

JAMES M. WADDELL  
289 OCEAN COVE LANE  
PORT ANGELES, WA 98363  
(360) 775-7799  
[kairos42@earthlink.net](mailto:kairos42@earthlink.net)

THE HONORABLE MICHAEL H. SIMON

*Pro Se*

UNITED STATES DISTRICT COURT  
DISTRICT OF OREGON, PORTLAND DIVISION

AMERICAN RIVERS, et al.,

Plaintiffs,

and

STATE OF OREGON

Intervenor-Plaintiffs,

v.

NATIONAL MARINE FISHERIES SERVICE,  
et al.,

Defendants.

and

PUBLIC POWER COUNCIL, et al.,

Intervenor-Defendants.

No. 3:01-cv-00640-SI

**AMICUS CURIAE BRIEF OF JAMES  
WADDELL PROVIDING ENGINEERING  
AND POLICY KNOWLEDGE WITH  
ECONOMIC AND SCIENTIFIC EVIDENCE IN  
SUPPORT OF A COURT ORDER FOR DAM  
BREACHING; DECLARATION OF JAMES  
WADDELL; DECLARATION OF CHRIS A.  
PINNEY; DECLARATION OF DEBORAH A.  
GILES; DECLARATION OF KENNETH  
BALCOMB III**

**AMICUS CURIAE BRIEF OF JAMES WADDELL PROVIDING ENGINEERING AND  
POLICY KNOWLEDGE WITH ECONOMIC AND SCIENTIFIC EVIDENCE IN  
SUPPORT OF A COURT ORDER FOR DAM BREACHING**

**TABLE OF CONTENTS**

TABLE OF CONTENTS .....2

TABLE OF AUTHORITIES.....3

ARGUMENT .....8

I. COURT INTERVENTION IS NECESSARY TO FORCE THE FEDERAL AGENCIES TO COMPLY WITH THEIR LEGAL OBLIGATIONS .....8

II. DAM BREACHING IS THE ONLY VIABLE REMEDY TO SAVE ENDANGERED SPECIES.....10

    A. The Court Should Order Dam Breaching Starting this Year to Save Endangered Snake River Salmon and Steelhead.....10

    B. The Court Should Order Dam Breaching Starting this Year to Save Endangered Southern Resident Orcas .....13

III. THE U.S. ARMY CORPS OF ENGINEERS HAS THE DISCRETION AND AUTHORITY TO BREACH THE LOWER SNAKE RIVER DAMS .....15

IV. BREACH STARTING THIS YEAR IS FEASIBLE .....17

V. THE COURT CAN AND SHOULD ORDER DAM BREACHING UNDER THE ENDANGERED SPECIES ACT AND ITS INHERENT AUTHORITY .....20

CONCLUSION .....24

**TABLE OF AUTHORITIES**

**Cases**

*Alaska Center for the Environment v. Browner*, 20 F.3d 981 (9th Cir. 1994) .....23

*Biodiversity Legal Foundation v. Badgley*, 1999 WL 1042567 (D. Or. 1999) ..... 19

*Biodiversity Legal Foundation v. Badgley*, 309 F.3d 1166 (9th Cir. 2002) ..... 19

*Butte Environmental Council v. White*, 145 F. Supp. 2d 1180 (E.D.Cal.2001) .....20

*Center for Biological Diversity v. Norton*, 304 F. Supp. 2d 1174 (D. Ariz. 2003) ..... 19

*Conservation Council for Hawai'i v. Babbitt*, 24 F. Supp. 2d 1074 (D.Hawai'i 1998).....20

*Loudner v. United States*, 108 F.3d 896 (8th Cir.1997) .....20

*Marbled Murrelet v. Babbitt*, 918 F. Supp. 318 (W.D.Wash.1996)..... 19, 20

*Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, No. CV 01-640-RE, 2005 WL 2488447, (D. Or. Oct. 7, 2005).....5, 6, 20, 21

*Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 481 F.3d 1224 (9th Cir. 2007)..... 5

*Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917 (9th Cir. 2008) .....5

*Silver v. Babbitt*, 924 F. Supp. 972 (D.Ariz. 1995) ..... 19, 20

*Tennessee Valley v. Hill*, 437 U.S. 153 (1978).....21, 22

**Statutes**

16 U.S.C. § 1531 .....21, 22

16 U.S.C. § 1536 .....22

**Agency Sources**

CRSO EIS (2020) .....5, 16, 21

**Executive Orders**

Exec. Order No. 13,927, 85 Fed. Reg. 35,165 (June 9, 2020) .....19

**Other Authorities**

David Bain, Phd. et al., *Southern Resident Killer Whales & Columbia/Snake River Chinook: A Review of the Available Scientific Evidence* (2020) <https://damsense.org/wp-content/uploads/2020/02/Feb-2020-Review-paper.pdf> ..... 13

Southern Resident Killer Whale Chinook Salmon Initiative, *Dammed to Extinction, Southern Resident Orcas are Starving*, [https://www.change.org/p/senator-murray-governor-inslee-dammed-to-extinction-southern-resident-orcas-are-starving-time-is-running-out?use\\_react=false&v2=false](https://www.change.org/p/senator-murray-governor-inslee-dammed-to-extinction-southern-resident-orcas-are-starving-time-is-running-out?use_react=false&v2=false) ..... 7

Washington State University, *Struggle for the Snake, 1971*, <https://www.youtube.com/watch?v=F7SKoYgaIT8> ..... 21

US Army Corps of Engineers, *Lower Snake River Juvenile Salmon Migration Feasibility Report, Appendix A, Anadromous Fish Modeling*, (2002), [https://www.nww.usace.army.mil/Portals/28/docs/library/2002%20LSR%20study/Appendix\\_A.pdf?ver=2019-05-03-131347-773](https://www.nww.usace.army.mil/Portals/28/docs/library/2002%20LSR%20study/Appendix_A.pdf?ver=2019-05-03-131347-773)..... 5

Margaret J. Filardo, Ph.D., et al., *2021 Scientists' Letter: Snake/Columbia salmon and dam removal*. (2021) <https://www.orcaconservancy.org/68-scientists-send-letter-to-nw-policymakers-on-snake-river-salmon-and-dams/> ..... 7

## INTRODUCTION AND SUMMARY OF ARGUMENT

In 2005, this Court warned NOAA and other federal agencies “to be aware of the possibility of breaching the four dams on the lower Snake River, *if all else fails*.” *Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, No. CV 01-640-RE, 2005 WL 2488447, at \*3 (D. Or. Oct. 7, 2005), *aff’d*, 481 F.3d 1224 (9th Cir. 2007), opinion amended and superseded, 524 F.3d 917 (9th Cir. 2008), and *aff’d*, 524 F.3d 917 (9th Cir. 2008) (emphasis original). The overwhelming scientific evidence illustrates that *all else has failed*.

The Declaration of Chris A. Pinney, United States Army Corps of Engineers’ fisheries biologist employed by the Walla Walla District from November 1991 to December 2018, attached hereto, explains in great detail why breaching is necessary to recover ESA-listed lower Snake River salmon and steelhead. At least as far back as 2001, the United States Army Corps of Engineers (“Corps”) has acknowledged that dam breaching presents the greatest biological potential for recovering endangered and threatened Snake River salmon and steelhead.<sup>1</sup> (Declaration of Deborah A. Giles ¶ 21.) Similarly, “[d]ata available in the [2020 Columbia River Systems Operations Environmental Impact Statement] shows that lower Snake River dam breaching will recover the threatened and endangered lower Snake River ESA-listed salmonids, and that each of the other alternatives result in declining fish runs . . . .” (Declaration of Chris Pinney ¶ 32.)

---

<sup>1</sup> See Lower Snake River Juvenile Salmon Migration Feasibility Report (2002), Appendix A, Anadromous Fish Modeling, p. A ES-8, available at [https://www.nww.usace.army.mil/Portals/28/docs/library/2002%20LSR%20study/Appendix\\_A.pdf?ver=2019-05-03-131347-773](https://www.nww.usace.army.mil/Portals/28/docs/library/2002%20LSR%20study/Appendix_A.pdf?ver=2019-05-03-131347-773); *Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, No. CV 01-640-RE, 2005 WL 2488447, at \*3 (D. Or. Oct. 7, 2005), *aff’d*, 481 F.3d 1224 (9th Cir. 2007), *opinion amended and superseded*, 524 F.3d 917 (9th Cir. 2008), and *aff’d*, 524 F.3d 917 (9th Cir. 2008) (“The possibility of breaching the dams does not mean that another vast study is needed. In 2000, NOAA and the Action Agencies anticipated that breaching of the lower Snake River dams might be necessary to avoid jeopardizing listed species.”).

The Declarations of Kenneth Balcomb III and Deborah A. Giles, PhD, world renowned experts on the Southern Resident killer whales, explain why “lower Snake River restoration, including dam removal, is the single biggest and most effective step we can take to restore the ESA-listed Snake River salmonids and the critically endangered Southern Resident killer whales.” (Giles Decl. ¶ 26.) There is a “great urgency to take this action as soon as possible . . . . Unless the four lower Snake River dams are breached in the very near future as part of the recovery measures, the Southern Resident orcas will not survive or recover.” (Giles Decl. ¶ 26.) NOAA is keenly aware of this connection between the Southern Residents and the lower Snake River dams. (Giles Decl. ¶ 15.)

Yet, delay after delay and faulty biological opinion after faulty biological opinion, we are left in a tragic spiral toward extinction, made even more painful by the fact that breaching is not only biologically necessary, but fiscally responsible. There are many of us who continue to fight against the bureaucratic inertia that has fostered a pro-dam mentality with roots in a colonial worldview. As Albert Einstein said “the definition of insanity is doing the same thing over and over and expecting different results.” The insanity must come to an end, or this endless loop of litigation without tangible, meaningful results, will make a mockery of our justice system. The federal agencies have been wasting time, including that of the Court’s, for well over two decades. *Nat’l Wildlife Fed’n.*, 2005 WL 2488447, at \*1 (“The entire remand time was lost and wasted.”).

As the judicial branch of government, the Court has an important role to play. The federal agencies need a clear directive as to what specifically is required of them in fulfilling their legal obligations to prevent species’ extinction. *Cf. Nat’l Wildlife Fed’n.*, 2005 WL 2488447, at \*2 (“If the Executive and Legislative Branches do not allow NOAA to follow the law of the land,

NOAA and the Action Agencies will fail again to take the steps that are plainly necessary to do what the ESA requires and what the listed species require in order to survive and recover.”).

Many of us, who have been intimately involved in this issue for decades, are pleading for justice. We are joined by countless others, including 68 scientists<sup>2</sup>, and over 840,000 signatories on a petition to breach the lower Snake River dams<sup>3</sup>, to name only a few. For sure, there are pro-dam stakeholders who do not want to let them go. It is important to recognize, however, that they are stakeholders only when the baseline is inappropriately shifted to a place in time in which the dams were already built. The original “stakeholders” are the Indigenous Peoples who walked this land time immemorial, the Snake River ecosystem, wild Snake River salmon and steelhead, and the Southern Resident Orcas. But, of course, to the extent there are any negative economic impacts, whether real or perceived, there are more than enough financial resources to make everyone whole – an issue which the Administration, primarily through the Corps and Bonneville Power Administration, is well-equipped to address once breaching is ordered.

The purpose of this brief and my declaration is to offer my expertise and insight to the Court, as a high-level Corps employee for 35-years, in order to assist it in reaching a decision about ordering the breach of the lower Snake River dams. In their declarations, Chris A. Pinney, Kenneth Balcomb III and Deborah A Giles, PhD mentioned above, along with Rodney Sando, former Director of the Minnesota Department of Natural Resources, former Director of Idaho Fish and Game and former Executive Director of the Columbia Fish and Wildlife Authority, similarly offer their expertise and insights.

---

<sup>2</sup> Margaret J. Filardo, Ph.D., et al., *2021 Scientists' Letter: Snake/Columbia salmon and dam removal*. (2021) <https://www.orcaconservancy.org/68-scientists-send-letter-to-nw-policymakers-on-snake-river-salmon-and-dams/>.

<sup>3</sup> [https://www.change.org/p/senator-murray-governor-inslee-dammed-to-extinction-southern-resident-orcas-are-starving-time-is-running-out?use\\_react=false&v2=false](https://www.change.org/p/senator-murray-governor-inslee-dammed-to-extinction-southern-resident-orcas-are-starving-time-is-running-out?use_react=false&v2=false)

This brief first highlights portions of Pinney’s and Sando’s declarations providing invaluable historical context. The brief next explains the biological urgency requiring breach, followed by a clear explanation of the feasibility of breaching. Finally, the brief provides legal authority in support of breaching.

## ARGUMENT

### **I. COURT INTERVENTION IS NECESSARY TO FORCE THE FEDERAL AGENCIES TO COMPLY WITH THEIR LEGAL OBLIGATIONS**

The attached Declaration of Rodney Sando provides unique insight into a good portion of the history relevant to the respectful request for Court intervention to require the federal agencies to comply with their legal obligations. Mr. Sando’s relevant qualifications include a long career in natural resources management. He is a graduate of the University of Minnesota with a B.S. degree in forest management 1965, a M.S. degree in forestry with a minor in fish and wildlife management 1967, a PhD. in forest management, a minor in public affairs, and a minor in information systems. (Sando Decl. ¶ 2.) He worked for twenty-two years at the Minnesota Department of Natural Resources and served as the Director of the DNR from 1990 through 1998. (Sando Decl. ¶ 3.) He then moved to Idaho, where he was appointed Director of Idaho Fish and Game and served in that capacity from 2000 through 2002. After Idaho, he served as the Executive Director of the Columbia Fish and Wildlife Authority from 2002 through 2005, until he retired. (Sando Decl. ¶ 4.) He was first exposed to the management of the Columbia River salmon resources while in Idaho, and his experience was greatly enhanced when he served as the Executive Director of the Columbia Fish and Wildlife Authority. (Sando Decl. ¶ 5.) The Authority was a non-profit organization that coordinated the actions of thirteen Indian tribes, two

federal agencies, and four state agencies engaged in management of fish and wildlife resources in the Columbia River basin. (Sando Decl. ¶ 6.)

Mr. Sando's Declaration provides key insight into the laws, politics, and court decisions that have influenced salmon management. (Sando Decl. ¶¶ 8-37.) Mr. Balcomb also shares his insights: "Politicians and bureaucrats have been fighting over the Snake River for decades, since before the dams were built when I was still in high school and college. The fights were about political gain, and for economic reasons amongst shareholders. Meanwhile, the iconic species who face the greatest risk were minimized in the discussions, and the relevant biological science was being neglected, along with common sense. All animals need to eat, and salmon need rivers." (Balcomb Decl. ¶ 22.) It is, in many ways, unfortunate to have come to this, but this controversy has clearly reached the point where the Court, as a depoliticized arbiter of justice, holds the future of threatened and endangered species in its hands. (Sando Decl. ¶ 38 ("The science is settled that without dam breaching, the ESA-listed species will not recover. But there is far from agreement in the political arena, which means that there will be no remedy unless the courts intervene."))

What this brief endeavors to make clear is that both time and patience have run out. "The record of noncompliance by the relevant agencies is clear. The Court should expect the federal agencies to continue their bad behavior in the absence of court-ordered oversight." (Sando Decl. ¶ 38.) As Mr. Sando opines "the Court needs to control the future survival of the ESA-listed species by ordering dam breaching." (Sando Decl. ¶ 39.)

## **II. DAM BREACHING IS THE ONLY VIABLE REMEDY TO SAVE ENDANGERED SPECIES**

### **A. The Court Should Order Dam Breaching Starting this Year to Save Endangered Snake River Salmon and Steelhead**

Continued operation of the dams is not only reasonably certain, but, in fact, guaranteed to jeopardize the continued existence of Snake River salmon and steelhead. “Most of the fisheries scientists in the region agree that the science is settled and that the salmon in the Snake River are nearing extinction levels. Many agree that the time has arrived for the measure of last resort, lower Snake River dam breaching, to be implemented. . . . Without breaching, Snake River wild salmon and steelhead will continue rapidly to extinction.” (Sando Decl. ¶ 34.)

As the Declaration of Chris Pinney explains, we simply do not have time for inadequate interim measures. “Increased spill at the [lower Snake River] dams is not an action that will recover ESA-listed salmon and steelhead. [Lower Snake River dam] [s]pill has not worked in the past and it will not work in the future, even if it is increased and made flexible.” (Pinney Decl. ¶ 11; ¶¶ 12-18 (providing a detailed explanation of how “[s]pill at any level has not worked to delist any of the ESA-listed fish populations in the lower Snake River.”).

While the Court has been presented with much scientific evidence, the caliber and extent of Mr. Pinney’s knowledge and expertise is unparalleled. Mr. Pinney:

- For 28 years he was a fisheries biologist employed by the Walla Walla District, U.S. Army Corps of Engineers (Corps) from November 1991, when Snake River sockeye were listed under the Endangered Species Act (ESA), through December 31, 2018, when he retired. The Corps hired him to assist with fish passage facilities research, operations, statistical modeling, and ESA consultation for the operation of the lower Snake and lower Columbia River dams, in the context of individual lock and dam

projects and their reservoirs, and the Federal Columbia River Power System evaluation for aquatic resources. (Pinney Decl. ¶ 2.)

- He has greater than four years' experience working on trophic dynamic relationships important to fish production, in response to the operation of Glen Canyon Dam on the lower Colorado River. (Pinney Decl. ¶ 2.)
- He has five years' experience as a biologist with the Kaibab and Coconino National Forest, responsible for riparian and aquatic inventories and habitat restoration design and implementation, among various other taskings. (Pinney Decl. ¶ 2.)
- He represented the Northwestern Division of the U.S. Army Corps of Engineers on various National Marine Fisheries Services (NMFS) chaired Regional Forum technical working groups, including the Plan for Testing and Analyzing Hypotheses (PATH), and as Co-Chairperson shared with a representative from the Canadian Department of Fisheries and Oceans for the Biological Effects and Research Subgroup of the Transboundary Gas Group. (Pinney Decl. ¶ 3.)
- He served as the U.S. Army Corps of Engineers, Walla Walla District Fishery Biologist Endangered Species consultation and Research, Monitoring, and Evaluation (RM&E) subject matter expert. He was responsible for ecological research and passage survival, recovery, and quasi-extinction risk, utilizing salmonid stock demographic and lifecycle hypothesis testing for Snake and Columbia River run-of-the-river dams and many subbasin diversion and flood control structures. (Pinney Decl. at ¶ 4.)
- He served as principal biologist/subject matter expert in the Corps' Dissolved Gas Abatement Studies (DGAS) and Systems Configuration Studies (SCS) programs.

Over the course of 24 years, he traveled for several weeks each year to the Corps Engineering and Design Research Center (ERDC) labs in Vicksburg, Mississippi to work on structures and operations testing of physical dam models. The Corps tasked him principally with finding structural and incremental operational means of reducing both total dissolved gas supersaturation (TDGS) and the physiological effects on fish that likely led to mortalities. (Pinney Decl. ¶ 5.)

Mr. Pinney can authoritative say that “all measures attempted by Corps’ fisheries management on the lower Snake River have not recovered any ESA-listed fish. Instead, wild fish are in far worse condition than they were 30 years ago when [he] joined the Corps.” (Pinney Decl. ¶ 17.) “When first employed by the Corps, [he] witnessed salmon and steelhead run returns that were composed of more than 85% wild fish, with hatchery fish composing the remaining 15%. By the time he retired in 2018, the returning runs consisted of more than 95% hatchery and default “natural” fish, with wild fish composing the remaining 5%.” (Pinney Decl. ¶ 6.)

We are at a critical juncture exacerbated by decades of delay. In 1999, “[t]he Corps declined to sign off on their team’s Draft Record of Decision and Draft FR/EIS or follow the NMFS Draft Biological Opinion recommendation to breach, even though the fisheries science pointed clearly to breaching in order to avoid Snake River ESA-listed salmonid quasi-extinction within 24 years, which would be the year 2024 . . . . That is a little over two years from now, a timeframe that is consistent with the latest Nez Perce Tribal analysis finding that by 2025, over 77% of the ESA-listed Chinook populations will surpass the population level quasi-extinction threshold of less than 50 spawners within each population comprising the stock.” (Pinney Decl. ¶ 21.)

The necessary injunctive relief is to order breaching of the dams starting this year. (Pinney Decl. ¶ 7 (“Unless the four lower Snake River dams are breached starting this year as emergency actions through the next two years, the Snake River salmon . . . and steelhead . . . will further spiral towards nonviability . . . ”); ¶ 18 (“It is now necessary to go to the last means of recovering [lower Snake River] wild salmon and steelhead. That is breaching the four lower Snake River dams.”) Mr. Pinney explains in great detail how and why all mitigation measures to recover ESA-listed salmon and steelhead have failed. (Pinney Decl. ¶¶ 8-18.) Importantly, Mr. Pinney then explains how breaching will recover these species, using accepted modeling techniques and the Corps’ own data. (Pinney Decl. ¶¶ 19-44.)

### **B. The Court Should Order Dam Breaching Starting this Year to Save Endangered Southern Resident Orcas**

The scientific evidence similarly illustrates how dam breaching is critical to the Southern Resident orcas’ survival.<sup>4</sup> The Southern Resident orcas are a genetically distinct population of killer whales that eat salmon. (Giles Decl. ¶¶ 12-13.) As of October 1, 2021, their population has fallen to a total of 73 whales. (Balcomb Decl. ¶ 21.)

Ms. Giles and Mr. Balcomb are the foremost experts on the Southern Resident orcas. Both served on Governor Inslee’s Southern Resident Killer Whale Recovery Task Force (Giles Decl. ¶ 5; Balcomb Decl. ¶ 25.) Giles master thesis and PhD both focused on the Southern Residents, she is a killer whale scientific at the Center for Conservation Biology, resident scientist and lecturer at the University of Washington Friday Harbor Labs, science and research director for

---

<sup>4</sup> See David Bain, Phd. et al., *Southern Resident Killer Whales & Columbia/Snake River Chinook: A Review of the Available Scientific Evidence* (February 2020) <https://damsense.org/wp-content/uploads/2020/02/Feb-2020-Review-paper.pdf>

the nonprofit Wild Orca, and collaborator with NOAA on a project deploying acoustic suction-cup recording tags on killer whales. (Giles Decl. ¶¶ 1-5 and Exh. A.)

Mr. Balcomb, who founded the non-profit Center for Whale Research in 1985, has personally observed whales, and, in particular, the Southern Residents for over 45 years. (Balcomb Decl. ¶¶ 2, 7, 9.) A commissioned US Navy pilot and oceanographic specialist, Mr. Balcomb received commendations from the Chief of Naval Operations, and the Commander of Antisubmarine Warfare Forces Pacific for technical excellence and outstanding performance of his duties during a high threat situation, respectively. (Balcomb Decl. ¶ 3.) Balcomb, a pioneer in photo-identification of cetaceans and founder of Orca Survey (1976) -- a study of Pacific Northwest Southern Resident killer whale, is world renowned for his whale research. (Balcomb Decl. ¶ 6.) Balcomb's groundbreaking work supported a federal court agreement to ban the capture of killer whales in Washington waters and led to the Southern Residents' Endangered Species Act listing. (Balcomb Decl. ¶¶ 10, 21.)

From Ms. Giles' and Mr. Balcomb's work, we know that the Southern Resident orcas are in a critical situation. They are starving. (Balcomb Decl. ¶¶ 20-21, Giles Decl. ¶¶ 6-12.) Giles explains how scientific studies and data, including her own and that of NOAA, confirm the importance of Chinook salmon to the Southern Residents' diet. (Giles Decl. ¶¶ 3, 6-19.). More specifically, the importance of the Columbia-Snake Basin as having "the greatest potential to increase the abundance of Chinook salmon, based on its historical Chinook production." (Giles Decl. ¶ 21.) Ms. Giles and Mr. Balcomb draw the clear connection between breaching the lower Snake River dams and Southern Resident orca recovery. (Giles Decl. ¶¶ 15-26, Balcomb Decl. ¶¶ 16-24.) "The best available science . . . establishes that Southern Resident orcas will not be recovered without breaching the four lower Snake River dams, as the Snake River is the

Columbia’s largest tributary and once produced nearly half of the entire basin’s Chinook.” (Giles Decl. ¶ 22.) “Breaching the lower Snake River dams would open the gateway to a vast, 5,500-mile expanse of largely intact spawning and rearing stream that run through millions of acres of wilderness. This will subsequently revitalize salmon populations, leading to an increase in critical food source for the Southern Resident orcas.” (Balcomb Decl. ¶ 24.)

“How do we tell future generations that there are no more SRKWs. That we had a solution, but failed to implement it.” (Balcomb Decl. ¶ 26.)

### **III. THE U.S. ARMY CORPS OF ENGINEERS HAS THE DISCRETION AND AUTHORITY TO BREACH THE LOWER SNAKE RIVER DAMS**

My extensive qualifications that form the basis of my opinions are highlighted in paragraphs 1-6 of my Declaration and in my Resume attached as Exhibit 1 thereto. Having served in many high-level positions during my 35-year career as a professional engineer with the Corps, including those giving me unique expertise regarding the lower Snake River dams, I find it imperative to correct an often stated misconception: that is, that the Corps does not have the authority to breach the dams. This misconception is rooted in a lack of understanding as to the difference between a change in a project’s operational status versus a change in a project’s purpose. “Placing a project in caretaker or non-operational status does not change the purpose for which the project is authorized. The reason is simple – there is no mandate requiring the Corps to continue to operate a particular project. The Corps thus has discretion to cease operating a project. There is no question that this is, and must be, the case. In contrast, a change in *operations* may in some instances, although certainly not all, require an extensive analysis of the Corps’ scope of authority to operate a project in a different way. . . . No such analysis is required

in this instance because the Corps would not be *operating* the project for another purpose.” (Waddell Decl. ¶ 18.)

The federal agencies perpetuate this misconception in the CRSO EIS by claiming: “If dam removal was the selected alternative, the Corps would require Congressional approval of such an action and that would involve Congressional consideration of effects to navigation in relation to the Rivers and Harbors Appropriation Act.” CRSO EIS, Section 8.12 Navigable Waters, p. 8-10. This statement appears to be more of a political one: not one that is factually or legally accurate. It is inaccurate because it does not speak to the process of placing a project in non-operational status and taking necessary measures to secure it.<sup>5</sup> While the Court may certainly order breach even if it were true that Congressional authorization was required, I do not want the Court to, in any way, be dissuaded from ordering breach based on an erroneous understanding of the scope of the Corps’ discretion and inherent authority.

My Declaration, paragraphs 14-27, explains in detail, the well-established practice of placing projects in non-operational status and then taking such measures as necessary to secure such projects. “Just because a dam or other infrastructure project has been built does not mean that the Corps is obligated to continue to seek sufficient funds to maintain it. To the contrary, the Corps must evaluate projects to determine whether their cost-benefit ratio justifies their continued operation. When a project is no longer justified, whether for economic or environmental reasons or both, the Corps will place it in caretaker or non-operational status. Part of placing a project in such status is to take necessary measures to secure it. Absent such discretion, the Corps would be beholden to Congress – waiting, perhaps decades, for legislative agreement – in order to avoid wasting billions of taxpayer dollars. This is simply not the case.

---

<sup>5</sup> Other legal flaws in this conclusory statement are beyond the scope of this Amicus.

The Corps frequently secures projects for which it has ceased operations and these same principles apply to breaching and securing the lower Snake River dams.” (Waddell Decl. ¶ 14.)

“Breaching the earthen berms is the only feasible means of protecting the concrete structure, spillways, locks etc. from continuous river flows for which they were not designed. For instance, spillway basins would erode in a matter of years and then cause structural failure of the spillways themselves. Breaching the dams by removing the earthen embankment is also the sole means of safely securing the project and allowing fish passage while in a caretaker or non-operational status.” (Waddell Decl. ¶ 17.)

I hope that my expertise in, and explanation of, the Corps’ discretionary decision-making authority with regard to the budgetary process, paragraphs 19-26 of my Declaration, provides a practical perspective to alleviate any concerns about the Corps’ ability to accomplish breaching in the near term. In other words, there is no need to settle for inadequate interim measures, when the necessary act of dam breaching is readily achievable.

#### **IV. BREACH STARTING THIS YEAR IS FEASIBLE**

As this Court previously recognized, breaching does not require another lengthy study. My Declaration provides an overview of the process for breaching the dams. The breach has three basic phases: (1) mechanical removal of the top 60 feet of material by dozer to the downstream side of the embankment, while dewatering over the spillway and turbines; (2) controlled (via turbine wicket gates) hydraulic breaching of the remaining 40 feet; and (3) channel alignment and armoring around the structure and bridge piers/road embankments, if necessary. Thus, the contract is little more than a time and materials or rental contract for four to five pieces of equipment at any one time. (Waddell Decl. ¶¶ 16-17.) The timing of the breach is during the “in water work period” in which there is very little salmon or steelhead migration.

(Waddell Decl. ¶ 17.) Lower Granite could be breached starting in December 2021 and Little Goose could be breached 45 days later, followed by breaching one dam per year for the last two dams. (Waddell Decl. ¶ 17.) This process is based on publicly available documents generated by the Corps itself as well as my own civil engineering expertise and familiarity with the dams.

The *Lower Snake River Dams FS/EIS* continues to serve as a comprehensive roadmap to breaching. In the Breach Mitigation Plan (Waddell Decl. at Exh. 2), I updated economic projections and cost estimates, but the actual mechanics of breaching have not changed. As Chris Pinney explains in detail, at the time the Corps released the draft Lower Snake River Dams FS/EIS, toward the end of 1999, “the Walla Walla District Corps assigned study lead team recommended to the decisionmakers and NMFS that the process of decommissioning the four lower Snake River dams for breaching the earthen fill abutments . . . , Alternative 4 in the [Lower Snake River Dams FS/EIS], should begin. . . . The assigned team included the lead design engineers and the overseeing policy lead for the citizen program, as well as several Northwest District Corps Planning and Economic collaborators and policy reviewers, and the NMFS Hydro Office on up to their Regional Administrator.” (Pinney Decl. ¶ 20.) Yet, the Corps declined to follow that recommendation. (Pinney Decl. ¶ 21.)

Mr. Pinney was directly involved in a test drawdown – the 1992 Physical Test of Drawdown of the Lower Granite and Little Goose Dams and reservoirs – that “provided a means for evaluating how to breach the dams and return the river to historical Snake River normative functions for which salmon and steelhead evolved.” (Pinney Decl. ¶ 24.) He was “charged with evaluating the aquatic organism populations’ responses to evacuating a reservoir to free flowing river hydraulic functions and tailwater total dissolved gas supersaturation generation, caused by spilling through all spillbays, with fully opened tainter gates, down to the spillway crest

elevation.” (Pinney Decl. ¶ 24.) The drawdown test demonstrated the feasibility of breaching “to restore the river’s ecological and geomorphological health and function.” (Pinney Decl. ¶ 25.) The significant ecological benefits of breaching are highlighted in Part II above, and detailed in Pinney’s and Sando’s Declarations.

This is to help assure the Court that it can confidently resist likely pleas for more studies or unfounded claims of disastrous consequences as a result of breach. For instance, executive agencies, including the Council on Environmental Quality (“CEQ”) established by the National Environmental Policy Act, have the flexibility to respond to emergency situations and court orders. *See* E.O. 13927 of June 4, 2020 at page 35165; *id.* at Section 6 (noting that CEQ regulations provide that when emergency circumstances make it necessary to take actions with significant environmental impacts without observing the regulations, agencies may consult with CEQ to make alternative arrangements to take such actions). It is safe to say that impending extinction of keystone species forever qualifies as an emergency.

Finally, in my previously submitted amicus, dated February 2017, I explained how existing funding mechanisms, namely the fish mitigation credits, could be used to fund the breach. (*See* Amicus Brief of James Waddell, filed Feb. 9, 2017, at p. 16.) While I believe it is helpful for the Court to understand the actual cost of breach, being quite nominal compared to the cost of other projects and the going operations and maintenance for this project, the Court need not be too concerned with the exact details of how the federal agencies will fund breaching. This is because the Corps is required to comply with the ESA despite any claim of budgetary constraints. *Center for Biological Diversity v. Norton*, 304 F. Supp. 2d 1174, 1180 (D. Ariz. 2003); *see also Biodiversity Legal Foundation v. Badgley*, 1999 WL 1042567 (D. Or. 1999), *rev'd on other grounds*, 309 F.3d 1166 (9th Cir. 2002); *Marbled Murrelet v. Babbitt*, 918 F.

Supp. 318 (W.D.Wash.1996); *Silver v. Babbitt*, 924 F. Supp. 972 (D.Ariz. 1995). If obligated by the Court to breach the dams, the federal agencies will find a way to do it. Indeed, the Corps may not avoid its mandatory duties under the ESA based on claims that its budget is inadequate. *Loudner v. United States*, 108 F.3d 896, 903 n. 7 (8th Cir.1997). To the extent the Corps “feels aggrieved by Congress’ failure to allocate proper resources in which to comply with [its] statutory duty, Congress, not the courts, is the proper governmental body to provide relief.” *Conservation Council for Hawai’i v. Babbitt*, 24 F. Supp. 2d 1074, 1078-79 (D.Hawai’i 1998) (quoting *Southwest Center for Biological Diversity v. Babbitt*, No. 96-1874, slip op. at 7 (D.Ariz. Mar.20, 1997)); *Butte Environmental Council v. White*, 145 F. Supp. 2d 1180, 1185 (E.D.Cal.2001) (quoting *Center for Biological Diversity v. Babbitt*, No. C-99-3202, slip op. at 19 (N.D.Cal. 2000)) (“[t]he solution of being over-obligated and under-funded rests with Congress, and not with the Court.”). The courts may order the Corps to comply with the ESA in general and to undertake certain actions pursuant to the ESA without solving its budgetary issues. *Center for Biological Diversity*, 304 F. Supp. 2d at 1180. Once ordered, the Corps is obligated to comply. *Id.*

## **V. THE COURT CAN AND SHOULD ORDER DAM BREACHING UNDER THE ENDANGERED SPECIES ACT AND ITS INHERENT AUTHORITY**

As this Court is well aware, multiple times, the federal agencies have arbitrarily and capriciously failed to prepare adequate biological opinions. (Sando Decl. ¶¶ 12-28.) The federal agencies’ actions have led to the impending extinction of keystone species, namely Snake River salmon and steelhead and the Southern Residents Orcas. As a result of the federal agencies repeated violations of the ESA, the Court should not afford the agencies’ any deference. Nor should the federal agencies be permitted to “take” threatened and endangered species

under the guise of a biological opinion. *See Nat'l Wildlife Fed'n*, 2005 WL 2488447, at \*3 (“A failure now will result in vacating the biological opinion. The Action Agencies and others will be exposed to liability for taking listed species under Section 9 of the ESA. This may sound benign to some, but the parties are aware of the severe consequences that would follow.”). Put another way, the federal agencies have lost the opportunity to rely on the biological opinion as protection from the ESA’s take prohibitions.

The endless loop of more studies, while the survival numbers of certain endangered species dip below 100 and into the teens, is clearly irrational as is continuing to believe that the same or similar actions will somehow, suddenly, reverse the trend toward extinction. Since at least 1999, the Corps has acknowledged that dam breaching is the action that would most likely prevent extinction of endangered salmon and steelhead.<sup>6</sup> Yet, for twenty years, it has continuously selected and implemented all alternatives, *except for* dam breaching. In the 2020 CRSO EIS, the Corps again, and even more blatantly, made clear that it has chosen economics over the environment.

The ESA requires all federal agencies to seek to conserve endangered and threatened species and to utilize their authorities in furtherance of that purpose. 16 U.S.C. § 1531(c). “The plain intent of Congress in enacting [the ESA] was to halt and reverse the trend towards species extinction, whatever the cost.” *Tennessee Valley v. Hill*, 437 U.S. 153, 184 (1978). Section 2 of the ESA declares that it is “the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in

---

<sup>6</sup> There is also extensive evidence demonstrating that the threat of salmon extinction was a known risk well before dam construction that with much political maneuvering became an acceptable sacrifice to those with enough power to push it through. The short film “Struggle for the Snake, 1971”, available at <https://www.youtube.com/watch?v=F7SKoYgaIT8>, provides just one example.

furtherance of the purposes of this Act.” 16 U.S.C. § 1531. Pursuant to this policy, each agency must ensure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of the endangered or threatened species or result in the destruction or adverse modification of habitat of such species. 16 U.S.C. § 1536(a)(2). The legislative history of the ESA further “reveals an explicit congressional decision to require agencies to afford first priority to the declared national policy of saving endangered species.” *Tennessee Valley Auth.*, 437 U.S. at 185. The federal agencies’ flagrant disregard for this well-articulated purpose, makes a mockery of the law. Even more fundamentally, it unlawfully subjugates the health and well-being of an entire ecosystem to a handful of agency officials.

It is worth looking back to one of the first cases interpreting the ESA, *Tennessee Valley Auth. v. Hill*, 437 U.S. 153 (1978), that remains good law today. In that case, the United States Supreme Court considered the obligations of federal agencies to comply with the protections afforded to species listed under the ESA. After the ESA passed in 1973, and after the discovery of the Snail Darter in the same year, the population of the fish was determined to be critically low, and thus the Secretary of the Interior listed the snail darter as an endangered species in 1975. *Id.* at 160-61. After scientists began to study the fish more closely it was determined that the snail darter almost exclusively resides in the Little Tennessee River where it needs clean gravel substrate in cool water with low-turbidity. *Id.* at 162. After this discovery, the Secretary of the Interior declared the area of the Little Tennessee to be “critical habitat” for the snail darter and announced that, pursuant to § 7 of the ESA, all federal agencies needed to ensure that their actions would not result in the destruction or modification of this particular critical habitat area.

*Id.* This notice was directed at the Tennessee Valley Authority (“TVA”), who at the time, was developing the Tellico Dam upstream from the critical habitat. *Id.*

Despite this direction by the Secretary of the Interior, TVA continued to develop and build the Tellico Dam with approval for funds made by Congress. *Id.* at 163-164. Environmental groups and others filed a court case pursuant to the ESA seeking to enjoin the completion of the dam and impoundment of the reservoir based on the critical habitat and endangered listings of the snail darter. *Id.* at 164. The Supreme Court, with Mr. Chief Justice Burger writing the majority opinion, held that the ESA prohibited completion of the dam, where operation of the dam would either eradicate the known population of the snail darter, an endangered species, or destroy its critical habitat. *Id.* at 171-74. The Supreme Court reached this conclusion, even though the dam was virtually completed and even though Congress continued to appropriate large sums of public money on the project despite being apprised of the project’s impact upon the snail darter’s survival. *Id.* at 189.<sup>7</sup>

The *Tennessee Valley Authority* case illustrates how the Court may use its broad discretion to fashion appropriate equitable relief. See *Alaska Center for the Environment v. Browner*, 20 F.3d 981, 986 (9th Cir. 1994) (“[T]he district court has broad latitude in fashioning equitable relief ... In tailoring the relief granted, the district court correctly recognized that in order to bring about any progress toward achieving the congressional objectives of the CWA, the EPA would have to be directed to take specific steps.”). There is no reason for the Court to give the agencies yet another chance. There is no reason to further delay breaching with inadequate interim measures.

---

<sup>7</sup> After a long battle, Congress ultimately exempted the Tellico dam from the ESA by passing an amendment in an unrelated bill. This fact only underscores the importance of the Court’s role here: that is, to rise above politics and uphold the law, ordering the only relief that will prevent species extinction.

The Court has been presented with compelling evidence that breaching is the only action that will prevent the extinction of ESA-listed species, bringing life back to a compromised ecosystem before these species are lost forever and in time to build resiliency in the face of climate change.

**CONCLUSION**

For the foregoing reasons, I respectfully request that the Court order breaching of the lower Snake River dams starting this year.

**DATED: October 20, 2021**

**Respectfully submitted,**

**/s/ James Waddell**

**JAMES WADDELL, *Pro Se***

**CERTIFICATE OF COMPLIANCE**

This brief complies with the applicable word-count limitation under LR 7-2(b) because it contains 20 pages, including headings, footnotes, and quotations, but excluding the caption, table of contents, table of cases and authorities, signature block, exhibits, and any certificates of counsel.

**DATED: October 20, 2021**

**/s/ James Waddell**

**JAMES WADDELL**

**CERTIFICATE OF SERVICE**

I hereby certify that the foregoing document was electronically filed with the Court's CM/ECF filing system, which will send notice of the filing upon all parties registered in the CM/ECF system for this matter.

**DATED: October 20, 2021**

*/s/ James Waddell*\_\_\_\_\_.

JAMES WADDELL