

UNITED STATES DISTRICT COURT
DISTRICT OF MAINE

ATLANTIC SALMON)
FEDERATION U.S., et al.,)
)
Plaintiffs,)
)
v.) 1:21-cv-00257-JDL
)
MERIMIL LIMITED)
PARTNERSHIP, et al.,)
)
Defendants.)

ORDER ON PLAINTIFFS’ MOTION FOR A PRELIMINARY INJUNCTION

This citizen suit brought under the Endangered Species Act (“ESA”) targets the operation of four hydroelectric dams on Maine’s Kennebec River that allegedly interfere with the migration of Atlantic salmon. Plaintiffs Atlantic Salmon Federation U.S., Conservation Law Foundation, Maine Rivers, and the Natural Resources Council of Maine initiated this case on September 9, 2021 (ECF No. 1) on behalf of their members. The Defendants—the licensees or manager of one or more of the four dams at issue—are Merimil Limited Partnership, Hydro-Kennebec LLC, Brookfield White Pine Hydro LLC, Brookfield Power US Asset Management LLC, and Brookfield Renewable US.¹

The Plaintiffs contend that the Defendants are unlawfully “taking” Atlantic salmon in the Kennebec River in violation of the ESA, and, on October 21, 2021, the

¹ Defendant Merimil Limited Partnership is the licensee for one of the dams, Lockwood Project. Defendant Hydro-Kennebec LLC is the licensee for another, Hydro-Kennebec Project. Defendant Brookfield White Pine Hydro LLC is the licensee for the final two dams, Shawmut and Weston Projects. Defendant Brookfield Power US Asset Management LLC is involved in the management of the four dams. The Plaintiffs allege that Brookfield Renewable US owns and operates the dams, but the Defendants claim that this is a moniker referring to a group of companies, not a legal entity.

Plaintiffs moved for a preliminary injunction (ECF No. 10). Under the ESA, “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.A. § 1532(19) (West 2022). The Plaintiffs seek a preliminary injunction that would require the Defendants to operate the dams differently when the salmon are migrating in order to minimize take, particularly the take of Atlantic salmon by the dams’ turbines, unless and until the Defendants gain the governmental approvals needed to lawfully take the salmon. For the reasons that follow, I deny the Plaintiffs’ motion.

I. BACKGROUND

I begin by (A) providing the necessary background information regarding the migration patterns and the endangered status of the Gulf of Maine Distinct Population Segment of Atlantic salmon, and then address (B) the history of the Defendants’ authority to incidentally take Atlantic salmon at the four dams and (C) the preliminary injunctive relief sought by the Plaintiffs.

A. Atlantic Salmon

Atlantic salmon hatch in fresh water, migrate to the ocean, and return to their natal rivers to spawn. Atlantic salmon can restart their migratory loop after spawning, by swimming back to the ocean. A young salmon migrating to the ocean is a “smolt,” and post-spawn adults completing that same journey are “kelts.” From April 1 to June 30, smolts and kelts both migrate downstream. From May 1 to November 10, adult salmon migrate upstream. From October 15 to December 31, kelts migrate downstream.

The ESA empowers the National Marine Fisheries Service (“NMFS”) to protect not only species, 16 U.S.C.A. § 1533(a) (West 2022), but also “distinct population segment[s]” of vertebrate species, 16 U.S.C.A. § 1532(16): groups of animals that are discrete and significant in relation to the species, Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act, 61 Fed. Reg. 4722, 4725 (Feb. 7, 1996). When NMFS finds that a distinct population segment is in danger of extinction throughout all or a significant portion of its geographic range, the agency may list it as “endangered.” 16 U.S.C.A. §§ 1532(6), 1533(a). If NMFS classifies a species or a distinct population segment as endangered, the ESA’s prohibition against “take” springs into effect. *Id.* § 1538(a)(1)(B), (C) (West 2022). That prohibition is at the center of this lawsuit. As already noted, “take” includes “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect.” *Id.* § 1532(19). The second item on that list, harm, includes “significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including, breeding, spawning, rearing, migrating, feeding or sheltering.” 50 C.F.R. § 222.102 (2021).

NMFS has listed the Gulf of Maine Distinct Population Segment of Atlantic salmon (the “GOM DPS”) as endangered, which includes those Atlantic salmon originating from the Gulf of Maine. *Id.* § 224.101 (2021). Historically, hundreds of thousands of GOM DPS adults returned annually to Maine’s Kennebec River to spawn. By 2009, abundance levels of Atlantic salmon within the GOM DPS had diminished by several orders of magnitude. Determination of Endangered Status for the Gulf of Maine Distinct Population Segment of Atlantic Salmon, 74 Fed. Reg.

29344, 29349 (June 19, 2009). In 2021, adults returning to the Kennebec River represented less than 4% of GOM DPS returns.

According to NMFS, dams are a leading cause “of both historical declines and contemporary low abundance of the GOM DPS of Atlantic salmon.” *Id.* at 29366. Dams “directly kill and injure a significant number of salmon on both upstream and downstream migrations”; “directly limit access to otherwise suitable habitat”; and “degrade the productive capacity of habitats upstream by inundating formerly free-flowing rivers, reducing water quality, and changing fish communities.” *Id.* at 29367. Other threats to Atlantic salmon include land use practices that have reduced habitat complexity, loss of habitat connectivity in part from road crossings, a reduction in water flows due to consumption, water pollution, poaching and incidental capture, predation, starvation, disease, parasites, abiotic ocean conditions, the depletion of coevolved fish species, and competition from invasive species. *Id.* at 29367-76.

B. The Dams

The Defendants own and operate the four hydroelectric dams at issue: Lockwood Project, Hydro-Kennebec Project, Shawmut Project, and Weston Project. The dams are located on the Kennebec River at river miles 63, 64, 70, and 83, respectively. At Lockwood Project, the first dam that in-migrating Atlantic salmon encounter on the Kennebec, the Defendants trap in-migrating adults in Lockwood’s “fish lift” so that the Maine Department of Marine Resources can capture them and then drive them in a truck to the Sandy River, a tributary of the Kennebec located upstream of the four dams, where the salmon spawn. With respect to downstream migration, Atlantic salmon utilize various routes through, over, and around the four

dams, including through the turbines. To be clear, in-migrating adults interact with only Lockwood Project before they are trucked to the Sandy River above the four dams and thus do not encounter the other three dams during their upstream migration, but out-migrating smolts and kelts must pass all four dams on their journey to the ocean. This case involves the alleged take of Atlantic salmon migrating both upstream and downstream.

Until recently, the Defendants were authorized to incidentally take GOM DPS Atlantic salmon through the operation of these dams, notwithstanding the take prohibition that applies to endangered distinct population segments. That incidental take authority was the product of “consultation,” a process under the ESA by which NMFS reviews federal agencies’ proposed actions, including the granting of permits, to “insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species.” 16 U.S.C.A. § 1536(a)(2) (West 2022). Consultation culminates in a “biological opinion” containing NMFS’s conclusion as to whether an agency action would jeopardize the continued existence of endangered species. *See id.* § 1536(b). If an agency action is not likely to do so but will nonetheless incidentally take members of a protected species with reasonable certainty, the biological opinion must include an “incidental take statement”: a prediction of the incidental take that the proposed action will cause plus “terms and conditions” to “minimize” that take. *Id.* § 1536(b)(4)(i)-(ii), (iv); 50 C.F.R. § 402.14(g)(7), (i) (2021). Compliance with those terms and conditions provides a government agency or permittee (such as a dam operator) with authority

to incidentally take the protected species. 16 U.S.C.A. § 1536(o)(2); *Bennett v. Spear*, 520 U.S. 154, 170 (1997).

The Defendants received such incidental take authority pursuant to biological opinions issued by NMFS in 2012 (for Hydro-Kennebec), 2013 (for Lockwood, Shawmut, and Weston), and 2017 (extending authority for Hydro-Kennebec). The agency actions that NMFS analyzed in the 2012 and 2013 biological opinions were proposals by the Federal Energy Regulatory Commission (“FERC”) to amend the dams’ licenses to require additional conservation measures. The 2017 biological opinion studied the effects of allowing Hydro-Kennebec Project to temporarily continue operating under the amended FERC license that NMFS examined in the 2012 biological opinion after that opinion expired on December 31, 2016. In each instance, NMFS concluded that the license amendments and the extension would not jeopardize the continued existence of the GOM DPS of Atlantic salmon and issued incidental take statements predicting and authorizing certain levels of take. However, the biological opinions and incidental take statements expired on December 31, 2019, terminating the Defendants’ authority to incidentally take GOM DPS Atlantic salmon.

The Defendants are actively seeking to renew their incidental take authority. In December 2021, FERC initiated consultation with NMFS for a suite of five proposed actions: amending the licenses of the four dams and relicensing Shawmut Project (in advance of the 2022 expiration date for Shawmut’s current FERC license). The proposed amendments address the conservation efforts FERC will require as conditions for the continued operation of the dams. In essence, NMFS is evaluating

whether FERC's proposed conditions will avoid jeopardizing the continued existence of the GOM DPS and other species, whether additional requirements are also necessary, or whether no set of take-minimization measures would allow the dams to continue operating without risking extinction. *See* 16 U.S.C.A. § 1536(b)(3)(A). NMFS has advised FERC that it will prepare a single biological opinion for the five proposed actions. Although the biological opinion is due on April 15, 2022, NMFS has informed FERC that an extension may be necessary due to the complexity of the consultation.

The Defendants assert that, in addition to working to secure NMFS's issuance of a new incidental take statement, they have taken the following measures to address the expiration of their incidental take authority:

- Defendant Merimil Limited Partnership obtained incidental take authority through a different provision of the ESA in April 2021 for Lockwood Project's trap-sort-and-truck facility for in-migrating adults. This authority was not granted through consultation but rather under 50 C.F.R. § 17.21(c)(3)(i) (2021), which authorizes NMFS to designate agents to take endangered wildlife (e.g., to collect them) when necessary to aid sick, injured, or orphaned individuals.
- During the downstream smolt migration in May through early June 2021, the Defendants, working with NMFS, shut down Lockwood, Hydro-Kennebec, and Shawmut Projects. Weston Project was not similarly shut down because NMFS had advised that the survival rate of smolts through the turbines is higher than the survival rate going over the spillway.

C. Preliminary Injunctive Relief Sought by the Plaintiffs

The Plaintiffs filed this lawsuit pursuant to the ESA's citizen suit provision, seeking injunctive and declaratory relief. *See* 16 U.S.C.A. § 1540(g)(1) (West 2022). The Plaintiffs' Motion for a Preliminary Injunction does not seek the removal of the

dams; it instead seeks to impose limitations on the Defendants' operations unless and until the Defendants regain their incidental take authority:

- At Lockwood Project, the Plaintiffs ask the Court to order the Defendants to run downstream passage facilities at maximum discharge and to shut down the turbines from April 1 to June 30 and October 15 to December 31, i.e., when downstream migration is happening. The Plaintiffs specify, however, that Lockwood's turbines should run during daylight hours when downstream migration overlaps with upstream migration (May 1 to June 30 and October 15 to November 10). According to the Plaintiffs, shutting down Lockwood's turbines causes increased flow at Lockwood's bypass channel, which may lure in-migrating adults away from the fish lift.
- At Hydro-Kennebec, the Plaintiffs ask the Court to order the shutdown of the turbines from April 1 to June 30 and October 15 to December 31, and to run downstream-passage facilities at maximum discharge, "followed by the gated spillway and the units." ECF No. 10-2 ¶ 10(C)(i).
- At Shawmut, the Plaintiffs ask that the Defendants be required to shut down the turbines for the same dates, and to "operate the surface spill and the Tainter gates at maximum discharge, followed by spill and finally the units." *Id.* ¶ 10(B)(i).
- At Weston, the Plaintiffs ask for an order to fully open the sluice bypass "as the first point of downstream passage for both kelts and smolts." *Id.* ¶ 10(A)(i). The Plaintiffs further specify additional water outlets at Weston that should be prioritized differently for kelts versus smolts.

II. LEGAL ANALYSIS

I analyze the Plaintiffs' motion in keeping with the four criteria governing preliminary injunctive relief: "A plaintiff seeking a preliminary injunction must establish that he is likely to succeed on the merits, that he is likely to suffer irreparable harm in the absence of preliminary relief, that the balance of equities tips in his favor, and that an injunction is in the public interest." *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008). "The party seeking the preliminary injunction

bears the burden of establishing that these four factors weigh in its favor.” *Esso Standard Oil Co. (P.R.) v. Monroig-Zayas*, 445 F.3d 13, 18 (1st Cir. 2006).

Before I turn to the factors, I note that the Plaintiffs’ motion seeks more than “a run-of-the-mill prohibitory preliminary injunction” targeting the dams’ turbines. *Man Against Xtinction v. Comm’r of Me. Dep’t of Marine Res.*, 478 F. Supp. 3d 67, 71 (D. Me. 2020). By asking the Court to order the Defendants to prioritize different water outlets at the dams at varying times, the Plaintiffs also “ask[] for mandatory preliminary injunctive relief, which requires affirmative action by the non-moving party in advance of trial.” *Id.* “Because a mandatory preliminary injunction alters rather than preserves the status quo, it normally should be granted only in those circumstances when the exigencies of the situation demand such relief.” *Id.* (quoting *Braintree Lab’ys, Inc. v. Citigroup Glob. Mkts. Inc.*, 622 F.3d 36, 41 (1st Cir. 2010)). “Those exigencies are still measured according to the same four-factor test” *Id.*

A. Likelihood of Success on the Merits

The Plaintiffs allege that the Defendants are taking and will continue to take Atlantic salmon without authorization, a violation of 16 U.S.C.A. § 1538(a)(1)(B). Here, the Plaintiffs allege five types of take: harm, harassment, killing, wounding, and trapping. *See id.* § 1532(19). Because the Plaintiffs can succeed on the merits by proving any of those theories, it will suffice here to evaluate their likelihood of showing that the Defendants “harm” Atlantic salmon. “Harm” is defined as “an act which actually kills or injures fish or wildlife,” including “significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including, breeding, spawning,

rearing, migrating, feeding or sheltering.” 50 C.F.R. § 222.102. As that definition indicates, to prove a harm-based take “there must be actual injury to the listed species,” not “a numerical probability of harm.” *Am. Bald Eagle v. Bhatti*, 9 F.3d 163, 165-66 (1st Cir. 1993).

With respect to harm to out-migrating salmon, the Plaintiffs allege that the Defendants’ own studies, when properly understood, show that the dams kill over 40% of out-migrating smolts. Regarding upstream migration, the Plaintiffs allege that Lockwood Project harms salmon by blocking their migration, which forces returning adults that fail to swim into the fish lift to never spawn or to spawn in subpar habitat below Lockwood, and by delaying the migration of other adults, which requires them to expend their limited energy stores and increases their vulnerability to predators and parasites. The Plaintiffs also argue that the dams degrade the Kennebec River in ways that kill or injure Atlantic salmon by significantly impairing breeding, spawning, rearing, migrating, feeding, or sheltering. Finally, the Plaintiffs allege that periodic maintenance activities at Lockwood harm Atlantic salmon.

The Defendants counter that the Plaintiffs’ proof is insufficient because the Plaintiffs have failed to submit any evidence showing that the Defendants’ conduct has caused actual harm to Atlantic salmon. The Defendants cite *Man Against Xtinction*, which reiterates the First Circuit’s statement that harm must be “actual,” as opposed to “a numerical probability.” 478 F. Supp. 3d at 71 (quoting *Am. Bald Eagle*, 9 F.3d at 165). The Defendants contend that the Plaintiffs’ proof fails because the Plaintiffs’ experts rely only on statistical models and inaccurate interpretations of data that are insufficient to demonstrate actual harm.

Contrary to the Defendants' argument, both sides' expert witness declarations suggest that the dams are causing actual harm to Atlantic salmon. The Defendants' expert witness declaration from Drew Trested, a fisheries biologist, supports a finding of actual harm to out-migrating smolts. In his declaration, Dr. Trested asserts that the Defendants conducted field experiments with smolts from 2012 to 2015 at the four dams to empirically observe the paths that smolts took through, over, and around each dam and to measure the survival rate for each route. Dr. Trested states that at Lockwood Project, 25.0% of smolts went through the downstream bypass with a 98.5% survival rate; 6.6% went through turbines 1-6 with a 98.8% survival rate; 7.7% went through turbine 7 with a 90.6% survival rate; and 57.0% passed via spill with a 100.0% survival rate. The Trested Declaration contains similar data for the other three dams. Dr. Trested estimates whole-station survival rates for smolts by combining the survival rates of the various routes at each dam with the percentage of smolts that used each route: 98.6% at Lockwood, 94.7% at Hydro-Kennebec, 93.5% at Shawmut, and 95.0% at Weston. According to the Trested Declaration, "each Project-specific value was representative of losses due to attempts at physical passage through or around the projects," "correct[ed] for background or natural mortality (e.g. from predation)." ECF No. 10-2 ¶ 7. Multiplying the whole-station survival rates of each dam "result[s] in a *cumulative* passage survival of 83.0% for smolts passing downstream at Weston, Shawmut, Hydro Kennebec and Lockwood."² *Id.*

² Similarly, the Defendants' memorandum in opposition to the Plaintiffs' Motion for Preliminary Injunction concedes that the dams have killed out-migrating smolts, while disputing the Plaintiffs' exact figures. The Defendants argue that the Plaintiffs' mortality estimate at Weston Project is inaccurate because, "[w]hen properly adjusted to account for background mortality, whole station mortality rates at Weston were 4.3% and 0.3% during 2013 and 2015." ECF No. 19 at 12.

The Plaintiffs also rely in part on the Defendants' studies. They contend that the Trested Declaration's estimated 83% survival rate for smolts passing through the four dams omits delayed mortality (e.g., due to injury) and environmentally mediated takes (e.g., due to increased predation from the slower river velocity). The Plaintiffs also insist that the Defendants understate the deaths observed in the empirical studies because the Defendants should be counting the salmon that did not pass a dam within 24 hours as mortalities. ECF No. 33-2 at 2 (Supplemental Declaration of Donald Pugh) ("The whole station mortality estimates I presented for the Weston Project . . . of 9% to 11% and 14% to 34%[] are the range of three years' direct calculations from Brookfield's own 2013, 2014 and 2015 downstream study reports for S1 survival (immediate survival passing dam) and S2 survival (immediate survival with fish not passing in 24 hours considered mortalities)."). That may explain the Plaintiffs' estimate of a 40% mortality for smolts across the four dams, but the precise basis for this estimate is not clear from the record.

The expert witness declarations submitted by both sides support the conclusion that the Defendants are currently taking out-migrating GOM DPS Atlantic salmon by harming them without the authorization required by the ESA. The Defendants' own studies have found that the four dams took 17% of smolts through losses due to the salmon's attempts at physical passage. Dr. Trested's declaration indicates that the Defendants' studies involved the release of actual smolts above the dams and measured actual deaths. Accordingly, the record contains sound evidence showing actual harm to the protected species. What was true in a prior case concerning three of the four dams at issue in this case is true again: "[T]he

Court necessarily finds that Plaintiffs have shown a likelihood of success on establishing a taking” because “the experts do not appear to disagree that some amount of . . . mortality is occurring at each of [the] Projects.” *Friends of Merrymeeting Bay v. NextEra Energy Res., LLC*, No. 2:11-cv-38, 2013 WL 1835379, at *6 (D. Me. Apr. 30, 2013).

Regarding upstream migration, the Defendants do not dispute that the only way for in-migrating adults to pass Lockwood Project is via that dam’s fish lift. The record contains the Defendants’ aforementioned incidental take authorization to operate Lockwood’s trap-sort-and-truck facility (not the entire dam) pursuant to 50 C.F.R. § 17.21(c)(3)(i). The authorization in the record, which expired on November 15, 2021, does not address returning adults that never enter the fish lift. NMFS’s 2013 biological opinion estimated that 60% of in-migrating Atlantic salmon motivated to pass Lockwood Project would fail to enter the fish lift, and the Plaintiffs’ complaint contains recent critiques of the lift’s efficacy from NMFS and Maine’s Department of Marine Resources. Thus, record evidence establishes that it is also likely that the Plaintiffs will succeed on their claim that the Defendants harm and thus take at least some in-migrating salmon by frustrating their spawning migrations.³

³ The Plaintiffs additionally argue that the Defendants are collaterally and judicially estopped from denying that they take GOM DPS Atlantic salmon. For the collateral estoppel argument, the Plaintiffs contend that the issue of whether the Defendants take Atlantic salmon was already answered in the affirmative by *Friends of Merrymeeting Bay*, 2013 WL 1835379, at *6. But what matters here, in the context of the Plaintiffs’ request for forward-looking injunctive relief, is whether the dams are taking salmon now and will continue to do so, and those issues were not actually litigated and adjudicated in 2013.

Regarding judicial estoppel, the Plaintiffs argue that the Defendants successfully mooted a prior claim by informing another court of the existence of incidental take authority pursuant to a biological opinion. See *Friends of Merrymeeting Bay v. Brookfield Power U.S. Asset Mgmt., LLC*, No. 2:11-cv-35, 2013 WL 145506, at *4-6 (D. Me. Jan. 14, 2013). However, it is not clearly inconsistent for a party to

Having concluded that the Plaintiffs are likely to succeed on the merits of their claim, I turn to consider the other preliminary-injunction criteria.

B. Irreparable Harm Absent the Injunctive Relief

The second criterion for a preliminary injunction is proof of likely irreparable harm in the absence of the requested preliminary relief. *Winter*, 555 U.S. at 20. Irreparable harm refers to harm that cannot be adequately redressed by a later permanent injunction or an award of damages. *Rio Grande Cmty. Health Ctr., Inc. v. Rullan*, 397 F.3d 56, 76 (1st Cir. 2005). “Environmental injury, by its nature, can seldom be adequately remedied by money 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, 545 (1987). To merit preliminary relief, the irreparable harm must be “*likely*” absent the requested injunction. *Winter*, 555 U.S. at 22.

The First Circuit has twice addressed how courts should evaluate a plaintiff’s evidence of irreparable harm in the ESA context. In *Water Keeper Alliance v. U.S. Department of Defense*, the court held that a district court does not abuse its discretion when it finds no irreparable harm “[i]n the absence of a . . . concrete showing of probable deaths . . . and of how these deaths may impact the species.” 271 F.3d 21, 34 (1st Cir. 2001). In *Animal Welfare Institute v. Martin*, the First Circuit rejected the plaintiffs’ argument “that as a matter of law the district court could not inquire into species-level harm during the irreparable harm inquiry because that would conflict with the role Congress has assigned to [agencies] through the

assert that it had authority to incidentally take an endangered species and then to assert, years later, that the party is not taking the species.

[incidental-take-authorization] process.” 623 F.3d 19, 28 (1st Cir. 2010). The court upheld the district court’s “nuanced” approach that recognized that the death of a single animal can qualify as irreparable harm in certain circumstances but not when the single death would have a “negligible impact on the species as a whole.” *Animal Welfare Institute*, 623 F.3d at 29 (quoting *Animal Welfare Inst. v. Martin*, 668 F. Supp. 2d 254, 261, 264 (D. Me. 2009)). Based on these decisions, irreparable harm means more than negligible harm to a species as a whole or, as in this case, a distinct population segment as a whole.

Additionally, because this prong of the injunctive-relief test requires a plaintiff “to demonstrate that irreparable harm [is] likely to occur *absent an injunction*,” *id.* at 24 (emphasis added), a plaintiff must demonstrate a “sufficient causal connection’ between the alleged irreparable harm and the activity to be enjoined,” *Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, 886 F.3d 803, 819 (9th Cir. 2018) (quoting *Perfect 10, Inc. v. Google, Inc.*, 653 F.3d 976, 982 (9th Cir. 2011)); accord *Puerto Rico v. OPG Tech., Inc.*, Civil No. 15-3125, 2016 WL 5724807, *18 (D.P.R. Sept. 6, 2016). In other words, a plaintiff must “show[] that ‘the requested injunction would forestall’ the irreparable harm.” *Nat’l Wildlife Fed’n*, 886 F.3d at 819 (quoting *Perfect 10*, 653 F.3d at 981). “However, a plaintiff ‘need not further show that the action sought to be enjoined is the exclusive cause of the injury.’” *Id.* (quoting *M.R. v. Dreyfus*, 697 F.3d 706, 728 (9th Cir. 2012)). In this context, a plaintiff must show that a non-negligible harm would likely befall the species or distinct population segment as a whole unless the proposed injunctive relief is granted.

The Defendants contend that the Plaintiffs have not shown that the dams harm the GOM DPS as a whole. They also argue that the proposed preliminary injunction would not materially affect the GOM DPS because adults returning to the Kennebec River represent less than 4% of GOM DPS returns; the Plaintiffs misstate the risks turbines present to smolts; and there is insufficient data on harm to out-migrating kelts and the dams have features that mitigate that harm. Moreover, the Defendants assert that annual changes in adult return rates of the GOM DPS to rivers with and without dams correlate and are driven primarily by marine survival conditions and not the dams themselves.

The Plaintiffs' evidence that the requested preliminary injunction would forestall irreparable harm primarily consists of three expert witness declarations. Jonathan Carr, a biologist, warned that "the ongoing harm during upstream and downstream migration seasons from operations of these four lower mainstem hydropower projects on the Kennebec River, if allowed to continue without the full measures proposed by Plaintiffs to reduce or eliminate that harm, does[] and will continue to jeopardize the continued existence of Atlantic salmon in the United States and most certainly will prohibit the recovery of the species in the United States." ECF No. 33-1 ¶ 11. Robert Lusardi, an aquatic research ecologist and applied conservation biologist, opined that "[t]here are no great options, but at a minimum, we can significantly reduce take by" implementing the proposed injunctive relief. ECF No. 10-1 ¶ 8. Lastly, Donald Pugh, an expert in analyzing fish passage at dams, opined that the Plaintiffs' plan "will reduce the percentage of takes." ECF No. 10-2 ¶ 12. Pugh did not provide an estimate of the reduction in take, but he did state that

if the measures he proposed “are not undertaken, ‘take’ of one or more—and likely much more than a few—individual fish at each project is certain to occur in downstream migrations, during both the fall and spring migration seasons.” ECF No. 10-2 ¶ 8.

The Plaintiffs’ experts’ declarations say little about the data and methods that led the experts to conclude that the proposed relief would reduce the take of Atlantic salmon, although Carr noted that “spillways are regarded as safer passage routes” than turbines. ECF No. 33-1 ¶ 10. None offered concrete projections of the size of the reduction in take that would be achieved if the relief the Plaintiffs seek were implemented. Most importantly, none of the three experts expressed in concrete terms, supported by data, why or how the reduction in take, whatever it might be, would translate into a more than negligible benefit to the GOM DPS as a whole.⁴

“The trial court’s gatekeeping function requires more than simply ‘taking the expert’s word for it.’” Fed. R. Evid. 702 advisory committee’s note to the 2000 amendments. Although record evidence establishes that the Plaintiffs will likely succeed in proving that the dams are taking Atlantic salmon, the Plaintiffs’ expert declarations do not show that the specific injunctive relief that the Plaintiffs seek would reduce take to an extent that would prevent harm that is likely and otherwise irreparable; namely, non-negligible harm to the GOM DPS as a whole. *See Winter*, 555 U.S. at 22 (“Our frequently reiterated standard requires plaintiffs seeking

⁴ In his declaration, Carr states that, if the dams were removed, that would satisfy one third of the habitat-availability benchmark in NMFS’s recovery plan for the GOM DPS. The removal of the dams is not, however, part of the preliminary relief sought by the Plaintiffs. In addition, the recovery plan is not part of the record and I cannot determine its relevance and the weight it should be afforded.

preliminary relief to demonstrate that irreparable injury is likely in the absence of an injunction.” (emphasis omitted)); *Nat’l Wildlife Fed’n*, 886 F.3d at 819 (“There must be a ‘sufficient causal connection’ between the alleged irreparable harm and the activity to be enjoined, and showing that ‘the requested injunction would forestall’ the irreparable harm qualifies as such a connection.” (quoting *Perfect 10*, 653 F.3d at 981-82)).

The Plaintiffs’ other evidence does not disturb the foregoing conclusion. They argue that the efficacy of their proposed injunctive relief is demonstrated by the fact that the Defendants temporarily shut down operations at Lockwood, Hydro-Kennebec, and Shawmut Projects in May and June of 2021, in coordination with NMFS, to facilitate smolt migration. The Defendants resumed operations at the three sites following the shutdowns in early June 2021 when NMFS and Maine’s Department of Marine Resources agreed that the smolt migration had ended. At Weston Project, instead of shutting down the turbines, the Defendants coordinated with NMFS to continue operations because NMFS advised that the smolts were safer going through Weston’s turbines than over the spillway.

While the actions taken in May and June of 2021 support the conclusion that the Plaintiffs’ proposed preliminary injunction would reduce the take of smolts at three of the four dams, the record is silent as to the results of those efforts and the resulting benefit, if any, to the GOM DPS as a whole. The record is also silent as to what reduction in take and benefits would have been obtained if the shutdowns had been for the more extensive time periods, coinciding with different seasonal conditions, now sought by the Plaintiffs. Accordingly, the fact that the Defendants

took steps in May and early June of 2021 to temporarily shut down three of the four dams does not, without more, show the extent to which the proposed preliminary injunction would reduce take and whether that reduction would benefit the GOM DPS as a whole.⁵

Finally, the Plaintiffs rely on and quote from a 2020 Maine Department of Marine Resources regulatory comment from FERC's relicensing proceeding for Shawmut Project in which the state agency declared that relicensing that dam without improving its fish-passage facilities would hasten the extinction of the GOM DPS. This statement does little to help the Plaintiffs here because the agency's analysis supporting this comment is not in the record, nor does the comment bear on whether the specific injunctive relief sought by the Plaintiffs would prevent irreparable harm to the GOM DPS as a whole.⁶

Accordingly, the Plaintiffs have not met their burden of showing irreparable harm to the GOM DPS absent an award of the specific preliminary injunctive relief they seek.

⁵ As proposed, the preliminary injunction would shut down the turbines at Lockwood Project only at night to avoid luring in-migrating adults away from the fish lift. But there is no evidence in the record that the Defendants did this at Lockwood in May and June of 2021 or evidence that otherwise explains why this false-attraction problem would not make the requested relief counterproductive during the day. Further, the Plaintiffs do not explain why they propose fully opening the sluice bypass at Weston Project "as the first point of downstream passage for both kelts and smolts," ECF No. 10-2 ¶ 10(A)(i), when NMFS previously advised the Defendants to continue operations there and the Trested Declaration reports that the Defendants' studies found the sluice bypass to be the most dangerous path at Weston, more dangerous than the turbines. This feature of the preliminary relief also creates a risk that the Plaintiffs' proposal would be counterproductive.

⁶ Some support for the Plaintiffs' proposed injunctive relief appears in the Trested Declaration submitted by the Defendants. The data reported therein show that smolts passing through turbines tended to fare worse than smolts that took other routes. However, the data show the opposite at Weston Project. This evidence does not establish that the specific operational changes proposed by the Plaintiffs would prevent a likely and non-negligible harm to the GOM DPS as a whole.

C. Balance of the Equities and the Public Interest

The third and fourth prongs of the preliminary-injunction analysis require courts to consider whether the balance of the equities tips in a plaintiff's favor and whether the injunction is in the public interest. *Winter*, 555 U.S. at 20. “[E]xamination of the language, history, and structure of the [ESA] indicates beyond doubt that Congress intended endangered species to be afforded the highest of priorities” and that “Congress viewed the value of endangered species as ‘incalculable.’” *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 174, 187 (1978). Accordingly, the First Circuit observed in *Animal Welfare Institute* that “this circuit’s law has incorporated Congress’s prioritization of listed species’ interests into the third and fourth prongs of [the preliminary-relief] analysis, modifying those factors where appropriate to ‘tip heavily in favor of protected species.’” 623 F.3d at 27 (alteration omitted) (quoting *Strahan v. Coxe*, 127 F.3d 155, 160 (1st Cir. 1997)).

The Plaintiffs, contending that they have demonstrated irreparable harm to the GOM DPS as a whole absent interim relief, argue that any economic harm to the Defendants resulting from a preliminary injunction would be minimal and that the dams produce less than 0.5% of the total annual electricity generated in Maine. The Defendants’ response is twofold. First, the dams produce carbon-free electricity, which helps to fight climate change and thus benefits fish in the Kennebec River. Second, NMFS has begun its consultation and the Court should defer to that administrative process, which the Defendants argue will likely restore their incidental take authority and determine which take-minimization measures are appropriate at the dams.

My analysis of the third and fourth factors begins with recognizing that both heavily favor the protection of imperiled species and, therefore, the granting of a preliminary injunction that would preserve biodiversity. Yet, in this instance, the analysis of both factors must also account for my earlier conclusion that the Plaintiffs have failed to demonstrate that the proposed preliminary injunction would prevent irreparable harm. “The effect of a preliminary injunction on the public interest is directly tied to its impact on . . . the endangered . . . species.” *Water Keeper All.*, 271 F.3d at 35; *accord Animal Welfare Inst. v. Martin*, 588 F. Supp. 2d 70, 106 (D. Me. 2008) (“In evaluating the relevant impositions and the public interest, the Court may properly examine what relief the Plaintiffs propose and what impact an injunction would have both upon the protected species and upon the public as a whole.”). “As with irreparable harm, a plaintiff must present the court with some basis on which it can conclude that an injunction would in fact benefit the protected species,” or else the ESA’s pro-species presumptions do not apply. *All. for the Wild Rockies v. Kruger*, 35 F. Supp. 3d 1259, 1267 (D. Mont. 2014).

Whether an injunction would be equitable and in furtherance of the public interest is, on the record of this case, a matter of speculation. Although the Plaintiffs have shown that their proposed relief would probably reduce take of some out-migrating smolts at Lockwood, Hydro-Kennebec, and Shawmut Projects,⁷ they have not demonstrated that the proposed relief would prevent irreparable harm to the

⁷ The record also indicates that the Plaintiffs’ proposed injunction would increase mortality for smolts at Weston Project. Given the uncertainty around the size of this effect as compared to the potential benefits for smolts at the other dams, the evidence does not establish whether the proposed relief would help a greater number of smolts than it would harm.

GOM DPS as a whole.⁸ Although the third and fourth factors tip heavily in favor of granting a preliminary injunction that would protect endangered species, my evaluation of the evidence here leads to the conclusion that the Plaintiffs have not demonstrated that the balance of equities and the public interest support the granting of the relief they seek.

III. CONCLUSION

The Plaintiffs have shown that they are likely to succeed on the merits of their unlawful take claim, but they have not shown that the remedy they seek would forestall irreparable harm, or that the balance of equities and public interest support the granting of an injunction. Having carefully considered and weighed the four preliminary-injunction factors, I conclude that Plaintiffs' Motion for a Preliminary Injunction (ECF No. 10) should be and, therefore is, **DENIED**.

SO ORDERED.

Dated: February 24, 2022

/s/ JON D. LEVY
CHIEF U.S. DISTRICT JUDGE

⁸ The Defendants' arguments regarding the balance of equities and public interest also suffer from a dearth of evidence. The Defendants have not shown that the dams' climate benefits are substantial or that granting an injunction would unduly interfere with NMFS's ongoing administrative process. Nor have the Defendants shown that an injunction would harm them financially or affect the availability of electricity for consumers to any meaningful degree.