NOTE

FRANKLY MY DEAR, I DON'T WANT A DAM: REFOCUSING DAM REMOVAL PRIORITIES TO PROTECT ENDANGERED SALMON NOW

By
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Dams are a critical threat to salmonid habitat and population recovery. While much progress has been made in the past few years with dam removal, the more quickly dams are removed, the greater chance that salmon can be restored to their historic ranges. In the Pacific Northwest, dams are a particular threat to salmon. Many regulatory tools can be used to bring dams into compliance, but there is often much resistance to these efforts. This Essay proposes that by targeting dilapidated private dams as opposed to functional ones on public land, compliance or removal will be achieved with less resistance and hassle. By making such dams a priority, more salmonid habitat will be restored with comparatively little effort. Targeting private non-functional dams is a cost-efficient step that will speed much-needed salmon habitat recovery.

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I. INTRODUCTION

American writer Arthur Golden once wrote "[R]ivers sometimes wash dams away."[1] More often than not, however, rivers need help from us to fix the problems mankind has created by erecting dams. There are over eighty-five thousand dams in America today,[2] and with them come a plethora of environmental harms.[3] In the Pacific Northwest, one of the most acute problems arising from our dams is the destruction of habitat, disrupting birth patterns for salmonid species.[4]

Dams block migration to over half of the historic salmonid spawning grounds in the Columbia River basin.[5] Although they are far from the only human activity decreasing salmonid populations, dams and the accompanying instream migration impediments they cause have certainly played a role in causing various northwestern salmon and steelhead species to be listed as threatened or endangered.[6]

Many environmental activists have adopted a fairly straightforward proposition: The best way to reverse the fish-passage harms that

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[1] ARTHUR GOLDEN, MEMOIRS OF A GEISHA 128 (1997).

[2] THE HEINZ CENTER, DAM REMOVAL: SCIENCE AND DECISION MAKING 3 (2002) (the list referenced here has not been updated since 2001 due to post-9/11 security concerns).

[3] *See* Christopher Scoones, *Let the River Run: Strategies to Remove Obsolete Dams and Defeat Resulting Fifth Amendment Taking Claims*, 2 SEATTLE J. ENVTL. L. 1, 3–4 (2012) (providing examples of the environmental harms caused by dams).

[4] *See* LAURIE A. WEITKAMP, A REVIEW OF THE EFFECTS OF DAMS ON THE COLUMBIA RIVER ESTUARINE ENVIRONMENT, WITH SPECIAL REFERENCE TO SALMONIDS 6 (1994) (providing examples of the harms to salmonid species caused by dams).

[5] *Dams: Impacts on Salmon and Steelhead*, NW POWER AND CONSERVATION COUNCIL (Oct. 31, 2008), https://www.nwcouncil.org/history/DamsImpacts [https://perma.cc/Z768-8UDT] (accessed Sept. 11, 2018).

[6] *See, e.g.*, *Salmon Species Listed Under the Federal Endangered Species Act*, WASH. STATE RECREATION AND CONSERVATION OFFICE, (2009), http://www.rco.wa.gov/salmon_recovery/-listed_species.shtml [https://perma.cc/ZQ2C-EV7C] (accessed Sept. 11, 2018) (listing all endangered salmon species in Washington state).

dams cause is simply removing the dam.[7] The movement to remove dams has gained significant momentum in recent years, and there are many reasons to believe that this trend could continue if environmental activists maintain pressure on owners and operators.[8] This Essay discusses the statutory requirements that advocates have used to facilitate recent successful dam removals, and suggests several next steps that organizations can take to broaden the scope of dam removals in the future.

A. Legal and Regulatory Strategies Available to Remove Dams

The environmental harms that dams can inflict—particularly on migrating salmonid species[9]—have sparked a growing movement calling to breach dams and return rivers to more natural flow conditions.[10] Although every successful dam removal has its own story, the increased occurrence[11] has allowed some patterns to emerge and created blueprints for advocates to follow to effectively cause more dams to be removed.

One of the more effective triggers for removals has been environmental considerations in the Federal Energy Regulatory Commission (FERC) relicensing process. Since many rivers in the Pacific Northwest contain anadromous fish species that are listed as either threatened or endangered,[12] the Endangered Species Act (ESA) prohibits FERC from licensing any dam that would jeopardize one of those species or their critical habitat.[13] This makes the ESA a valuable tool to induce voluntary dam removals by requiring FERC to include costly fish passage upgrades in many relicensing proceedings.[14]

While FERC proceedings have been a wonderful tool to bring down hydroelectric dams in the past decade, this Essay focuses on another ESA tool to induce dam removals—private landowner liability

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[7] Michelle Nijhuis, *Movement to Take Down Thousands of Dams Goes Mainstream*, NAT'L GEOGRAPHIC (Jan. 29, 2015), https://news.nationalgeographic.com/news/2015/01/150127-white-clay-creek-dam-removal-river-water-environment/ [https://perma.cc/83DN-2P9H] (accessed Sept. 11, 2018).

[8] *Id.* ("Twenty years ago, dam removal was a fringe notion," but seventy-one dams were removed in 2014 alone).

[9] *See* Courtney Flatt, *Why the Northwest is Debating Dams on the Snake River (Again)*, OR. PUB. BROADCASTING (Nov. 21, 2016), http://www.opb.org/news/article/future-of-the-snake-river-dams/ [https://perma.cc/593T-PA48] (accessed Sept. 11, 2018) ("[t]he four dams on the lower Snake River . . . [ha]ve proven detrimental to threatened and endangered salmon and steelhead.").

[10] Juliet Eilperin, *Elwha Dam Removal Illustrates Growing Movement*, WASH. POST (Sept. 16, 2011), https://www.washingtonpost.com/national/health-science/elwha-dam-removal-illust-rates-growing-movement/2011/09/13/gIQAZFjtYK_story.html?utm_term=.b21544f25b0c [https://perma.cc/BB2C-3JJP] (accessed Sept. 11, 2018).

[11] *Id.* (241 dams were removed nationwide between 2006 and 2010).

[12] *Salmon Species Listed Under the Fed. Endangered Species Act*, *supra* note 6.

[13] Endangered Species Act of 1973, 16 U.S.C. § 1536(a)(2) (2018).

[14] Margaret B. Bowman, *Legal Perspectives on Dam Removal*, 52 BIOSCIENCE 739, 741 (2002); *see* discussion *infra* section III(A) (explaining how the ESA is used in maintaining private dams).

for any "take" of endangered species.[15] With this weapon in the arsenal, environmental activists can target a broader swathe of dams, including the mostly unregulated non-hydroelectric dams.[16]

B. Prioritizing Relatively Removable Dams to Open Salmonid Habitat

Due to the ever-increasing strain placed on salmonid habitat, it is unlikely that spawning can be restored throughout the salmon's entire historic range.[17] For this reason, some organizations—like the Wild Salmon Center—advocate protecting the few remaining "salmon strongholds," which they define as "the rivers with the best existing habitats and healthy native salmon stocks, and the fewest major human impacts."[18] While this is an excellent goal to maintain a baseline of minimum populations, this Essay argues that advocates should also look for criteria indicating which impacted watersheds could be reopened to salmon runs relatively easily—in terms of both the monetary cost to remove the dam and the level of efforts spent advocating removal.

Since dams block salmon access to many watersheds in the Pacific Northwest,[19] and salmon populations have experienced remarkable recoveries following dam removal,[20] removing dams may certainly be a viable strategy for restoring some salmon runs throughout the region. However, due to the particularly dire situation northwest salmon find themselves in,[21] salmon advocates must be practical and focus their efforts on dams where removal is more likely to occur in the near future rather than those that would require protracted legal and public-opinion battles to bring down. This Essay argues that environmentalists advocating dam removal for the purpose of improving salmon passage to spawning grounds should begin by targeting their efforts and resources at privately owned, non-hydroelectric dams because removal

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[15] 16 U.S.C. § 1538(a)(1) (2018).

[16] *See* discussion, *infra* section III(A) (explaining that the ESA language applies broadly).

[17] *See* Robert T. Lackey et al., *The Challenge of Restoring Wild Salmon in* SALMON 2100: THE FUTURE OF WILD PACIFIC SALMON 2 (Robert T. Lackey et al., eds., Am. Fisheries Soc., 2006), citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.511.6266&rep=rep1&type=pdf [https://perma.cc/UK2U-PJ5X] (accessed Sept. 11, 2018) (explaining that despite efforts to protect salmon, salmon populations will likely stagnate or continue to decline).

[18] Guido Rahr, *Why Protect Salmon*, WILD SALMON CTR., https://www.wildsalmoncenter.org/-work/why-protect-salmon/ [https://perma.cc/RZ8D-N8FL] (accessed Sept. 11, 2018).

[19] *Dams: Impacts on Salmon and Steelhead*, *supra* note 5.

[20] *See, e.g.*, Lynda V. Mapes, *Elwha: Roaring Back to Life*, THE SEATTLE TIMES (2006), https://projects.seattletimes.com/2016/elwha/ [https://perma.cc/5ETC-Q2AS] (accessed Sept. 11, 2018) (providing data on chinook spawners and fish population in general following the removal of the Elwha Dam).

[21] *See* discussion *infra* section II (explaining the detrimental issues salmon populations have faced).

campaigns targeting such dams have a significantly more successful track record.

Section II of this Essay will discuss the precipitous decline in salmon returns in the Columbia River basin and argue that advocates must aim for success in the near future, as opposed to targeting dams with more strongly vested interests.[22] Section III will discuss the current statutory structure regarding fish passage at hydroelectric dams and contrast it with the largely unregulated nature of non-hydroelectric dams, arguing that advocates should fill this gap in regulatory oversight by using citizen-suits under the ESA to remove non-hydroelectric dams that harm listed salmonid species. Finally, Section IV will argue that an ideal starting point for these dam removals is the myriad obsolete dams that dot the Pacific Northwest's waterways.

II. SALMON POPULATIONS HAVE BEEN PUSHED TO THE BRINK, SO SALMON ADVOCATES MUST TARGET NEAR-TERM SUCCESSES.

Salmon have been a cornerstone of Pacific Northwest culture since time immemorial.[23] To Native Americans in the region, salmon played a crucial role for both food and ceremonial purposes.[24] Salmon were also vital to the ability to trade with tribes from all over the western United States.[25] One particular trading post—Celilo Falls—drew traders from as far as Montana and the Navajo Country, earning the nickname "Wall Street of the West."[26]

After European settlers colonized the region, salmon harvest became a massive commercial industry starting in the 1860s.[27] Annual commercial salmon harvest in the Columbia River peaked in the early 20th century, when roughly 50 million pounds of fish were caught in a

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[22] This is not meant to say that advocates should not keep pressure on groups to remove the more difficult dams. This Essay merely argues that dam removal advocates should start with the low-hanging fruit to jumpstart the rejuvenation of salmon returns.

[23] *Tribal Salmon Culture*, COLUMBIA RIVER INTER-TRIBAL FISH COMM'N, http://www.critfc.org/-salmon-culture/tribal-salmon-culture/ [https://perma.cc/SU82-YFBW] (accessed Sept 11, 2018).

[24] Darryl Fears, *As Salmon Vanish in the Dry Pacific Northwest, So Does Native Heritage*, WASH. POST (July 30, 2015), https://www.washingtonpost.com/national/health-science/as-salmon-vanish-in-the-dry-pacific-northwest-so-does-native-heritage/2015/07/30/2ae9f7a6-2f14-11e5-8f36-18d1d501920d_story.html?utm_term=.b496e8c137f5 [https://perma.cc/4FT4-SD3A] (accessed Sept. 11, 2018).

[25] *See Tribal Salmon Culture*, *supra* note 23 (noting the importance of salmon in the trade economy).

[26] Molly Harbarger, *Celilo's Success Might Be Path Forward for Columbia River Tribal Housing—But It Wasn't Easy*, THE OREGONIAN (May 20, 2016), http://www.oregonlive.com/-politics/index.ssf/2016/05/celilos_success_might_be_path.html [https://perma.cc/VNL3-RZPJ] (accessed Sept. 11, 2018).

[27] COURTLAND L. SMITH, OR. STATE. UNIV., SALMON ABUNDANCE AND DIVERSITY IN OREGON: ARE WE MAKING PROGRESS? 4 (2014), https://oregonstate.edu/instruct/anth/smith/-SalmonAbundance-andDiversity_s14002.pdf [https://perma.cc/N5JJ-49SZ] (accessed Sept. 11, 2018).

single year.[28] Since then, recent harvests have decreased to roughly 5 million pounds per year.[29] Today, the salmon industry still employs tens of thousands of individuals and injects $3 billion into northwest economies.[30] Regardless of any opinion on the environmental need to protect salmon, the economic interests that salmon supports provide a strong incentive to maintain salmon spawning runs.

The beneficial impacts of healthy salmon runs are not limited to humans; at least 137 plant and animal species rely on nutrients from salmon.[31] With every returning salmon, marine-rich nutrients are driven upstream to dozens of hungry animal species who spread the nutrients even further with their droppings.[32] Those fish that survive the journey upriver perish after spawning, fertilizing streams and riverbeds.[33] The declining salmon populations have also had devastating impacts on the saltwater species that depend on them, as recently demonstrated by the plight of Tahlequah, a Puget Sound orca who made headlines for carrying her dead calf on her head for two-and-a-half weeks.[34]

For millennia, annual salmon returns to the Columbia River exceeded 10 million fish.[35] One tributary, the Snake River, used to draw as many as 1.5 million salmon and steelhead.[36] By 1990, returning wild salmon and steelhead had dropped to seventy-eight specimens.[37] The salmon returns were infamously dismal in 1992, when only a single sockeye salmon—Lonesome Larry—survived the journey to the headwaters of the Snake River.[38] The Columbia River itself has not fared much better; the expanding human population throughout its basin has drastically decreased available salmon habitat.[39] As a result,

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[28] *Id.* at 5, fig. 1.

[29] *Id.*

[30] Rahr, *supra* note 17.

[31] *Id.*

[32] Liz McKenzie, *Forest and Sea: The Salmon Connection*, ENCOUNTERS (Sept. 11, 2017), https://www.encountersnorth.org/ak-wild-salmon-summary/2017/8/2/forest-and-sea-the-salmon-connection [https://perma.cc/8QHY-MFHR] (accessed Sept. 11, 2018).

[33] *Id.*

[34] Avi Selk, *Update: Orca Abandons Body of her Dead Calf After a Heartbreaking, Weeks-Long Journey*, WASH. POST (Aug. 12, 2018), https://www.washingtonpost.com/news/animalia/-wp/2018/08/10/the-stunning-devastating-weeks-long-journey-of-an-orca-and-her-dead-calf/?utm_term=.e1edb8ab0554 [https://perma.cc/99JC-XKMH] (accessed Sept. 11, 2018) ("The cause [of the dwindling orca populations] is no mystery: Humans have netted up the whales' salmon . . . .").

[35] SMITH, *supra* note 27, at 4.

[36] John Harrison, *Endangered Species Act and Columbia River Salmon and Steelhead*, THE NORTHWEST POWER AND CONSERVATION COUNCIL (Nov. 22, 2011), https://www.nwcouncil.org/-news/-endangered-species-act-and-columbia-river-salmon-and-steelhead [https://perma.cc/-C53A-M3XP] (accessed Sept. 3, 2018).

[37] *Id.*

[38] *The Journey*, LONESOME LARRY, http://lonesomelarry.org/index.php/the-journey/ (accessed Sept. 3, 2018) (site no longer available).

[39] ROBERT BILBY ET AL., INDEP. SCI. ADVISORY BD., HUMAN POPULATION IMPACTS ON COLUMBIA RIVER BASIN FISH AND WILDLIFE iii–iv (2007).

twelve distinct populations of Columbia River salmon, steelhead, trout, and sturgeon were listed under the ESA in the 1990s.[40]

While listing these species under the ESA will engender certain protections, these listings also mean it is now-or-never when it comes to protecting salmon in the Columbia River basin. With these dwindling annual returns, salmon advocates must focus on rejuvenation strategies that are likely to succeed in the near-future to prevent extirpation.[41] For those advocates pursuing dam removal as a means of improving salmon returns, this means they must look to dams that are backed by minimal vested interest to make a speedy removal more likely.[42]

III. SALMON ADVOCATES SHOULD REFOCUS DAM REMOVAL EFFORTS ON NON-HYDROELECTRIC DAMS BECAUSE THOSE DAMS ARE HIGHLY UNREGULATED AND LACK AN EFFECTIVE REGULATORY TRIGGER FOR REMOVAL.

The uptick in dam removals—not to mention the fish-passage improvements on dams that remain in the river—shows that the current FERC process can be a great tool to bring down hydroelectric dams, and this trend is likely to continue for at least several decades.[43] However, for non-hydroelectric facilities—diversionary irrigation dams, for example—there is no effective regulatory process; the only functional method of removal is through individual litigation.[44] In a similar vein, citizens get an opportunity to provide input for decisions related to fed-

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40 Harrison, *supra* note 36.

41 For example, in response to the plummeting Puget Sound orca populations, Washington governor Jay Inslee convened a task force whose recommendations included focusing dam-removal efforts on "short-term actions" instead of complex targets like the Lower Snake dams; the task force suggested the removal of six smaller dams, including one irrigation dam and another dam that no longer produces hydroelectricity. John Stang, *As Puget Sound Orcas Dwindle, Dam Removal Pressure Grows*, CROSSCUT (Aug. 31, 2018) https://crosscut.com/2018/08/puget-sound-orcas-dwindle-dam-removal-pressure-grows [https://perma.cc/27TD-CM7R] (accessed Sept. 11, 2018). This Essay agrees that the most successful dam-removal strategies moving forward will target these kinds of dams. *See* discussion *infra* section IV.

42 *See* discussion *infra* section IV (targeting obsolete dams would have the fastest impact for habitat restoration).

43 For a discussion of why FERC has caused so many recent removals and analysis of dams in the Pacific Northwest likely to face extensive fish-passage improvements to qualify for relicensing, *see generally* Skylar Sumner, *FERC Relicensing and its Continued Role in Improving Fish Passage at Pacific Northwest Dams*, ENVTL. L. REV. SYNDICATE (2017), http://elawreview.org/-environmental-law-review-syndicate/ferc-relicensing-continued-role-improving-fish-passage-pacific-northwest-dams/ [https://perma.cc/5GJM-KQY4] (accessed Sept. 11, 2018) (providing an overview of how FERC can be used to compel dam removal).

44 *See* discussion *infra* section III(A) (highlighting successful cases in applying statutory definitions).

erally operated hydroelectric dams,[45] but private non-hydroelectric dams do not have any concrete avenue for input from citizens. The ESA citizen-suit provisions provide a means of bringing private dam owners into court.[46] These non-hydroelectric dams often have fewer vested interests behind them since they provide significantly fewer benefits than a large-scale hydropower dam. Furthermore, by removing several dams on multiple waterways, advocates can open hundreds of miles of diverse habitat for anadromous fish.

While non-hydroelectric dams are often smaller than their electricity-producing counterparts, such dams can still be extremely harmful to fish passage.[47] In fact, when the Oregon Department of Fish and Wildlife (ODFW) prioritized fish passage concerns throughout the state, two of the worst offenders (Group 1 priorities) were obsolete diversion dams owned by private landowners.[48] Since the current regulatory system can cause hydroelectric dams to be removed at the operator's expense,[49] and there is no similar regulatory scheme for non-hydroelectric dams, this Essay argues that organizations advocating for dam removals should focus their efforts on non-hydroelectric dams to help fix a gap in regulatory oversight.

Without a regulatory framework, the strongest legal hook to remove non-hydroelectric dams is through private groups bringing lawsuits under the "take" provisions of the Endangered Species Act.[50] While these lawsuits are limited to rivers that contain listed species, they will still have broad applicability because of how widespread the threatened species' habitats are throughout the Pacific Northwest.[51]

A. Private Landowner Liability under the ESA

The ESA provides a strong legal avenue extending liability to many of the landowners responsible for maintaining private dams. Under the ESA, private landowners can be held liable for decisions they make that adversely affect listed species and their habitat. Since many of these dams were constructed decades ago—and quite a few

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[45] Operating decisions at public dams are subject to NEPA procedural requirements; the FERC decision to relicense must go through all APA notice-and-comment procedures.

[46] *See* discussion *infra* section III(A) (demonstrating that under the ESA, "any person" can establish standing).

[47] *See* discussion *infra* section III(B) (discussing the obstacles for upstream and downstream fish passage).

[48] KEN LOFFINK, OR. DEPT. OF FISH AND WILDLIFE, FISH PASSAGE PRIORITY LIST ATTACHMENT C (2013).

[49] *See* discussion *infra* section I(A) (discussing the Bull Run Hydropower Project).

[50] 16 U.S.C. § 1538(a)(1). For example, in the case of the Wimer and Fielder dams, discussed *infra*, EarthJustice and Waterwatch threatened to sue the dam owners. Janette Brimmer, *The Dance of the Dammed*, EARTHJUSTICE (Aug. 12, 2015), http://earthjustice.org/blog/2015-august/-the-dance-of-the-dammed [https://perma.cc/6T24-XGTF] (accessed Sept. 11, 2018).

[51] *See* discussion *infra* note 67 and accompanying text (discussing that anadromous listed fish species can be found in major Washington bodies of water).

have fallen into disrepair—fish passage is often poor, causing an adverse effect on habitat and the species attempting to access it.[52]

Section 9 of the ESA prohibits "any person" from "tak[ing]" an endangered species of plant or animal.[53] This prohibition bars any activities that may "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" a listed species.[54] While the Act itself only provides these protections for endangered species, the Fish and Wildlife Service (FWS) or National Oceanic and Atmospheric Administration (NOAA) Fisheries can extend them to threatened species at their discretion.[55] NOAA Fisheries extended these prohibitions for fourteen threatened salmonid species.[56]

The take prohibitions can be broadly interpreted to limit a wide array of conduct on private property. Most famously, the Supreme Court upheld a wide-ranging definition of "harm" in *Babbitt v. Sweet Home Chapter Communities for a Great Oregon.*[57] In *Sweet Home*, the FWS interpreted "harm" to cover actions that "include significant habitat modification or degradation where it actually kills or injures wildlife. . . ."[58] This definition was upheld as a reasonable construction of the ESA.[59] NOAA Fisheries—which oversees ESA protections for most anadromous fish[60]—adopted a similar definition prohibiting habitat modifications which may "impair[ ] essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding, or sheltering."[61]

As these definitions show, federal agencies charged with implementing the ESA regularly use their authority to regulate habitat modifications, including on private land.[62] Non-hydroelectric dams can certainly constitute "harm" under NOAA Fisheries' definition because they impair spawning and migration by preventing salmonids from

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[52] Weitkamp, *supra* note 4.

[53] 16 U.S.C. § 1538(a)(1).

[54] *Id.* § 1532(19).

[55] *Id.* § 1538(a)(2)(E).

[56] Endangered and Threatened Species; Final Rule Governing Take of 14 Threatened Salmon and Steelhead Evolutionarily Significant Units (ESUs), 65 Fed. Reg. 42422 (July 10, 2000).

[57] Babbitt v. Sweet Home Chapter Communities for a Great Or., 515 U.S. 687, 708 (1995) [hereinafter *Sweet Home*].

[58] *Id.* at 691.

[59] *Id.* at 699–700.

[60] *Marine and Anadromous Fish*, NOAA FISHERIES (June 29, 2017), http://www.nmfs.noaa.gov-/pr/species/fish/ [https://perma.cc/C5YN-WFFZ] (accessed Sept. 11, 2018).

[61] 50 C.F.R. § 222.102 (2018).

[62] For example, the parties challenging the FWS definition of "harm" included small landowners. *Sweet Home*, 515 U.S. at 692. *See also* Gibbs v. Babbitt, 214 F.3d 483, 499–500 (4th Cir. 2000) (citing *Sweet Home* in support of a decision upholding regulation limiting the taking of red wolves on private land).

swimming upstream to their spawning grounds.[63] Therefore, any dam on a river with ESA-listed species may trigger a take.

Federal courts in western states have already proven willing to enjoin water diversions on the grounds that they constitute a "take." For example, in *United States v. Glenn-Colusa Irrigation District*, the court noted that an irrigation district's pumping of water out of the Sacramento River constituted a take of salmon since those fish died against screens that were installed over the district's pump.[64] *Glenn-Colusa*'s importance does not arise merely because the court found such harm to constitute a take.[65] The greatest takeaway from that case is that the court enjoined a taking of salmon despite the fact that NOAA Fisheries had not yet identified the salmon's critical habitat.[66] Moving forward with this holding, salmon advocates can bring ESA citizen suits in rivers throughout the northwest that contain listed salmonids, not just those within the species' critical habitats. Since many watersheds in Washington and Oregon contain listed species,[67] these lawsuits can have broad applicability in protecting northwestern salmon.

Many organizations interested in protecting salmon populations will be able to establish standing to bring these lawsuits. Under the ESA, "any person" can establish standing.[68] To show an injury sufficient to establish Article III standing,[69] plaintiffs must merely provide evidence that the activity in question "had some prohibited impact on an endangered species;"[70] dams' impacts on migrating salmon are well-known, so standing can be easily established whenever a dam blocks a migratory river for any listed species.[71] Although standing

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[63] *See Dams: Impacts on Salmon and Steelhead*, *supra* note 5 ("Dams block passage of salmon and steelhead between spawning and rearing habitat and the Pacific Ocean.").

[64] United States v. Glenn-Colusa Irrigation Dist., 788 F.Supp. 1126, 1133 (E.D. Cal. 1992).

[65] This issue was not even argued in the case, both parties agreed that a take had occurred. *Id.*

[66] *Id.* at 1134–35.

[67] In Washington, anadromous listed species can be found in all major water bodies including: Columbia River, Snake River, and Puget Sound. *Salmon Species Listed Under the Federal Endangered Species Act*, WASH. RECREATION & CONSERVATION OFF., http://www.rco.wa.gov/-salmon_recovery/listed_species.shtml [https://perma.cc/G5NH-P95U] (accessed Sept. 11, 2018). Most rivers in Oregon contain listed species as well. *Threatened, Endangered, and Candidate Fish and Wildlife Species*, OR. DEP'T OF FISH & WILDLIFE (June 2017), http://www.dfw.state.or.us/-wildlife/diversity/species/threatened_endangered_candidate_list.asp [https://perma.cc/ZK2H-VHVF] (accessed Sept. 11, 2018).

[68] 16 U.S.C. § 1540(g)(1).

[69] U.S. CONST. art. III, § 2, cl. 1.

[70] Palila v. Haw. Dep't of Land & Nat. Res., 639 F.2d 495, 497 (9th Cir. 1981).

[71] *See*, *e.g.*, *Salmon of the West: Why Are Salmon in Trouble—Dams*, U.S. FISH & WILDLIFE SERV., https://www.fws.gov/salmonofthewest/dams.htm [https://perma.cc/Q5PN-PPZE] (accessed Sept. 11, 2018) (detailing the myriad ways that dams can harm salmon).

has been difficult to prove in some ESA cases in the past,[72] standing in habitat modification cases is easier to establish because any harm can be directly attributed to the defendant's action.[73]

B. Evans Creek Dams: Using ESA Lawsuits to Bring Landowners to the Negotiation Table

In Oregon, two of the dams with the worst fish passage mechanisms were recently removed.[74] WaterWatch—a nonprofit dedicated to keeping Oregon's rivers flowing[75]—threatened lawsuits under both the ESA and Oregon state law. This liability was sufficient to convince the owners of both dams to cooperate in removing the dams and reopening seventy miles of prime salmonid spawning habitat.[76]

Slowly flowing downriver from its headwaters in southwestern Oregon to its eventual confluence with the Rogue River, Evans Creek is a scenic beauty.[77] In the 1930s,[78] two diversion dams were constructed to fuel irrigation projects in the region: The nineteen-foot tall Fielder Dam was built three miles upriver from the creek's confluence with the Rogue River,[79] and the smaller eleven-foot Wimer Dam blocked the creek at river-mile nine.[80] Neither dam was constructed with fish passage mechanisms.[81] Fish ladders were later added at both dams, but were woefully inadequate.[82] The ladders did not allow for upstream fish passage in most flow scenarios, and prevented downstream juvenile migration in all flow conditions.[83]

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[72] *See*, *e.g.*, Lujan v. Defenders of Wildlife, 504 U.S. 555, 578 (1992) (rejecting multiple theories of standing as too attenuated from the action in question).

[73] *See*, *e.g.*, Coho Salmon v. Pac. Lumber Co., 61 F. Supp. 2d. 1001, 1015 (N.D. Cal. 1991) (upholding associational standing where plaintiff's "aesthetic enjoyment and use" of salmon could be directly harmed by any illegal take arising from the habitat modification inherent in defendant's logging activities).

[74] Jes Burns, *2 of Oregon's Worst Dams for Fish are Coming Down*, OR. PUB. BROADCASTING (Aug. 5, 2015), https://www.opb.org/news/article/two-of-oregons-worst-dams-for-fish-are-coming-down/ [https://perma.cc/76KA-HBX2] (accessed Sept. 11, 2018).

[75] WATERWATCH, http://waterwatch.org/ [https://perma.cc/U3CS-QAKM] (accessed Sept. 11, 2018).

[76] Burns, *supra* note 74; *see also* Brimmer *supra* note 50 (describing the progress of the removal of Fielder dam).

[77] BUREAU OF LAND MANAGEMENT, WATER QUALITY RESTORATION PLAN: SOUTHERN OREGON COASTAL BASIN: EVANS CREEK WATERSHED 4 (2009).

[78] Brimmer, *supra* note 50.

[79] WATERWATCH, EVANS CREEK DAM REMOVALS BRIEFING PAPER (2015), http://waterwatch.org/-wp-content/uploads/2015/04/Evans-Creek-Briefer_4_27_15.pdf [https://perma.cc/2NB2-4VDQ] (accessed Sept. 11, 2018).

[80] *Id.*

[81] Brimmer, *supra* note 50.

[82] Mark Freeman, *Groups Seek to Remove Old Dams on Evans Creek*, BLUE MOUNTAIN EAGLE, (Mar. 1, 2014), http://www.bluemountaineagle.com/article/20140301/NEWS/303019912/-1424 [https://perma.cc/3L2D-85R2] (accessed Sept. 11, 2018).

[83] OREGON DEPARTMENT OF FISH & WILDLIFE, RESTORATION AND ENHANCEMENT GRANT APPLICATION: FIELDER AND WIMER DAM REMOVALS PHASE I 3 (2013), https://www.dfw.state.or.us/fish/RE/-projects/cycle_13-5_applications/13-054%20resub-

The operators of both dams stopped using them for irrigation purposes in the 1970s and terminated all water rights associated with the dams.[84] By the 1980s they had fallen into disrepair.[85] Fish passage remained so poor that in 2013 ODFW listed both dams as top-ten priorities on the Statewide Fish Passage Priority List.[86]

Oregon state law prohibits maintaining abandoned dams with inadequate fish passage.[87] ODFW did not bring charges against the dam owners, so WaterWatch pursued dam removal agreements with both owners.[88] While the Wimer Dam removal process proceeded smoothly, the Fielder Dam owners objected, and WaterWatch brought a lawsuit under the ESA to encourage the owners to cooperate with negotiations.[89] This litigation ended in WaterWatch securing agreements to allow removal and paying the landowners $5,000 for access to the property for the duration of the removal process.[90] The dams were removed at no cost to the landowners,[91] with most of the funding coming from federal and state grant programs.[92]

Both dams were successfully removed in the summer of 2015.[93] Landowner resistance to removal of the Fielder Dam, however, continued throughout much of the process.[94] First a family member blocked the access road on the first day of construction.[95] Later, protesters

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mit%20app%204-4-14%20w%20att%20for%20web.pdf [https://perma.cc/C8U3-SS8G] (accessed Sept. 11, 2018).

[84] Mark Freeman, *Evans Creek Dams on Track for Removal this Summer*, MAIL TRIBUNE (Apr. 11, 2015), http://mailtribune.com/lifestyle/rogue/evans-creek-dams-on-track-for-removal-this-summer [https://perma.cc/H36R-X4DY] (accessed Sept. 11, 2018).

[85] WATERWATCH, *supra* note 79.

[86] LOFFINK, *supra* note 48, at Attachment C.

[87] OR. REV. STAT. § 509.585(4) (2017).

[88] Brimmer, *supra* note 50.

[89] *Id.*

[90] Jeff Duewel, *Excavators Demolish Dam on Evans Creek to Improve Salmon Migration*, THE BULLETIN (Aug. 15, 2015, 12:02 AM), http://www.bendbulletin.com/localstate/3421351-151/-excavators-demolish-dam-on-evans-creek-to-improve [https://perma.cc/DG6V-RV6G] (accessed Sept. 11, 2018).

[91] Jim McCarthy & Tonya Graham, *Dam Removal Benefits Rivers, the Public, Landowners*, MEDFORD MAIL-TRIBUNE (Sept. 6, 2015), http://mailtribune.com/opinion/dam-removal-benefits-rivers-the-public-landowners [https://perma.cc/8KCS-QUM3] (accessed Sept. 11, 2018).

[92] *Id.* This included a hefty grant from NOAA to fund project design and permitting costs. National Marine Fisheries Service, *Highlights: Two of Oregon's Worst Fish Passage Barriers Removed*, NOAA HABITAT CONSERVATION (Sept. 21, 2015), http://www.habitat.noaa.gov/highlights/-oregonsworstfishpassagebarriersremoved.html [https://web.archive.org/web/20170615205058/] (accessed Sept. 3, 2018) (site no longer available).

[93] Jeff Duewel, *Fielder Dam is Gone, But Controversy Remains*, MAIL TRIBUNE (Aug. 24, 2015), http://www.mailtribune.com/article/20150824/NEWS/150829810 [https://perma.cc/CHW7-YFBV] (accessed Sept. 11, 2018).

[94] *Id.*

[95] *Id.*

from the Oath Keepers[96] organization arrived on site to question WaterWatch's permits.[97]

While the Fielder and Wimer dams both came down—freeing up over 70 miles of salmon and steelhead habitat in the process[98]—the opposition to the Fielder Dam shows the conflicting interests inherent in the dam removal process: It pits private property owners—and advocates of private property rights—against those interested in preserving salmon as a public good. In such a colossal clash of strongly-held interests, advocates need to have a legal hook they can use to gain the upper hand. Fortunately for those protecting salmonids, the ESA provides the perfect avenue for bringing their claims and can act as an effective tool to bring these dams down.

IV. SALMON PROTECTION ORGANIZATIONS CAN RESTORE THE MOST HABITAT IN THE SHORTEST TIME BY TARGETING OBSOLETE DAMS

Today, only half of America's 85,000 dams still serve their original intended purpose.[99] When dams are nearly—or entirely—obsolete, either by operational choices[100] or environmental conditions,[101] the benefits of maintaining the dam are obviously going to be quite low. These *de minimis* benefits, combined with the potential ESA liability that remains attached to obsolete facilities affecting fish passage for listed species, can make the cost of removal much easier to swallow. While few people—except maybe the dam owners themselves[102]—would argue that obsolete dams should be kept in rivers, the power of inertia means these dams will likely remain standing unless interested parties intervene. Since the cost of ESA litigation can outweigh the cost of removal, and few vested interests oppose removing obsolete dams, this Essay argues that advocates would do well to target obsolete facilities

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96 The Oath Keepers are an organization of current and former military and law-enforcement officers who try to prevent purported government overreach in an effort to "defend the Constitution against all enemies, foreign and domestic." *About Oath Keepers*, OATH KEEPERS, https://-www.oathkeepers.org/about/ [https://perma.cc/PV6K-7976] (accessed Sept. 11, 2018).

97 Duewel, *supra* note 90.

98 Freeman, *supra* note 84.

99 Richard A. Lovett, *Dam Removals: Rivers on the Run*, NATURE (Jul. 30, 2014), http://-www.nature.com/news/dam-removals-rivers-on-the-run-1.15636 (accessed Sept. 3, 2018).

100 For example, the Gold Hill Dam did not provide serious benefit because it was not used for hydroelectricity generation, only for municipal water diversions. Michael Blumm & Andrew B. Erickson, *Dam Removal in the Pacific Northwest: Lessons for the Nation*, 42 ENVTL. L. REV. 1043, 1077 (Nov. 26, 2012).

101 Dams can be rendered entirely obsolete when they cause so much sediment buildup that it blocks water from entering the turbines. Renee Cho, *Removing Dams and Restoring Rivers*, EARTH INSTITUTE: STATE OF THE PLANET (Aug. 29, 2011), http://blogs.ei.columbia.edu/2011/08/29/-removing-dams-and-restoring-rivers/ [https://perma.cc/FKH3-UNYD] (accessed Sept. 11, 2018).

102 *See* discussion of controversy surrounding the Fielder Dam, *supra* notes 943–95 and accompanying text.

in watersheds containing ESA-listed anadromous fish species to maximize the likelihood of successfully removing dams.

A. Elk Creek Dam: The Necessity of Maintaining Pressure to Remove Obsolete Dams

It is hard to imagine a better example of an obsolete dam than the Elk Creek Dam. It epitomized obsolescence because several injunctions prevented the Army Corps from ever completing the dam.[103] Instead, the dam remained as a physical barrier to fish that provided absolutely no benefit.[104]

In 1986, the federal government began construction on a flood-control dam across a tributary of the Rogue River named Elk Creek.[105] In less than a year, however, construction was halted pending litigation.[106] Environmentalists, led by the Oregon Natural Resources Council,[107] alleged that the Army Corps had not satisfied National Environmental Policy Act (NEPA) requirements in their Environmental Impact Statement (EIS) because the Corps inadequately analyzed the effects the dam would have on Rogue River water quality.[108] The District Court denied a preliminary injunction,[109] but the Ninth Circuit overturned the decision.[110]

Over the next few years, the State of Oregon, the FWS, and NOAA Fisheries all opined that the dam would harm anadromous fish.[111] Following another lawsuit that resulted in the Ninth Circuit requiring the Army Corps to draft a new supplemental EIS,[112] the Corps abandoned the dam.[113] The Corps cited the significant fiscal and legal obstacles hampering operation of the dam given the recent protections for anadromous fish in the Rogue River.[114]

As a result, the dam remained one-third complete, causing all the environmental harms with none of the promised flood-control benefits.[115] By 1997, the Army Corps recommended breaching the dam to

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103 Or. Nat. Res. Council v. Marsh, 628 F. Supp. 1557, 1560 (Dist. Ct. 1986).

104 Blumm, *supra* note 100, at 1082.

105 *Elk Creek Dam Fact Sheet*, OREGON WILD, http://www.oregonwild.org/waters/rivers-and-dams/elk-creek-dam/elk-creek-dam-facts [https://perma.cc/4BY6-PMF3] (accessed Sept. 11, 2018).

106 *Id.*

107 Or. Nat. Res. Council, 628 F.Supp. at 1560.

108 *Id.* at 1560–61.

109 *Id.* at 1569.

110 The Supreme Court overturned part of the Ninth Circuit's decision, but the preliminary injunction remained in effect. Or. Nat. Res. Council v. Marsh, 880 F.2d 242, 242 (9th Cir. 1989).

111 *Elk Creek Dam Timeline*, OREGON WILD, http://www.oregonwild.org/waters/rivers-and-dams/elk-creek-dam/timeline [https://perma.cc/7G5D-UTUY] (accessed Sept. 11, 2018).

112 Or. Nat. Res. Council v. Marsh, 52 F.3d 1485, 1493 (9th Cir. 1995).

113 *Elk Creek Dam Timeline*, *supra* note 111.

114 *Id.*

115 Blumm, *supra* note 100, at 1082.

allow fish passage in Elk Creek.[116] However, several key congressional opponents, including Oregon Congressman Greg Walden, wanted to keep the partial dam in place with hopes of completing it at a later date.[117] These opponents prevailed for several years, limiting Elk Creek funding to the continued trap-and-haul program to transport fish around the dam.[118] Advocates in favor of removing the dam, including Oregon Governor John Kitzhaber,[119] kept pressure on Congress to fund the removal.[120]

Facing mounting pressure from conservationists, combined with a NMFS determination that existing fish passage measures were insufficient to preserve local salmon species, the federal government authorized removal of the dam in 2007.[121] By September of the following year, the portions of Elk Creek Dam blocking fish migration had been blasted away.[122] Although the concrete portions of the dam along both edges of the creek were left in place,[123] Elk Creek returned to nearly natural conditions following the removal.[124]

While it is rare to find a dam that serves absolutely no function—as the Elk Creek Dam did—the facts surrounding Elk Creek show how strong opposition must sometimes be to combat government inertia. Despite the fact that the dam provided almost no benefits, Congress spent millions of dollars each year maintaining the status quo.[125] The absurdity of the situation highlights the fact that, although obsolescence is a strong argument in favor of removal, dams will only be removed after organizations pressure the responsible parties to do so. Even though few would argue that we should keep obsolete dams in rivers, they will not likely be removed unless environmental organizations target them with independent activist efforts.

B. Gold Hill Dam and the Prospect of Replacing Nearly Obsolete Dams

Along with obsolete dams, dam removal advocates should also look for dams providing *de minimis* benefits that can be replaced by an alternative that is less harmful to anadromous fish. For example, in the case of Gold Hill, the only benefits the dam provided was to divert

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116 *Elk Creek Dam Timeline*, *supra* note 111.

117 Blumm, *supra* note 100, at 1082.

118 *Elk Creek Dam Timeline*, *supra* note 111.

119 *Id.*

120 *Id.*

121 Blumm, *supra* note 100, at 1083.

122 *Elk Creek Dam Timeline*, *supra* note 111.

123 Blumm, *supra* note 100, at 1083.

124 *Notching Elk Creek Dam*, WATERWATCH http://waterwatch.org/programs/notching-the-elk-creek-dam [https://perma.cc/FND3-EBBY] (accessed Sept. 11, 2018).

125 Doug Larson, *Elk Creek Dam a Boondoggle from the Start,* MAIL TRIBUNE (Aug. 3, 2008), http://mailtribune.com/opinion/elk-creek-dam-a-boondoggle-from-the-start [https://perma.cc/8XU7-5DBF] (accessed Sept. 11, 2018).

water for the city's municipal water needs.[126] Prior to removal, the Gold Hill Dam was the second worst fish killer on the Rogue River[127] while providing minimal benefit to the municipal water supply.[128]

Named after the nearby city operating the dam,[129] the Gold Hill Dam varied throughout its length from a minimum height of three feet to a maximum of fourteen.[130] The dam stretched to a width of 900 feet, blocking the entire span of the Rogue River.[131] Constructed in the mid-20th century[132] to provide power for the Ideal Concrete Company,[133] the dam remained a part of the city's municipal water supply following the concrete company's collapse.[134] The dam had not been used to generate power since the concrete factory closed in 1969.[135]

The dam originally used fish screens to keep salmon out of the diversion canal.[136] These screens fell into disrepair after the company replaced them with a fish ladder approximately a decade after constructing the dam.[137] However, both strategies were ineffective at preventing juvenile salmon from getting trapped in the diversion canal and dying.[138]

The city of Gold Hill repeatedly tried to generate electricity from the dam and even unsuccessfully attempted to sell the dam to private electricity companies several times.[139] In 2006, Gold Hill completed a new water intake system.[140] This new system rendered the Gold Hill Dam obsolete as it was no longer necessary for the municipal water supply.[141] Since the dam served no significant purpose and severely

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126 GEORGE KRAMER, OREGON INVENTORY OF HISTORIC PROPERTIES, SECTION 106 DOCUMENTATION FORM: CITY OF GOLD HILL/DAM REMOVAL PROJECT 2 (2007).

127 *Gold Hill Dam Removal*, ROGUE VALLEY COUNCIL GOV'TS, http://www.rvcog.org/mn.asp?pg=-NR_Gold_Hill_Dam [https://web.archive.org/web/20170623084914/http://www.rvcog.org/mn.asp?pg=NR_Gold_Hill_Dam] (accessed Sept. 4, 2017) (site no longer available).

128 Blumm, *supra* note 100, at 1077.

129 The dam was about one mile upriver from the town of Gold Hill. *Gold Hill Diversion Dam Removal*, WATERWATCH, http://waterwatch.org/gold-hill-diversion-dam-removal [https://-perma.cc/P4K3-UAP7] (accessed Sept. 11, 2018).

130 *Gold Hill Dam Removal*, RIVER DESIGN GRP, http://www.riverdesigngroup.com/projects/-dam-removal-restoration/project-gold-hill-dam-removal/ [https://perma.cc/AS5M-CRZD] (accessed Sept. 11, 2018).

131 *Id.*

132 Chris Jones, *Gold Hill Celebrates Dam Removal*, KTVL NEWS 10 (July 16, 2008), http://waterwatch.org/pressroom/press-clips/gold-hill-celebrates-dam-removal [https://perma.cc/Z2EM-ME6B] (accessed Sept. 11, 2018).

133 *Gold Hill Dam Removal*, *supra* note 130.

134 KRAMER, *supra* note 126, at 2.

135 *Id.* at 6.

136 *Id.* at 3.

137 *Id.*

138 Wendy McDermott, *The Life Cycle of Dams: An Analysis of Policy Change on the Rogue River, Oregon*, *in* ALL MASTER'S THESES, paper 359, at 70 (Cent. Wash. Univ., 2016).

139 *Id.*

140 KRAMER, *supra* note 126, at 6.

141 *Id.*

hampered migration for the threatened Coho salmon, NOAA Fisheries began pressuring the city to pursue removal.[142]

Gold Hill obtained all necessary permits and began removing the dam in less than two years.[143] The dam removal itself cost $1.2 million,[144] and the entire project cost approximately $4 million.[145] Two factors contributed significantly to this speedy removal: the project was privately grant-funded[146] and had strong support from local residents.[147]

The Gold Hill Dam was more beneficial to the surrounding community than the Elk Creek Dam—then again, it is hard to imagine a less beneficial dam than Elk Creek. Although it had not produced electricity since the 1960s,[148] Gold Hill Dam still functioned as part of the city's municipal water system.[149]

The Gold Hill Dam thus shows another manner by which dams can be rendered obsolete: some dams can be replaced by new technology. In the case of Gold Hill, the only benefit the dam provided was to divert water for the city.[150] The city installed a pump upstream from the dam in 2006, rendering the dam superfluous,[151] and—with just a little pressure from the NOAA—sought a plan for removal.[152] This is more likely to be the case with diversion dams, like the Gold Hill. However, in some cases it may be possible to replace hydroelectric systems and still meet electricity demands with renewable energy.[153]

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142 McDermott, *supra* note 138.

143 Pressure to remove gained significant traction after the city installed the new water intake in 2006, and deconstruction began in July of 2008. *Id.*

144 *Gold Hill Dam Removal*, *supra* note 130.

145 This included $2 million for the installation of the water intake in 2006. Buffy Pollock, *Farewell, Gold Hill Diversion Dam*, MAIL TRIBUNE (July 13, 2008), http://www.mailtribune.com/-article/20080713/NEWS/807130326 [https://perma.cc/ET4L-MAYT] (accessed Sept. 11, 2018).

146 This included the largest NOAA grant in history at the time of nearly $500,000. *Id.* The grants also covered the cost of the water intake pump. Jones, *supra* note 132.

147 The city even held a public celebration in honor of the occasion. *Gold Hill Diversion Dam Removal: An Accomplishment to Celebrate*, WATERWATCH, (July 16, 2008), http://waterwatch.org/-pressroom/press-clips/gold-hill-diversion-dam-removal-an-accomplishment-to-celebrate [https://perma.cc/9GDR-S38P] (accessed Sept. 11, 2018).

148 KRAMER, *supra* note 126, at 6.

149 *Id.*

150 *Id.*

151 McDermott, *supra* note 138, at 70.

152 *Id.*

153 *See, e.g.*, John Waldman, *Undamming Rivers: A Chance for New Clean Energy Source*, YALE ENV'T 360 (Aug. 6, 2015), http://e360.yale.edu/features/undamming_rivers_a_chance_for_-new_clean_energy_source [https://perma.cc/33KP-R94S] (accessed Sept. 11, 2018) (arguing that utility companies can install solar and wind power facilities in the dried reservoirs that remain following a dam breach and then connect these facilities to consumers with the transmission lines already installed on the dams' premises).

V. CONCLUSIONS

Advocates of dam removals have experienced a very steep learning curve. While the number of dams successfully removed has increased in recent years, most of these gains have occurred in the realm of large-scale hydropower facilities where FERC's expensive relicensing conditions can significantly reduce the opportunity cost of removal.[154] To expand the scope of which dams get removed, salmon advocates should focus their efforts on dams outside of FERC's jurisdiction that lack regulatory oversight and whose fish passage facilities can often go unmanaged.[155]

Since salmonid species are suffering precipitous population declines, those interested in saving salmon must focus on restoring as many miles of diverse habitat as quickly as possible. Citizen suits under the ESA provide a valuable legal avenue to force private property owners to breach dams that degrade habitat for listed species—including many northwestern salmonids. When specifying which non-hydroelectric dams to target for removal, advocates should focus on obsolete dams because those dams can often pose complete barriers to fish passage even though there are few vested interests that support keeping those dams standing. By focusing on these dams that are more easily removed, advocates can open miles of diverse habitat for endangered salmonids and greatly improve the likelihood of their recovery.

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[154] By increasing the cost of the only viable alternative to removal, license conditions make removal a more attractive route.

[155] Of course, parties who support removal must remain active in the administrative process to ensure that FERC continues to review as much information and as many diverse opinions as possible when making its relicensing decisions.