 988).

[15] As discussed below, Plaintiffs' expert Randy Bailey believes NextEra's turbine mortality rates *underestimate* the actual mortality caused to salmon smolts by the turbines at the NextEra projects.

[16] The estimates for each dam are summarized in the first column of Table 8.2-2 on page 64 of the draft BA. Using empirical studies at other hydroelectric projects, NextEra calculates that 16.2% of the salmon smolts passing through any of the four Francis turbines at the Weston Project will be killed or injured by such passage. Weston White Paper at 22 [78-4] (PageID# 1158); Richter 30(b)(6) Dep. at 356-57 [82-5] (PageID# 3150). Thus, if 100 smolts pass through the Weston turbines, 16 will be killed or injured, leaving 84 uninjured smolts to move downstream toward the Shawmut Project. NextEra calculates that 23.8% of the smolts passing through any of the six Francis turbines at the Shawmut Project will be killed or injured by such passage. Shawmut White Paper at 23 [78-3] (PageID# 1029); Richter 30(b)(6) Dep. at 356-57 [82-5] (PageID# 3150). If the 84 uninjured smolts that passed through the Weston turbines entered Shawmut's Francis turbines, 20 (23.8% of 84) of these would be killed or injured, leaving 64 uninjured smolts from the original 100 to continue downstream toward the Hydro Kennebec and Lockwood projects. NextEra calculates that 23.8% of the smolts passing through any of the six Francis turbines at the Lockwood Project will be killed or injured by such passage. Lockwood White Paper at 23 [78-2] (PageID# 903); Richter Dep. at 356-57 [82-5] (PageID# 3150). Thus, even if all 64 uninjured smolts managed to pass Hydro Kennebec without injury, another 15 (23.8% of 64) of them would be killed or injured if they entered the Francis turbines at Lockwood, leaving only 49 of the original 100 smolts uninjured. This represents an "upper-bound" turbine mortality and injury rate from NextEra's estimates of 51%, since it assumes all fish passing via the most dangerous turbines at each NextEra project. A "lower-bound" mortality and injury rate for turbine passage at these projects can be calculated by assuming that the smolts passing Shawmut and Lockwood do so through the propeller and Kaplan turbines at those projects rather than the more dangerous Francis turbines (Weston has only Francis turbines). And the Brunswick Project alone kills or injures 7.5% of the smolts passing through its turbines, thus posing a direct threat to the much smaller Atlantic salmon population on the Androscoggin River.

2. Site-specific information for each project shows that Atlantic salmon are killed and injured at predictable rates each year at each of the NextEra projects.

NextEra has calculated a "whole station survival" estimate for each project, which (as defined by NextEra for the projects at issue here) is the percentage of those downstream-migrating salmon passing the project that survive such passage (and, conversely, the percentage that do not). Richter Dep. at 294:13-18 [82-5] (PageID# 3134); Bley Dep. at 192:17-193:20. Using a site-specific passage study conducted at Lockwood in 2011 and site-specific flow data gathered at the other three projects, the whole station survival figures take into account the frequency with which each downstream passage route (turbines, spillway, or bypass) is likely to be used. Bley Dep. at 192:17-193:20; HCP §4-8 at 9 [79-1] (PageID# 1331). When asked (with respect to Lockwood) whether NextEra believes assumptions used in determining whole station survival "capture actual operating conditions," Mr. Richter testified (after an objection), "It's close enough, I would say yes." Richter Dep. at 322:11-323:4 [82-5] (PageID# 3141-2). NextEra's whole station survival figures for smolts, based on the White Papers, are:

Project	**Percent survival**	**Percent killed**
Weston	92-94%	6-8%
Shawmut	90-91%	9-10%
Lockwood	90-93%	7-10%
Brunswick	93-95%	5-7%

BA at 65 (Table 8.2-4); HCP §4-8 at 34 (Table 4.4-1) [79-1] (PageID# 1356); Bley Dep. at 87:20-87:25; 88:24-89:1. The whole station survival estimates for salmon kelts range from a low of 73% (27% mortality) at Lockwood to a high of 89% (11% mortality) at Shawmut. HCP §4-8 at 34 (Table 4.4-1); BA at 70 (Table 8.2-10).

For each project, NextEra also calculated "primary" whole station smolt survival estimates, which calculate the combined mortality *and injury* rate of smolts passing each project:

Project	Percent uninjured	Percent injured or killed
Weston	83%	17%
Shawmut	82%	18%
Lockwood	85%	15%
Brunswick	91%	9%

HCP §§ 4-8 at 10 (Table 4.2-3) [79-1] (PageID#1332); Weston White Paper at 16-23 [78-4] (PageID# 1152-59); Shawmut White Paper at 17-23 [78-3] (PageID# 1023-29); Lockwood White Paper at 17-23 [78-2] (PageID# 897-903); Brunswick White Paper at 16-23 [78-1] (PageID# 797-804).

NextEra considers these "desktop" survival analyses to be "a well-accepted method for modeling the expected survival of migratory fishes at hydroelectric facilities." Richter Dep. at 215:25-216:4 [82-4] (PageID# 3113). NMFS agrees, and relies on such analyses so long as they evaluate delayed, and not simply immediate, mortality. NMFS, Atlantic Salmon Survival Estimates at Mainstem Hydroelectric Facilities in the Penobscot River, at 2 (Caldart Dec. Ex. 6) ("Desktop survival analyses have been used in numerous situations to evaluate the impacts of hydroelectric facilities[,] are based on the characteristics of the dam, the fish and the environment," and are a "well-accepted" methodology for such purpose).

3. <u>The four projects also kill smolts by increasing predation.</u>

NMFS informed NextEra that it believes NextEra's projects are likely causing salmon to be subject to increased incidences of predation, above what would occur naturally. Richter Dep. at 335:9-15 [82-5] (PageID# 3145). NextEra has determined that Atlantic salmon smolts are a food source for a number of aquatic, avian, and mammalian predators present in the Kennebec and Androscoggin Rivers. HCP §§ 4-8 at 18 [79-1] (PageID#1340); Simmons Dep. at 204:8-12. NextEra estimates, based on empirical studies conducted at other rivers, that 1% of migrating smolts are lost to predation in each of the tailraces immediately below the NextEra projects

(HCP §§ 4-8 at 19 [79-1] (PageID#1341)) and 1.6% are lost to predation in each of the impoundments above the dams (HCP §§ 4-8 at 9-20 [79-1] (PageID#1341-1342)). These predation figures *are not* included in NextEra's calculation of whole station survival for the projects. Bley Dep. at 78:3-6; Simmons Dep. at 204:13-206:10. Adding the 2.6% additional mortality due to predation yields the following mortality and injury levels:

Project	Percent killed	Percent injured or killed
Weston	8.6-10.6%	19.6%
Shawmut	11.6-12.6%	20.6%
Lockwood	9.6-12.5%	19.6%
Brunswick	7.6-10.6%	11.6%

4. Radio telemetry studies performed at the NextEra projects establish take.

In the springs of 2007, 2011, and 2012, Normandeau Associates, at NextEra's request, performed studies of Atlantic salmon smolts passing through one or more of the NextEra projects using radio telemetry technology. The mortality data in these site-specific, empirical studies were not considered in the Court's summary judgment ruling; they document actual takes at NextEra's projects.

In these studies, smolts were "tagged" with radio transmitters, released into the river above one or more projects, and tracked as they moved downstream and past the projects. Richter Dep. at 108:5-11, 16-19, 24-25 [82-4] (PageID#3086). When properly conducted, radio telemetry studies are well-accepted among fisheries biologists as a means of assessing fish passage routes, and also likely mortality from such passage, at hydroelectric projects. Declaration of Randy Bailey ("Bailey Dec.") ¶¶ 65. 68.[17] NextEra, too, believes that radio telemetry studies provide information regarding fish passage mortality at hydroelectric projects (but that they do not provide as much information on mortality as do mark-recapture studies, the

[17] Mr. Bailey's qualifications are set forth in ¶¶ 1-5, 7-9 of his declaration. Plaintiffs request that the Court rule Mr. Bailey is an expert in the subjects on which he is testifying. Fed. R. Evid. 702(a).

type of empirical studies on which NextEra based the injury and mortality estimates discussed above). Richter Dep. at 229:24-230:6 [82-4] (PageID# 3116-7)

The 2007 Study. The 2007 radio telemetry study was conducted only at Lockwood, and was conducted on several types of fish, including Atlantic salmon smolts and adults and American shad adults. Richter Dep. at 220:3-23 [82-4] (PageID#3114). Of the 37 smolts in the study that were determined to have passed through Lockwood's turbines, five became stationary shortly after passing the project, and were believed (in accordance with accepted practice) to have died as a result of passage.[18] This is an empirical, site-specific, immediate turbine mortality rate of 13.5%. Appendix B to 2007 Kennebec River Diadromous Fish Restoration Annual Reports: Evaluation of Atlantic Salmon Smolt Downstream Passage at the Lockwood Project ("2007 Downstream Smolt Passage at Lockwood") at 5 (§ 3.2.4, titled "Smolt Mortality") (Caldart Dec. Ex. 7). Overall, of the 64 smolts released above Lockwood in the study, six became stationary shortly after passing the project, and were thus assumed to have died as a result of passage, for a "whole station" immediate mortality rate of 9.4%. Id. Immediate morality was also experienced by other types of fish passing the project during the study.[19]

NextEra believes that, with the exception of the portion of the study dealing with adult

[18] It is commonly-accepted practice among fisheries biologists to conclude that a fish dropping out of the water column and becoming motionless shortly after project passage in a well-designed radio telemetry study has died as a result of such passage. Bailey Dec. ¶¶ 68, 72; Simmons Dep. at 65:18-66:19 (NextEra's consultant, fisheries biologist Richard Simmons, testified that fish killed by turbines usually drop to the bottom and remain motionless).

[19] For example, the immediate mortality rate for adult shad passing through Lockwood's Francis turbines in the study was 27%, and the immediate mortality rate for those passing through the project's Kaplan turbine was 30%. Richter Dep. at 242 [82-4] (PageID# 3120) (73% and 70% immediate survival, respectively). Similarly, the immediate mortality rate for salmon adults passing through the project's turbines (albeit from a small sample size) was 33.3%. Id. at 239:13-20; 240:22-24 [82-4] (PageID# 3119). Moreover, one of the adult salmon was found dead in the project's trash racks (which are used in an effort to keep debris out of the turbine intakes). Appendix D to 2007 Kennebec River Diadromous Fish Restoration Annual Reports: Evaluation of Atlantic Salmon Kelt Downstream Passage at the Lockwood Project ("2007 Downstream Kelt Passage at Lockwood"), Exhibit 3 to Declaration of Joseph J. Mann ("June 29th Mann Dec.") [No. 113-3] at 5, Section 113-3 (Page ID# 4457).

salmon (where the test fish were too small, which could *understate* mortality[20]), the results of this study are "scientifically defensible." Richter Dep. at 222:6-8 [82-4] (PageID# 3116). NextEra also reported to FERC that the smolt mortality findings in the study are "valid within the limits of the study," id. at 228 [82-4] (PageID# 3116), which was an acknowledgement that the study measured only immediate mortality, and was not designed to measure (and did not measure) any additional delayed mortality or injury, id. at 228-29 [82-4] (PageID# 3116).[21]

The 2011 Study. Normandeau conducted another radio telemetry study of Atlantic salmon smolts at Lockwood in late May and early June, 2011.[22] NextEra reviewed the protocol and results of the study, and believes them to be "scientifically defensible." Richter Dep. at 116:1-3 [82-4] (PageID#3088). The study, which was done after NextEra had installed a downstream bypass in the forebay and a boom meant to guide fish to that bypass, nonetheless showed that only 12 of the 64 smolts entering the Lockwood forebay (18.8%) passed the project via the bypass, while 52 (81.2%) passed via the turbines. Downstream Passage Effectiveness for the Passage of Atlantic Salmon Smolts at the Lockwood Project ("2011 Lockwood Passage Report") (Caldart Dec. Ex. 8) at 15, 47 (Table 17). Of the 52 smolts passing via the turbines, nine (17.3%) were undetected at the downstream monitoring station, id. at 47 (Table 17), which

[20] NextEra believes the portion of the study involving adult salmon is not representative of actual conditions on the Kennebec River because the hatchery adult salmon used in the study were only two-thirds the size of Atlantic salmon kelts found in that river. Id. at 222-23 [82-4] (PageID# 3115). Because they are larger, the incidence of blade strike – and thus mortality – is *higher* for real-world salmon adults passing through turbines than that shown by this study. Bailey Dec. ¶ 22 (turbine mortality increases with fish length).

[21] Although the 2007 study was performed prior to the listing of the Kennebec salmon as endangered, its results are nonetheless probative of passage mortality at the NextEra projects after the 2009 listing. Since the 2007 study, NextEra has installed a downstream fish bypass in the Lockwood forebay, and has utilized a guidance boom in conjunction with this bypass. Richter Dep. at 221:8-12 [82-4] (PageID# 3114). (The impact of these improvements was evaluated in the 2011 and 2012 studies discussed below.) However, the turbines presently in use at the project are the same as those evaluated in the 2007 study (and are similar to those used at the other three NextEra projects), and this study establishes, by NextEra's own acknowledgement, *that these turbines kill fish, including salmon smolts, immediately upon passage*. And the rates for *delayed* turbine mortality and injury, as indicated by NextEra's own estimates (as discussed above), can be expected to be substantially higher.

[22] NextEra's Richter testified that conducting the smolt study in June was proper because the river water temperature at that point was still at the right level for smolt migration. Richter Dep. at 114:17-115:22 [82-4] (PageID# 3088).

is a strong indication that they died before reaching the station, Bailey Dec. ¶¶ 75-76.[23]

The 2012 Study. A third radio telemetry study was performed by Normandeau for NextEra in May and June of 2012; this study tracked five groups of Atlantic salmon smolts past all three of NextEra's Kennebec dams, and six additional groups past Lockwood alone. Downstream Passage Effectiveness for the Passage of Atlantic Salmon Smolts at the Weston, Shawmut and Lockwood Projects ("2012 Study") (Caldart Dec. Ex. 9) at 1, Table 11. Prior to the study, NextEra had installed a guidance boom at Weston, id., and had taken measures designed to improve the guidance boom at Lockwood, id, at 3.[24] In a further effort to direct the smolts in the study away from the projects' turbines, NextEra increased the downstream bypass flow above normal operating practices at each of the three projects[25] and limited flow going to the more dangerous Francis turbines at Shawmut and Lockwood, id. at 13 (which was not done in the 2011 study). Of the smolts confirmed to have entered the project's forebay: 44.8% (39 of 87) passed through the turbines at Weston, 2012 Study at 47, Table 5; 17.2% (11 of 64) passed through the turbines at Shawmut, id. at 52, Table 10; and 34% (43 of 128) passed through the turbines at Lockwood, id. at 52, Table 11. The lowest rate of turbine passage was at the Shawmut Project, where a gate in the forebay was opened to create a temporary bypass flow 17

[23] The Normandeau study report lists "mortality or tag regurgitation" as the "presumed disposition" of six of these fish, and "unknown" for the other three. 2011 Lockwood Passage Report at 37 (Table 17). It is unlikely that tag regurgitation was a factor, however. Normandeau tested a group of the study fish for tag regurgitation propensity prior to conducting the study, and found that 75% of tag regurgitations (3 of 4) occurred within one hour of the tags being implanted; thus Normandeau held all of the smolts for at least four hours after tag insertion, and monitored them for signs of tag regurgitation, before using them in the study. Id. at 7; Bailey Dec. ¶¶ 74-76.

[24] Both the Lockwood and Weston booms have experienced operational problems. Richter Dep. at 83:18-21, 86-87, 147:7-10 [82-4] (PageID# 3080, 3081, 3096)

[25] In general, the higher the bypass flow, the more likely it is that fish will use the bypass, because fish in the forebay tend to follow flow. Bailey Dec. ¶ 30. During the 2012 study: the Weston bypass flow was maintained, variously, at 6%, 4%, and 2% of turbine flow, 2012 Study at 13, compared with 0.522% during normal operating practice, Bailey Dec. ¶ 30; the Shawmut bypass flow was held at 600 cubic feet per second ("cfs"), 2012 Study at 2, 5, compared with a normal operating bypass flow of 35-40 cfs, Richter Dep. at 550:15-551:10 [82-5] (PageID# 3198-99); and the Lockwood bypass flow was held at 6% of project turbine flow, 2012 Study at 13.

times the normal bypass flow. 2012 Study at 2, 5, 33; Bailey Dec. ¶ 38 (600 cfs vs. 35 cfs).[26]

Despite the change from normal operating conditions, 14% of smolts that passed through a project's turbine became stationary immediately after that project, and 7% of smolts that passed through a project's bypass became stationary immediately after that project. An additional 17.2% of smolts that passed through a project's turbine and 8.1% of smolts that passed through a project's bypass were not detected at the downstream monitor below that project.[27] Further, of the 120 smolts released above Weston, 111 passed Weston, but only 34 were confirmed to have survived passage to a point 1.75 miles below Lockwood.[28] NMFS considers fish that "stop moving prior to reaching the most downstream telemetry array or take longer than 24 hours to pass [a] project" to have failed to survive their passage attempt. 8/31/2012

[26] Plaintiffs note that NextEra concedes that the bypass ordinarily used at Shawmut is inadequate. Richter Dep. at 171:20-23, 172-73 (the bypass does not meet NMFS, U.S. Fish and Wildlife Services ("USFWS"), or MDMR design criteria for fish passage) [82-4] (PageID#3102); id. at 184:7-13 [82-4] (PageID# 3105) (this bypass sluice is the only measure taken by NextEra to keep salmon from passing through the turbines).

[27] For those smolts for whom routes of passage were definitively determined and that did not pass on spill, the number of smolts that were stationary or undetected are as follows (only Lockwood had more than 2 fish pass via spill, see Bailey Dec. ¶78):

Passage route	**# stationary immediately downstream of project**	**# of additional smolts not detected at the monitoring station downstream of project**
Weston Francis turbines	4 of 39 (10%)	10 of 39 (26%)
Weston bypass	1 of 48 (2%)	12 of 48 (25%)
Shawmut propeller turbines	2 of 11 (18%)	0 of 11
Shawmut bypass	3 of 53 (5.7%)	1 of 53 (1.9%)
Lockwood Kaplan turbines	5 of 21 (23.8%)	2 of 21 (9.5%)
Lockwood Francis turbines	2 of 22 (9.1%)	4 of 22 (18.2%)
Lockwood bypass	9 of 85 (10.6%)	2 of 85 (2.4%)

2012 Study at 14-25 and Tables 5-6, 8-15.

[28] 2012 Study at Tables 6, 12-15. The study report lists project-related mortality (including increased predation) or tag regurgitation as the likely cause of the stationary tags, and project-related mortality (including increased predation), loss of migratory drive, radio tag failure, low river flow, and natural predation as potential causes of the undetected tags. 2012 Study at 14-20, 27, 34 (Weston); 15-20, 33 (Shawmut); 15-25 (Lockwood); 35 (generally). All but tag failure/regurgitation and natural predation are project-related takes and, as discussed below, it is the opinion of Plaintiff's expert that the listed causes beyond project-related mortality were unlikely to have been significant factors in this study.

Biological Opinion issued for Penobscot River projects owned by Black Bear Hydropower Partners, LLC (Caldart Dec. Ex. 23) at 35.

B. Findings Made By The Federal And State Governments Provide Further Evidence That Smolts Are Killed And Injured By All Four Projects.

Numerous public reports, public records, and other findings made by the federal and state governments constitute further evidence that takes of Atlantic salmon are occurring at the NextEra projects. The Court has found most of these reports and records to be admissible. SJ Order at 4, n.3 [132] (PageID# 4925) (agreeing with Plaintiffs' admissibility analysis and finding the government statements admissible as public records or reports under Fed. R. Evid. 803(8)).[29]

In promulgating the final administrative decision to include the Kennebec and Androscoggin River populations of Atlantic salmon on the Endangered Species List, the Services made numerous findings that hydroelectric dams on the Kennebec and Androscoggin Rivers, and especially their turbines, kill and injure salmon:

- "[T]he greatest impediment to self-sustaining Atlantic salmon populations in Maine is obstructed fish passage and degraded habitat caused by dams." Endangered and threatened species; determination of endangered status for the Gulf of Maine Distinct Population Segment of Atlantic salmon; Final Rule (June 19, 2009) 74 Federal Register 29,344, 29,362 (Caldart Dec. Ex. 10).

- "Dams are known to typically injure or kill between 10 and 30 percent of all fish entrained at turbines." Id.

[29] Fed. R. Evid. 803(8)(A)(iii) provides that a "record or statement of a public office" is exempted from the rule against hearsay if it sets forth "factual findings from a legally authorized investigation." See Beech Aircraft Corp. v. Rainey, 488 U.S. 153, 162 (1988) (factually-based opinions by agency are admissible); Lubanski v. Coleco Indus., Inc., 929 F.2d 42, 45 (1st Cir. 1991) (allowable statements "broadly" include factually-based opinions); City of Bangor v. Citizens Commc'n Co., 339 F. Supp. 2d 135, 138 (D. Me. 2004) (party opposing admission has burden to show that factually-based statement in public record is "untrustworth[y]"). Here, both the Services and MDMR have the legal authority – indeed, a legal mandate – to protect Atlantic salmon. The exemption extends to statements made in letters, Sabel v. Mead Johnson & Co., 737 F. Supp. 135, 142 (D. Mass. 1990), and in email messages, Lester v. Natsios, 290 F. Supp. 2d 11, 26 (D.D.C. 2003), and it applies to a government official's analysis of studies conducted by third parties, Sabel, 737 F. Supp. 143-44. Once the requirements of Fed. R. Evid. 803(8)(A)(iii) are satisfied, "the burden of showing untrustworthiness" shifts to the "party *opposing* the introduction of purported hearsay" under Fed. R. Evid. 803(8)(B). Robbins v. Whelan, 653 F.2d 47, 51 (1st Cir. 1981) (emphasis added). Additionally, a statement by a single qualified staff member has been held to be a statement "by" an agency. Pelletier v. Magnuson, 195 F. Supp. 2d 214, 218 (D. Me. 2002).

- "[D]ams remain a direct and significant threat to Atlantic salmon." Id.
- "Fish passage inefficiency [at dams] also leads to direct mortality of Atlantic salmon, including both smolts and adults." Id. at 29,367.
- "[S]ubstantial mortality and migration delays occur [at dams] during downstream passage through…turbine entrainment." Id.[30]

Two months later, on August 13, 2009, NMFS and USFWS (collectively, the "Services") sent a letter to MDMR, with a copy to Mr. Richter of NextEra (which he received and read), regarding "what activities the [hydroelectric] industry should propose to be covered under ESA section 7 consultations and/or section 10 habitat conservation plans." 8/13/2009 letter from NMFS' Mary Colligan and USFWS' Lori H. Nordstrom to MDMR's Patrick Keliher ("8/13/09 Colligan Letter"), May 25th Mann Dec. Ex. 8 [No. 96-8] (PageID# 4075-7); Richter Dep. at 202:22-204:5 [82-4] (PageID# 3110). After discussing the ways "[d]ams directly and substantially reduce survival rates of Atlantic salmon," the Services stated: "if a [hydro project] cannot demonstrate 100% of upstream (or downstream) migrants can move safely and without delay past a dam, then take coverage under the ESA will be needed." 8/13/09 Colligan Letter at 2 [96-8] (PageID# 4076). Thereafter, agency personnel from NMFS, USFWS, and MDMR who have evaluated the NextEra dams told NextEra that all four projects are killing and injuring downstream-migrating Atlantic salmon smolts. Richter Dep. at 335:21-336:1, 338:17-339:5 [82-5] (PageID# 3145-46).

The agencies have also made specific findings of mortality and injury to salmon smolts based on the results of the three radio telemetry studies discussed above. After reviewing NextEra's discussion of the 2007 study at Lockwood, MDMR notified NextEra as follows:

[30] NMFS also stated, in its decision to list the Kennebec and Androscoggin Rivers' salmon population as endangered, "dams remain a direct and significant threat to Atlantic salmon," and "[d]ams are among the leading causes of both historical declines and contemporary low abundance of the GOM DPS of Atlantic salmon." 74 Fed. Reg. at 29,362 and 29,366.

> MDMR believes that fish passage via sluiceways and/or controlled spills is the preferred method for downstream fish passage, and that fish passage through turbines should be avoided. *FPL Energy's studies have clearly shown that* adult alewife, adult American shad, adult American eel, *Atlantic salmon kelts, and Atlantic salmon smolts pass through the Lockwood project turbines, and sustain significant immediate mortality*.

6/4/08 transmittal letter and response to agency comments on the 2007 Kennebec River Diadromous Fish Restoration Annual Reports to Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission (Caldart Dec. Ex. 11) (emphasis added). MDMR also noted that the 2007 study "did not quantify *delayed* mortality." Id. (noting that a 72-hour holding period is customary for measuring delayed mortality).

Based on the results of the 2011 radio telemetry study at Lockwood, Jeff Murphy of NMFS concluded, and informed NextEra, that:

> [T]he 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.

11/30/11 e-mail from Jeff Murphy to Wendy Bley, forwarded to Robert Richter 12/6/2011 (Caldart Dec. Ex. 12) at 1 (emphasis added).[31]

Mr. Murphy also reviewed the results of the 2012 study. He found that the study showed "extremely low survival" of smolts attempting to pass from above Weston to downstream of Lockwood. 10/26/12 email from Murphy to Richter (Caldart Dec. Ex. 13**)** at ¶ 9. Mr. Murphy found that "[t]his study in conjunction with previous studies at the Lockwood Project and Hydro-Kennebec Project demonstrate that partial-depth floating flow booms [in use at Lockwood and Weston to divert fish to the bypasses] are not consistently effective in preventing Atlantic salmon

[31] Similarly, Norm Dubé, a fisheries biologist at MDMR, informed NextEra that MDMR "is disappointed with the poor utilization of downstream bypass facility," and that "NextEra needs to consider measures to ensure safe, timely and effective downstream passage of smolts in light of poor guidance and bypass utilization observed in 2011." 12/1/11 E-mail from Norm Dubé to Robert Richter, Ex. 6 to Reply Declaration of Joseph J. Mann in Support of Plaintiffs' Motion for Partial Summary Judgment ("July 20th Mann Dec.") [No. 124-6] at 1-2 (PageID# 4786-87).

smolts from turbine entrainment." Id. at ¶ 9; see also id. at ¶ 8 ("We disagree that the downstream bypasses at the Lockwood or Weston [projects] are effective").

Similarly, Steven Shepard of USFWS reviewed the 2012 Study and wrote to Mr. Richter: "Neither [the] Weston nor the Lockwood booms were successful. The bypass collection efficiency was poor in both cases." 11/6/12 letter from Steven Shepard to Robert Richter (Caldart Dec. Ex. 14) at 1. Mr. Shepard also noted that smolts found to drop out of the water column and become stationary in the area immediately downstream of a project are "likely to be acute turbine passage mortalities." Id. at 3; see also id. at 1 ("There was little or no spill at each [hydro] station during most of the study and large volumes of water were passing through the turbines.")

MDMR also concluded that the Weston and Lockwood bypasses were not effective. 10/31/12 email from Oliver Cox, MDMR, to Robert Richter, *et al.* (Caldart Dec. Ex. 15). And, despite the dramatically increased bypass flow employed at Shawmut for this study, MDMR informed NextEra that bypass effectiveness at Shawmut was still not sufficient to prevent significant mortality and injury. Id. ("We agree that Shawmut has better use of the bypass in comparison to the other projects; however, it is still insufficient with bypass use as low as 76% or less for three out of the five releases.")

D. Testimony Of Plaintiffs' Expert Randy Bailey Proves Salmon Are Killed And Injured By All Four Projects.

The testimony of Plaintiffs' expert Randy Bailey establishes that smolts are killed and injured at all four projects. Mr. Bailey's opinion is based on his inspection and evaluation of these facilities, on information about the specific features of each facility, on empirical studies conducted at these facilities, on empirical studies conducted at similar facilities, and on his assessment of the Franke computer model results. As set forth in Mr. Bailey's declaration:

1. There can be no serious question that, to a scientific certainty, each of the projects has killed and injured (wounded) migrating Atlantic salmon in each migrating season since the salmon in the Kennebec and Androscoggin Rivers were listed as endangered in 2009, and that each of these projects will kill and injure (wound) downstream-migrating Atlantic salmon smolts during the spring 2013 migration season. E.g., Bailey Dec. ¶¶ 16-17, 111.

2. It is well-known that unless hydroelectric projects are equipped with highly efficient bypasses that allow close to 100% of fish to pass safely – without striking hard surfaces, being subjected to excessive turbulence, being entrained through the turbines, or going over the spillway – these projects kill and injure some percentage of downstream-migrating fish. Id. ¶ 18.

3. Although passage via the projects' spillways and bypasses also harm salmon,[32] the single largest source of injury and mortality to salmon smolts and kelts at the NextEra projects are the turbines, which kill and wound fish because their spinning blades (a) strike the fish and (b) impinge them between the outside edge of a blade and the wall surrounding the turbine. Id. at ¶¶ 20-22, 28, 31 (Weston); 35-36, 38 (Shawmut); 44, 51 (Lockwood); 57, 61 (Brunswick).

4. The bypasses as presently constructed and operated at the Weston, Shawmut, Lockwood, and Brunswick projects are not effective at keeping a significant number of smolts from becoming entrained in the projects' turbines. Id. at ¶¶ 29-31 (Weston); 37-39 (Shawmut); 45-52 (Lockwood); 58-61 (Brunswick).

5. NextEra's estimates of the mortality and injury caused by the turbines at these projects underestimate the actual turbine mortality and injury. Id. at ¶¶ 92, 98-100, 104-105, 107-110.

[32] Some smolts passing via the spillways at the projects are killed and wounded by striking project infrastructure, striking the sill at the bottom of the dam on the downstream side, or by turbulence created by the amount of flow and the configuration of the downstream spillway. Bailey Dec. ¶ 23. Some smolts passing the projects via the bypass are killed when they hit sharp objects or walls in the bypass, become trapped in the bypass, or when they become disoriented because of turbulence. Bailey Dec. ¶ 24.

All of the estimates assume maximum smolt lengths shorter than those found in these rivers, thus understating the harm caused by turbines to the largest smolts – which are also those that would otherwise be most likely to successfully reach the ocean. Id. at ¶¶ 100, 108-109, 22. The Franke model estimates use inappropriate correlation factors that artificially lower the mortality estimates for most of these turbines. Id. at ¶¶ 104-105,107.

6. The 2007, 2011, and 2012 radio telemetry studies demonstrate that smolts are in fact killed in significant numbers when attempting to pass downstream of the Lockwood, Shawmut, and Weston projects. Id. at ¶¶ 71-72, 75-76, 90-91. The cumulative smolt loss occasioned by downstream passage at the Weston, Shawmut, Hydro Kennebec, and Lockwood projects, as reflected in the 2012 study, is *over 50%*.[33] Id. at ¶ 81 (38.7% of the smolts passing Weston arrived above Lockwood). Given the reliability of the radio tags used in that study, the measures taken during the study to prevent tag regurgitation, the low level of natural predation in the Kennebec River, and the migratory instincts of the smolts at the time of the study, it is unlikely that a significant percentage of the smolt losses in the study were due to tag failure, tag regurgitation, natural predation, loss of migratory drive, or low river flow; the most likely cause is immediate or delayed mortality caused by passage at one or more projects. Id. at ¶¶ 83-90.

7. Each of these projects also kills smolts by elevating the incidence of predation by aquatic and avian predators both upstream and downstream of the projects. Id. at ¶¶ 19, 32, 40, 53, 62-63. Passage through turbines contributes to this by disorienting the smolts, thus making them more susceptible to opportunistic predation. Id. ¶ 20.

IV. IRREPARABLE HARM WILL OCCUR ABSENT AN INJUNCTION.

"Environmental injury, by its nature, can seldom be adequately remedied by money

[33] Plaintiffs' expert Dr. Jeffery Hutchings found significant adverse impacts to species recovery even at far lower assumed cumulative mortality rates. See pp. 25-27 below.

damages and is often permanent or at least of long duration, *i.e.*, irreparable." Amoco Prod. Co., v. Vill. of Gambell, 480 U.S. 531, 544 (1987).[34]

Plaintiffs in an ESA take case need not prove that the take is a threat to the entire species to establish irreparable harm, and the death of a single endangered animal may warrant an injunction. SJ Order at 23.[35] As this Court has noted, the First Circuit has endorsed a "fact-sensitive" analysis. Id. In Animal Welfare Institute v. Martin, 623 F.3d 19 (1st Cir. 2010), the First Circuit endorsed this Court's decision to grant an injunction where an endangered lynx had been killed in a "Conibear" type of trap, noting that '[e]ven through [the plaintiff] had not established that the death of one threatens the species as a whole," the plaintiff had shown that "it is predictable" that if the use of that type of trap were not restricted "other lynx will suffer irreparable harm." Id. at 23; see also id. at 27 (injunctive relief was appropriate because "[the] Conibear trap…*did* pose a mortal risk to at least some Canada lynx"). However, the First Circuit also upheld this Court's decision *not* to issue an injunction restricting use of another type of trap, a foothold trap, since the evidence showed that this trap, while restraining a captured lynx for a time, did not cause death or meaningful injury. Id. at 27.

Here, the evidence clearly shows that it is "predictable" that endangered Atlantic salmon smolts will be killed and injured this spring both at a high rate and in large absolute numbers if the NextEra projects are allowed to maintain their normal operating regimens during the upcoming smolt migration season.

In its Biological Opinion for the Hydro Kennebec project, NMFS has required Hydro

[34] Nor can aesthetic harm be compensated by the payment of money damages. E.g., Fund for Animals v. Clark, 27 F. Supp. 2d 8, 14 (D.D.C. 1998) (aesthetic harm caused by buffalo hunt not compensable).

[35] Thus, irreparable harm is a lower threshold than the "jeopardy" standard employed by NMFS in evaluating an interim species protection plan. See Hydro-Kennebec BiOp at 60 (jeopardy defined as "an action that reasonably would be expected, directly or indirectly, to reduce *appreciably* the likelihood of *both the survival and recovery* of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species") (emphasis added).

Kennebec to immediately re-initiate ESA consultation if mortality studies demonstrate whole station survival is lower than 92% at that project. H-K BiOp at 65, 68. Here, the rates NextEra itself estimates for the incidence of take at each of its four projects, listed at p. 13 above, and the actual survival rates found during the 2012 passage study, are significantly worse than 92% .

As set forth in the accompanying declaration of Plaintiffs' expert Dr. Jeffrey Hutchings, approximately 20,000 smolts can be expected to migrate down the Kennebec River this spring, and nearly 1,000 down the Androscoggin River. Declaration of Jeffrey Hutchings ("Hutchings Dec.") ¶¶ 16-23 and Table 2.[36] Based on NextEra's own mortality estimates (which likely understate actual mortality rates), operation of the turbines at the NextEra projects during this migration will kill nearly 3,000 of these smolts in the two rivers. Hutchings Dec. ¶¶ 24-27 and Table 3 (other sources of dam-induced mortality at NextEra's dams and at two other dams will raise the overall death toll to more than 6,000 – over 30% of the entire smolt migration).

Takes of this magnitude will have adverse impacts on the species as a whole. NMFS is unequivocal that the projects' takes are causing species-wide harm. In November 2012, in a letter to Mr. Richter, Jeff Murphy of NMFS stated that the "extremely low survival" experienced by smolts in their "passage from the Weston Project to downstream of the Lockwood Project" in the 2012 radio telemetry study "*is certain to preclude recovery of the Merrymeeting Bay Salmon Habitat Recovery Unit*." 10/26/12 Murphy email to Richter at 1 (emphasis added). Thus, he added, "we recommend that NextEra implement *complete turbine shutdowns* in the spring and fall…or installation of state-of-the-art passage facilities." Id. (emphasis added).

Further, as Mr. Richter testified, NextEra itself acknowledges that the recovery of the species is dependent on the survival of downstream migrating smolts:

[36] Dr. Hutchings' qualifications are set forth in ¶¶ 1-3 of his declaration. Plaintiffs request that the Court rule Dr. Hutchings is an expert in the subjects on which he is testifying. Fed. R. Evid. 702(a).

> Q. [T]he more salmon smolts that survive the downstream migration in the Kennebec and Androscoggin River[s], the more [salmon] are likely to return to the Kennebec and Androscoggin River?
> A. Yes.
> Q. And the more salmon return to the Androscoggin and Kennebec Rivers, the greater the likelihood of the recovery of the Gulf of Maine DPS?
> A. Yes.
> …
> Q. … NextEra does share that view?
> A. Yes.

Richter Dep. at 336:22-338:16 (PageID#3145-47).

Dr. Hutchings provides a detailed explanation of why the spring 2013 class of smolts is particularly important to species recovery and why the loss of thousands of these smolts – and especially the loss of any wild-origin smolts – would adversely affect the survival of the species. Recovery of salmon populations in both the Kennebec and Androscoggin Rivers is essential to survival of the Merrymeeting Bay SHRU and of the GOM DPS as a whole. Hutchings Dec. ¶¶ 6-12, 28-29. Although hatchery stocking can provide an essential short-term "kick-start" to recovery efforts when population size is very low, only wild-origin fish – those resulting from returning, wild-spawning adults – exhibit survival and reproduction rates sufficient, *if* dam-induced mortality is reduced, to bring the species back. Id. at ¶¶ 13-15.

The wild-origin smolts that will come down the rivers in 2013 represent the product of the wild-origin adult spawners that returned to the Kennebec and Androscoggin Rivers in 2009, 2010, and 2011, a group which was by far the largest in decades. Id. at ¶¶ 22, 31. As a result, the genetic variability of their offspring should also be far greater than that of previous runs. Id. at ¶ 32. Because of the fundamental importance to recovery of having as genetically variable a smolt run as possible, the 2013 run stands out as the most important in decades. Id. at ¶¶ 30, 33. In other words, this spring's wild-origin smolts are irreplaceable; the loss of the genetic material they carry would be a setback to recovery that cannot be regained. Id. at ¶¶ 33-34. In addition,

killing nearly a third of all migrating smolts on the Kennebec this year would wipe out much of the short-term "kick-start" benefit of Maine's hatchery stocking program. Id. at ¶¶ 35-36.

Although very few adults returned to the two rivers in 2012 (five to the Kennebec and one to the Androscoggin, "Salmon Trap Count Statistics: Adult Salmon Returning to Maine, by River" (MDMR, 2012) (Caldart Dec. Ex. 16)), the loss of any downstream-migrating kelts to turbine mortality in 2013 would be significant. Previously spawned fish likely represent genotypes that are well-adapted to current local conditions, given that they survived to spawn; if they are able to make it back to the sea, they may return again to lay an average of 10,000 badly needed, potentially well-adapted, wild-origin eggs. Hutchings Dec. ¶ 37.

While the precise timing of smolt migration depends on river conditions such as water temperature, the spring smolt migrations in the Kennebec and Androscoggin Rivers typically begin by April 15 and extend as late as June 5. Bailey Dec. ¶¶ 113-115; see also Richter Dep. at 40:17-22, 41:17-25 **(**PageID# 3069, 3069) (peak migration is in May, but migration may also occur in April and June), and Draft ISPP (Caldart Dec. Ex. 17) at 17-22 (FPLE0037080-85) (NextEra proposes to begin measures "to enhance downstream passage" for smolt and kelt migrations by April 1 or April 15 each year). As Mr. Bailey notes, protection of smolts migrating in the earliest and latest portions of the migration period is especially important, as these smolts are more likely to have come from relatively warmer and relatively cooler tributaries, respectively, and they thus contribute essential genetic and geographic diversity to the population if they survive the migration. Bailey Dec. ¶ 116.

Because turbines are both the largest source of smolt mortality at the NextEra projects and the only source that can be simply and quickly eliminated (*i.e.*, by shutting them off), this Court can significantly minimize illegal takes at the projects this spring by ordering NextEra to

shut down its turbines during this migration season. For any periods that turbines need to be run this spring to conduct government-ordered mortality studies, this Court can minimize turbine mortality during such periods by ordering NextEra to increase flow to its bypass facilities and to open its spill gates to the maximum levels described in the 2012 passage study.

Turbine mortality cannot be eliminated this spring absent a shutdown. As shown above, NextEra's current fish bypass structures cannot keep significant numbers of smolts from being entrained in the turbines. NMFS, USFWS, and MDMR all agree that, even with recent upgrades, the bypasses at Weston and Lockwood are not sufficiently effective. E.g. 10/26/12 Murphy email to Richter at 1 ("Neither of these facilities [is] effective at passing Atlantic salmon smolts.").[37] NextEra acknowledges that bypass flows at Shawmut and Brunswick are not sufficient to meet minimum passage standards (Richter Dep. at 171:20-23, 172-73; notes 25 and 26 *supra* (Shawmut); Richter Dep. 563:2-22 (Brunswick)), yet has not committed to providing additional bypass flow at Shawmut at the levels it did for the 2012 passage study (BA at 43, committing only to "open" the gate, to allow unspecified flow, as "conditions allow"), though MDMR found even those increased flows to be insufficient (*supra* at p. 21).

Nor is passage by spill sufficient to keep smolts out of the turbines. Smolts can go over the top of the dam or through spill gates only when the river flow is high enough; under "no-spill" conditions, such as during much of the 2012 study, all river flow goes through the turbines and any bypass. Bley Dep. at 68:13-24. The duration of no-spill conditions at the projects during smolt migration varies from year to year, but is typically significant. On average,

[37] In addition, the boom-and-curtain systems at Lockwood and Weston have often been in a state of disrepair, allowing salmon to swim straight into the turbines. Richter Dep. at 62:13-63: 16 (describing malfunctions at Lockwood), 147:4-10 (Weston boom installed in 2011, has not worked as intended) [82-4] (PageID# 3075-6, 3096); SJ Motion at 7 [132] (PageID# 4928); SJ Motion at 7 [132] (PageID# 4928) (Lockwood's "guidance booms have not always functioned properly, requiring repairs and replacement at times"). NextEra does not shut off its turbines when the booms malfunction or are otherwise unusable. Richter Dep. at 66:13-67:12 [82-4] (PageID# 3075-6).

according to NextEra, the projects are in a no-spill condition for the following approximate percentages of time during May: Weston – 25%, Shawmut – 30-40%, Lockwood – 22%, Brunswick – 43%. Bley Dep. 187:10-23; 184:16-185:24, 186:10-18; 187:24-188:12; 190:9-16. Moreover, even under spill conditions, smolts entering the turbine forebays at Shawmut and Lockwood cannot access the spillway, Bailey Dec. at ¶¶ 34, 43; Richter Dep. at 51:12-18 [82-4] (PageID# 3072).

Thus, the only way to keep smolts and kelts from being killed and injured by turbines at these projects this spring, and to avoid the irreparable harm that such turbine mortality will cause, is to shut down the turbines during the smolt migration. See Bley Dep. at 130:1-15, 19-24 (NextEra can close the gates situated in front of the turbines). As Mr. Bailey explains, the turbine closure period should begin by April 15 and continue through June 5, or should be tied to real-time data on smolt movement or water temperatures reliably gathered from each river. Bailey Dec. ¶¶ 112-17.

NMFS may require NextEra to conduct turbine mortality studies during this spring's migration, which would require turbine operation at each project during some part of the study period. NMFS stated in its comments on NextEra's draft BA that NextEra will need ESA Section 10 permits (allowing incidental take of the test fish, which are hatchery smolts, for purposes of scientific research) for the studies because no ITS will yet have been issued – thus reinforcing the point that turbines need to be shut off, and all endangered smolts and kelts protected, except for the hours the turbines are actually needed for the required studies. Draft BA, version with NMFS comments (Caldart Dec. Ex. 24) at 9, 10, 16 and 70. Moreover, since NextEra has found that increasing flow rates to its fish bypasses and spill gates can divert more smolts from the turbines, this Court's injunctive order should require that such higher levels of

flow be maintained at each project whenever its turbines are running during a mortality study. See Bailey Dec. ¶¶ 30-31, 38, 48, 51 (increasing bypass flows will reduce turbine mortality).

NextEra may argue that the anticipated issuance of an ITS weighs against a finding of irreparable harm. But there is no certainty as to the contents of any forthcoming ITS, the timing of its issuance (particularly given the impacts of "sequestration" on the resources of both NMFS and FERC), or whether an ITS will in fact be issued for each dam (NMFS had to be sued before listing the entire GOM DPS as endangered; Amended Complaint ¶ 21 [ECF No. 27]). Further, similar to the situation in Animal Welfare Institute v. Martin, 588 F. Supp.2d 70, 110 (D. Me. 2008), the 2012 radio telemetry study described at pp. 16-17 above provides "fresh dramatic evidence" that smolts will in fact be harmed during this spring's migration despite recent upgrades to fish bypass structures and operations; no ITS will be issued in time to protect them; and this Court can issue a limited injunction to require immediate compliance with the ESA.

V. THE BALANCE OF RELEVANT IMPOSITIONS FAVORS PLAINTIFFS.

The First Circuit

> has incorporated Congress's prioritization of listed species' interests into the third and fourth prongs of the [preliminary injunction] analysis, modifying those factors [balancing of hardships and effect on the public interest] where appropriate to 'tip[ ] heavily in favor of protected species.'

AWI v. Martin, 623 F.3d at 27-28 (quoting Strahan v. Coxe, 127 F.3d 155, 160 (1st Cir. 1997), and citing Tennessee Valley Auth. v. Hill, 437 U.S. 153, 194 (1978) for the proposition that "Congress limited courts' discretion to balance the equities in an ESA case"). And as this Court stated in the National Environment Policy Act context, "unless defendants assert that an injunction will cause an imminent harm to national defense, … the impending bankruptcy of an entire industry, … or the bankruptcy of innocent third parties, … the balance of harms usually favors the issuance of an injunction to protect the environment." Sierra Club v. Marsh, 714 F.

Supp. 539, 592 (D. Me. 1989) (internal citations omitted).

Here, a shutdown of the NextEra turbines would prevent the death or injury of thousands of Atlantic salmon, thus helping to preserve and recover Maine's population of this iconic anadromous fish, which is recognized as a "national treasure." USFWS, "Let's Talk About Salmon Development," available at www.fws.gov/northeast/greenlake/lifespan.html ("The Atlantic Salmon is truly a national treasure.").

While the resultant loss of generating capacity would depress NextEra's revenues over this short time period, it must be noted that NextEra has enjoyed four years of uninterrupted generating revenues from these projects by operating their turbines at the expense of the endangered salmon since the 2009 listing. Further, there is no real question about the capacity of the NextEra companies or their new corporate parents to absorb this cost;[38] in fact, NextEra itself has offered turbine shutdowns during smolt migrations as a means of protecting the species at all four projects. Richter Dep. at 548:11-25 [82-5] (PageID# 3198).

Moreover, the reason NextEra is still in the position of illegally taking salmon is because it has not been serious about obtaining legal authorization for its operations. In its draft HCP, for example, NextEra knowingly proposed a "performance standard" for the four projects that was *not* designed to achieve NMFS's recovery goals. Bley Dep. at 50:2-7, 56:5-9; see Bley Dep. at 121:7-15 (under NextEra's proposed performance standard, the projects could kill *all migrating smolts* and still be in compliance with the standard). Rather, it was merely "a proposal to be put forth" "for discussion and comment" that was not based on any "specific criteria." Bley Dep. at 50:19-51:11. In other words, it was a negotiating tactic rather than a serious proposal, which had the effect (and perhaps the goal) of delaying, rather than achieving, compliance. NextEra

[38] The announced purchase price of NextEra's Maine hydropower assets is $760 million. "NextEra Energy sells hydropower assets to Brookfield Renewable Energy Partners," (Electric Light & Power/POWERGRID International, March 1, 2013) (Caldart Dec. Ex. 18).

brought this situation on itself (and the dams' new owners were fully aware of the absence of ESA authorization prior to purchase).

VI. AN INJUNCTION WOULD SERVE THE PUBLIC INTEREST.

As noted, the "public interest" factor also '''tip[s] heavily in favor of protected species.'" AWI v. Martin, 623 F.3d at 27; United States v. Town of Plymouth, 6 F.Supp. 2d 81, 89 (D. Mass. 1998) (endangered species deserve "the highest of priorities"). See generally Conservation Law Found. v. Watt, 560 F. Supp. 561, 583 (D. Mass.) ("It is plain that the public interest calls upon the courts to require strict compliance with environmental statutes."), aff'd, 716 F.2d 946 (1st Cir. 1983). In addition, "the public has an interest in the enforcement of a federal statute." CoxCom, Inc. v. Chaffee, 536 F.3d 101, 112 (1st Cir. 2008). Further, "[t]he district court has greater power to fashion equitable relief in defense of the public interest than it has when only private interests are involved." People of State of Cal. ex. rel. Van de Kamp v. the Tahoe Reg'l Planning Agency, 766 F.2d 1319, 1324 (9th Cir. 1985) (citing Virginian Ry. Co. v. Sys. Fed. No. 40, 300 U.S. 515, 552 (1973)).

Here, the public interest in a renewed and stable Atlantic salmon population is undeniable, and is underscored by the strong governmental interest in the protection of endangered species. Conversely, as is set forth in the accompanying declaration of Plaintiffs' expert Maxmilian Chang ("Chang Dec."), the resultant loss of electricity from the requested turbine shutdown would have no appreciable effect on either the local or regional energy "grid." Chang Dec. ¶¶ 4, 12-14 (the system's *excess* capacity alone, above even the peak demand that does not occur until after the spring, far outstrips the four projects' total generating capacity).[39]

Plaintiffs anticipate that NextEra may argue an injunction would not serve the public

[39] Mr. Chang's qualifications are set forth in ¶¶ 1-2 of his declaration. Plaintiffs request that the Court rule Mr. Chang is an expert in the subjects on which he is testifying. Fed. R. Evid. 702(a).

interest because an ITS will be issued later, covering future takes at the projects. But this is just a backdoor request for a stay, which this Court already denied. Order Affirming the Recommended Decision of the Magistrate [ECF No. 39]. Any ITS for these projects will issue only after this spring's smolt migration, and will do nothing to prevent the imminent illegal take of these endangered animals. Indeed, last October, NMFS, as the agency that would issue any ITS for these projects, clearly expressed the federal interest in the granting of the requested injunction by urging NextEra to shut down its turbines to protect migrating salmon. 10/26/12 Murphy email to Richter at 1.

Finally, given that Plaintiffs' preliminary injunction request arises out of the pressing need to protect a vital public interest, Plaintiffs seek a waiver of posting security in the event a preliminary injunction is issued. The First Circuit has held that posting of a bond pursuant to Fed. R. Civ. P. 65(c) is not a jurisdictional prerequisite to the validity of a preliminary injunction. Aoude v. Mobil Oil Corp., 862 F.2d 890, 896 (1st Cir. 1988); Ligotti v. Garofalo, 562 F. Supp.2d 204, 227 (D. N.H. 2008). Courts commonly do not order security "where the vindication of 'important federal rights' is at issue." Delaware Valley Fish Co. v. Fish and Wildlife Serv., 2009 U.S. Dist. Court LEXIS 51089 (D. Me. June 12, 2009) (quoting Crowley v. Local No. 82, Furniture & Piano Moving, 679 F.2d 978, 999-1000 (1st Cir. 1982), rev'd on other grounds, 467 U.S. 526 (1984)); Pharm. Soc'y of the State of N.Y. v. N.Y. State Dep't of Soc. Serv., 50 F.3d 1168, 1174-1175 (2d Cir. 1995); Long Term Care Pharm. Alliance ["LTCPA"] v. Ferguson, 260 F. Supp. 2d 282, 295 (D. Mass. 2003), vacated on other grounds, 362 F.3d 50 (1st Cir. 2004); Dartmouth-Hitchcock Clinic v. Toumpas, 2012 U.S. Dist. Lexis 27620 (D. N.H. March 2, 2012). This is called the "public interest" exception to Rule 65(c). Pharm Soc'y, 50 F.3d at 1174-1175; LTCPA, 260 F. Supp. 2d at 295; Greenpeace v. Waste Tech. Indus., 1993 U.S. Dist. LEXIS 4960

(N.D. Ohio January 21, 1993). Enforcement of "comprehensive federal health and welfare statutes" qualifies for the public interest exception. Crowley, 679 F.2d at 1000; Dartmouth, 2012 U.S. Dist. LEXIS at *5. Citizen enforcement of federal environmental laws in particular falls under the public interest exception to Rule 65. Or. State Pub. Interest Research Group v. Pac. Coast Seafoods Co., 374 F. Supp. 2d 902, 908 (D. Ore. 2005) (Clean Water Act citizen suit); Greenpeace, 1993 U.S. Dist. LEXIS 4960 at *12-13 (Resource Conservation and Recovery Act citizen suit); see Boston Waterfront Residents Ass'n v. Romney, 343 F. Supp. 89, 91 (D. Mass. 1972) (National Environmental Policy Act suit).[40]

VII. TRANSFER OF OWNERSHIP OF THE NEXTERA DAMS DOES NOT AFFECT THE MERITS OF THIS MOTION.

On March 1, 2013, Brookfield Power US Holding America Co. purchased stock in the corporate parent of Defendant FPL Energy Maine Hydro, LLC, which includes a 50% interest in Defendant Merimil Limited Partnership. Joint Status Report [ECF No. 135]. This sale does not affect the merits of Plaintiffs' motion for a preliminary injunction.

First, Defendants FPL Energy Maine Hydro LLP and the Merimil Limited Partnership continue to exist and to have an ownership, licensee, and/or operational role after the sale. Id. Second, an injunction against the NextEra Defendants will bind all successors in interest and assigns. See, e.g., Natural Res. Def. Council, Inc. v. Texaco Ref. & Mktg., Inc., 2 F.3d 493, 506 (3d Cir. 1993). Third, any addition or substitution of new parties, if necessary, can be handled in accordance with Fed. R. Civ. P. 25(c) ("If an interest is transferred, the action may be continued … against the original party unless the court, on motion, orders the transferee to be substituted in the action or joined with the original party."). See Texaco Ref. & Marketing, 2 F.3d at 506

[40] Moreover, a security requirement would be a significant hardship for each of the Plaintiffs, which are small non-profit organizations, and for that reason, too, it should not be imposed. Crowley, 679 F.2d at 1000. See Declarations of Ed Friedman (FOMB) and Emily Figdor (Environment Maine).

("'the most significant feature of Rule 25(c) is that it does not require that anything be done after an interest has been transferred,'" citing 7C C. Wright, A. Miller & M. Kane, Federal Practice and Procedure § 1958, at 555 (2d ed. 1986)).

CONCLUSION

For the reasons set forth above, the Plaintiffs respectfully request that the Court grant their motion for a preliminary injunction.

Dated: March 14, 2013

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CERTIFICATE OF SERVICE

I hereby certify that on the 14th day of March 2013, I electronically filed the above *PLAINTIFFS' MOTION FOR A PRELIMINARY INJUNCTION AND INCORPORATED MEMORANDUM OF LAW* on behalf of the above-named Plaintiffs, with the Clerk of Court, using the CM/ECF system, which will send notification of such filings to all other counsel of record.

/s/ Rachel Gore Freed
Rachel Gore Freed