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UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

NATIONAL WILDLIFE FEDERATION et al., Plaintiffs, and STATE OF OREGON et al., Intervenor-Plaintiffs, v. NATIONAL MARINE FISHERIES SERVICE et al., Defendants, and PUBLIC POWER COUNCIL et al., Intervenor-Defendants.	Civ. No. 3:01-cv-00640-SI NWF'S MOTION FOR PRELIMINARY INJUNCTION AND MEMORANDUM IN SUPPORT

TABLE OF CONTENTS

GLOSSARY OF ACRONYMS

2020 BiOp	Biological Opinion for the Continued Operation and Maintenance of the Federal Columbia River Power System, July 24, 2020
2020 ROD	Columbia River System Operations Environmental Impact Statement Record of Decision, September, 2020
BA	Biological Assessment
CSS	Comparative Survival Study
CRS	Columbia River System
ESA	Endangered Species Act
ICTRT	Interior Columbia Technical Recovery Team
MIP	Minimum Irrigation Pool
MOP	Minimum Operating Pool
MPG	Major Population Group
NMFS	National Marine Fisheries Service
NWF	National Wildlife Federation *et al.* (Plaintiffs)
QET	Quasi-Extinction Threshold
RPA	Reasonable and Prudent Alternatives
SARs	Smolt-to-Adult Returns
sp/su	Spring/Summer
TDG	Total Dissolved Gas

TABLE OF AUTHORITIES

Page(s)

Cases

Statutes

Other Authorities

MOTION FOR A PRELIMINARY INJUNCTION FOR VIOLATIONS OF THE ENDANGERED SPECIES ACT

Plaintiffs, National Wildlife Federation *et al.* ("NWF"), respectfully move the Court for a preliminary injunction against Federal Defendants to address violations of the Endangered Species Act ("ESA"), 16 U.S.C. § 1536(a)(2), arising from the 2020 Joint Record of Decision for Columbia River System Operations ("2020 ROD") issued by the U.S. Army Corps of Engineers ("Corps"), the Bureau of Reclamation, and the Bonneville Power Administration (together, "action agencies"); and the 2020 Biological Opinion for Continued Operation and Maintenance of the Federal Columbia River Power System ("2020 BiOp") issued by the National Marine Fisheries Service ("NMFS").[1] Specifically, NWF requests entry of the Proposed Order submitted by the State of Oregon, beginning March 1, 2026 and to remain in place until further order of the Court, to reduce irreparable harm to ESA-listed salmon and steelhead in the Columbia and Snake Rivers by requiring the Federal Defendants to:

(1) increase spill to the maximum level that meets but does not exceed state water quality standards at the federal dams on the four lower Columbia and four lower Snake Rivers for the spring spill season;

(2) restore summer spill at all eight of these projects to the levels set in prior Biological Opinions ("BiOps") for the entire summer spill season;

(3) provide continuous 24-hour spill from during the fall and winter spill seasons at all eight projects through the operation of at least one spillway weir or other surface passage route;

[1] This motion does not address all of the claims in NWF's Eighth Supplemental Complaint for violations of the ESA or any of its claims for violations of the National Environmental Policy Act, 42 U.S.C. § 4321 *et seq*. NWF does not waive any of these claims and will address them in its motion for summary judgment.

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(4) operate the reservoirs above the four lower Snake River dams at their minimum operating pool ("MOP") elevations with a one-foot operating range from March 1 through August 31;

(5) operate the reservoirs above three of the four mid-Columbia dams (Bonneville, the Dalles, and McNary) at their MOP elevations with a 1.5-foot operating range from March 1 through August 31;

(6) operate the reservoir above the John Day dam at its minimum irrigation pool ("MIP") elevation with a 1.5 foot operating range from March 1 through June 15 and MIP plus one foot with a 1.5 foot operating range from June 16 through August 31, beginning in 2026, and develop and submit to the Court within one year of entry of an order for an implementation plan to operate the John Day reservoir at its MOP elevation with a 1.5-foot operating range from March 1 through August 31; and,

(7) implement emergency conservation measures for several deeply imperiled populations.

These measures and relevant exceptions are described more specifically in the Proposed Order submitted by the State of Oregon and in Oregon's other pleadings.

NWF has conferred with counsel regarding this motion. Federal Defendants have indicated they will oppose the motion. NWF has not received responses from all parties and *amici* at the time of filing. Of those that have responded, those intervenors and *amici* aligned with Federal Defendants will also oppose the motion.

This motion is based on NWF's memorandum set out below; the declarations, exhibits, and other papers submitted herewith; the State of Oregon's motion for an injunction and supporting declaration and other papers; the pleadings previously filed herein; and such other evidence as the Court deems appropriate.

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MEMORANDUM IN SUPPORT OF MOTION FOR A PRELIMINARY INJUNCTION

INTRODUCTION

Columbia River salmon and steelhead have declined to dangerously low abundance levels and have faced a highly precarious status for years, due in large part to harm caused by the Corps' operation of the Columbia River System ("CRS") dams and reservoirs. *See NWF v. NMFS*, 184 F. Supp. 3d 861, 870–71, 890–91 (D. Or. 2016). In the almost ten years since the Court's 2016 decision, the abundance of these species has not improved—and in some cases has declined even further. Moreover, going forward, climate change will continue to worsen conditions for these species. This crisis has deepened to the point that some populations—especially those that return to the lower Snake River—now face imminent extinction.

The extinction crisis now facing salmon and steelhead was as predictable as it was avoidable. Since 1994, courts have criticized and repeatedly held unlawful the federal government's plans for operating the CRS dams to the detriment of salmon and steelhead listed under the ESA. Yet time and time again, and despite explicit direction from this Court, the federal government has produced plans for the CRS that continue status quo operations with (at most) minor changes. Unsurprisingly, the action agencies' repeated decisions to maintain failed status quo dam and reservoir operations have pushed salmon and steelhead further toward extinction.

The Corps' most recent decision continues this pattern of failure. In its 2020 decision, the Corps concluded that its planned operation of the CRS dams and reservoirs will not jeopardize the continued existence of any species of salmon or steelhead listed for protection under the ESA. This conclusion is not based on significant changes to dam operations—instead, the Corps' plan maintains status quo dam and reservoir operations with only minor changes (some of them harmful to salmon). Nor is this conclusion based on external factors that have lessened the

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extinction crisis salmon and steelhead face; instead, climate change will indisputably compound the harm caused by dam and reservoir operations. Remarkably, the basis for the Corps' counterfactual conclusion rests in large part on the Federal Defendants' disregard for the ESA's legal requirements—in a number of the same ways that this Court and the Ninth Circuit have already explicitly rejected. NWF is likely to succeed on the merits of its ESA claims because the "no-jeopardy" finding in the 2020 BiOp is illegal and arbitrary.

The preliminary relief NWF now seeks is urgently needed to reduce irreparable harm to ESA-listed salmon and steelhead from operation of the Corps' eight lower Snake and lower Columbia River dams and reservoirs. Specifically, increased spill at the dams and actions to lower reservoir elevations will, separately and in combination, reduce salmon and steelhead mortality and harm relative to the levels that would occur under the dam operations the Corps adopted. Additionally, the emergency conservation actions described below are necessary to mitigate the near-term risk of extinction for the most imperiled populations.

This preliminary relief will not be adequate to allow salmon and steelhead to recover to the point that the protections of the ESA would no longer be necessary. It may not even be adequate to avoid extinction for some populations. NWF intends to seek additional relief in the form of a permanent injunction following a decision on the merits—but as this Court has noted, the CRS "remains a system that 'cries out' for a new approach" if Columbia River Basin salmon and steelhead "are to have any reasonable chance of surviving their encounter with modern man." *NMFS V*, 184 F. Supp. 3d at 876. The preliminary relief NWF seeks will lessen the irreparable harm caused by the Corps' operation of the CRS—and will buy at least a little more time for a new approach before irreversible extinction claims more of these irreplaceable salmon.

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BACKGROUND

I. THE EXTINCTION CRISIS FACING SNAKE AND COLUMBIA RIVER SALMON.

Endangered and threatened Columbia Basin salmon and steelhead have long been in "a perilous state." *NMFS V*, 184 F. Supp. 3d at 876.[2] For most species, their status has not improved in recent years—and for many, it has worsened. *See* Bowles Decl. ¶¶ 4–20.[3]

Nowhere is this crisis more evident than in the lower Snake River. Recent analysis demonstrates that many populations are below or nearing the "quasi-extinction threshold" (or "QET"), which means they have reached such low abundance numbers that their recovery may no longer be possible even if conditions improve. *See id.* ¶¶ 21–33. Once a population reaches this critically low level—defined as fewer than 50 returning adult spawners per year for four consecutive years—it becomes increasingly unlikely that adult fish will be able to find spawning partners, and increasingly likely that any downturn will fully extirpate the population. *See* 2020 BiOp at 223 [ACE1056442]; Bowles Decl. ¶ 23.

A disturbing number of Snake River spring/summer ("sp/su") Chinook and Snake River Steelhead populations have already hit this QET level. *See* Bowles Decl. ¶ 32 (approximately one tenth of listed Snake River sp/su Chinook and summer steelhead populations are already at

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[2] This memorandum applies the following case naming conventions that have typically been used in this matter: *NWF v. NMFS*, 254 F. Supp. 2d 1196 (D. Or. 2003) (*NMFS I*); 2005 WL 1278878 (D. Or May 26, 2005) (*NMFS II*); 524 F. 3d 917 (9th Cir. 2008) (*NMFS III*); 839 F. Supp. 2d 1117 (D. Or. 2011) (*NMFS IV*); 184 F. Supp. 3d 861 (D. Or. 2016) (*NMFS V*); 2017 WL 1829588 (D. Or. April 17, 2017) (*NMFS VI*); *NWF v. NMFS*, 886 F.3d 803, 817 (9th Cir. 2018) (*NMFS VII*).

[3] Declaration of Edward Bowles ("Bowles Decl."), filed concurrently (Oct. 8, 2025) as an attachment to the Motion for Preliminary Injunction by Plaintiff-Intervenor State of Oregon. Additionally, in this memorandum, citations to the Corps' administrative record are preceded by [ACE(page number)] with preceding zeros omitted from the number. Citations to other factual materials are to the numbered exhibits to the Declaration of Amanda W. Goodin ("Goodin Decl."), filed concurrently. A full description of those exhibits can be found in the declaration.

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QET); *id*. ¶ 28–31 (explaining the analysis); *see also* Hesse and Kintzer [Goodin Decl. Ex. 1]. Despite a slight recent uptick in abundance, likely driven by a single year of good ocean conditions, many more populations are predicted to sink below the QET in the coming years. Bowles Decl. ¶ 32 (over one third of Snake River sp/su Chinook and summer steelhead populations projected to be at or near QET within the next five years). Of those populations that are not yet near QET, nearly all are still well below critical abundance thresholds. *Id.* ¶¶ 22, 24. Even NMFS has candidly acknowledged that if CRS operations continue as planned and the effects of climate change unfold as predicted, many smaller populations of Snake River sp/su Chinook will likely be fully extirpated in the next two to three decades, and the larger populations will experience substantially reduced productivity and abundance that will threaten the "genetic and demographic resilience for the ESU as a whole." 2020 BiOp at 275–76 [ACE1056494–95].

Many populations of Snake River sp/su Chinook and Snake River steelhead have already been lost. *See* Rebuilding Report at 8 tbl. 2 [Goodin Decl. Ex. 7] (comparing historic to current populations). More are poised to follow. *See* Bowles Decl. ¶ 32. As more and more individual populations become non-viable, these species as a whole will lose critical geographic and genetic diversity that may impede their ability to recover or even persist as climate change advances. *See id*. ¶¶ 21, 33; 2020 BiOp at 275–76 [ACE1056494–95].

This is what extinction looks like as it unfolds in real time.

The extinction crisis facing Snake River sp/su Chinook and Snake River steelhead is especially grave—but unfortunately, multiple measures show that many other species are not far behind them on the path toward extinction. For example, NMFS has previously identified abundance indicators and triggers that, if tripped, would indicate alarming and unexpected declines in vulnerable Columbia Basin salmon and steelhead populations. AMIP Early Warning

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Triggers at 2 [Goodin Decl. Ex. 2]. While these triggers are inadequate as a true "early warning" measure because the population declines that trigger them are so substantial that much harm has already been done by the time the "early" alarm bell sounds, Bowles Decl. ¶¶ 7–9, NMFS has acknowledged that population declines of this magnitude should prompt urgent additional actions. *See* AMIP Early Warning Triggers at 2 & n.2–3 [Goodin Decl. Ex. 2] (citing NMFS Adaptive Management Implementation Plan). In recent years, five different upper Columbia, middle Columbia, and Snake River stocks have all dipped below one or more of these triggers. *Id.* at 5.

Similarly, smolt-to-adult returns ("SARs"), which measure the number of adult spawners that return per 100 outmigrating smolts (juvenile salmonids), have long been used as a measure of whether a population is declining or increasing. Bowles Decl. ¶¶ 34–37. SARs for Snake River sp/su Chinook and Snake River steelhead continue to be critically low, yet another indication that these two species are in crisis and still declining. *See id.* ¶¶ 37–39. SARs for many other species, including Upper Columbia spring Chinook and steelhead, Snake River sockeye, and Snake River fall chinook, also fell well below established regional objectives. *See* 2025 Comparative Survival Study ("CSS") at 115–16, 260 [Goodin Decl. Ex. 3]; 2024 CSS at 184–89 [Goodin Decl. Ex. 4].

NMFS's most recent status reviews—which NMFS must prepare at regular intervals for listed species under the ESA, 16 U.S.C. § 1533(c)(2)—likewise conclude that many species of Snake and Columbia River salmon and steelhead have suffered precipitous declines and none warrant delisting. *See, e.g.*, Upper Columbia River Status Review at 70 [Goodin Decl. Ex. 5] (concluding that Upper Columbia River spring Chinook and steelhead remain at "high risk of extinction"). NMFS's status review for Snake River sockeye salmon finds that species remains at a "high risk of extinction," Snake River Sockeye Status Review at 21 [Goodin Decl. Ex. 6], with

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a mere handful of natural-origin fish returning on average each year, *id.* at 23, 25. Even more worrisome, NMFS predicts that "adult sockeye survival may decrease up to 80 percent from already low levels" as climate change advances. *Id.* at 36.

In short, every credible source and measure shows that Snake and Columbia River salmon and steelhead are in crisis—and that extinction crisis is only deepening. Many factors have contributed to these declines, but NMFS had found that the single biggest threat to all species of Snake River salmon and steelhead in their freshwater life stage is the direct and indirect impact of the CRS dams and reservoirs. Rebuilding Report at 12 tbl. 3 [Goodin Decl. Ex. 7]; *see also id.* (same for Upper Columbia River Chinook); *see also* Bowles Decl. ¶¶ 40–45.

While the condition of Columbia Basin salmon and steelhead has grown increasingly dire, there is still time for these species to recover. *See* Rebuilding Report at 6 tbl. 1 [Goodin Decl. Ex. 7] (designating salmon species at highest priority for recovery due to extinction risk, potential for recovery in the face of climate change, and importance to Tribal communities); Bowles Decl. ¶¶ 46–49. Rebuilding these species to a healthy abundance would require a suite of "centerpiece actions" including, for Snake River populations, breach of the four lower Snake River dams. Rebuilding Report at 16–17 [Goodin Decl. Ex. 7]. In the interim, emergency measures are necessary to reduce the risk of extinction. *Id.* at 22 ("in the near-term, progress away from a quantifiably large risk of extinction for these stocks is paramount").

II. THE 2020 ROD AND 2020 BIOP CONTINUE THE CORPS' PATTERN OF FAILURE.

The Court is already familiar with the decades-long history of the Corps' failure to protect listed salmon from the harmful impacts of their operation of the CRS dams and reservoirs. *See, e.g.*, *NMFS V*, 184 F. Supp. 3d at 869–72, 877–82. The Corps' 2020 ROD and 2020 BiOp continue down this "well-worn and legally insufficient path." *Id.* at 876.

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The Corps' Proposed Action continues past operations of the CRS with only modest changes, some of them harmful to salmon. *See* 2020 BiOp at 46–91 [ACE1056265–310]; *see also* 2020 ROD at 2 [ACE68160] (adopting Proposed Action). For example, the Proposed Action continues "flexible spill" operations from an interim Flexible Spill Agreement. *Id.* at 54–56 [ACE1056273–75]; *see also* ECF 2298-1 at 1, 9 (noting that the agreement was interim only and inadequate for long-term ESA compliance). Under the terms of that interim agreement, which was "intended to be 'better' for fish than prior operations," but inadequate "to address the low abundance crisis long term," Bowles Decl. ¶ 8, the action agencies could balance periods of higher spill in the spring to aid fish passage with periods of lower spill to increase revenues from power generation. The Proposed Action makes some significant changes to these spill operations, for example by including an earlier termination of summer spill. 2020 BiOp at 57–58 [ACE1056276–77]. The Proposed Action also specifies these spill operations for only one year—2021. Thereafter, spill operations are subject to change through a loosely defined adaptive management framework. *Id.* at 55–56 [ACE1056274–75]. Other changes between the Proposed Action and past operations include increased reservoir elevations at some dams and authorization for expanded periods of "zero generation" that halt river flows entirely. *Id.* at 58–59 [ACE1056277–78], 63–64 [ACE1056282–83]. The shortened spill seasons, increased reservoir operating ranges, and zero generation operations are all expected to harm juvenile and/or adult salmon migration.

In addition to the operation of the CRS dams and reservoirs, the Corps' Proposed Action also includes mitigation and conservation actions. *Id.* at 45 [ACE1056264]; *id.* at 47 [ACE1056266]; *see also* Biological Assessment ("BA") at 2-1 [ACE1067080], 2-86 to 2-108 [ACE1067165–87]. In some cases, the actions that comprise these conservation efforts are not

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specified in the Proposed Action in any detail but instead are deferred to adaptive management programs and future decisions. *See infra* pp. 36-38.

Based on this decision to continue status quo CRS dam and reservoir operations for the next 15 years and a set of unspecified mitigation actions, NMFS concludes in the 2020 BiOp that the Corps' Proposed Action will not jeopardize any listed species of salmon or steelhead, and the Corps relies on this conclusion to establish compliance with the ESA. *See* 2020 BiOp Letter [ACE1056216–17].

III. THE RESILIENT COLUMBIA BASIN AGREEMENT AND ITS TERMINATION.

Plaintiffs' renewed litigation over the Corps' inadequate 2020 ROD led to years of mediated settlement negotiations and, ultimately, an initial agreement that represented the first serious effort to "break through [the] logjam that simply maintain[ed] the precarious status quo." *NMFS V*, 184 F. Supp. 3d at 876. In February 2024, this Court granted a stay of litigation through December 2028 based on a Memorandum of Understanding, a state and tribal plan for Columbia Basin restoration, and supporting U.S. Government commitments. ECF 2465; *see also* ECF 2450-1. Later dubbed the "Resilient Columbia Basin Agreement," this MOU and supporting commitments included over a billion dollars in federal investments in salmon recovery and related infrastructure; commitments to fund and develop joint federal-state studies to examine replacing the energy, transportation, water supply, and recreational services currently provided by the lower Snake River dams; federal support for Tribal clean energy resources including replacement energy for the lower Snake River dams; reforms to the management of federal fish and wildlife mitigation programs; and an agreement to supplement the environmental compliance documents for the CRS as needed. *See* ECF 2450-1; *see also* Notice of Intent to Prepare a Supplemental Environmental Impact Statement ("SEIS") for the Columbia River System Operations, 89 Fed. Reg. 102869 (Dec. 18, 2024). The Agreement represented a unique

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opportunity to work in partnership toward resolution of the issues underlying this decades-long litigation, *see* ECF 2450 at 2, including a path toward breach of the lower Snake River dams and other "centerpiece" actions necessary to rebuild salmon to a healthy abundance in the Columbia River Basin. *See* Rebuilding Report at 17 [Goodin Decl. Ex. 7].

The Agreement also included negotiated interim CRS operations, to remain in place for up to ten years or until Congress authorized breach of the lower Snake River dams, so long as the Agreement remained in effect. ECF 2450-1 at 5. Aspects of these negotiated interim operations would benefit salmon relative to the operations adopted in the 2020 ROD, including higher levels of spill in the spring at some dams and additional limited spill in the fall and winter—though these improvements fell short of what state and tribal fisheries experts identified as necessary, even on a temporary interim basis. *Compare* ECF 2450-1 at 84–92 (negotiated interim operations), *with id.* at 47–52 (proposed interim operations). Other aspects of the negotiated interim operations would harm salmon relative to the 2020 ROD, including most notably a dramatic curtailment of summer spill beginning August 1. *See id.* at 86–87. NWF agreed to these interim operations as part of a comprehensive package, but these negotiated operations are not and were never meant to be sufficient, standing alone, to avoid irreparable harm to listed salmon. *See* Bowles Decl. ¶ 49.

On June 12, 2025, President Trump issued a Presidential Memorandum directing the action agencies to withdraw from the Resilient Columbia Basin Agreement, among other actions. *See* ECF 2478; ECF 2480; *see also* Withdrawal of the Notice of Intent To Prepare a SEIS for the Columbia River System Operations, 90 Fed. Reg. 29854 (July 7, 2025). This Court subsequently granted a motion to lift the stay of this litigation. ECF 2495.

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STANDARD OF REVIEW

Claims under the ESA are reviewed under the well-established standards of the Administrative Procedure Act ("APA"). *NMFS V*, 184 F. Supp. 3d at 879 (citations omitted). Under the APA, an agency action must be upheld on review unless it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law[.]" 5 U.S.C. § 706(2)(A). A reviewing court must "consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983) (cleaned up).

To establish they are entitled to preliminary injunctive relief, plaintiffs must show that: (1) they are likely to succeed on the merits; (2) they are likely to suffer irreparable harm in the absence of preliminary relief; (3) the balance of equities tips in their favor; and (4) that an injunction is in the public interest. *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008); *see also Flathead-Lolo-Bitterroot Citizen Task Force v. Montana*, 98 F.4th 1180, 1190 (9th Cir. 2024) (applying "sliding scale" approach).

For ESA litigation, the standard is modified in the Ninth Circuit such that courts presume "that the balance of interests weighs in favor of protecting endangered species, and that the public interest would not be disserved by an injunction." *NMFS VII,* 886 F.3d 803, 817 (9th Cir. 2018) (cleaned up). And to the extent that a plaintiff seeks any "mandatory" relief, a court must find that "extreme or very serious damage will result" and should deny the request "in doubtful cases" or where the injury can be compensated by damages. *Marlyn Nutraceuticals, Inc. v. Mucos Pharma GmbH & Co*., 571 F.3d 873, 878–79 (9th Cir. 2009) (citation omitted). Mandatory injunctions are "most likely to be appropriate" when "the status quo ... is exactly what will inflict the irreparable injury[.]" *Hernandez v. Sessions*, 872 F.3d 976, 999 (9th Cir. 2017) (citation omitted). Finally, in all instances, an injunction "must be tailored to remedy the

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specific harm alleged." *Lamb-Weston, Inc. v. McCain Foods, Ltd.*, 941 F.2d 970, 974 (9th Cir. 1991) (citation omitted). As described below, NWF satisfies even the most stringent version of these standards.[4]

ARGUMENT

I. NWF IS LIKELY TO SUCCEED ON THE MERITS OF ITS ESA CLAIMS.

NWF is likely to succeed on the merits of its ESA claims against the Corps because, among other flaws, the 2020 BiOp is largely built on an analysis and structure the Court has already rejected as inconsistent with the ESA, and the 2020 ROD relies on the 2020 BiOp to establish compliance with the ESA. *NMFS VI*, 2017 WL 1829588 at *5, *aff'd* 866 F.3d 803 (9th Cir. 2018) (noting the action agencies' liability for relying on the faulty BiOp); *see also* 16 U.S.C. § 1536(a)(2).

First, the 2020 BiOp's jeopardy analysis improperly focuses on the effects of the Proposed Action compared to the effects of past dam operations. The Court has previously rejected this kind of comparative jeopardy analysis as contrary to the ESA. *See NMFS II,* 2005 WL 1278878 at *9–14. The result of this comparative approach is to effectively insulate from review the ongoing, discretionary aspects of the Proposed Action in contravention of the ESA, well-established caselaw, and the 2019 ESA regulations.

Second, the 2020 BiOp employs a jeopardy standard that isolates the effects of the Proposed Action from the full range of harms that could appreciably reduce the species' current reproduction, numbers, or distribution. Courts have consistently rejected this blinkered approach to jeopardy. *See NMFS III*, 524 F.3d 917, 930 (9th Cir. 2008) ("Under this approach, a listed

[4] NWF has standing to pursue these claims based on injury to its members' interests in Columbia Basin salmon and steelhead. *See* Second Supplemental Declaration of Joseph Bogaard and Second Supplemental Declaration of Liz Hamilton (filed concurrently).

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species could be gradually destroyed, so long as each step on the path to destruction is sufficiently modest."). Relying on this illegal standard, the BiOp fails to holistically analyze the Proposed Action's effect on the listed species' likelihood of survival and eventual recovery, as the ESA requires.

Third, the 2020 BiOp fails to analyze whether the Proposed Action will avoid jeopardy in a future that includes climate change—in other words, the real world. The BiOp candidly reports that the Proposed Action combined with climate change will lead to, at least, the severe depletion and, at worst, the complete extirpation of every population of listed salmon it analyzes. But rather than determining that the Proposed Action will cause jeopardy, the BiOp relies on an analysis that *excludes* climate change to make its no-jeopardy conclusion. The BiOp's willful blindness to the real-world effects of the Proposed Action is contrary to the ESA and arbitrary. *See Willamette Riverkeeper v. NMFS*, 763 F. Supp. 3d 1203, 1237–38 (D. Or. 2025) (holding that the failure of a BiOp to address the effects of climate change in conjunction with additional environmental stressors was insufficient analysis, thus arbitrary and capricious).

Finally, the 2020 BiOp fails to provide a rational explanation for its ultimate no-jeopardy conclusion because the logic (if any) underlying that conclusion is impossible to trace. The BiOp simply recites information—including information showing profound harms to listed salmon—and declares "no jeopardy." NMFS's failure to include discussion as to *how* different factors could possibly add up to a no-jeopardy conclusion is quintessential arbitrary agency decisionmaking and violates a foundational principle of administrative law: "Show your work." *Patterson v. Comm'r of Soc. Sec. Admin*., 846 F.3d 656, 663 (4th Cir. 2017).

A. The 2020 BiOp Relies On An Illegal Comparative Framework.

In the 2020 BiOp, NMFS concluded that the Corps' ongoing, discretionary operation of the CRS dams and reservoirs will not jeopardize any species of ESA-listed salmon or steelhead.

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NMFS's no-jeopardy finding here is not based on significant changes to the dam and reservoir operations that are driving listed salmon to the brink of extinction; the Proposed Action is in fact the largely unchanged continuation of the CRS operations that have failed to comply with the ESA for decades. *See supra* pp. 8–10. NMFS reached this result by focusing on only the *changes* to the Corps' ongoing discretionary operation of the CRS and then comparing to prior (illegal) operations to find that these cordoned off changes have a minor effect on salmon. This analysis is essentially a resurrection of NMFS' 2004 approach that this Court and the Ninth Circuit both soundly rejected. *See NMFS II*, 2005 WL 1278878, *aff'd*, 524 F.3d 917 (9th Cir. 2008).

As described below, first, the 2020 BiOp is built on yet another comparative approach. Second, this approach fails because it deliberately excludes the vast majority of the impact of the Proposed Action on listed species, which multiple courts have held is contrary to the ESA. Third, even the 2019 version of the ESA regulations that NMFS applied here forecloses this approach because those regulations still require the Corps to consult on the entirety of an ongoing, discretionary agency action.

1. How the 2020 BiOp Is Built on a Comparative Analysis.

While the 2020 BiOp describes the Proposed Action as the "continued operation" of the CRS dams, 2020 BiOp at 45 [ACE1056264], its analysis consistently defines the effects of the Proposed Action far more narrowly. In fact, the 2020 BiOp's consideration of effects includes only the changes in the Corps' operation of the CRS dams and reservoirs relative to prior operations. Rather than analyze the full effect of the Corps' discretionary decision to continue operation of the CRS dams and reservoirs largely unchanged as part of the Proposed Action, the BiOp assigns all unchanged effects of past and ongoing CRS operations to the "environmental baseline." Crucially, the BiOp then uses the effects of previous operations as the metric for measuring the impact of the now-reduced Proposed Action. The resulting comparative analysis

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diminishes the actual harms to listed salmon and steelhead and fundamentally distorts the ultimate jeopardy assessment.

A close examination of the 2020 BiOp reveals that it is replete with examples of changes from prior operations serving as the basis for identifying the effects of the Proposed Action. For example, the BiOp finds that the Proposed Action will have little effect on river flows compared to prior operations. *See, e.g.*, 2020 BiOp at 193 [ACE156412] ("The proposed changes in reservoir operations will affect monthly average outflows minimally (0 to 2 percent) at McNary Dam, relative to current conditions"); *see also id.* at 194 [ACE1056413] ("Flow changes downstream of Grand Coulee will be within 2 percent of current conditions."); *id.* ("Flows at the lower Snake and other lower Columbia River projects will not change substantially"); *id.* at 290 [ACE1056509] (Proposed Action "will have little overall effect on the seasonal hydrograph" as "compared to recent conditions"). The BiOp then leverages this comparative assessment to conclude that the Proposed Action's effect on river flows will not harm salmon. *See id.* at 194 [ACE1056413] ("The proposed change in flow would be too small to affect river temperature during the adult migration period"); *id.* ("The associated effects on SR spring/summer Chinook smolts or adults should not change from recent conditions by a meaningful amount"); *id*. at 290 [ACE1056509] ("[S]mall negative effects" of the Proposed Action "should not measurably alter survival estimates between Lower Granite and Bonneville Dam").

Similarly, the 2020 BiOp concludes that the spill operations in the Proposed Action will have a minimal effect on juvenile Snake River sp/su Chinook by using a comparative lens. The BiOp notes that "the flexible spring spill operation (Proposed Action), compared to the [2020 Draft EIS] No Action Alternative" would slightly increase juvenile survival from 42.7 to 42.8 percent, reduce travel time, reduce the proportion of fish transported, and reduce overall smolt-to-adult returns from 0.88 to 0.81 percent. 2020 BiOp at 240–41 [ACE1056459–60].

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(206) 343-7340

Accordingly, the BiOp's later conclusion that the Proposed Action will cause in-river juvenile survival rates for this species to "increase slightly" rests on a comparison of spill operations under the Proposed Action to prior spill operations. *Id.* at 285 [ACE1056504]; *see also id.* at 290 [ACE1056509] (noting the "survival improvements" from spill operations).

In contrast, the 2020 BiOp includes in the environmental baseline the substantially altered and reduced river flows caused by ongoing CRS operations that have "significantly degraded salmon and steelhead habitats." 2020 BiOp at 126 [ACE1056345]. The environmental baseline also includes the significant mortality to juvenile and adult salmon from ongoing CRS operations (and other causes). *See* 2020 BiOp at 139–43 [ACE1056358–62] (including in the environmental baseline the average minimum survival estimates from Bonneville Dam to Lower Granite Dam from 2010 to 2019 for Snake River sp/su Chinook for both returning adults and smolts). This mortality is substantial: only around 83 percent of adult Snake River sp/su Chinook survive their upstream migration through eight CRS dams. *Id.* at 139 [ACE1056358]. Juvenile mortality is far higher: while estimates vary, from 2008 to 2017 less than half of juvenile Snake River sp/su Chinook survived their downstream migration through eight CRS dams. *Id.* at 142–43 [ACE1056361–62]. The BiOp's treatment of past and current operations means that the 2020 BiOp does not consider this substantial adult and juvenile mortality, caused in large part by ongoing CRS operations, as an effect of the Proposed Action.

NMFS does not clearly acknowledge that the 2020 BiOp limits the effects of the Proposed Action to the differential between prior and current operations, perhaps because courts have already rejected that approach. *NMFS III*, 524 F.3d at 933 (finding that NMFS's 2004 BiOp "manipulat[ed] the variables to achieve a 'no jeopardy' finding"). Instead, with an unannounced sleight of hand, the BiOp shifts from acknowledging effects of the ongoing, discretionary operation of the CRS to focusing only on the effects of changes from past operations. For

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(206) 343-7340

example, in the discussion of the effects of the Proposed Action on Snake River sp/su Chinook, the BiOp notes that "[t]he effects of CRS operations will include continued reduced flows in the lower Snake and Columbia Rivers during the months of May through July." 2020 BiOp at 193 [ACE1056412]. But when turning to the assessment of effects on salmon and steelhead, the BiOp repeatedly concludes that the *change* from prior conditions will be minimal, and so the effects of the Proposed Action on salmon will be negligible. *See, e.g.*, *id.* at 194 [ACE1056413]. Acknowledging the effects of the entire agency action is not enough; NMFS must then actually analyze the effects of the entire agency action on listed species. 50 C.F.R. § 402.14(g)(4).

In sum, the 2020 BiOp persistently assigns to the environmental baseline all of the substantial mortality and other harm from the Corps' discretionary decision to continue CRS operations largely unchanged, and assigns only to the Proposed Action the relatively minor changes to these high mortality rates and other harmful effects. The BiOp then uses these artificially diminished effects to determine that the contributions of the Proposed Action are inconsequential or—even more strikingly—mildly beneficial. *See, e.g.*, 2020 BiOp at 194 [ACE1056413] (effects "will not change substantially"; will not change "by a meaningful amount"; changes "would be too small"); *id.* at 290 [ACE1056509] ("[c]ollectively" finding that the Proposed Action does no more than "improv[e] many factors" while "maintain[ing] current conditions for others"). By considering only how changes to the Corps' ongoing operations affect salmon relative to past operations, the BiOp masks the actual effects of the Corps' decision to continue discretionary operations largely unchanged, leading to jeopardy determinations that fail to consider the true extent of the existing threats to the species.

2. Courts Have Rejected Similar Comparative Approaches.

The 2020 BiOp's comparative analysis is no more legal today than it was when this Court first rejected a similar analysis in 2005. *NMFS II*, 2005 WL 1278878. In that opinion, this Court

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(206) 343-7340

reviewed an attempt to base a jeopardy analysis on the net difference in effects between two courses of action: the Proposed Action and a hypothetical "reference operation." *See id*. at *17 (noting that the 2004 BiOp focused "almost exclusively on the question to what extent a proposed action" as "compared to the reference operation" would affect listed species). The Court squarely rejected this analysis:

> What NOAA has in effect done in the 2004 BiOp is compare the proposed action to the share of the proposed action it chose to re-categorize as part of the environmental baseline, rather than properly evaluating the proposed action in its entirety.

Id. at *13; *see also NMFS III*, 524 F.3d at 928 (noting that "NMFS's approach is a novel one, completely at odds with NMFS's prior scientific approaches"). As this Court noted, other courts have also "rejected NOAA's comparative approach in jeopardy analyses." *NMFS II*, 2005 WL 1278878 at *13 (citing *Kandra v. United States*, 145 F. Supp. 2d 1192 (D. Or. 2001); *accord Defs. of Wildlife v. Babbitt*, 130 F. Supp. 2d 121 (D.D.C. 2001)). The Ninth Circuit affirmed the decision, observing that "[a]lthough the 2004 BiOp did not point to any improvement in the fishes' status or the impacts of the [dams'] operations," the new approach "attributed only a much smaller portion of the fishes' perilous condition to the proposed action under review." *NMFS III*, 524 F.3d at 926. Other jurisdictions have since recognized the principle. *Am. Rivers v. FERC*, 895 F.3d 32, 47 (D.C. Cir. 2018) (stating that "attributing ongoing project impacts to the 'baseline' and excluding those impacts from the jeopardy analysis" does not satisfy the ESA); *Cooling Water Intake Structure Coal. v. EPA*, 905 F.3d 49, 81 (2d Cir. 2018) (finding that when the future operation of a facility is discretionary, "the continued operation of that facility is not a 'past' or 'present' impact of a previous federal action" to be placed in the environmental baseline).

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Old wine, new(ish) bottle: The differences in detail between the comparative jeopardy analysis the Court struck down in the 2004 BiOp and the comparative analysis in the 2020 BiOp do not alter the conclusion that a comparative approach still violates the ESA. This Court recognized that "[o]nly a comprehensive approach to jeopardy analysis will meet the [ESA's] statutory mandate." *NMFS II*, 2005 WL 1278878 at *14. That "comprehensive approach to jeopardy" is utterly absent here. Against the backdrop of species struggling to maintain a foothold in the Basin's massively replumbed ecosystem, the BiOp's comparative assessment reduces the effects of the Proposed Action to a featherweight or even an incremental improvement. That fundamental defect results in jeopardy determinations that do not account for the overwhelming majority of the effects of the Proposed Action.

The Corps and NMFS cannot rationally or legally revive a comparative jeopardy analysis in the 2020 BiOp for the same reasons the Court rejected it before. As the Court concluded then, and as is still true today, comparing the effects of proposed dam operations to the effects of previous dam operations "conflicts with the structure, purpose, and policy behind the ESA." *NMFS II*, 2005 WL 1278878 at *11; *see also NMFS III*, 524 F.3d at 927 (noting the 2004 BiOp's "structural flaws that rendered it incompatible with the ESA").

3. The 2019 Regulatory Definition of the "Environmental Baseline" Prohibits the Corps from Including Ongoing Dam Operations.

The 2020 BiOp appears to rely in part on a definition of the "environmental baseline" promulgated in 2019 to support its comparative jeopardy analysis. *See* 2020 BiOp at 125 [ACE1056344]; *id.* at 46 [ACE1056265]; *see* Endangered and Threatened Wildlife and Plants; Regulations for Interagency Cooperation, 84 Fed. Reg. 44976 (Aug. 27, 2019). This revised definition cannot save the 2020 BiOp's arbitrary analysis; indeed, the regulation expressly prohibits shifting ongoing discretionary actions into the environmental baseline.

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(206) 343-7340

The 2019 ESA regulations categorize the "nondiscretionary" portion of ongoing agency activities as part of the "environmental baseline." *See* 50 C.F.R. § 402.02; 84 Fed. Reg. at 44978, 45016. Even though the new definition of "environmental baseline" encompasses *nondiscretionary* components of an ongoing agency action, as the Services explain in the 2019 rule's preamble, any *discretionary* elements of ongoing agency actions unquestionably remain part of the effects of the action. 84 Fed. Reg. at 44978. The Services illustrated the provision with a pointedly apt scenario:

> For example, a Federal agency in their proposed action may modify some of their ongoing, discretionary operations of a water project and keep other ongoing, discretionary operations the same. The resulting consultation on future operations analyzes the effects of all of the discretionary operations of the water project on the species and designated critical habitat as part of the effects of the action, *even those operations that the Federal agency proposes to keep the same*.

Id. (emphasis added); 2020 BiOp at 45 [ACE1056264] (stating NMFS's intent to apply the joint consultation regulations and "preambles to those regulations"); *see also* Consultation Handbook at 4-22 [Goodin Decl. Ex. 8] ("The environmental baseline is a 'snapshot' of a species' health at a specified point in time. It does not include the effects of the action under review in the consultation."); 84 Fed. Reg. at 44980, 44984, 44986, 44989 (relying on the Consultation Handbook).

By using a comparative approach, the 2020 BiOp invalidly subsumes the ongoing discretionary operations of the CRS within the environmental baseline. *Cf. South Yuba River Citizens League v. NMFS*, 723 F. Supp. 2d 1247, 1267 (E.D. Cal. 2010) (rejecting BiOp that would "partially reduce the impact of prior stressors" because it "concludes that the project will continue to impose stressors on listed species without explaining why these stressors will not jeopardize the species"). The 2020 BiOp fails to explain why it can treat *any* aspect of ongoing dam operations as nondiscretionary. Indeed, it is difficult to imagine what rational explanation

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might be offered for this position given the Ninth Circuit's explicit holding that the overall operation of the CRS is discretionary. *NMFS III*, 524 F.3d at 928–29. Instead, the 2020 BiOp does precisely what the new regulation forbids: it includes in the environmental baseline a wide array of discretionary actions. 84 Fed. Reg. at 44978.

The 2020 BiOp also fails to offer any rational explanation for why it can include the effects of ongoing CRS operations in the environmental baseline—and exclude them from the effects of the Proposed Action—when these operations have *never* been the subject of a valid ESA consultation. The Court has consistently rejected every version of these prior operations as illegal since the 2000 BiOp. *See NMFS V*, 184 F. Supp. 3d at 880–83, 949. Making this failure the baseline for the BiOp's comparative analysis irrationally and improperly builds the no-jeopardy finding in the 2020 BiOp on a foundation of two decades of disregard for the ESA.

To the extent the definition of "environmental baseline" could be read to permit the approach in the 2020 BiOp—in defiance of the regulation's plain language and the Services' own contemporaneous interpretation—that regulatory definition would be unlawful as applied here. As the Ninth Circuit has held, the ESA does not allow agencies to "immunize discretionary agency actions [from consultation] simply because they are taken in pursuit of a non-discretionary goal." *NMFS III*, 524 F.3d at 929. Any attempt to exclude by definition the harm caused by ongoing operations does not reduce the actual harmful effects of these operations on the listed species. *Id.* at 933 (finding that under NMFS's 2004 framework "the dead fish were really alive"). As applied here, this new definition would be contrary to the fundamental purposes of the ESA: to prevent extinction and restore listed species to a condition that no longer requires their protection by the Act. *NMFS II*, 2005 WL 1278878 at *11 (striking down BiOp's effort to exclude "nondiscretionary" elements of dam operations); *see also Vierra v. Rubin*, 915 F.2d 1372, 1376 (9th Cir. 1990) ("A court may invalidate an agency regulation if it 'is not

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(206) 343-7340

reasonably related to the purposes of the statute it seeks to implement'") (internal citation omitted).

In sum, the Court has already rejected the comparative approach that the 2020 BiOp employs. Nor do the 2019 ESA regulations allow the 2020 BiOp to assign all of the harm from the discretionary operation of the CRS to the environmental baseline in order to insulate its harmful effects from the ESA's jeopardy prohibition. As the Ninth Circuit found in 2008, the "ESA requires a more realistic, common sense examination." *NMFS III*, 524 F.3d at 933.

B. The 2020 BiOp Isolates The Proposed Action From Real World Effects.

The 2020 BiOp's approach to jeopardy likewise resurrects an analysis the Court has already explicitly rejected by isolating the effects of the Proposed Action from other recognized harms to the species. Under this flawed approach, if the impact of the Proposed Action alone is relatively slight, the action cannot cause jeopardy, regardless of other factors such as earlier harms, the species' reduced status, and the ongoing effects of climate change. The "isolation" and "comparative" jeopardy approaches work in tandem: the comparison first reduces the effects of the Proposed Action and then the isolation strips away the context that has brought the species to its diminished state. Together, they attempt to paint the operation of eight lethal federal dams as insubstantial.

This approach must fail. First, it isolates effects from their real-world impacts to listed species. Second, courts have already rejected similar attempts at isolation as contrary to the ESA. Third, this isolation approach fails to consider recovery. Fourth, the 2019 regulations prohibit this approach.

1. How the 2020 BiOp Isolates the Effects of the Proposed Action.

NMFS acknowledges in the BiOp that it is isolating its analysis of the Proposed Action and severing it from any real-world context. In NMFS's view, the terms "jeopardize the

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(206) 343-7340

continued existence of" and "destruction or adverse modification" are "determinations that are made about the effects of Federal actions" and not "about the environmental baseline for the proposed action or about the pre-action condition of the species." 2020 BiOp at 46 [ACE1056265]. The 2020 BiOp puts this theory into practice by isolating effects of dam operations from real-world consequences to listed salmon. For example, the 2020 BiOp finds that under the Proposed Action, in-river survival rates for juvenile Snake River sp/su Chinook will "[s]lightly increase . . . from 42.7 to 42.8 percent" as "compared to the No Action Alternative." 2020 BiOp at 240–41 [ACE1056459–60]; *see also id.* at 285 [ACE1056504] (in-river survival will "increase slightly"). But NMFS leaves out a critical step: the BiOp does not ever consider whether an in-river survival rate of 42.8 percent is likely to appreciably reduce the species' ability to actually survive and eventually recover in light of their current status and other threats.

NMFS's isolation of the Proposed Action is also apparent in the context of climate change. Despite modeling that indicates that abundances will decrease and extinction risk will increase even under the most optimistic scenario, the BiOp simply states that "climate change consequences are not caused by" the Proposed Action. *Id.* at 289 [ACE1056508]. The BiOp then concludes that while climate change is a "substantial threat," the Proposed Action will "reduce both the scope and severity of those impacts and not exacerbate them[,]" and so finds no jeopardy. *Id.* at 291 [ACE1056510]; 427 [ACE1056646] (same). That result is made possible by taking the minimized results of a comparative approach for the Proposed Action and then isolating the harmful effects from those that arise from other sources. *See also infra* pp. 28–35.

Even where the 2020 BiOp acknowledges that aspects of the Proposed Action will likely adversely affect listed species, it finds that the overall effects of the Proposed Action will at least not appreciably worsen the current condition of the species—but without any analysis of survival

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(206) 343-7340

or recovery. For example, the BiOp acknowledges the harm from modified turbine operations. *See, e.g.*, 2020 BiOp at 511–12 [ACE1056730–31]. Yet the BiOp concludes that "[a]ltogether, recent (2008 to 2019) adult survival rates would be expected to continue at similar levels under the proposed action because the minor improvements and impairments [under the Proposed Action] should, on the whole, result in no substantial differences that would measurably affect survival rates." *Id.* at 512 [ACE1056731]; *see also id.* at 201 [ACE1056420] (concluding that changes in turbine operations would not "measurably reduce[]" Snake River sp/su Chinook adult survival rates). But the 2020 BiOp does not discuss whether maintaining these abysmally low survival rates is likely to appreciably reduce the species' ability to survive and eventually recover in the context of the status of the species and other threats.

On the basis of these and similar assessments that the Proposed Action will "improve" or only minimally diminish existing conditions, the 2020 BiOp concludes in nearly identical language for each species that "the effects of the action will not cause reductions in reproduction, numbers, or distribution" and so will not cause jeopardy. *See, e.g.*, 2020 BiOp at 291 [ACE1056510] (Snake River sp/su Chinook); *id.* at 428 [ACE1056647] (Snake River Basin steelhead); *id.* at 534 [ACE1056753] (Snake River sockeye); *id.* at 640 [ACE1056859] (Snake River fall Chinook). NMFS reaches these conclusions only by limiting its review so that the effects of the Proposed Action are isolated from real world impacts to survival and recovery.

2. Courts Have Rejected Previous Attempts to Isolate the Proposed Action.

This narrowed focus on whether the Proposed Action will result in conditions that are appreciably worse tomorrow than they are today—as opposed to a realistic assessment of all harm caused by the continued CRS operations in the context of the species' status and other threats—is contrary to the law. As the Ninth Circuit found:

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> Under this approach, a listed species could be gradually destroyed, so long as each step on the path to destruction is sufficiently modest. This type of slow slide into oblivion is one of the very ills the ESA seeks to prevent.

NMFS III, 524 F.3d at 930; *see also id.* at 926 (comparative analysis improperly avoids "a more holistic, aggregate" assessment). The 2020 BiOp's approach is also contrary to the courts' consistent holdings that even *de minimus* improvements in survival are not *per se* adequate to avoid jeopardy:

> [I]f 100 listed species are expected to survive downstream juvenile migration in 1993, and 99 survived in 1990, [the agencies' invalid reasoning] would mandate a no-jeopardy finding—even though a 100 survival level may still be considered so low as to constitute a continued threat to the species' existence.

IDFG v. NMFS, 850 F. Supp. 886, 899 (D. Or. 1994) (quoted in *NMFS V*, 184 F. Supp. 3d at 891). As this Court has found, a jeopardy standard that focuses only on a *de minimus* improvement in abundance is inconsistent with NMFS's Consultation Handbook and its own longstanding assessment of what is necessary to avoid jeopardy to a species' survival and eventual recovery. *NMFS V*, 184 F. Supp. 3d at 891; *see also* Consultation Handbook, at 4-21 [Goodin Decl. Ex. 8]. As long ago as 1999, the Ninth Circuit found that "the regulatory definition of jeopardy . . . does not mean that an action agency can 'stay the course' just because doing so has been shown slightly less harmful to the listed species than previous operations." *ALCOA v. BPA*, 175 F.3d 1156, 1162 n.6 (9th Cir. 1999) (quoted in *NMFS V*, 184 F. Supp. 3d at 890–91). Yet that is precisely what the Corps has done here.

3. Isolating Effects Fails to Adequately Consider Recovery.

The failings of the 2020 BiOp are particularly stark given the absence of a clear analysis on the listed species' likelihood of eventual recovery. Instead, the 2020 BiOp flatly declares that "NMFS is not required to identify a 'tipping point' beyond which the species cannot recover from any additional adverse effect, or recovery benchmarks in making section 7(a)(2)

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(206) 343-7340

determinations." 2020 BiOp at 46 [ACE1056265]. This is a red herring. The ESA may not require NMFS to identify a "beyond here there be dragons" tipping point, but the statute is clear that NMFS must address both survival *and* recovery. Moreover, assessing recovery requires some conception of the goal line. This Court has been particularly clear on this point. *NMFS V*, 184 F. Supp. 3d at 895 ("Without identifying 'rough' recovery abundance levels and time frames, NOAA Fisheries cannot logically conclude that the RPA actions will not appreciably reduce the likelihood that recovery will be attained.") (citation omitted); *see also NMFS II*, 2005 WL 1278878 at *17 (finding 2004 BiOp failed to address recovery).

The requirement that a BiOp articulate a rough recovery endpoint is necessary to evaluate whether an agency action creates a "'new risk of harm'" by appreciably delaying recovery. *NMFS V*, 184 F. Supp. 3d at 892; *NMFS III*, 524 F.3d at 936 (affirming *NMFS II*, stating that "it is only logical" that the agency know "roughly at what point survival and recovery will be placed at risk"). This is not the same as requiring agency actions to improve the condition of the species, nor does it require NMFS to speculate about a time in the future when recovery will no longer be possible. It does, however, require NMFS to address the impacts of the CRS on recovery of the imperiled salmon populations, but that is precisely what NMFS failed to do.

4. Isolating the Proposed Action is Contrary to the 2019 Regulations.

The 2019 amendments to the regulations implementing the ESA do not permit the isolated approach employed by the 2020 BiOp, particularly given that the revisions did not alter the definition of "to jeopardize the continued existence of." 50 C.F.R. § 402.02; *see also* 84 Fed. Reg. at 45016. In truth, NMFS is reasserting a tired rhetorical point, first articulated as part of the 2004 BiOp, *NMFS III*, 524 F.3d at 929–30, and repeated in the preamble to the 2019 regulations and the 2020 BiOp. NMFS maintains that there is no "existing status of being 'in jeopardy,' 'in peril,' or 'jeopardized' by baseline conditions, such that any additional adverse impacts must be

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(206) 343-7340

found to meet the regulatory standards for 'jeopardize the continued existence of' or 'destruction or adverse modification.'" 84 Fed. Reg. at 44987; 2020 BiOp at 46 [ACE1056265] (same). But the notion that NMFS should begin its analysis with a finding of "baseline jeopardy" is another red herring. The issue is whether NMFS has carried out its obligation under the ESA to make a jeopardy determination based on "the magnitude and significance" of the Proposed Action's effects "when added to the environmental baseline and cumulative effects, and the status of the species or critical habitat[.]" 84 Fed. Reg. at 44987. Once again, it has not.

In defending the 2004 BiOp, NMFS argued that adopting the concept of "baseline jeopardy" would mean that severely degraded conditions would prevent "any federal action once background conditions place a species in jeopardy." *NMFS III*, 524 F.3d at 930. The Ninth Circuit easily dispensed with this strawman. The court agreed that "jeopardize" implies causation and "some new risk of harm," but that fact does not relieve NMFS of the obligation to "appropriately consider the effects of its actions 'within the context of other existing human activities that impact the listed species.'" *Id.* (citing *ALCOA*, 175 F.3d at 1162 n.6).

Isolating the effects of the Proposed Action for its own, independent jeopardy determination is contrary to NMFS's own interpretation of its regulations. 84 Fed. Reg. at 44979 (stating that the effects of the Proposed Action must be "added to" the baseline effects); *see also id.* at 44987 (acknowledging that for "very imperiled" species, the amount of harm that can occur without triggering a "jeopardize" or "destruction or adverse modification" determination "may be small"). As the Ninth Circuit has observed, a jeopardy standard that is narrowly concerned only with whether current conditions will deteriorate conflicts with the core purpose of the ESA and risks the "slow slide into oblivion" that is one of "the very ills the ESA seeks to prevent." *NMFS III*, 524 F.3d at 930.

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C. The 2020 BiOp Fails To Account For Climate Change In Its Jeopardy Conclusion.

The 2020 BiOp's treatment of climate change is neither lawful nor rational, as described below. First, the BiOp concedes that the effects of the Proposed Action in combination with advancing climate change will be devastating for Snake River sp/su Chinook. Second, the BiOp's no-jeopardy conclusion relies on a separate analysis of the effects of the Proposed Action that *excludes* climate change projections—ignoring the real-world context within which the Proposed Action would occur. Third, the revised ESA regulations do not permit this approach. Fourth, the BiOp arbitrarily concludes that the Proposed Action will "mitigate" for the effects of climate change to some unspecified degree, but this conclusion cannot substitute for the required jeopardy determinations.

1. The 2020 BiOp Predicts That the Proposed Action Combined With Advancing Climate Change Will Have Devastating Effects.

Taking into account climate change projections, the 2020 BiOp predicts the Proposed Action will have devastating effects on population abundance and extinction risks for every population of Snake River sp/su Chinook (the only species for which NMFS includes a quantitative analysis of Proposed Action effects including climate change). 2020 BiOp at 242–79 [ACE1056461–98]. This analysis shows alarming declines in abundance of every population analyzed. *See id.* at 246–47, 256, 258, 264–65 [ACE1056465–84]. The 2020 BiOp candidly acknowledges that "[d]eclines of this magnitude . . . would threaten to extirpate a large number of small populations, and would substantially reduce the abundance and productivity of larger populations." *Id.* at 275 [ACE1056494]. The BiOp notes that "[t]he threat to larger populations (substantially reduced abundance and productivity) causes even greater concern because they are the remaining salmon strongholds, which provide genetic and demographic resilience for the ESU as a whole." *Id.* at 276 [ACE1056495].

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The 2020 BiOp's predictions for extinction risks in a warming world are similarly alarming. For example, for the Middle Fork Salmon River Major Population Group ("MPG"), the 2020 BiOp predicts that the Proposed Action combined with climate change projections "substantially increase[s] the probability of falling below the [quasi-extinction] threshold for all six populations. The median probability increased to between 93 and 100 percent for the three smaller populations . . . . The median probabilities also increased substantially for the larger populations, ranging from 67 to 85 percent with the proposed action scenario, and from 50 to 72 percent [using alternative assumptions]." 2020 BiOp at 257 [ACE1056476]. This means that it ranges from likely to virtually certain that implementing the Proposed Action will lead to every population of the Middle Fork Salmon River MPG falling below the quasi-extinction threshold (or "QET") within the next 24 years. *Id.* Populations in other MPGs do not fare much better. *See, e.g.*, *id.* at 264–65 [ACE1056483–84].

The 2020 BiOp concludes that climate change "poses a substantial threat to SR spring/summer Chinook salmon." *Id.* at 279 [ACE1056498]. The BiOp also finds that, "[b]ased on the modeling, we expect abundances over the next 24 years to decrease and extinction risk to increase, even when taking into account the benefits of the proposed non-operational conservation measures and the most optimistic hypotheses." *Id.* at 289 [ACE1056508]. If these forecasts do not amount to an appreciable reduction in the likelihood that the listed species will survive and recover—in other words, jeopardy—it is not clear what would.

2. The 2020 BiOp Relies on an Analysis That Excludes Climate Change Projections in Concluding the Proposed Action Does Not Cause Jeopardy.

The BiOp distances itself from the devastating consequences of the Proposed Action in a warming world by relying on predictions from an analysis that excludes climate change projections. The 2020 BiOp's predictions of the effects of the Proposed Action on abundance

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(206) 343-7340

and extinction risks for Snake River sp/su Chinook, *excluding* climate change projections, are unsurprisingly less dire (though still alarming). 2020 BiOp at 223–42 [ACE1056442–61]. The BiOp notes that its "stationary climate" modeling indicates "that under the proposed action each MPG would be expected to continue to have at least one population with 250 to 300 or more spawners, and correspondingly, a relatively low (0 to about 20 percent) risk of falling below the QET 50 thresholds." *Id.* at 240 [ACE1056459], 242 [ACE1056461] (using the term "stationary climate" to describe this modeling). Even under this stationary climate analysis, however, smaller populations still face a "much higher (75 to 95 percent) risk of falling below the QET 50 thresholds." *Id.* at 240 [ACE1056459]; *see also id.* at 229 [ACE1056448], 237 [ACE1056456].

The BiOp justifies ignoring the disastrous abundance and extinction risk forecasts resulting from the climate change analysis by asserting that the forecasts are a result of climate change alone, and not the effects of the Proposed Action. *See* 2020 BiOp at 289 [ACE1056508] ("These climate change consequences are not caused by the proposed action."); *id.* at 279 [ACE1056498]. Yet the analysis predicting these dire consequences quite literally includes the effects of the Proposed Action—it does not analyze the effects of only climate change. *Compare* 2020 BiOp at 242 [ACE1056461] (modeling incorporates Proposed Action and climate warming) *with id.* at 279, 289, 291 [ACE1056498, ACE1056508, ACE1056510] (asserting that modeling results show climate change consequences not caused by the Proposed Action). The BiOp's assertion to the contrary is arbitrary and unsupported by the analysis on its own terms.

The fact that the predicted abundance and QET risks are seemingly less dire under the "stationary climate" analysis does not logically support the BiOp's claim that the disastrous consequences predicted under the climate change analysis are attributable solely to climate change. More importantly, *even if* the Proposed Action would not jeopardize listed salmon in a theoretical world without climate change, that would not absolve the Corps of the responsibility

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to meaningfully address the effects of the Proposed Action on top of climate change effects. As the court in *Willamette Riverkeeper* held, "[d]espite resolving that the effects of climate change are 'detrimental,'" the agency failed to evaluate whether listed steelhead could sustain impacts from the proposed action "on top of climate change effects." 763 F. Supp. 3d at 1237–38. The 2020 BiOp is similarly flawed.

3. The ESA Regulations Do Not Permit the 2020 BiOp's Approach.

To the extent the 2020 BiOp relies on the 2019 ESA regulations to avoid determining whether the Proposed Action combined with climate change will avoid jeopardy, the 2020 BiOp has failed to explain rationally how the new regulations permit this approach. *See* 2020 BiOp at 291 [ACE1056510] (concluding that the Proposed Action will not cause jeopardy and tracking the language of 50 C.F.R. § 402.14(g)(4) as revised in 2019). The new regulations still require agencies to make a jeopardy determination after adding the effects of the action and cumulative effects to the environmental baseline, and in light of the status of the species. 50 C.F.R. § 402.14(g)(4); *see* 2020 BiOp at 94 [ACE1056313] (acknowledging this standard). The 2020 BiOp unlawfully fails to do just that. *See NMFS III*, 524 F.3d at 930 (affirming that a biological opinion must "consider the effects of [federal] action[] 'within the context of other existing human activities that impact the listed species.'") (citations omitted); *see also Ctr. for Biological Diversity v. Haaland*, 87 F.4th 980, 991–92 (9th Cir. 2023) (noting that under 50 C.F.R. § 402.14(g)(4), an agency action may still cause jeopardy even if it is merely part of a larger "overall threat to the species"). Alternatively, to the extent that the Corps and NMFS believe that the 2019 regulations permit the 2020 BiOp to exclude the effects of climate change from its jeopardy analysis—an argument that appears nowhere in the 2020 BiOp—such an interpretation would be contrary to the plain language of the regulation. *See* 50 C.F.R. § 402.14(g)(4).

In short, nothing in the ESA or the new regulations permit the 2020 BiOp to determine

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Seattle, WA 98104
(206) 343-7340

that the Proposed Action will not jeopardize listed species despite its own conclusion that continued operation of the CRS together with climate change will dramatically decrease the abundance of listed species and increase their extinction risk.

4. The BiOp's Conclusion That the Proposed Action Will Mitigate the Effects of Climate Change Cannot Substitute for a Jeopardy Determination.

In a further effort to avoid recognizing the harmful effects of the Proposed Action in a warming world, the 2020 BiOp improperly substitutes for a real-world jeopardy determination the alternative, arbitrary, and illegal conclusion that the Proposed Action will "mitigate" the effects of climate change to some unspecified extent as compared to prior CRS operations. *E.g.*, BiOp at 289 [ACE1056508] ("We generally expect that abundance could decrease and extinction risk increase as a result of climate change. However, the severity of those changes would be reduced as a result of the proposed action."), 291 [ACE1056510] ("Climate change is a substantial threat to SR spring/summer Chinook salmon . . . . The proposed action is expected to reduce both the scope and severity of those impacts and not exacerbate them."). By substituting a "mitigate-to-some-extent" finding for a jeopardy determination, the 2020 BiOp illegally seeks to evade the core issue of whether additional actions and changes to dam operations are necessary to avoid appreciably reducing the likelihood of survival and recovery.

The 2020 BiOp's conclusion that the Proposed Action will mitigate the effects of climate change is arbitrary for at least three reasons. First, the conclusion that the Proposed Action will "mitigate" for climate harms is based on the BiOp's illegal approach to its jeopardy analysis described above ("compare" and "isolate"). *See supra* pp. 14–23, 24. As the BiOp acknowledges, the ongoing operation of the CRS exacerbates and compounds the effects of climate change by contributing to the same changes in river conditions that harm salmon, such as seasonally increased water temperatures and changed river flows. *Compare* 2020 BiOp at 126–33

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Seattle, WA 98104
(206) 343-7340

[ACE1056345–52] (effects of CRS operations on water temperature and flow) *with id.* at 242 [ACE1056461] (effects of climate on water temperature and flow). The BiOp, however, illegally assigns all of the harm from ongoing CRS operations to the environmental baseline rather than the Proposed Action as described above. This foundational flaw is what underlies the illogical conclusion that the Proposed Action will "mitigate" the effects of climate change instead of profoundly exacerbate them.

Second, the 2020 BiOp suggests that the sharp population declines it predicts as a result of the Proposed Action combined with climate change are attributable largely to worsening ocean conditions as opposed to freshwater conditions. 2020 BiOp at 275–76 [ACE1056494–95] ("The decline in the number of spawners is much greater during the marine phase of the life cycle than other life stages."); *but see id.* at 278 [ACE1056497] (acknowledging that freshwater conditions, including slowed travel times and high water temperatures, "lower marine survival"); Crozier *et al*. 2019, at 23 [ACE821947] ("[e]xposure factors that indicated the highest vulnerabilities to climate change were encountered in both freshwater and marine environments."). Even if worsening ocean conditions were the most significant factor, it is irrelevant. The Corps must ensure that its operation of the CRS does not appreciably reduce the likelihood that ESA-listed salmon and steelhead will be able to survive and eventually recover despite the real-world threats they face—such as worsening ocean conditions. *NMFS III*, 524 F.3d at 930 (NMFS must evaluate "'what jeopardy might result from the agency's proposed actions *in the present and future human and natural contexts.*'") (quoting *Pac. Coast Fed'n. of Fisherman's Ass'ns v. U.S. Bureau of Reclamation*, 426 F.3d 1082, 1093 (9th Cir. 2005)).

Finally, the 2020 BiOp's analyses of the effects of the Proposed Action combined with climate change for other species have even less substance than the analysis for Snake River sp/su Chinook. For all other species/ESUs, the BiOp only includes a brief qualitative discussion of the

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Seattle, WA 98104
(206) 343-7340

effects of climate change, explicitly siloed in minor sub-sections. *See, e.g.*, 2020 BiOp at 445–51 [ACE1056664–70] (Snake River sockeye); *id.* at 657–63, 743 [ACE1056876–882; ACE1056962] (upper Columbia spring/summer Chinook); *id.* at 314–20 [ACE1056533–539] (Snake River Basin steelhead). More detail is needed to assess how the effects of the Proposed Action combined with climate change differ across species. *Id.* at 120 [ACE1056339] ("How climate change will affect each stock or population of salmon also varies widely depending on the level or extent of change, the rate of change, and the unique life-history characteristics of different natural populations"); 276–77 [ACE1056495–96] ("The high elevation, mostly-wilderness habitat of SR Chinook ESU partially explains the relatively small effects of climate change on their freshwater life stages."). The failure to meaningfully address the effects of the Proposed Action in a warming world on each of these listed species, despite acknowledging that these effects differ substantially, is arbitrary and improperly places the burden of risk from the Proposed Action on each of these other listed species. *See NMFS V*, 184 F. Supp. 3d at 906 (holding that the 2014 BiOp "places all of the risk of that uncertainty on the species. This is precisely what the ESA does not permit.").

D. The Reasoning In The BiOp Is Impossible To Trace.

It is axiomatic that an agency must "examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made." *State Farm*, 463 U.S. at 43 (cleaned up). The 2020 BiOp falls short in meeting its obligation of reasoned decisionmaking in (at least) two key respects. First, the offsetting mitigation measures (two habitat programs and flexible spill operations) described in the BiOp lack sufficient substance, composed largely of future planning exercises, adaptive management, and uncertain results—yet the BiOp relies on (allegedly) certain benefits from these measures.

Second—and more importantly—NMFS's jeopardy conclusions are inscrutable,

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(206) 343-7340

essentially untethered from alarming findings as to the continued viability of Columbia Basin salmon and steelhead. An agency's explanation must include sufficient information for a reviewing court to determine whether the "conclusions are rationally supported" and whether the "agency's actions were complete, reasoned, and adequately explained." *Nw. Coal. for Alts. to Pesticides v. EPA*, 544 F.3d 1043, 1052 n.7 (9th Cir. 2008) (cleaned up); *see also State Farm*, 463 U.S. at 43 (rejecting agency rationale when "every indication in the record points the other way") (cleaned up). That explanation is sorely lacking here.

1. The 2020 BiOp Relies on Certain Benefits from Uncertain Actions.

The 2020 BiOp includes in the Proposed Action two habitat programs—one to take place in Basin tributaries and one in the Columbia River's estuary—as well as the flexible spill operations. *See* 2020 BiOp at 74–77; 190 [ACE1056293–96; ACE1056409]. All three are largely plans to make a plan, with unavoidably uncertain outcomes based on future decisions, and yet NMFS repeatedly relies on the benefits of these programs. NMFS must explain why it believes it can rest its decisionmaking at least in part on the benefits of poorly defined future actions, without an analysis considering a range of potential outcomes.

For the estuary program, the BiOp notes that the federal defendants propose "to reconnect an average of 300 acres per year to the tidal regime" but candidly admits that "there is uncertainty in forecasting exactly what restoration actions will be performed, and when." 2020 BiOp at 74 [ACE1056293]; *see also* BA at 2-106 [ACE1067185] ("there is greater challenge in forecasting, over an extended time period, an accurate amount of floodplain acreage that can be reconnected annually to the Columbia River's tidal regime"). For the tributary habitat mitigation, the BiOp provides broadly described metrics (*e.g.*, flow protection, stream complexity), but there too the timing and exact nature of the work remains elusive, promising only that the "habitat actions that produce these metrics will be completed, or in process, by the end of 2036." 2020

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(206) 343-7340

BiOp at 208 tbl. 2.2-17 n.1 [ACE1056427]; *see also id.* at 402 tbl. 2.3-13 n.1 [ACE1056621]. Yet the 2020 BiOp again and again cites to the benefits from these indeterminate actions. *See, e.g.*, 2020 BiOp at 207 [ACE1056426] (asserting that "NMFS expects that the Action Agencies' proposed implementation of the estuary program will continue to partially mitigate the effects of mainstem flow management"); *id.* at 287 [ACE1056506] ("These improvements in tributary habitat are likely to contribute to improvements in all four [Viable Salmonid Population] parameters for the targeted population.").

The overarching uncertainty is true for the spring flexible spill operations as well. 2020 BiOp at 54–57 [ACE1056273–76]. Flexible spill operations are established through a loosely defined adaptive management framework that is expressly constrained "by the understanding that Bonneville must, at a minimum, be no worse financially" than it was under the spill injunction ordered in 2018. Columbia River Systems Operation Draft Environmental Impact Statement (CRSO DEIS), App. R, Part 2, at R-8 [ACE428695] (Flex Spill Power Principle); *see also id.* at R-12 – R-14 [ACE428699–701] (Adaptive Implementation Framework); 2020 BiOp at 55–56 [ACE1056274–75] (adaptive management). And yet the BiOp relies on purposed benefits from the flexible spill operations. *Id*. at 290 [ACE1056509] (finding that "the proposed flexible spring spill operation is expected to improve juvenile survival through the mainstem migration corridor for all populations").

Beyond the open question as to how any of these measures will be implemented, there are large-scale unknowns around the resulting benefits, some of which may not be resolved for decades or more. *See, e.g.*, 2020 BiOp at 206 [ACE1056425]; *id.* at 424 [ACE1056643]; CRSO DEIS, App. R, Part 2 at R-3 [ACE428690] (noting, in the context of the 2019-2021 spill agreement, that "evaluating the effectiveness of these operations will require multiple years of data given the lifecycle of salmon and the potential changes in regional energy markets.").

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Seattle, WA 98104
(206) 343-7340

Nevertheless, for some species, the BiOp incorporates 15 years' worth of claimed benefits from the habitat actions into its quantitative life-cycle modeling. *See, e.g.*, 2020 BiOp at 224 [ACE1056443] ("Estimated effects of habitat improvements were incorporated into the model at years 5, 10, and 15."); *see also id.* at 741 [ACE1056960] (same); *id.* at 213–14 [ACE1056432–33], 215–16 [ACE1056434–35] (presenting specific percentage increases for juvenile rearing capacity). Nowhere does the BiOp attempt to analyze or acknowledge a range of potential outcomes or evaluate whether outcomes at the low end of this range would affect its conclusions—a failure that renders it arbitrary. *See NMFS V*, 184 F. Supp. 3d at 903–06 (finding that loosely defined measures with uncertain benefits places the burden of uncertainty on the listed species); *cf. id.* at 910 (faulting NMFS for not leaving "room for error that the specific, numeric survival benefits associated with tributary habitat improvements might not all accrue precisely as estimated").

To the extent that NMFS defends its treatment of mitigation based on the 2019 changes to the ESA regulations, that reliance is misplaced. 50 C.F.R. § 402.14(g)(8) (measures to avoid or minimize effects "do not require any additional demonstration of binding plans"). The Services have made clear that the regulation requires that an agency describe proposed actions and any associated mitigation measures "in sufficient detail that the Services can both understand the action and evaluate its adverse effects and beneficial effects." 84 Fed. Reg. at 45003; 50 C.F.R. § 402.14(c)(i) (similar); *see* 84 Fed. Reg. at 45002 (must be "clearly presented"). That detail is absent here. *Greater Yellowstone Coal., Inc. v. Servheen*, 665 F.3d 1015, 1029–30 (9th Cir. 2011) (rejecting agency conclusion that did not follow from the facts found).

2. The 2020 BiOp Fails to Adequately Explain Its No-Jeopardy Conclusions.

The 2020 BiOp's final—and fatal—flaw is that it fails to offer a cogent explanation as to

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(206) 343-7340

how the various analyses lead to its ultimate conclusion that the Proposed Action will not jeopardize any of the listed species of salmon or steelhead.

In each of the final Integration and Synthesis discussions, the 2020 BiOp lightly touches on some of the ways in which the Proposed Action will affect salmon and steelhead, at least in comparison to prior dam operations. 2020 BiOp at 283–91 [ACE1056502–510] (Snake River sp/su Chinook); *see e.g.*, *id.* at 420–28 [ACE1056639–47] (Snake River Basin steelhead); 748–55 [ACE1056967–74] (Upper Columbia River spring Chinook). The BiOp repeatedly recognizes where climate change poses a "substantial threat" to listed species. *Id.* at 291 [ACE1056510]); *see also id.* at 428 [ACE1056647]; 755 [ACE1056974]. And then, in a pattern repeated throughout the BiOp, NMFS summarily determines that the Proposed Action will not result in jeopardy. *Id.* at 290–91 [ACE1056509–10]; *see e.g.*, *id.* at 428 [ACE1056647]; 755 [ACE1056974].

The 2020 BiOp does not provide any comprehensible explanation as to how the various factors it considers are weighted or combined to support these results. Instead, the BiOp provides the unilluminating summation that the "proposed action includes some elements that will harm salmonids and some that will benefit salmon." 2020 BiOp at 290 [ACE1056509]; *see, e.g.*, *id.* at 428 [ACE1056647]; 640 [ACE1056859]; 754 [ACE1056973]. This cursory overview offers no insight into how NMFS reached its conclusion, and given this unmistakable gap, the BiOp fundamentally fails to "[s]how [its] work." *See Patterson*, 846 F.3d at 663 (urging decisionmakers to follow "the admonition they have no doubt heard since their grade-school math classes").

The BiOp's quantitative analysis is equally opaque and untethered from its ultimate conclusions. For example, for Snake River sp/su Chinook, the BiOp employed two metrics to predict the effects of the Proposed Action. First, it projected average population abundance over

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Seattle, WA 98104
(206) 343-7340

24 years. 2020 BiOp at 223 [ACE1056442]. Second, it projected the risk a population will fall below QET during the next 24 years. *Id.* While the BiOp reports the abundance levels predicted by its models under a variety of scenarios, it does not state what level of abundance would be so low that it would constitute an appreciable reduction in the species' likelihood of survival and recovery. Similarly, the BiOp reports QET risk under a variety of scenarios, but it provides no sense of whether the QET risk is unreasonably high. And it does not otherwise explicitly connect these quantitative estimates of abundance and QET risk to the species' likelihood of survival and eventual recovery. NMFS's failure to explain how it used its metrics is standard-issue arbitrary and capricious decisionmaking. *See Nat'l Ass'n of Clean Water Agencies v. EPA*, 734 F.3d 1115, 1154 (D.C. Cir. 2013) (holding that the agency must "specify in greater detail *why* the equation it is using can accomplish the purpose for which [it] is using the equation").

There are many well-recognized external benchmarks and standards NMFS could have used to make sense of the quantitative analysis it did conduct, such as regional targets for smolt-to-adult returns (or "SARs") or critical abundance thresholds, *supra* p. 7, but here too the BiOp falls short. For instance, the BiOp could have used viability analyses and threshold abundance goals developed by NMFS's Interior Columbia Technical Recovery Team ("ICTRT") to explain the significance of its abundance predictions. *See NMFS V*, 184 F. Supp. 3d at 888–89. Though the BiOp mentions the ICTRT analyses and includes some information from them, *e.g.*, 2020 BiOp at 107–09 [ACE1056326–28], it does not explain whether or how they are addressed in the jeopardy conclusion. *NMFS V*, 184 F. Supp. 3d at 891 ("NOAA Fisheries does not offer a reasonable explanation for why it did not use the best available science of existing and minimum viable abundance levels [from the ICTRT] of the listed fish in considering impacts to the likelihood of achieving recovery"); *see also* 16 U.S.C. § 1536(a)(2) ("best scientific and commercial data").

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Seattle, WA 98104
(206) 343-7340

At bottom, NMFS has simply recited a list of impacts and announced that they amount to "no jeopardy." *E.g.*, 2020 BiOp at 290–91 [ACE1056509–10]. This will not suffice. As the Ninth Circuit has emphasized, a court "cannot simply take the agency's word that the listed species will be protected under the planned operations." *NMFS III*, 524 F.3d at 935 n.16. "If this were sufficient," warned the court, an agency "'could simply assert that its decisions were protective and so withstand all scrutiny.'" *Id.* (quoting *Pac. Coast Fed'n.*, 426 F.3d at 1092). Acknowledging that the Proposed Action will have both beneficial and harmful impacts, without explaining whether or how any of those impacts support a no-jeopardy conclusion alone or in combination, is no more rational than simply announcing that the answer is 42. *See Patterson*, 846 F.3d at 663; *Getty v. Fed. Sav. & Loan Ins. Corp*., 805 F.2d 1050, 1055 (D.C. Cir. 1986) ("Stating that a factor was considered . . . is not a substitute for considering it."). The failure to show its work dooms NMFS's analysis here.

* * *

It is noteworthy that over the course of more than two decades this Court has struck down six different Columbia River Basin biological opinions for failing to comply with the ESA. This latest attempt arrives at its "no jeopardy" conclusion despite the worsening condition of listed salmon and steelhead and an essentially unchanged suite of dam and reservoir operations. But the 2020 BiOp's endorsement of the status quo rests on contorted legal arguments and a willingness to disregard plain facts. Rather than grapple with the difficult issues at play in the Basin, the BiOp is yet another "cynical and transparent attempt to avoid responsibility for the decline of listed Columbia and Snake River salmon and steelhead." *NMFS IV*, 839 F. Supp. 2d at 1130. More is needed to satisfy the basic command that agencies engage in rational decisionmaking. 5 U.S.C § 706(2)(A). And more is needed if there is ever to be any real hope of avoiding extinction for more populations of listed salmon and steelhead.

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(206) 343-7340

For all of the foregoing reasons, NWF is likely to succeed on the merits of its claims that the Corps violated the ESA in the 2020 ROD by relying on the 2020 BiOp.

II. THE PRELIMINARY RELIEF NWF SEEKS WILL REDUCE IRREPARABLE HARM TO ESA-LISTED SALMON AND STEELHEAD AND IS NARROWLY TAILORED.

NWF seeks a preliminary injunction against the Corps for violations of the ESA, starting on March 1, 2026, and extending until further order of the Court, for measures that will reduce mortality and harm to juvenile and adult salmonids as they migrate past the CRS dams and reservoirs, and other emergency conservation measures to mitigate against the near-term risk of extinction. NWF's requested relief falls into three categories: spill measures, reservoir elevation measures, and emergency conservation measures. Additional details regarding specific aspects of each are set forth in the Declaration of Edward Bowles, and the Proposed Order submitted by the State of Oregon. NWF supports and joins in Oregon's motion and proposed order.

The spill measures of NWF's requested relief include an order directing the Corps to: (1) increase spring spill to the maximum level currently allowed under state water quality standards; (2) restore summer spill through the end of August; (3) require limited spill from the end of the summer spill season until the beginning of the following spring spill season, with exceptions for freezing temperatures and maintenance; and (4) complete specific repairs and change other actions that prevent the Corps from actually providing necessary spill. NWF also requests that the order: (5) prohibit the Corps from implementing zero generation/zero flow operations when spill is not occurring; and (6) prohibit the Corps from carrying additional power reserves at the expense of spill.

The reservoir elevation measures of NWF's requested relief include an order directing the Corps to: (1) restore reservoir levels in the lower Snake River to their Minimum Operating Pool (or "MOP") elevation with a one-foot operating range from March 1 until August 31 beginning

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Seattle, WA 98104
(206) 343-7340

in March 2026 and until further order of the Court; (2) operate the reservoirs above McNary, The Dalles, and Bonneville dams at their MOP elevations with a 1.5 foot operating range from March 1 until August 31 each year beginning in 2026; and (3) operate the reservoir above John Day Dam at minimum irrigation pool (or "MIP") with a 1.5 foot operating range from March 1 through June 15 and MIP plus one with a 1.5 foot operating range from June 16 through August 31, and require the Corps to submit a plan to the Court within one year of entry of the Court's order to operate the reservoir above John Day at its MOP elevation with a 1.5 foot operating range from March 1 until August 31 each year, specifically including actions necessary to ensure sufficient water supply to Irrigon and Umatilla hatcheries, among other issues.

The emergency conservation measures of NWF's requested relief include: (1) predator control actions; (2) kelt reconditioning actions; and (3) actions to reduce the risk of genetic and demographic collapse for two particularly imperiled populations (Salmon River sockeye and Tucannon River spring Chinook).

As discussed below, it is clear that the Corps' ongoing operation of the CRS dams and reservoirs causes serious irreparable harm to ESA-listed salmon and steelhead, and the spill, reservoir elevation, and emergency conservation measures that NWF and Oregon request are narrowly tailored to reduce this serious irreparable harm.

A. The Corps' Proposed Action Will Continue To Cause Very Serious Irreparable Harm To ESA-Listed Salmon And Steelhead.

As this Court has already held on multiple occasions, there can be no doubt that the ongoing operation of the CRS dams and reservoirs causes serious irreparable harm to salmon and steelhead. *NWF v. NMFS*, 2005 WL 1398223, at *4 (D. Or. June 10, 2005) (holding that "the DAMS strongly contribute to the endangerment of the listed species and irreparable injury will result if changes are not made"), *aff'd in part, remanded in part*, 422 F.3d 782, 795 & n.9 (9th

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Seattle, WA 98104
(206) 343-7340

Cir. 2005) ("FCRPS operations account for most of the mortality" to ESA-listed salmon and steelhead); *NMFS VI*, 2017 WL 1829588 at *5 ("continuation of the status quo is likely to result in irreparable harm to the listed species").

There is no reason to reach a different conclusion for the Corps' operations pursuant to the 2020 ROD and the 2020 BiOp. *See* Bowles Decl. ¶¶ 50–56. These operations are largely a continuation of the Reasonable and Prudent Alternatives ("RPA") from the illegal 2014 BiOp that the Court has already concluded would cause irreparable harm to these species. *NMFS VI*, 2017 WL 1829588 at *5–6; *see also supra* pp. 8–10 (describing CRS operations under the 2020 ROD). To the extent the Corps' Proposed Action is a change from that illegal RPA, it includes measures that will be worse for salmon and steelhead, including increased operating ranges for some reservoirs, *see* 2020 BiOp at 58–59 & tbl. 1.3-3 [ACE10566277–78], the early reduction of summer spill, *id*. at 57–58 [ACE1056276–77], and authorization for expanded periods of "zero generation" that halt river flows entirely, *id.* at 63–64 [ACE1056282–83]. Moreover, climate change will exacerbate the harm caused by the Corps' operation of the CRS. *See* Bowles Decl. ¶¶ 12–20; *supra* pp. 29–30.

NMFS openly acknowledges many of the ways the ongoing operation of the CRS dams and reservoirs pursuant to the 2020 ROD harms salmonids. *E.g.*, 2020 BiOp at 140 [ACE1056359] (operation of the dams and reservoirs reduces water velocity, alters the food web, slows migration, increases predation exposure, and injures or kills juveniles as they pass the dams). Moreover, quantitative analyses of the operations in the 2020 ROD predict that the spill levels under the Proposed Action will likely lead to continued generational declines for Snake River sp/su Chinook and Snake River steelhead. *See* Bowles Decl. ¶¶ 51–53 (discussing Comparative Survival Study analysis of CRS operations). While it is settled law that harm to endangered species need not rise to an extinction-level threat to justify an injunction, *NMFS VII*,

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Seattle, WA 98104
(206) 343-7340

886 F.3d at 819, the imminent risk of continued generational declines to species persisting at such perilously low abundance easily qualifies this harm as irreparable. *See also id.* at 818 (harm to endangered species is irreparable because it makes the task of preserving that species "all the more difficult") (cleaned up).

If anything, the seriousness of the irreparable injury caused by the Corps' dam and reservoir operations has increased since this Court's last ruling because the status of the most imperiled species and populations has continued to worsen, to the point that some populations have already reached the "quasi-extinction threshold" and others may soon follow without additional protections, *supra* pp. 5–8. NOAA has itself recently acknowledged the paramount urgency of improving conditions for these imperiled populations in light of the quasi-extinction risk that many populations currently face. *See* Rebuilding Report at 21–22 [Goodin Decl. Ex. 7]. This imminent risk of population loss to highly imperiled species is precisely the kind of "extreme or very serious damage" that justifies injunctive relief even under the most stringent of standards. *See Marlyn Nutraceuticals, Inc.*, 571 F.3d at 878–79 (quotation omitted); *Hernandez*, 872 F.3d at 999 (quotation omitted); *see also NMFS VI*, 2017 WL 1829588, at *2 n.2 (D. Or. Apr. 3, 2017) (law of the case requires application of the typical "prohibitory" injunction standard to NWF request for changed operations).

B. Increased Spill Will Reduce Irreparable Harm To Salmon And Steelhead.

For juvenile salmon and steelhead migrating in the Snake and Columbia Rivers, "spill" has long been recognized as providing the safest passage past the CRS dams with the highest survival rates. *See, e.g.*, *NMFS VI*, 2017 WL 1829588 at *7–9 (discussing effects of spill); Bowles Decl. ¶¶ 60–62. Releasing water over the spillways at the four lower Snake River and four lower Columbia River dams allows more salmon and steelhead to avoid traveling through the power turbines and fish bypass facilities, passage routes that increase mortality by subjecting

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810 Third Ave., Suite 610
Seattle, WA 98104
(206) 343-7340

these fish to life-threatening impacts. *See, e.g.*, *id*.; 2025 CSS at 113 [Goodin Decl. Ex. 3] ("Analyses suggest substantial benefits in fish travel time, in-river survival, ocean survival, and smolt-to-adult return (SAR) rates under a 125% [total dissolved gas] spill operation compared to historical levels.").

Based on the strength of the evidence that increased spring spill increases life-cycle survival and reduces mortality, the Court granted an injunction in 2017 requiring spring spill up to the maximum levels allowed at that time by state water quality standards for total dissolved gas ("TDG") and the Ninth Circuit affirmed that decision. *NMFS VI*, 2017 WL 1829588 at *5–11, *aff'd in part,* 6 F.3d 803 (9th Cir. 2018). Since 2017, both Washington and Oregon have modified their water quality standards to allow additional spill in the spring up to 125% TDG levels and, in fact, the Corps has been providing spill to this level on a limited basis under the interim Flexible Spill Agreement, ECF 2298-1 at 3–6, and more recently under the negotiated operations implemented during the stay of litigation, ECF 2450-1 at 84–92.

NWF now asks the Court to require spring spill to the 125% maximum level, consistent with state water quality standards, at all eight lower Snake and lower Columbia River dams (with exceptions noted in Oregon's Proposed Order) on a 24-hour basis throughout the spring salmon migration season beginning in 2026 and until further order of the Court. This increase in spring spill will improve juvenile survival, reduce mortality, and likely lead to increased adult returns. *See* Bowles Decl. ¶¶ 78–84; *see also* 2025 CSS at 113 [Goodin Decl. Ex. 3]. The Corps has already been providing spill to the 125% TDG gas caps on a more limited basis under the interim Flexible Spill Agreement and the negotiated operations under the litigation stay, and implementing spill to this level on a 24-hour basis beginning in 2026 will provide much-needed additional survival benefits to juvenile salmonids.

NWF also asks the Court to require the Corps to provide summer spill through the entire

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Seattle, WA 98104
(206) 343-7340

summer salmon migration season (through August 31), rather than reducing or terminating summer spill early as the 2020 BiOp allows, *see* 2020 BiOp at 57–58 [ACE1056276–77]. The Court has previously enjoined the Corps from this early termination of summer spill and the Ninth Circuit has affirmed that injunction. *See NWF v. NMFS*, 422 F.3d at 795–98 (affirming grant of injunction to require summer spill through August 31); *see also NMFS IV*, 839 F. Supp. 2d at 1131 (continuing summer spill injunction). Providing summer spill through the entire summer migration season is important to preserve as much of the diversity of summer migrating juveniles as possible, and increase their resilience in the future. *See* Bowles Decl. ¶¶ 85–88.

NWF also asks the Court to order the Corps to provide limited spill at each of the eight lower Snake and Columbia River dams during the fall and winter (from September 1 through the start of the spring spill period with specific exceptions noted by Oregon), beginning on March 1, 2026. *See id.* ¶ 92 & tbl. 5. This small amount of continuous fall and winter spill will reduce the harm to late and early migrating juveniles and as well as ESA-listed adult steelhead in both the Snake and Columbia Rivers. *See id.* ¶¶ 89-92. NWF also asks the Court to prohibit the Corps from implementing zero generation/zero flow operations at any time when spill is not occurring. *Id.* ¶ 108.

NWF also asks the Court to prohibit the Corps from carrying additional power reserves at the expense of spill. *See id.* ¶¶ 79, 80. This operational change, agreed to as part of the negotiated interim operations supporting the stay of litigation, can be used to reduce spill to benefit power production. *Id.* Because the 2020 BiOp does not specify spill operations beyond a single year (2021), it is unclear whether the Corps intends to maintain this harmful operational change despite termination of the negotiated agreement. *See* 2020 BiOp at 54–56 [ACE1056273–75].

Finally, NWF asks the Court to order the Corps to repair and provide specific critical infrastructure that is preventing the Corps from providing necessary spill, as described in greater

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detail in Oregon's motion. *See also* Bowles Decl. ¶¶ 109–14. Additionally, NWF asks the Court to order the Corps to cease its juvenile fish transport operation at Lower Monumental Dam, which requires a substantial curtailment of beneficial spill. *See id.* ¶ 114.

The above spill, repair, and other operational measures are narrowly tailored to be consistent with state water quality standards that protect salmon and other species and to provide survival benefits to juvenile salmon and adult and juvenile steelhead that the Proposed Action fails to provide. *See Nw. Env't Def. Ctr v. U.S. Army Corps of Eng'rs* (*NEDC*), 558 F. Supp. 3d 1056, 1074, 1076–79 (D. Or. 2021) (finding a detailed list of changes to dam operations including spill, deep reservoir drawdown, study of structural changes, and expert panel oversight was narrowly tailored to prevent harm to migrating salmon).

C. Lowering Reservoir Levels Will Reduce Irreparable Harm To Salmon And Steelhead.

NWF also seeks an injunction to require the Corps to operate the reservoirs behind the dams on the lower Snake and lower Columbia Rivers at lower elevations than those allowed by the Proposed Action. The CRS dramatically slows the migration of juvenile salmon because water moves far more slowly in reservoirs than in a free-flowing river. Bowles Decl. ¶ 64. It now takes nearly ten times as long for water, and the juvenile salmon it transports, to make its way from above Lower Granite dam (the uppermost of the four lower Snake River dams) to below Bonneville (the lowest dam on the Columbia). *Id.* This delayed migration causes a range of well-established lethal and sublethal harm to juvenile salmon, from increased predation to increased exposure to dangerously elevated water temperatures to impairing a juvenile salmon's physiological transition to the marine environment. *Id.* ¶ 57. The CRS reservoirs also directly

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contribute to increased water temperatures which harm and kill both juvenile and adult salmon. *Id.* ¶¶ 68–70.

Lowering the elevation of the reservoirs behind the CRS dams reduces the cross-section of the reservoir and is one of the only ways to increase the speed with which water—and juvenile fish—move through the reservoirs. *See id.* ¶ 67. This reduced water transit time also reduces water temperatures in these reservoirs as water spends less time in each reservoir. *Id* ¶¶ 71–74. Fish travel time is a key factor associated with in-river survival and SARs of Snake River sp/su Chinook and steelhead. *Id*. ¶¶ 58, 64. While the precise reduction in mortality, and increase in survival, that is achieved by an incremental reduction in reservoir elevation and the corresponding decrease in water transit time cannot be calculated exactly, the relationship between faster water transit time, faster fish travel time, and increased SARs is well-established. *See id*. ¶¶ 58, 64, 67; 2025 CSS at 74, 260–62 [Goodin Decl. Ex. 3]; *id.* at 261 ("Management approaches undertaken in the Columbia River basin in recent years have primarily sought to reduce powerhouse encounters by increasing spill. Our results suggest that a considered management approach should seek both to reduce powerhouse encounters and increase flow; thereby reducing water transit time."); 2024 CSS at 250–51 [Goodin Decl. Ex. 4]; *id.* at 298 ("Particularly for the Snake River Basin, run-off volume is unlikely to provide required [water travel times], in the future, which indicates that cross-sectional area of the migration corridor should be reduced to provide migration [water travel time] for Snake River populations.").

NWF seeks an injunction requiring the Corps to operate the reservoirs above the four lower Snake River dams at their MOP elevations with a one foot operating range, beginning March 1, 2026 through August 31. This order will actually restore these

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reservoirs to the elevations previously implemented by the Corps under prior BiOps and will benefit juvenile salmon and steelhead survival. *See* Bowles Decl. ¶¶ 117–18.

NWF also requests an injunction requiring the Corps to operate the reservoirs above McNary, The Dalles, and Bonneville Dams at their MOP elevations with a 1.5-foot operating range from March 1 through August 31, and the reservoir above John Day Dam at its MIP elevation with a 1.5-foot operating range from March 1 through June 15 and MIP plus one with a 1.5-foot operating range from June 16 through August 31, beginning in 2026. The Proposed Action (and prior BiOps) allow operation of these reservoirs over a much larger range of higher elevations. Reducing the elevation of these reservoirs will decrease water transit time, decrease fish travel time, and provide incremental reductions in mortality for all ESA-listed juvenile salmon and steelhead that migrate past these dams, including not only the most imperiled Snake River populations but also imperiled Upper and Mid-Columbia species. *Id.* ¶¶ 119–24 (discussing benefits to salmon and steelhead of these lower reservoir elevations).

NWF also requests an injunction requiring the Corps to develop and submit, within a year of this Court's order, an implementation plan to operate the reservoir above John Day Dam at its MOP elevation, with a 1.5-foot operating range, from March 1 to August 31 each year. The John Day reservoir is "the largest and longest reservoir in the lower Columbia River and has long been recognized as a substantial source of mortality" for juvenile salmon. *Id.* ¶ 121. Lowering the cross-sectional elevation is expected to have a significant impact on fish travel time, which is one of the most important predictors of smolt to adult returns. *Id.* ¶¶ 58, 64, 123–24; CSS 2024 at 250–51 [Goodin Decl. Ex. 4]; CSS 2025 at 260–62 [Goodin Decl. Ex. 3]. In light of the acute crisis facing listed salmon, it is critical to implement all available operational changes available, Bowles Decl. ¶ 59—especially one with as significant a benefit as this. *See* CSS 2024 at 298

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[Goodin Decl. Ex. 4].

NWF asks the Court to order the Corps to submit a plan for operating the John Day reservoir at its MOP elevation because there are issues that the Corps will need to address as part of this operation. *See* Bowles Decl. ¶ 119. Specifically, NWF asks that the Court's order specify that this plan include any and all actions necessary to ensure an adequate water supply at the nearby Irrigon and Umatilla salmon hatcheries, among other issues. Following an opportunity for the Court and parties to review this plan, NWF intends to seek an order from this Court directing the Corps to implement actions to enable John Day reservoir to operate at its MOP elevation. *See NEDC*, 558 F. Supp. 3d at 1076–79 (ordering Corps, with expert panel, to prepare implementation plan for operational changes).

D. Emergency Conservation Measures Will Reduce Irreparable Harm to Salmonids.

NWF asks the Court to order the Federal Defendants to implement a set of emergency conservation measures that will reduce and mitigate for the irreparable harm caused by CRS operations to salmon and steelhead. *See* Bowles Decl. ¶¶ 125–43. These emergency conservation actions are all implementable in the near-term and will provide immediate, concrete benefits to the most imperiled salmon and steelhead. *Id.* ¶ 127.

Several emergency conservation actions would reduce predation on salmon and steelhead, thereby reducing direct mortality to imperiled populations. *Id.* ¶¶ 128–35. CRS operations lead to increased predation by fundamentally transforming the Columbia and Snake Rivers from free-flowing to a series of warm, slow-moving reservoirs—conditions that favor non-native piscine predators and allow avian predators increased opportunities to prey on juvenile salmon. *See id.* ¶¶ 128, 133; 2020 BiOp at 140 [ACE1056359].

Another emergency conservation action would require Federal Defendants to fully implement kelt reconditioning, a process whereby adult steelhead that have already spawned are

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captured, held and fed in a facility, and released once recovered into the river. Bowles Decl. ¶¶ 136–37. Snake River steelhead are in acute crisis, with many populations at or approaching the quasi-extinction threshold, *supra* pp. 5–8. Snake River steelhead kelts are highly unlikely to survive a second trip to and from the ocean given the eight dams they must pass in each direction, and kelt reconditioning allows these adults a second chance at spawning to provide a badly needed abundance boost to struggling populations. Bowles Decl. ¶¶ 136–37.

A final set of actions would reduce the risk of genetic and demographic collapse for two particularly imperiled populations (Salmon River sockeye and Tucannon River spring Chinook). *Id.* ¶¶ 138–43. In light of the extremely precarious status of these populations, this Court should order these emergency conservation actions that are necessary to mitigate the near-term risk of complete extirpation. *See, e.g.*, *United States v. Washington*, 853 F.3d 946, 979 (9th Cir. 2017) (acknowledging authority of district court to issue detailed remedial orders) (citing *Washington v. Washington State Com. Passenger Fishing Vessel Ass'n*, 443 U.S. 658, 695 *modified sub nom. Washington v. United States*, 444 U.S. 816, 197 (1979); *NEDC*, 558 F. Supp. 3d at 1076–79.

III. THE BALANCE OF HARDSHIPS AND THE PUBLIC INTEREST SUPPORT A PRELIMINARY INJUNCTION.

It has long been established that a showing of "[e]nvironmental injury, by its nature, can seldom be adequately remedied by money damages and is often permanent or at least of long duration, *i.e.*, irreparable." *Amoco Prod. Co. v. Gambell*, 480 U.S. 531, 545 (1987). Although the Supreme Court expressly rejected the notion that the balancing of harms will inevitably favor environmental injuries, when they are "sufficiently likely, . . . the balance of harms will *usually* favor the issuance of an injunction to protect the environment." *Id*. (emphasis added).

Here, the evidence demonstrates that the circumstances for a number of listed salmon and steelhead are dire, a finding this Court—as well as the Ninth Circuit—has repeatedly reached

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over the history of this litigation. *NMFS VII*, 886 F.3d at 820–21; *see also supra* pp. 5–8 (describing the extinction crisis). The risks are compounded by the increasingly apparent effects of climate change: lethally overheated reservoirs, inadequate streamflows, and extreme storm events. *See, e.g.*, Bowles Decl. ¶¶ 12 (increasing frequency of extreme weather events); 15 (reduction in flows); *see also id*. ¶¶ 68–69 (describing low flows and high water temperatures that led to the loss of virtually all migrating adult Snake River sockeye in 2015 and noting that warming increases risk of similar events in the future).

Further harm to salmon would be particularly catastrophic for tribes in the Basin, for whom salmon are an integral part of their religion, culture, and diet. *See, e.g.*, Tribal Circumstances Analysis at 3 [Goodin Decl. Ex. 9] ("Tribal identities [in the Basin] center around the Columbia River, its tributaries, and the salmon those waterways support."). In an often-quoted passage, the Supreme Court recognized salmon to be "not much less necessary" to these Tribes' existence "than the atmosphere they breathe[.]" *United States v. Winans*, 198 U.S. 371, 381 (1905). This undeniable spiritual and physical connection to salmon should weigh heavily in any balancing of the hardships.

The broader public interest is also served by an injunction. Salmon and steelhead are among the Pacific Northwest's most iconic species, indelibly linked to the region's history, ecology, and economy. The requested injunctive relief will reduce harm to ESA-listed salmon and steelhead runs, and sport fisheries are highly constrained through fishery management plans designed to protect weak stocks while accessing other more abundant stocks, especially hatchery fish. More wild fish mean higher catch limits, longer fishing seasons, and fewer streams that are closed for all or part of a year. Hamilton 2025 Second Supp. Decl. at 6 ¶ 12**;** *see Washington*, 853 F.3d at 977 (quoting district court opinion for the fact that "[a]ll fishermen, not just Tribal fishermen, will benefit from the increased production of salmon"). Greater numbers of wild fish

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would fuel the industry's growth and further boost its already-substantial contributions to the regional economy. Hamilton 2025 Second Supp. Decl. at 5-6, ¶ 12 (noting that in 2022 "the sportfishing industry provided 42,680 family-wage jobs, serving over nearly two million adult anglers, and contributed over $5 billion in economic output to the Washington, Oregon, Idaho region").

Salmon and steelhead are also essential to the functioning of the ecosystem, serving as a means of transport for nutrients from the ocean into freshwater rivers and streams. The remains of migrating salmon replenish the soil while also providing a direct source of food for wildlife. Castro-Santos and Haro at 62–89 [Goodin Decl. Ex. 10]. *See Am. Rivers v. U.S. Army Corps of Eng'rs*, 271 F. Supp. 2d 230, 261 (D.D.C. 2003) (taking into consideration that an injunction would protect species as well as "the entire Missouri River Basin ecosystem"). Beyond an interest in recovered salmon and steelhead, the general public benefits from the healthier landscape that results from their anadromous lifecycle. *See Washington*, 853 F.3d at 977 (quoting district court opinion as to the public's interest in the "environmental benefits of salmon habitat restoration"). The critical role that salmon play for the environment, for the inhabitants of the Basin, and for the Northwest's economy drives home Congress' view that the value of endangered species is quite literally "incalculable." *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 187 (1978) (*TVA v. Hill*).

The unequivocal congressional commands embedded in the ESA influenced the Ninth Circuit to find that the balance of hardships and the public interest always favor granting relief to protect listed species. *See Cottonwood Env't L. Ctr. v. U.S. Forest Serv*., 789 F.3d 1075, 1090 (9th Cir. 2015). However, even absent the Ninth Circuit's presumption, congressional intent remains a key factor for courts considering an injunction request. *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 576 (1992) (noting that vindicating the public interest "is the function of [both]

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Congress and the Chief Executive"); *High Sierra Hikers Ass'n v. Blackwell*, 390 F.3d 630, 643 (9th Cir. 2004) (crediting Congress' recognition of a "strong public interest" in wild areas through its passage of the Wilderness Act in affirming an injunction); *accord Animal Welfare Inst. v. Martin*, 623 F.3d 19, 27–28 (1st Cir. 2010) (declining to adopt the Ninth Circuit's alternative approach, but nevertheless incorporating "Congress's prioritization of listed species' interests into the [balancing and public interest] prongs of the analysis, modifying those factors where appropriate to 'tip[] heavily in favor of protected species.'"); *Am. Rivers*, 271 F. Supp. 2d at 261 (refusing to apply the Ninth Circuit's formulation, but looking to Congress' enactment of the ESA as part of the public interest). As such, courts must consider the congressional mandate that endangered species are to be "afforded the highest of priorities," *TVA v. Hill*, 437 U.S. at 174, with one of the "central purposes" of the ESA to recover imperiled species. *NMFS VI*, 886 F.3d at 818; *see also TVA v. Hill*, 437 U.S. at 194 (Congress spoke "in the plainest of words, making it abundantly clear that the balance has been struck" in favor of endangered species). The public interest and balance of hardships strongly support an injunction here.

CONCLUSION

For all of the foregoing reasons, NWF respectfully requests that the Court grant it a preliminary injunction for the Corps' violations of the ESA as requested herein.

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DATED October 14, 2025.

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CERTIFICATE OF COMPLIANCE

This brief complies with Local Rule 7-2(b) and the Court's Order of September 19, 2025, (ECF 2502) granting NWF's motion to file an opening memorandum in support of its motion for a preliminary injunction of up to 55 pages in length. The memorandum filed herewith is 55 pages long including headings, footnotes, and quotations, but excluding the caption, table of contents, table of authorities, signature block, exhibits, and any certificates of counsel.

DATED: October 14, 2025.

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CERTIFICATE OF SERVICE

I certify that on October 14, 2025, I filed the foregoing through the Court's CM-ECF system, which will automatically notify counsel of record.

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