UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MAINE

ATLANTIC SALMON FEDERATION U.S., CONSERVATION LAW FOUNDATION, MAINE RIVERS, and NATURAL RESOURCES COUNCIL OF MAINE, Plaintiffs v. BROOKFIELD RENEWABLE PARTNERS, L.P., MERIMIL LIMITED PARTNERSHIP, HYDRO-KENNEBEC LLC, BROOKFIELD WHITE PINE HYDRO LLC, BROOKFIELD POWER US ASSET MANAGEMENT LLC, and BROOKFIELD POWER US HOLDING AMERICA CO. Defendants	Civil Action No.

COMPLAINT FOR VIOLATION OF THE ENDANGERED SPECIES ACT, 16 U.S.C. §§ 1531, *et seq.*, INCLUDING DECLARATORY JUDGMENT AND INJUNCTIVE RELIEF

[INJUNCTIVE RELIEF SOUGHT – Local Rule 9(b)]

NOW COME Plaintiffs Atlantic Salmon Federation U.S., Conservation Law Foundation, Maine Rivers, and the Natural Resources Council of Maine, by and through undersigned counsel, and state the following in support of their Complaint for Declaratory Judgment and Injunctive Relief arising under Defendants' violations of the Endangered Species Act, 16 U.S.C. §§ 1531, *et seq.*:

PRELIMINARY STATEMENT

1. This action asserts violations of the Endangered Species Act ("ESA"), 16 U.S.C. §§ 1531, *et seq.*, by Defendants, resulting from Defendants' activities, acts or omissions related to the ongoing operations of four hydropower projects on the Kennebec River in the State of Maine. The ongoing operations of each of these projects incontrovertibly "take" the ESA-listed species, the Gulf of Maine Distinct Population Segment of Atlantic salmon (*Salmo salar*) ("GOM DPS" of Atlantic salmon), in violation of section 9 of the ESA, 16 U.S.C. § 1538(a)(1)(B).

2. Under section 9 of the ESA, "with respect to any endangered species of fish or wildlife listed pursuant to section 1533 of [the ESA] it is unlawful for any person subject to the jurisdiction of the United States to . . . take any such species within the United States or the territorial sea of the United States." 16 U.S.C. § 1538(a)(1)(B).

3. These four hydropower projects are:

(a) the Lockwood Project, located at river mile 63, the first hydropower project on the main stem of the Kennebec River, spanning the river at the US Route 201 Bridge in the cities of Waterville and Winslow, along the site originally known as Ticonic Falls;

(b) the Hydro-Kennebec Project, located at river mile 64 on the Kennebec River in the cities of Waterville and Winslow, and in the town of Benton, the second hydropower project on the main stem of the Kennebec River;

(c) the Shawmut Project, located at river mile 70, the third hydropower project on the main stem of the Kennebec River; and

(d) the Weston Project, located at river mile 83 in the town of Skowhegan, the fourth hydropower project on the main stem of the Kennebec River.

4. Each hydropower project is operating without authorization for the "take" of listed species, in direct violation of the ESA. 16 U.S.C. § 1538(a)(1)(B).

5. The ESA defines the term "take" as "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(19).

6. " 'Harm' in the definition of 'take' in the [ESA] means an act which actually kills or injures fish or wildlife. **Such an act may include 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 (bold emphasis added).

7. The listed species is the Gulf of Maine Distinct Population Segment ("GOM DPS") of Atlantic salmon.[1]

8. The four hydropower projects are located within the critical habitat designation for the GOM DPS of Atlantic salmon.[2]

9. The lower Kennebec River main stem, where the four projects are located, is the critical migration corridor for GOM DPS of Atlantic salmon, between the ocean and the Sandy River spawning and rearing critical habitat units above the Sandy River/Kennebec River confluence, located above the fourth project, Weston in Skowhegan. Thus, the combination of the four hydropower projects of Lockwood, Hydro-Kennebec, Shawmut, and Weston on the lower Kennebec River main stem blocks Atlantic salmon access to the critical spawning and

[1] 74 Fed. Reg. 29,344 (June 19, 2009) 75 (Determination of Endangered Status for the Gulf of Maine Distinct Population Segment of Atlantic Salmon).

[2] 74 Fed. Reg. 29,300 (Designation of Critical Habitat for Atlantic Salmon (Salmo salar) Gulf of Maine Distinct Population Segment) (June 19, 2009).

rearing habitat in the Sandy River area, which is located upstream from the 4-project barrier and impediment.[3]

10. The ongoing operations of the projects therefore "take" the species, 16 U.S.C. § 1538(a)(1)(B) and 50 C.F.R. § 222.102, with respect to both upstream and downstream migrations, for nearly nine months of every year. The seasonal upstream migration period for Atlantic salmon adults is generally May 1 to October 31; the Spring downstream migration period for smolts and kelts is generally April 1 to June 30;[4] the Fall downstream migration period for kelts is generally October 15 to December 31. Therefore, combined, migration periods in the Atlantic salmon species lifecycle take up nine months of the year – April 1 through December 31. Downstream outmigration alone takes up five and a half months of the year (April 1 to June 30, and October 15 to December 31).

11. "Takes" occur as the result of failures or delays in upstream passage at the first project, Lockwood; and "takes" occur at all four projects as the result of failures or delays in downstream passage – including delayed mortality. The project operations harm, injure, trap, and kill the GOM DPS of Atlantic salmon over the course of a combined nine months of each year.

12. In addition, other specific operations at the projects involve additional occurrences of unauthorized "takes." For example, at the Lockwood Project, false attraction to the bypass channel, combined with annual fluctuations in station discharge caused by flashboard installation, require a "fish rescue" every time flashboards are installed. In 2021, hydropower project

[3] The hydropower projects also block effective migrations of other species, such as American shad and river herring. As explained further herein, the failure to effectively pass these other co-evolved species has a direct correlation to Atlantic salmon increased mortality in the critical habitat area.

[4] As explained further herein, "kelts" are post-spawn adults, which need to migrate back downstream to the ocean for eventual repeat spawning; "smolts" are young salmon after the "parr" stage, which are ready to migrate downstream to the ocean for the first time.

operations resulted in harming, injuring and stranding nearly two dozen smolts,[5] and at least three adult Atlantic salmon were stranded in isolated pools in the Lockwood bypass channel. One of these salmon suffered extensive injuries, including "scraped up body dorsally, scraped up sides (both left and right), an abrasion ventrally, a bruise on its left side, a lamprey wound scar on its right side, a split dorsal fin, a split caudal fin and a bruised snout."[6] At least two other adult Atlantic salmon, one with "significant scars located dorsally on its body"[7] were also trapped in a deep pool in ledges under the Route 100 bridge as a result of this event, but these salmon could not be rescued for transport upstream to the Sandy River critical habitat.

PARTIES AND STATEMENT OF INTEREST

13. This action is brought pursuant to the "citizen suits" provisions of the ESA, which allow a civil suit by any person on her own behalf "to enjoin any person . . . who is alleged to be in violation of any provision of this chapter or regulation issued under the authority thereof." 16 U.S.C. § 1540(g)(1)(a).

14. Each Plaintiff in the above-captioned matter has given prior sixty days' written notice of these violations to the Secretary of Commerce[8] and to the alleged violators. 16 U.S.C.

[5] National Marine Fisheries Service ("NMFS") correspondence to Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission (August 26, 2021) at page 3, first bullet point; FERC Accession No. 20210826-5106. (All public documents filed on the relevant project docket of the Federal Energy Regulatory Commission contain a document identification "Accession Number." When relevant for reference purposes, the FERC Accession No. citation of a public document is provided here.)

[6] Maine Department of Marine Resources ("MDMR") (Jennifer Noll). June 17, 2021. Field Summary of Atlantic Salmon Stranding Rescue at Lockwood Dam. (This report was included as Attachment 1 to a filing about the event submitted on July 1, 2021: FERC Accession No. 20210701-5242.)

[7] Ibid.

[8] National Marine Fisheries Service ("NMFS") is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce. NMFS is the federal wildlife agency with the

§ 1540(g)(2)(A)(i). No action has been commenced by the Secretary of Commerce to impose a penalty pursuant to subsection (a) of Section 11 [16 U.S.C. § 1540(a)]. 16 U.S.C. § 1540(g)(2)(A)(ii). The United States has not, to Plaintiffs' knowledge, "commenced or [is] diligently prosecuting a criminal action in a court of the United States or a State to redress a violation of any such provision or regulation." 16 U.S.C. § 1540(g)(2)(A)(iii). Thus, this citizen suit against the Defendants as alleged violators is permitted under 16 U.S.C. § 1540(g)(2)(A).

15. Plaintiff Atlantic Salmon Federation U.S. ("ASF") is a 73-year-old international non-profit organization dedicated to conserving and restoring wild Atlantic salmon and their ecosystems. ASF and its Maine Council represent a dozen angling, conservation, and watershed education organizations in the State of Maine and more than 5,000 members and volunteers in the United States.

16. Plaintiff Conservation Law Foundation ("CLF") is a non-profit advocacy organization with 5,000 members across New England, including approximately 500 in Maine, with a mission to protect and restore Maine and New England's environment and promote vibrant communities.

17. Plaintiff Maine Rivers is a nonprofit corporation, formed in 2002, with a mission to protect, restore and enhance the ecological health of Maine's river systems.

18. Plaintiff Natural Resources Council of Maine ("NRCM") is a 62-year-old nonprofit environmental advocacy organization with over 25,000 members and supporters. NRCM's

mandate for ensuring survival and recovery of this endangered species under the ESA. 16 U.S.C. §§ 1532(15) & 1533(a)(2); 50 C.F.R. § 402.01(b).; 74 Fed. Reg. 29,344, 29,358 (June 19, 2009).

mission is "to protect, conserve and restore Maine's environment, now and for future generations."

19. Defendant Merimil Limited Partnership is the licensee of the Lockwood Project (FERC No. 2574), which is owned 50% by Brookfield Merimil Partners LLC and 50% by Kennebec Hydro Resources Inc.

20. Defendant Hydro-Kennebec LLC is the licensee of the Hydro-Kennebec Project (FERC No. 2611).

21. Defendant Brookfield White Pine Hydro LLC is the licensee of the Shawmut Project (FERC No. 2322) and Weston Project (FERC No. 2325).

22. Defendant Brookfield Renewable Partners, L.P., is a Bermuda limited partnership, the stock of which is publicly traded on the New York Stock Exchange (stock symbol NYSE: BEP) and the Toronto Stock Exchange, and is an indirect parent of each of the above entities, owning more than 10% on a fully exchanged basis.[9]

23. Defendant Brookfield Power US Asset Management LLC purports to manage the licensees' operations.[10] Brookfield Power US Asset Management LLC is a subsidiary of Brookfield Asset Management, Inc., a corporation headquartered in Toronto, Ontario, Canada, and publicly traded on the New York Stock Exchange (stock symbol NYSE: BAM) and the Toronto Stock Exchange.

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[9] *See also* Letter from Brookfield Renewable to Kimberly Bose, Secretary, Federal Energy Regulatory Commission (February 12, 2018), wherein "Brookfield Renewable Partners" had requested and had been designated non-federal representative for the purpose of undertaking informal consultation with the National Marine Fisheries Service (NMFS) pursuant to section 7 of the ESA, on behalf of each of the four licensees; FERC Accession No. 20180212-5110.

[10] *See* Brookfield Power US Asset Management, LLC letter to Kimberly Bose, Secretary, Federal Energy Regulatory Commission (July 28, 2020), whereby Brookfield Power US Asset Management LLC submits request "on behalf of its affiliated licensees for the above referenced Projects;" FERC Accession No 20200729-5053.

24. Defendant Brookfield Power US Holding America Co. is a Delaware corporation headquartered in New York, NY, which holds an equity interest in and, through its subsidiaries, operates and manages each of the four projects in issue.

25. Each Defendant is jointly and severally liable as an alleged violator for all violations and "takes" asserted herein. The Defendants named in the above-captioned pleading are collectively referred to hereafter as "Brookfield."

JURISDICTION AND VENUE

26. This Court has jurisdiction over this action pursuant to the ESA, 16 U.S.C. § 1540(g), and under 28 U.S.C. § 1331 (federal question) as a civil action arising under the laws of the United States.

27. The Court may grant the relief requested under the ESA, which confers jurisdiction upon the district courts, "without regard to the amount in controversy or the citizenship of the parties," and allows suit to be brought in the judicial district in which the violation occurs. 16 U.S.C. § 1540(g)(1) & (3)(A); 28 U.S.C. §§ 2201 and 2202 (declaratory and injunctive relief).

28. As alleged above in Paragraph 14, Plaintiffs gave sixty days' written notice of their intent to file this suit pursuant to the citizen suits provision of the ESA, 16 U.S.C. § 1540(g)(2)(A)(i), by letters to Defendants dated May 12, 2021 and May 20, 2021.

29. To date, Defendants have neither remedied these continuing ESA violations nor obtained restored take authorization under the ESA at any of the four projects.

30. Indeed, in the face of these notices of intent to sue, given to them on or about May 12 and 20, 2021, Defendants thereafter continued to violate the ESA, exemplified by the events of June 2021 at the Lockwood Project, when flashboard repair/replacement operations resulted in severe trapping, injury, harm, and risked death, of at least 3 adult salmon and nearly two dozen

smolts. And further, death and injury to downstream migrating smolts through all of the projects into the month of June was reasonably certain to occur, by Brookfield's own public admissions regarding downstream migration survival data, over all four projects (i.e, June outmigration from the Sandy River spawning and rearing habitat to the ocean, which requires smolts to pass all four projects in their downstream outmigration).

31. Venue is proper in this Court pursuant to 16 U.S.C. § 1540(g)(3)(A) because the violations occurred in this judicial district, and pursuant to 28 U.S.C. § 1391(b) because a substantial part of the events or omissions giving rise to the claims in this case occurred in this judicial district as they relate to project operations on the Kennebec River and its watershed.

STATUTORY FRAMEWORK OF THE COMPLAINT ALLEGATIONS

32. The ESA was enacted, in part, to provide a "means whereby the ecosystems upon which endangered species and threatened species depend may be conserved ... [and] a program for the conservation of such endangered species and threatened species." 16 U.S.C. § 1531(b).

33. Section 9 of the ESA makes it unlawful for "any person" to "take" a listed species, including take of "any such species within the United States or the territorial sea of the United States." 16 U.S.C. § 1538(a)(1)(B). "Take" means to "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(19). The ESA's legislative history supports "the broadest possible" reading of "take." *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 515 U.S. 687, 704-05 (1995).

34. "Harm," as that word is used in the ESA, means "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; *see Babbitt*

v. Sweet Home Chapter, Communities for Great Oregon, 515 U.S. at 708 (upholding interpretation of the term "take" to include significant habitat degradation).

35. Each Defendant is a "person" under the ESA, as "person" is defined, in relevant part, as "an individual, corporation, partnership, trust, association, or any other private entity." 16 U.S.C. § 1532(13.)

36. Section 10 of the ESA provides an exception to the take prohibition, allowing the take of a listed species where the National Marine Fisheries Service ("NMFS"), which receives delegated authority from the Secretary of the Department of Commerce, issues a permit authorizing the take. 16 U.S.C. § 1539.[11] If the "taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity," such as take associated with construction, development, or operation of an industrial site, the person intending to cause the take must first apply to NMFS for an incidental take permit. 16 U.S.C. § 1539(a)(1)(B).

37. There is no current take permit authorizing any operations of any of the four projects.

38. Section 11 of the ESA allows "any person" to commence a civil suit "to enjoin any person . . . who is alleged to be in violation of any provision of [the ESA]. . . ." 16 U.S.C. § 1540(g)(1)(A). Thus, the ESA authorizes private enforcement of unpermitted take in violation of the take prohibition through a broad citizen-suit provision. Citizens may seek to enjoin both present activities that result in take as well as future activities that are reasonably likely to result in take. *National Wildlife Fed'n v. Burlington Northern Railroad*, 23 F.3d 1508, 1511 (9th Cir. 1994).

[11] National Marine Fisheries Service ("NMFS") is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce. NMFS is the federal wildlife agency with the mandate for ensuring survival and recovery of this endangered species under the ESA. 16 U.S.C. §§ 1532(15) & 1533(a)(2); 50 C.F.R. § 402.01(b).; 74 Fed. Reg. 29,344, 29,358 (June 19, 2009).

THE STATUS OF ATLANTIC SALMON IN THE GOM DPS

39. Atlantic salmon are anadromous fish, spending most of their adult life in the ocean but returning to freshwater to spawn.

40. Atlantic salmon have a complex life history that includes spawning and rearing in rivers and extensive feeding migrations on the high seas. During their life cycle, Atlantic salmon go through several distinct phases that are identified by specific changes in behavior, physiology, morphology, and habitat requirements.

41. Adult Atlantic salmon migrate from the sea to return to their natal freshwater habitats to spawn; a small percentage (1-2%) of returning adults in Maine will stray to a new river. Adults ascend the rivers within the GOM DPS beginning in the spring. The ascent of adult salmon continues into the fall. Although spawning does not occur until late fall, the majority of Atlantic salmon in Maine enter freshwater between May and mid-July. The full upstream migration season is May 1 through October 31.

42. Atlantic salmon are repeat seasonal spawners. In the fall, female Atlantic salmon select sites for spawning in rivers, and a single female may create several redds (nests) before depositing all of her eggs. After spawning, Atlantic salmon may either return to the sea immediately or remain in freshwater until the following spring before returning to the sea.

43. Embryos develop in redds, hatching in late March or April. Newly hatched salmon, referred to as larval fry, alevin, or sac fry, remain in the redd for approximately six weeks after hatching and are nourished by their yolk sac. Survival from the egg to fry stage in Maine is estimated to range from 15 to 35%.

44. When the fry reach approximately 4 cm in length, the young salmon – termed “parr” – remain in the river for 2 to 3 years before undergoing “smoltification,” the process of

physiological changes parr will undergo in order to transition from a freshwater environment to a saltwater marine environment. In Maine, the vast majority of naturally reared parr (90% or more) remain in freshwater for two years with the balance remaining for either one or three years.

45. Most smolts enter the sea during May to begin their first ocean migration. During this outmigration, smolts must contend with changes in salinity, water temperature, pH, dissolved oxygen, pollution levels, and various predator assemblages. The transition of smolts into seawater is usually gradual as they pass through a zone of fresh and saltwater mixing that typically occurs in a river's estuary.

46. The spring migration of post-smolts out of the coastal environment is generally rapid, within several tidal cycles, and follows a direct route.

47. The full downstream migration seasons are April 1 through June 30, and October 15 through December 31 (the latter period involving post-spawn adults returning to the ocean as potential repeat spawners).

48. Repeat spawners within the GOM DPS of Atlantic salmon hold a unique importance for the survival and recovery of the species, as they are critical for population resilience and therefore recovery.

49. The Kennebec was once the most productive river in Maine, with Atlantic salmon runs in the hundreds of thousands.[12] Today, Atlantic salmon in the United States are on the edge of extinction, [13] including Atlantic salmon in the Kennebec River.

50. Atlantic salmon's continued existence depends on the Kennebec River watershed more than any other river in the United States.

51. In 2000, the Gulf of Maine Distinct Population Segment ("GOM DPS") of Atlantic salmon was first listed as an endangered species under the ESA. 65 Fed. Reg. 69459 (November 17, 2000).

52. In 2009, that listing was expanded to include Atlantic salmon in the Kennebec, Penobscot, and Androscoggin Rivers. 74 Fed. Reg. 29,344 (June 19, 2009).

53. In June of 2009, designation of critical habitat for the GOM DPS of Atlantic salmon became final. 74 Fed. Reg. 29,300 (June 19, 2009).

54. The lower Kennebec River watershed is completely within designated critical habitat for the migrating GOM DPS of Atlantic salmon. The vast majority of salmon spawning and rearing habitat in the Kennebec River Watershed is located above Brookfield's four hydropower projects, in the critical habitat recovery units within the Sandy River spawning and rearing area.[14]

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[12] 2006. Saunders et al. Maine's Diadromous Fish Community: Past, Present, and Implications for Atlantic Salmon Recovery. Fisheries 31(11):537-547. Table 2 (cited in ESA Atlantic salmon listing, 74 Fed. Reg. 29344, 29374-75); Fay *et al.*, 2006. Status review for anadromous Atlantic salmon (*Salmo salar*) in the United States. Report to the National Marine Fisheries Service and U.S.. Fish and Wildlife Service. P. 23. In the Kennebec alone, historic evidence puts the Atlantic salmon run at well over 216,000 fish, based on an 1867 Maine Agriculture report of a fish harvest on the Kennebec. Maine Agriculture, 1867 Report of Commissioners Nathan Foster and Charles Atkins at p. 114 (Jan. 16, 1868).

[13] 65 Fed. Reg. 69459 (November 17, 2000); 74 Fed. Reg. 29344 (June 19, 2009).

[14] The critical habitat for the GOM DPS of Atlantic salmon is divided into "salmon habitat recovery units" or SHRU's. Areas designated as critical habitat under the ESA within each SHRU are termed "habitat units," with one unit representing 100 square meters of spawning or rearing habitat. With more

55. The combination of the four hydropower projects of Lockwood, Hydro-Kennebec, Shawmut, and Weston on the Kennebec River totally blocks Atlantic salmon access to the critical spawning and rearing habitat in the Sandy River area, located upstream from the four dams.

56. The Sandy River has the greatest biological value for spawning and rearing habitat within the Merrymeeting Bay SHRU, and is the best habitat in the Kennebec River watershed – both in terms of quality and size – for the spawning and rearing of Atlantic salmon, and indeed among the best in Maine (and hence the United States).

57. Atlantic salmon access to and from the Sandy River area is therefore critical to survival and recovery of this endangered species; without access to the Sandy's spawning and rearing habitat, survival and recovery goals for the GOM DPS of Atlantic salmon will never be met.

58. Currently, the only access Atlantic salmon in the Kennebec have to the Sandy River critical spawning and rearing habitat is by means of a "trap and truck" program operated by the Maine Department of Marine Resources ("MDMR"), where the small numbers of returning fish enter a haphazard fish lift at Lockwood, and pass into holding tanks; MDMR staff capture these fish and transport them to various release locations upstream, beyond the four-dam gauntlet posed by Brookfield's hydropower operations.

59. Above Lockwood, the Hydro-Kennebec Project has a completely untested upstream passage facility, and there is no upstream passage facility installed at either the Shawmut or Weston Projects. Further, all current available scientific data and information show that

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than 43,000 units of habitat, the Sandy River HUC 10 watershed has more Atlantic salmon habitat than any of the other 27 HUC 10 watersheds that were historically accessible to Atlantic salmon within the Merrymeeting Bay SHRU. (HUC stands for Hydrologic Unit Code, and is the national classification system for watershed by size.)

upstream passage over four projects will not function to eliminate "take" in any event – salmon are not able to pass a multi-dam system upstream without suffering a significant percentage of death and injury by the dams and their impoundments, and by the projects' degradation to the environment (including failure to pass other co-evolved species, which is critical to salmon survival and recovery, all as explained further herein.) There is no multi-project Atlantic salmon passage system in the world which has ever worked sufficiently to avoid "take," and none that would ever completely avoid killing and injuring salmon.

60. In 2019, only 56 salmon returned to be captured in the Lockwood Project fish lift in Waterville (the first dam on the Kennebec in the series of four).[15] In the 2020 migration season, only 51 salmon were captured at the Lockwood fish lift.[16] As of June 21, 2021, only 15 returning adults have been captured at the Lockwood Project.[17]

61. In terms of downstream migration, over 40% of outmigrating smolts are killed in dam-related mortalities, based on Brookfield's own studies.

[15] 2020. DMR. MDMR Response to the Ready for Environmental Analysis (REA) Preliminary Terms and Conditions, and Preliminary Fishway Prescriptions for the Shawmut Project (P-2322-069). August 28, 2020. P.3.

[16] Brookfield Renewable, Diadromous Fish Passage Report for the Lower Kennebec River Watershed during the 2020 Migration Season, at section 2.2.1.3 (Table 2-5). February 19, 2021. P. 20.

[17] 2021. MDMR Comments on [Brookfield] Species Protection Plans at the [Lockwood, Hydro-Kennebec, and Weston] Hydroelectric Projects. August 25. Table 1 at P.8; FERC Accession No. 2021 0825-5159.

TAKE OF ATLANTIC SALMON AS A RESULT OF THE OPERATIONS OF THE FOUR HYDROPOWER PROJECTS

Upstream Migration Take

62. Upstream migration "take" occurs at the Lockwood Project, and would occur at the remaining three upstream dams in the four-dam impediment which Atlantic salmon (and other coevolved fish species) would face on their upstream migration, if they were able to pass at Lockwood, which they are not.

63. The Lockwood Project is the first dam that American shad, river herring, and Atlantic salmon hit on their journey from the ocean to spawn in freshwater.

64. The fish lift at this dam has never worked well since its installation in 2006, and Brookfield has failed to improve it. In a recent filing to the Federal Energy Regulatory Commission (FERC), the Maine Department of Marine Resources (MDMR) stated:

> Fish passage failures at the Lockwood Project provide a cautionary tale as unexpectedly poor performance has left hundreds of returning endangered Atlantic salmon to die or spawn in subpar habitats below the project and likely tens or hundreds of thousands of American shad and other species to be blocked from historic habitats annually.[18]

65. NMFS stated in a 2018 letter to Brookfield that: "1) The Lockwood facility demonstrates poor upstream passage efficiency for Atlantic salmon; 2) Atlantic salmon are highly attracted to the 'bypass' reach of the Lockwood facility; and 3) the Lockwood facility imposes a significant delay upon the upstream migration of Atlantic salmon. Although the study did not

[18] 2020. MDMR. MDMR Response to the Ready for Environmental Analysis (REA) Preliminary Terms and Conditions, and Preliminary Fishway Prescriptions for the Shawmut Project (P-2322-069). August 28, 2020. P.3; FERC Accession No. 20200828-5199 at 3.

address the facility's upstream passage effect on other species, it is reasonable to assume that other diadromous species experience similar effects."[19]

66. Furthermore, delays in upstream migration can be fatal, to the individual and to the species as a whole. Delays result from the ESA-defined "harm" caused by the hydropower projects, whose dams and impoundments pose migration barriers and adverse modification and degradation of the species' critical habitat. Delays in passage to spawning and rearing habitat directly reduce spawning or spawning success, because returning salmon have stored energy reserves from the marine environment which cannot be expended or depleted before spawning can occur. Delays reduce survival and spawning success by increasing vulnerability to parasites and predation, depleting energy reserves, and creating missed spawning opportunities. Salmon that are not captured in the fish lift at Lockwood (or inordinately delayed by the project by attempts at passage), are left to die, to never spawn, or to spawn in subpar habitats below the Lockwood dam.

67. The very small numbers of the critical multi-season "repeat spawners" individuals in the species' population, which have not yet been extirpated from the Kennebec but are close to extirpation, raise dire concern about each take that occurs at the Lockwood Project. These small numbers also raise dire concerns about each take that would likely occur at each of the other three upstream projects, even assuming takes at Lockwood were to be eliminated.

[19] Letter from Dan Kircheis (Acting ESA Fish Recovery Coordinator, NMFS Greater Atlantic Regional Fisheries Office) to Secretary Bose, FERC re NOAA Fisheries comments on the draft 2017 KHDG report (March 27, 2018) at 1 [FERC Accession No. 20180329-5166].

Downstream Migration Take

68. Take also occurs with downstream outmigration of Atlantic salmon. NMFS has concluded that "[a] significant proportion of Atlantic salmon smolts and kelts are injured or killed while passing dams during their downstream migration."[20]

69. Brookfield's own downstream passage study data, as well as current best available scientific data, demonstrate that each of the four projects (including the projects' impoundments) "take" the species – i.e., "harm" "wound" "trap," or "kill" as such terms are defined in the ESA – during downstream migration. In the words of NMFS, "[t]he total mortality associated with passage through a dam system can be represented by a conceptual equation: mortality in the impoundment + direct mortality + indirect mortality that occurs in the river + latent mortality in the estuary and marine environment = **total dam-related mortality**."[21]

70. Brookfield's own salmon smolt studies conducted in 2012-2015 confirm these findings. Yearly survival varied from 30 to 70 percent, yielding calculations that over 40% of outmigrating smolts die trying to return to the ocean due to Brookfield's dams and the impoundments they create.

[20] Interim Biological Opinion of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration's National Marine Fisheries Service ("NMFS") "Endangered Species Act Section 7 Formal Consultation for the Lockwood (2574), Shawmut (2322), Weston (2325), Brunswick (2284), and Lewiston Falls (2302) Projects," NOAA Fisheries Greater Atlantic Region Reference No. NER-2013-9613, at section 2.1.1 (July 19, 2013) (hereafter "2013 Interim BiOp) at 141. As explained further herein, Brookfield allowed this 2013 Interim BiOp to expire on December 31, 2019, and has not secured a new one with any incidental take permits.

[21] FERC Accession No. 20210826-5106 (NMFS letter to Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission) (August 26, 2021) (bold emphasis added).

71. Therefore, "[i]n addition to direct mortality sustained by Atlantic salmon at hydroelectric projects, Atlantic salmon in the Kennebec [River] will also sustain delayed mortality as a result of repeated passage events at multiple hydroelectric projects."[22]

Other Take Occurrences

72. The known failures at the Lockwood Project to pass effectively American shad, and other co-evolved species, has a direct correlation to Atlantic salmon increased mortality in the critical habitat area. The depletion of "cover" species, which when present in large numbers reduce predation on Atlantic salmon, is an adverse modification of critical habitat, and the projects' successive failures to pass these other species increase the percentage of takes during both in- and out-migrations.[23]

73. In a review by the National Research Council of the National Academy of Sciences ("NRC") on the status of survival for Atlantic salmon in Maine (cited in the 2013 Interim BiOp at 175), the NRC concluded that the greatest impediment to self-sustaining Atlantic salmon populations in Maine is obstructed fish passage and degraded habitat caused by dams.[24]

74. Thus, existing operations of Brookfield's hydropower projects result in four additional impediments and habitat degradations – impounded waters created by the damming of the river at the four projects. In the aggregate, these impoundments cover a substantial percentage (85%) of the river from the Lockwood Project upstream to the upper end of the Weston Project impoundment.

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[22] 2013 Interim BiOp at 49.

[23] 74 Fed. Reg. 29,344-01 at 29,374-75 (Determination of Endangered Status for the Gulf of Maine Distinct Population Segment of Atlantic Salmon) (June 19, 2009).

[24] NRC (National Research Council). 2004. Atlantic Salmon in Maine. National Academy Press. Washington D.C. 304 pp.

75. These areas of the riverine environment are deleterious to the recovery of cold water fish species. For example, in the 2013 interim Biological Opinion regarding the Lockwood, Shawmut, and Weston Projects on the Kennebec River, NMFS concluded:

> Dams have eliminated or degraded vast, but to date un-quantified, reaches of suitable rearing habitat in the Kennebec . . . watershed. The Kennebec River consists of 254,558 historic habitat units, with 44,402 units considered to be occupied . . . . Impoundments created by these dams limit access to habitat, alter water quality through increased temperatures and lowered dissolved oxygen levels. Furthermore, because hydroelectric dams are typically constructed in reaches with moderate to high underlying gradients, significant areas of free-flowing habitat have been converted to impounded habitats in the Kennebec . . . River watersheds. Coincidently, these moderate to high gradient reaches, if free-flowing, would likely constitute the highest value as Atlantic salmon spawning nursery, and adult resting habitat within the context of all potential salmon habitat within these reaches.[25]

76. Outmigrating smolts and kelts are delayed or hindered by the lack of free-flowing habitat and by alterations in water quality (temperature, lowered dissolved oxygen levels, etc.), harming their outmigration to a degree that "significantly impair[s] essential behavioral patterns, including, breeding, spawning, rearing, migrating, feeding or sheltering." 50 C.F.R. § 222.102.

77. In short, dams are a man-made degradation of the natural riverine environment. *See American Rivers and Alabama Rivers Alliance v. Federal Energy Regulatory Commission*, 895 F.3d 32, 46-50 (D.C. Cir. 2018) (environmental degradation from impoundments cannot be ignored in the environmental analysis required by the National Environmental Policy Act, 42 U.S.C. §§ 4321, *et seq*.).

78. The existence and operations of the Brookfield projects and impoundments in issue are entirely within the designated critical habitat of the GOM DPS of Atlantic salmon, and adversely impact that critical habitat, resulting in unauthorized "takes" by "significantly

[25] 2013 Interim BiOp at 46.

impair[ing] essential behavioral patterns including, breeding, spawning, rearing, migrating, feeding or sheltering." 50 C.F.R. § 222.102; 16 U.S.C. §§ 1532(19) & 1538(a).

COUNT 1:
DECLARATORY JUDGMENT – 22 U.S.C. § 2201

79. Plaintiffs repeat and reallege paragraphs 1 through 78 as if fully set forth herein.

80. Up to December 31, 2019 – the date of expiration of all take permits – there had been in effect for the hydropower projects interim, time-limited incidental take authorizations, including terms and conditions that were set forth in these incidental take statements of the respective interim biological opinions of July 19, 2013 and September 17, 2012. These take authorizations had been a previous result of NMFS's consultation under section 7 of the ESA (16 U.S.C. § 1536(a)(2) & (b)) with the Federal Energy Regulatory Commission, concerning the effects of proposed approval of applications to amend the licenses for the construction of new upstream fishways at each of the projects, as well as the incorporation of an Interim Species Protection Plan (ISPP) for the GOM DPS of Atlantic salmon at each of the projects, which would also govern downstream passage.[26]

81. The take authorization resulting from the 2012 and 2013 section 7 consultations, covering both upstream and downstream fish passage, expired on December 31, 2019, for all four hydropower projects.[27]

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[26] 2013 Interim BiOp. at sections 1 & 10; Biological Opinion of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration's National Marine Fisheries Service ("NMFS") "Endangered Species Act Section 7 Formal Consultation for the Hydro-Kennebec Project (FERC No. 2611) (September 17, 2012); " NOAA Fisheries Greater Atlantic Region Reference No. NER-2012-01860 (September 17, 2012) at section 2.1 (hereafter "2012 Interim BiOp") at sections 1.0 and 10.0.

[27] 2013 Interim BiOp. at sections 10.1, p.149-150; 2012 Interim BiOp at section 10.1 & 2017 Biological Opinion for the Proposed Extension of Time for the Interim Species Protection Plan of the Hydro-Kennebec Project (P-2611), at section 10 & 12 ("Because this Opinion only considers the effects of continued

82. Since the expiration of take authorizations at all four hydropower projects on December 31, 2019, Brookfield has continued to operate all four hydropower projects, and those operations of each hydropower project have violated section 9 of the ESA, 16 U.S.C. § 1538, by causing the unauthorized "take" of individual GOM DPS of Atlantic Salmon attempting to migrate upstream at the Lockwood Project, and by causing the unauthorized "take" of individual GOM DPS of Atlantic Salmon attempting to migrate downstream at the Weston Project and at each of the remaining three hydropower projects downstream from the Weston Project.

83. The ongoing incidental take of one or more individuals of the listed species of Atlantic salmon without take authorization – take that is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity" – violates the ESA without take authorization. 16 U.S.C. §§ 1538-39.

84. Brookfield has not restored any lapse in take authorization or obtained valid incidental take permits under sections 1536(b)(4) or 1539 of the ESA.

85. Brookfield therefore currently operates in direct violation of sections 9 and 10 of the ESA, and has been operating in direct violation of sections 9 and 10 of the ESA since December 31, 2019.

86. "Take" occurred in each month of upstream and downstream migration and is reasonably likely to continue to occur.

87. Brookfield's take of Atlantic salmon includes: causing direct mortality and/or injury to Atlantic salmon; causing harassment of Atlantic salmon; causing mortality and/or injury

operation of the project pursuant to the proposed amended license, the accompanying ITS [incidental take statement] only exempts take until the end of 2019. After that time, this Opinion will no longer be valid."); NOAA Fisheries Greater Atlantic Region Reference No. NER-2012-01860 (May 27, 2017).

by impeding, impairing, or delaying time-sensitive passage through the migration corridor of the Kennebec main stem for upstream and downstream movement; and/or by causing "harm" to Atlantic salmon through significant adverse modification or degradation of the species' critical habitat resulting in significant impairment of essential behavioral patterns and/or resulting in actual death or injury to Atlantic salmon.

88. Brookfield's activities, acts and omissions in operating the four hydropower projects on the Kennebec River have caused, are causing, and/or pose a reasonable likelihood of imminent "take" of Atlantic salmon, a threatened species, in violation of Section 9 of the ESA, 16 U.S.C. § 1538(a)(l)(B).

89. Plaintiffs are entitled to a judgment declaring that Brookfield's take authorization resulting from the 2012 and 2013 section 7 consultations, covering both upstream and downstream fish passage, expired on December 31, 2019, and that as a result all four hydropower projects since that time have been and are currently operating in violation of the ESA, without authorization for the "take" of listed species as required by the ESA.

90. Plaintiffs are entitled to a judgment declaring that Brookfield is operating the Lockwood, Hydro-Kennebec, Shawmut, and Weston hydropower projects on the main stem of the Kennebec River in direct violation of sections 9 and 10 of the ESA by causing unauthorized take of Atlantic salmon, and that unauthorized "take'" is reasonably likely to occur in the future, including during the oncoming fall outmigration season and the next spring migration seasons.

91. Brookfield's activities, operations, acts or omissions related to the four hydropower projects without incidental take permission authorized by NMFS constitute ongoing violations of Section 9 of the ESA and are subject to citizen suit enforcement pursuant to Section 11 of the ESA, 16 U.S.C. § 1540(g)(l).

COUNT 2:

INJUNCTIVE RELIEF – 16 U.S.C. § 1540(g)

92. Plaintiffs repeat and reallege paragraphs 1 through 91 as if fully set forth herein.

93. Brookfield's violations are continuing and must be enjoined pursuant to Section 11 of the ESA, 16 U.S.C. § 1540(g)(l)(A).

94. Plaintiffs are entitled to injunctive relief ordering Brookfield to cease all operations of the four hydropower projects on the main stem of the Kennebec River that caused, are causing, and/or pose a reasonable likelihood of imminent "take" of Atlantic salmon in violation of Section 9 of the ESA, 16 U.S.C. § 1538(a)(l)(B), and ordering that such relief remain in place until such time as Brookfield obtains an incidental take permit for any such activity.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully request that this Court:

A. ADJUDGE and declare that Brookfield's activities, acts and omissions in operating the four hydropower projects on the Kennebec River are currently, and have been since December 31, 2019, in violation of Sections 9 and 10 of the ESA because of Brookfield's take without authorization of Atlantic salmon of the GOM DPS.

B. ENJOIN Brookfield from undertaking any activities, including any acts, omissions, or failures to act, related to the operation of the four hydropower projects on the Kennebec River that result in take, including future activities, acts or omissions, that are reasonably likely to result in take.

C. GRANT such other preliminary and permanent injunctive relief as may from time to time be required, and as may be necessary to enjoin these violations of the ESA, and to protect the ESA-listed species and its designated critical habitat.

D. AWARD Plaintiffs their costs of litigation, including reasonable attorney and expert witness fees, pursuant to 16 U.S.C. § 1540(g)(4), and such other reasonable costs, expenses, and disbursements, including attorneys' fees, as provided by the ESA or as they may be entitled under the law, and grant such other and further relief as the Court may deem just and proper.

Dated at Portland, Maine this 9th day of September, 2021.

/s/ Russell B. Pierce, Jr.
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