

Appeal Nos. 23-35322, 23-35323, 23-35324, 23-35354

**UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT**

WILD FISH CONSERVANCY,

Plaintiff-Appellee/Cross-Appellant,

vs.

JENNIFER QUAN, in her official capacity as the Regional Administrator for the
National Marine Fisheries Service, *et al.*,

Defendants-Appellants/Cross-Appellees,

and

STATE OF ALASKA and ALASKA TROLLERS ASSOCIATION,

Intervenor-Defendants-Appellants/Cross-Appellees.

On Appeal from the United States District Court for the Western District of
Washington Case No. 2:20-cv-00417-RAJ-MLP (Hon. Richard A. Jones)

**PLAINTIFF-APPELLEE/CROSS-APPELLANT'S COMBINED
OPENING/ANSWERING CROSS-APPEAL BRIEF**

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CORPORATE DISCLOSURE STATEMENT

Plaintiff-Appellee/Cross-Appellant Wild Fish Conservancy discloses under Federal Rule of Appellate Procedure 26.1 that it is a nongovernmental corporate party that does not have any parent corporation and that no publicly held corporation owns 10% or more of its stock.

DATED this 29th day of November 2023.

s/ Brian A. Knutsen
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GLOSSARY OF ACRONYMS

APA	Administrative Procedure Act
BiOp	Biological Opinion
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FWS	U.S. Fish and Wildlife Service
HSRG	Hatchery Scientific Review Group
ITS	Incidental Take Statement
NEPA	National Environmental Policy Act
NFH	National Fish Hatchery
NMFS	National Marine Fisheries Service
pHOS	Proportion of Hatchery-Origin Spawners
PVA	Population Viability Analysis
SEAK	Southeast Alaska
SRKW	Southern Resident Killer Whale

INTRODUCTION

Congress enacted the Endangered Species Act (“ESA”) to “halt and reverse the trend toward species extinction, whatever the cost.” *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978). That objective is not being met for the Southern Resident Killer Whale (“SRKW”) and for many Chinook salmon populations. The nation saw this failure firsthand in 2018 when the grieving SRKW Tahlequah carried the body of her dead calf, who died less than an hour after birth, for seventeen days across hundreds of miles before letting him sink. That episode was emblematic of the SRKW’s current conditions.

The SRKW population is critically small and declining because of insufficient Chinook salmon available for prey. The primary factors contributing to the loss of Chinook salmon include harvests and hatcheries. Yet, when it reviewed Southeast Alaska salmon harvests that will contribute to the continued decline of SRKWs and Chinook salmon, the National Marine Fisheries Service (“NMFS”) declined to impose fishery limits that would protect these species. Instead, NMFS approved the full extent of harvests and announced that it would be funding increased hatchery production in the Pacific Northwest to offset the commercial fisheries.

NMFS adopted this subsidy scheme without providing any environmental reviews or public processes required by the National Environmental Policy Act

(“NEPA”). NMFS violated the ESA by authorizing the fisheries to “take” imperiled SRKWs and Chinook salmon in reliance on wholly undeveloped mitigation and by failing to evaluate whether the increased hatchery production, supposedly intended to mitigate harm to SRKWs, would itself jeopardize threatened Chinook salmon.

Despite these extensive violations, the district court issued a narrow remedy that allowed most fisheries covered by NMFS’s illegal authorization to continue, while restricting some harvests to protect SRKWs while NMFS reevaluates its actions. That was not an abuse of discretion and should be affirmed. However, the district court declined to vacate NMFS’s decision to increase hatchery production, even though it was adopted without any required NEPA procedures and without consulting under the ESA on its harm to threatened Chinook salmon. That was an abuse of discretion and should be reversed.

JURISDICTIONAL STATEMENT

Plaintiff Wild Fish Conservancy (the “Conservancy”) agrees with the jurisdictional statement provided by NMFS. *See* Fed. Defs.-Appellants’ First Cross-Appeal Br. (“Fed. Defs.’ First Br.”) 2–3.

ISSUES PRESENTED FOR REVIEW

1. Whether NMFS’s biological opinion (“BiOp”) on the Southeast Alaska salmon fisheries (“SEAK BiOp”) is arbitrary and not in accordance with law for failing to draw a rational connection between the facts found and NMFS’s

conclusion that the fisheries are not likely to jeopardize the SRKW.

2. Whether the district court abused its discretion in partially vacating the incidental take statement (“ITS”) for Southeast Alaska salmon fisheries.

3. Whether the district court abused its discretion in declining to vacate the prey increase program.

4. Whether the district court abused its discretion in excluding certain opinion testimony.

STATEMENT OF THE CASE

I. Regulatory Framework.

A. The Endangered Species Act.

The ESA, 16 U.S.C. §§ 1531–1544, seeks to “conserve” species and their ecosystems, where “conserve” means “the use of all methods and procedures which are necessary to bring any” listed species “to the point at which the measures provided pursuant to [the ESA] are no longer necessary.” 16 U.S.C. §§ 1531(b), 1532(3).

The statute assigns implementation responsibilities to the Secretaries for the Departments of Commerce and the Interior, who have delegated duties to NMFS and the United States Fish and Wildlife Service (“FWS”), respectively. *See* 50 C.F.R. § 402.01(b). NMFS generally has ESA authority for marine and anadromous species, while FWS has jurisdiction over terrestrial and freshwater

species. *See id.* §§ 17.11, 223.102, 224.101.

Section 4 of the ESA prescribes mechanisms by which NMFS and FWS list “species” as endangered or threatened and designate their “critical habitat.” 16 U.S.C. §§ 1532(16), 1533(a). Section 9 makes it unlawful to “take” listed species. *See id.* § 1538(a)(1)(B); *see also id.* §§ 1533(d), 1538(a)(1)(G); 50 C.F.R. §§ 17.21, 17.31(a), 223.203(a). “Take” includes to harm, kill, or capture a protected species. 16 U.S.C. § 1532(19). Harm includes “significant habitat modification” that “kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including, breeding, spawning, . . . [or] feeding” 50 C.F.R. § 222.102.

Section 7 of the ESA imposes substantive and procedural requirements on federal agencies. *See id.* § 402.03. Substantively, agencies must “insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered . . . or threatened species or result in the destruction or adverse modification” of their critical habitat. 16 U.S.C. § 1536(a)(2); *Pyramid Lake Paiute Tribe of Indians v. U.S. Dep’t of the Navy*, 898 F.2d 1410, 1415 (9th Cir. 1990). Procedurally, agencies planning an action that “may affect” listed species (the “action agency”) must consult with NMFS and/or FWS (the “consulting agency”). 50 C.F.R. § 402.14(a). This consultation is intended to facilitate compliance with the substantive duty to insure against

jeopardy. See *Thomas v. Peterson*, 753 F.2d 754, 763–65 (9th Cir. 1985), *abrogated on other grounds*, *Cottonwood Env't Law Ctr. v. U.S. Forest Serv.*, 789 F.3d 1075, 1091–92 (9th Cir. 2015).

Consultation concludes with the consulting agency's issuance of a BiOp determining whether the action is likely to jeopardize listed species or adversely modify critical habitat. 50 C.F.R. § 402.14(h)(3). An action is likely to "jeopardize" a species where it "reasonably would be expected . . . to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." *Id.* § 402.02.

If the consulting agency determines that the action is not likely to jeopardize species or adversely modify critical habitat, or if reasonable and prudent alternatives are identified to avoid jeopardy and adverse modification, the BiOp will include an ITS defining the amount of take anticipated. *Aluminum Co. of Am. v. Bonneville Power Admin.*, 175 F.3d 1156, 1158–59 (9th Cir. 1999); 16 U.S.C. § 1536(b)(4)(C)(i); 50 C.F.R. § 402.14(i)(1)(i). The ITS also includes terms to minimize impacts to species and to monitor take. 16 U.S.C. § 1536(b)(4)(C)(ii), (iv); 50 C.F.R. § 402.14(i)(1)(ii), (iv), (i)(3); *Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 531–32 (9th Cir. 2010). Take in compliance with an ITS is exempt from liability under ESA section 9. 16 U.S.C. § 1536(o)(2); 50 C.F.R. § 402.14(i)(5).

B. The National Environmental Policy Act.

NEPA, 42 U.S.C. §§ 4321–4370m-12, “‘is our basic national charter for protection of the environment.’ . . . The statute provides environmental protection not by mandating ‘particular results,’ but by prescribing the process that an agency must follow to evaluate and approve an action that will have environmental consequences.” *Ctr. for Biological Diversity v. Bernhardt*, 982 F.3d 723, 734 (9th Cir. 2020) (citations omitted). As such, NEPA requires environmental information before decisions are made and actions taken. *See* 40 C.F.R. § 1500.1(b), (c)¹; *Conner v. Burford*, 848 F.2d 1441, 1446 (9th Cir. 1988).

NEPA requires an environmental impact statement (“EIS”) for “major Federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C)(i). The EIS “serves NEPA’s ‘action-forcing’ purpose in two important respects. . . . It ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989) (citations omitted). An

¹ All citations to NEPA regulations herein are to those in effect in 2019 when NMFS made the relevant decisions; i.e., prior to the 2020 revisions.

environmental assessment (“EA”) must be prepared to determine whether an action will have significant environmental impacts if the action is neither one that normally requires an EIS nor one that is excluded from NEPA review. *Hale v. Norton*, 476 F.3d 694, 700 (9th Cir. 2007); 40 C.F.R. § 1501.4.

Regardless of whether an EIS or an EA is prepared, agencies must consider alternatives to the proposed action. *See* 42 U.S.C. § 4332(2)(C)(iii), (2)(E); *Bob Marshall All. v. Hodel*, 852 F.2d 1223, 1228–29 (9th Cir. 1988); *Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893, 915 (9th Cir. 2012). This “furthers [NEPA’s goals] by guaranteeing that agency decisionmakers ‘have before them and take into proper account all possible approaches to a particular project’” “‘which would alter the environmental impact and the cost-benefit balance.’ . . . Informed and meaningful consideration of alternatives” “is thus an integral part of the statutory scheme.” *Hodel*, 852 F.2d at 1228 (citation omitted). Agencies must assess cumulative impacts in the EIS or EA; i.e., “‘the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.’” *Te-Moak Tribe of W. Shoshone of Nev. v. U.S. Dep’t of the Interior*, 608 F.3d 592, 603 (9th Cir. 2010) (citation omitted). NEPA also requires opportunities for public participation on proposed actions. *See* 40 C.F.R. §§ 1501.4(b), 1503.1(a)(4).

II. Statement of Facts.

A. The Endangered Southern Resident Killer Whale.

The SRKW was listed as an endangered species in 2005. 70 Fed. Reg. 69,903 (Nov. 18, 2005); 50 C.F.R. § 224.101(h). The SRKW “has declined to historically low levels” and is at a high risk of extinction—considered by NMFS as one of the eight most at risk species. 5-Excerpts of Record (“ER”)-962; 3-Supplemental Excerpts of Record (“SER”)-721–22. In December 2018, there were only 74 whales. 5-ER-962. In early 2019, there were 26 reproductive age females and only 14 had successfully reproduced in the prior 10 years, and there had been no viable calves since the beginning of 2016. 5-ER-1120.

The primary limiting factor is inadequate prey, which contributes to premature mortality and reduced fecundity. 5-ER-962, 964, 972–73, 1120, 1190. Females are producing a low number of surviving calves during their reproductive life span. 5-ER-962. NMFS explained that “this reduced fecundity is largely due to nutritional limitation.” 5-ER-962, 1120. Dr. Deborah Giles, a conservation biologist at the University of Washington focused on SRKWs, estimates that 69% of SRKW pregnancies are aborted due to insufficient prey, with females suffering physical and emotional stress from chronic pregnancies ending in miscarriage. 2-SER-346–47 ¶ 7; 4-SER-951–53 ¶¶ 2–5.

While SRKWs consume a variety of fish species, salmon and steelhead

comprise up to 98 percent of their diet. 5-ER-968–69. The whales consume mostly larger (i.e., older) Chinook salmon, with 80 to 90 percent of their diet consisting of Chinook salmon. 5-ER-969. This preference persists despite low abundance. *Id.*

Dr. Robert Lacy is a conservation scientist who has developed tools to guide species conservation and management, including the Vortex population viability analysis (“PVA”). 4-SER-903 ¶ 2, 907–11 ¶¶ 8–13. NMFS and Canada “have relied on analyses completed with Vortex for assessing the status of [SRKW].” 4-SER-910–11 ¶ 13; *see also* 5-ER-964, 968, 6-ER-1190–91.

Dr. Lacy confirms that “prey abundance is the factor that has the largest impact on [SRKW] population growth or decline.” 4-SER-906 ¶ 6.b; *see also* 3-SER-614–15 ¶ 6.f; 4-ER-606–07 ¶ 4. His most recent modeling from March 2022 predicts that “[t]he long-term” “trend continues to be a slide toward extinction.” 4-ER-607 ¶ 5. The modeling indicates that prey would need to increase by around 5% to merely stop the SRKW’s decline, “with much greater increases” “or the addition of other protective measures” “required to achieve good population growth toward recovery.” 4-ER-607–08 ¶ 6.

The SRKW’s current conditions are likely worse than that reflected in Dr. Lacy’s March 2022 modeling. It is believed that two whales died around that time: a “prime age” 29-year-old male that was “important for future breeding success” and an 11-year-old male. 2-SER-347 ¶¶ 8–9. Washington State characterized 12

whales as vulnerable in 2022 because their “body condition is assessed as falling into the lowest 20% of measurements for age and sex, including showing signs of emaciation.” 2-SER-347–48 ¶ 11. Dr. Giles estimates that “well over” one-fifth of the population may qualify as vulnerable. 2-SER-348 ¶ 14. The poor condition of this species “is simply unprecedented,” prompting Washington State and Canada to take emergency actions. *See* 2-SER-347–49 ¶¶ 10–18. “[A]n immediate increase in the abundance of Chinook [salmon]” is needed “to avoid functional extinction.” 2-SER-349 ¶ 18.

B. Threatened Chinook Salmon.

The Snake River fall-run Chinook salmon evolutionarily significant unit (“ESU”) was listed as a threatened species in 1992, followed by the Puget Sound, the Lower Columbia River, and the Upper Willamette River spring-run Chinook salmon ESUs in 1999. 57 Fed. Reg. 14,653 (Apr. 22, 1992); 64 Fed. Reg. 14,308 (Mar. 24, 1999); 50 C.F.R. § 223.102(e). The primary limiting factors for these ESUs are harvests, hatcheries, habitat loss, poor ocean conditions, and hydropower impacts. *E.g.*, 3-SER-733, 835.

Puget Sound Chinook salmon historically consisted of 31 independent populations—22 remain. 3-SER-848. “To lower the extinction risk[,]” “all existing independent populations” “will need to improve[,]” “and some will need to attain a low [extinction] risk status.” *Id.* All populations are below escapement levels set

for recovery, and most populations are declining. 3-SER-853. The Lower Columbia River Chinook salmon consists of 32 populations. 3-SER-747. “The majority of the populations” “remain at high [extinction] risk, with low natural-origin abundance levels.” 3-SER-753.

Hatchery programs harm wild salmonids in several ways, including through genetic and ecological interactions between hatchery and wild fish. 5-ER-1108–10. Hatchery fish become less fit to survive and reproduce in the wild through domestication selection. *See* 5-ER-1109. Dr. Gordan Luikart, a wildlife geneticist at the University of Montana explains:

Hatchery domestication results from a process analogous to natural selection, but occurring under unnatural conditions (i.e., the hatchery rearing environment)—the individual fish (and genes) that are “selected” are those better adapted to life in unnatural conditions The process results in reduced ability to avoid predation, reduced disease resistance, reduced ability to forage and spawn efficiently, etc.

2-SER-570–71 ¶¶ 5–8, 582 ¶ 24 (citations omitted). This harms wild fish when hatchery fish, released *en masse*, mate with wild fish and thereby transfer their maladapted genes, reducing productivity of wild populations. *See* 5-ER-1108–10; 3-SER-710.

Congress established the independent Hatchery Scientific Review Group (“HSRG”) to, *inter alia*, develop guidelines to conserve wild salmonids. *See* 3-SER-678. To limit harm through genetic introgression, the HSRG developed

criteria using the metric pHOS—the “proportion of hatchery-origin spawners”—representing the percentage of adult fish on spawning grounds that are hatchery origin. *See* 3-SER-696; 2-SER-584 ¶ 32. The productivity of wild populations generally decreases as pHOS increases. *See* 2-SER-579–80 ¶ 18.c, 586–87 ¶ 38.

The HSRG recommends that pHOS not exceed 5% for some salmon populations and 10% for others. 2-SER-585 ¶ 35; 3-SER-696–97. The pHOS estimates for Chinook salmon populations in most rivers in Puget Sound, the Lower Columbia River, and the Washington coast “are well in excess of levels recommended by the HSRG;” ranging from 12% to 97%. 2-SER-591–93 ¶¶ 51–53; 2-SER-337–39 ¶¶ 6–7. NMFS’s ESA recovery plan for Puget Sound Chinook salmon acknowledges that most populations suffer low productivity, with hatchery-origin spawners “present in high fractions in most populations.” *Id.* 3-SER-853. The Lower Columbia River Chinook salmon recovery plan similarly finds that “[h]atchery contribution to naturally-spawning fish remains high.” 3-SER-753. Dr. Luikart explains “that it is imperative to significantly and rapidly *reduce*” these pHOS levels “if these Chinook populations are to have a reasonable chance of surviving and recovering.” 2-SER-341–42 ¶ 18.

NMFS recognized these problems in a 2017 BiOp on hatchery programs it funds under the Mitchell Act (“Mitchell Act BiOp”). The Mitchell Act BiOp required large reductions in hatchery releases by 2022—net annual reductions of

around 2.3 million Chinook salmon smolts—to achieve pHOS limits needed to conserve Lower Columbia River Chinook salmon. 3-SER-789–794, 809, 820.

C. The Pacific Salmon Treaty.

The United States and Canada first ratified the Pacific Salmon Treaty (“Treaty”) in 1985. 6-ER-1423. The Treaty establishes upper limits on “intercepting fisheries,” defined as fisheries in one country that harvest salmon originating in another country. 5-ER-880. The current agreed-upon harvest regimes are effective from 2019 through 2028. *See* 5-ER-881, 884.

D. Southeast Alaska Salmon Fisheries.

Salmon are harvested in Southeast Alaska in commercial, recreational, and subsistence fisheries. *See* 3-ER-596 ¶ 17; 6-ER-1158, 1162; 7-ER-1448. Species harvested are Chinook, sockeye, coho, pink, and chum salmon. *See* 3-ER-590–91; 7-ER-1448. The fisheries use hand and power troll gear, purse seines, and drift and set gillnets. 3-ER-590–91. Troll fisheries harvest mostly coho and Chinook salmon; the purse seine and drift gillnet fisheries harvest mostly pink and chum salmon; and the set gillnet fishery harvests mostly sockeye and coho salmon. *See* 3-ER-590. While most Chinook salmon are harvested in troll fisheries, some are harvested in purse seine and gillnet fisheries. *See* 3-ER-590–91; 7-ER-1445.

The commercial troll fishery is limited annually to a specific number of “Treaty Chinook salmon” according to an abundance estimate set under the Treaty.

7-ER-1441. This fishery is divided into two seasons: winter and general summer. *Id.* The general summer season is then divided into spring and summer fisheries. *Id.* The winter season is from October 11 through April 30 and is managed to not exceed 45,000 Chinook salmon. *Id.* Treaty Chinook salmon caught in the winter season count towards the annual limit set under the Treaty. *Id.* The spring fishery begins when the winter season ends and harvests primarily Alaskan hatchery-produced Chinook salmon not subject to the Treaty. 7-ER-1441–42. The summer troll season opens on July 1 and targets all Treaty Chinook salmon that remain available under the annual quota. 7-ER-1442.

NMFS delegated authority for managing salmon fisheries in federal waters off the Alaskan coast to Alaska, which manages the fisheries “as a single unit throughout federal and state waters” using allocations set under the Treaty. *See* 6-ER-1415; 7-ER-1442. NMFS funds Alaska to ensure compliance with the Treaty. 5-ER-884.

The harvested fish include threatened Snake River fall-run, Puget Sound, Lower Columbia River, and Upper Willamette spring-run Chinook salmon. *See* 5-ER-1005–14. Further, **83%** of the Chinook salmon harvested in the troll fishery are from stocks used as prey for SRKW, and **57%** are from stocks considered “high priority” prey for SRKWs. 1-SER-27.

E. NMFS's SEAK BiOp.

NMFS consulted under section 7 of the ESA on the 10-year fishery regimes set by the 2019 Treaty and issued the SEAK BiOp on April 5, 2019. 4-ER-858–61. NMFS is both the action agency and consulting agency. *See, e.g., Spirit of the Sage Council v. Kempthorne*, 511 F. Supp. 2d 31, 46 (D.D.C. 2007). The federal actions requiring consultation were: (1) NMFS's ongoing delegation of authority to Alaska to manage salmon fisheries in federal waters; (2) NMFS's disbursement of funds to Alaska to manage all Southeast Alaska salmon fisheries to ensure compliance with the Treaty; and (3) a new grant program whereby NMFS intends to fund hatchery and habitat programs intended to partially mitigate harvest impacts. 5-ER-884–90.

The SEAK BiOp acknowledged that SRKWs are at a high risk of extinction due to low fecundity rates, primarily attributable to reduced prey abundance. 5-ER-962–64, 1120. Under NMFS's management of fisheries “over the last decade, salmon availability has not been sufficient to support [SRKW] population growth.” 6-ER-1190. The SEAK BiOp cited Dr. Lacy's 2017 findings that prey abundance has the largest impact on population growth and that Chinook salmon abundance would need to increase by 15% to achieve the recovery growth rate target for SRKWs. 5-ER-964; 6-ER-1190.

The 2019 Treaty reduced Southeast Alaska salmon harvests up to 7.5% relative to the prior 2009 agreement to aid ESA-listed species. 5-ER-887–88, 1131.

The United States is paying Alaska \$22.4 million to offset economic consequences from that reduction. Mot. for Judicial Notice, Ex. 1 (concurrently filed). The SEAK BiOp explained that those reductions were insufficient:

[T]here was a practical limit to what could be achieved through the bilateral negotiation process. As a consequence, . . . the U.S. Section generally recognized that **more would be required to mitigate the effects of harvest** and other limiting factors that contributed to the reduced status of Puget Sound Chinook salmon and SRKWs

5-ER-887–88 (emphasis added). Southeast Alaska harvests under the 2019 Treaty will reduce SRKW prey in coastal waters from 0.2% to 12.9% and in inland waters from 0.1% to 2.5%. 5-ER-1125–26. The fisheries will reduce larger Chinook salmon preferred by SRKWs from the whale’s critical habitat up to 2.5%. 5-ER-969; 6-ER-1194.

The SEAK BiOp made clear that the Treaty sets upper limits on fisheries and that NMFS can further restrict harvests under the ESA. *E.g.*, 5-ER-898, 1054, 1122. Instead of limiting harvests to ensure they do not jeopardize species, NMFS assumed it would be able to develop a “funding initiative” that would mitigate some harm to Puget Sound Chinook salmon and SRKWs. 5-ER-887–89.

This initiative included three elements. 5-ER-888. First, \$3.06 million per year was to be allocated for Puget Sound Chinook salmon “conservation”²

² A conservation hatchery is designed to preserve genetic resources of a salmon population, as opposed to one designed to provide other benefits, such as harvests. *See* 5-ER-1106.

hatcheries; specifically, to increase funding for existing programs on the Nooksack, Dungeness, and Stillaguamish Rivers and to fund a new program in Hood Canal. 5-ER-888, 1106. Second, \$31.2 million was to fund habitat projects to benefit Chinook salmon populations in those same four Puget Sound watersheds. 5-ER-888, 1105–06. The third component sought to dramatically increase Chinook salmon hatchery production supposedly to increase SRKW prey by 4% to 5%. 5-ER-888–89. NMFS proposed spending “no less than \$5.6 million per year” on this “prey increase program” to release 20 million smolts annually; five to six million smolts in Puget Sound and the remainder in the Columbia River and the Washington Coast. 5-ER-889, 1118.

NMFS explained that the funding initiative will be “an essential element” in its review of other fisheries impacting SRKWs and Puget Sound Chinook salmon, indicating this was intended as mitigation for all Treaty fisheries. *See* 5-ER-889–90; *see also* Fed. Defs.’ First Br. 39–40. NMFS predicted the conservation hatchery and habitat programs would contribute to SRKW prey “over the intermediate and long-term,” while the prey increase program was assumed to increase prey sooner. 5-ER-888. NMFS also projected, however, that the “downward trend in population growth” for SRKWs will continue. 5-ER-964; 6-ER-1189.

NMFS concluded that the fisheries are not likely to jeopardize the SRKW or the Puget Sound, the Lower Columbia River, the Snake River fall-run, and the

Upper Willamette River Chinook salmon ESUs. *See* 6-ER-1177, 1181, 1184, 1188, 1195; 50 C.F.R. § 402.02 (defining “jeopardize the continued existence of”). The SEAK BiOp also found that the fisheries are not likely to jeopardize the Mexico DPS of humpback whales or the Western DPS of Steller sea lions. 6-ER-1200, 1204. The SEAK BiOp included an ITS authorizing the fisheries to “take” SRKWs, the four threatened Chinook salmon ESUs, Mexico DPS of humpback whales, and Western DPS of Steller sea lions. 6-ER-1205–11.

III. Procedural History.

The Conservancy’s complaint filed on March 18, 2020 alleged that NMFS violated the ESA and NEPA in issuing and implementing the SEAK BiOp. 8-ER-1871–72. Defendant-Intervenor Alaska Trollers Association (“Trollers”) and Defendant-Intervenor State of Alaska (“Alaska”) intervened on April 23, 2020 and March 30, 2021, respectively. *See* 8-ER-1926, 1929–30. The Conservancy moved for a preliminary injunction on April 16, 2020, which was denied on March 1, 2021. *See* 8-ER-1926, 1928–29.

The magistrate judge issued a report and recommendation on September 27, 2021 granting the Conservancy’s request for summary judgment on liability issues; denying cross-motions by NMFS, the Trollers, and Alaska; and deferring remedy issues to further proceedings. 4-ER-614–53. The district court adopted that report and recommendation on August 8, 2022. 4-ER-612–13.

The district court held that the SEAK BiOp violated the ESA because the mitigation relied upon to approve the fisheries lacked specific and binding plans and was not subject to NMFS's control or otherwise certain to occur. 4-ER-638–46.

With respect to the prey increase program, the district court found that “NMFS failed to create a binding mitigation measure that described ‘in detail the action agency’s plan to offset the environmental damage.’” 4-ER-641. Rather, the SEAK BiOp instructed NMFS to “design the prey increase program” in the future in hopes that NMFS would be able “to work collaboratively with the state and tribal co-managers,” who operate hatcheries, “to develop a program that meets the goal[s].” 6-ER-1212; 5-ER-1119. The district court also held that the SEAK BiOp failed to establish deadlines or enforceable obligations to ensure that the prey increase program “is being implemented in the manner and on a schedule needed to avoid the extinction of the SRKW.” 4-ER-642.

For the conservation hatchery mitigation, the district court held that the SEAK BiOp failed to specify how the funds would be used, when and how salmon would be made available to SRKWs and to aid Puget Sound Chinook salmon recovery, or even whether additional hatchery fish would be produced; nor did the SEAK BiOp establish deadlines to guide and evaluate implementation. 4-ER-643. Similarly, the habitat mitigation was merely a “list of potential projects” that “may

change.” 4-ER-643. The SEAK BiOp failed to describe how, when, or what projects would be implemented and how they would mitigate harvests. 4-ER-643–44.

The district court held that the SEAK BiOp violated the ESA because, although it identified the prey increase program as an “action” subject to the ESA consultation and NMFS relied upon it to authorize take of SRKWs, NMFS failed to evaluate whether the program is likely to jeopardize threatened Chinook salmon. 4-ER-644–46. NMFS thereby impermissibly segmented consultation by assuming the program’s supposed benefits to SRKWs, while failing to consult on its harm to salmon. *Id.*

The district court held that NMFS violated its substantive duty under section 7 of the ESA to ensure its actions in approving the fisheries and implementing the prey increase program will not jeopardize SRKWs and Chinook salmon. 4-ER-646–47.

The district court found that NMFS violated NEPA by issuing the ITS for the fisheries and by adopting the prey increase program without preparing either an EIS or an EA for those two actions. 4-ER-647–51.

The magistrate judge issued a report and recommendation on remedies on December 13, 2022, which was adopted by the district court on May 2, 2023. 1-ER-4–45.

The district court granted the Conservancy's request to remand the SEAK BiOp to NMFS to remedy the ESA and NEPA violations. 1-ER-44–45. The district court granted the Conservancy's request for a narrow partial vacatur of the ITS for the fisheries and rejected NMFS's, Alaska's, and the Trollers' request that that illegal ITS remain fully intact. *Id.* The district court denied the Conservancy's request to vacate or enjoin the prey increase program. *Id.*

Alaska filed a motion for a stay pending appeal of the partial vacatur of the ITS, and the Conservancy filed a motion for an injunction pending appeal of the prey increase program. This Court entered an order on June 21, 2023 granting Alaska's request to stay partial vacatur of the ITS and denying the Conservancy's request to enjoin the prey increase program pending the appeal.

SUMMARY OF THE ARGUMENT

In addition to the errors found by the district court, the SEAK BiOp is also inconsistent with the ESA because NMFS failed to draw a rational connection between the facts found and conclusion reached. The SEAK BiOp finds that the SRKW population size is critically small, inadequate prey is the primary limiting factor, the fisheries will continue to reduce prey, and the SRKW population will continue to decline. NMFS failed to draw a rational connection between those facts and its “no jeopardy” conclusion for SRKWs.

There is a strong presumption that unlawful agency actions should be vacated under the Administrative Procedure Act (“APA”), 5 U.S.C. §§ 701–706. Courts may withhold vacatur only in rare circumstances where such relief poses severe disruptive consequences that substantially outweigh the seriousness of the agency’s errors. Applying those factors here, the district court did not abuse its discretion in partially vacating the ITS, but did abuse its discretion in leaving the illegal prey increase program in place.

NMFS’s violations in issuing and implementing the SEAK BiOp were extensive and severe, undermining central objectives of NEPA and the ESA. Leaving either the unlawful ITS or prey increase program in effect would pose substantial risks to ESA-listed SRKWs and Chinook salmon. Moreover, NMFS will not issue the same decisions on remand, but is instead undertaking two separate NEPA processes where NMFS must meaningfully consider alternatives and public comments before adopting entirely new decisions. Failing to vacate NMFS’s actions under these circumstances is wholly inconsistent with the APA’s presumption for vacatur of illegal agency decisions, would vitiate NEPA and encourage agencies to flout the statute’s requirements, and would undermine Congress’s intent to prioritize the protection of ESA-listed species.

The district court recognized the economic consequences of the presumptive remedy of complete vacatur of the ITS and substantially mitigated those impacts

by issuing instead a narrow partial vacatur that allows most fisheries covered by the ITS to continue. That was not an abuse of discretion and should be affirmed.

In contrast, the district court abused its discretion by allowing the illegal prey increase program to continue indefinitely. The district court relied on erroneous findings, including a gross overestimation of the number of hatchery fish produced under the program and an underestimation of the harm to threatened salmonids caused by the hatchery increases. The decision to allow NMFS to continue implementing the prey increase program despite it being adopted without any required NEPA procedures and without consulting under section 7 of the ESA on the harmful impacts to threatened salmonids is inconsistent with precedent and should be reversed.

ARGUMENT³

I. **The SEAK BiOp Is Arbitrary.**

In addition to the errors found by the district court, the SEAK BiOp is unlawful for failing to draw a rational connection between certain findings and NMFS's conclusion that the fisheries will not jeopardize SRKWs.

This issue was presented below. 3-SER-665–68; 2-SER-376–77. The district court declined to resolve the issue, suggesting it was unnecessary given the errors

³ The Conservancy satisfied standing requirements. *See* 4-ER-629–38; 1-ER-18 n.7; *see also generally* 2-SER-416–52; 3-SER-878–900; 4-SER-902.

found with the SEAK BiOp. 4-ER-638 n. 4. However, this issue should be resolved because the full extent of violations is relevant to fashioning a remedy. Indeed, NMFS argues that vacatur of the ITS was unwarranted because the two errors found by the district court were “not serious.” Fed. Defs.’ First Br. 24–29.⁴ While that argument is misguided, this additional deficiency provides further support for affirming vacatur. This Court should resolve the issue. *See, e.g., Balint v. Carson City*, 180 F.3d 1047, 1054 (9th Cir. 1999) (en banc) (“[W]e can affirm on any basis in the record . . .”).

A. Standard of Review.

Cross-motions for summary judgment are reviewed de novo. *Guatay Christian Fellowship v. County of San Diego*, 670 F.3d 957, 970 (9th Cir. 2011). BiOp challenges are reviewed under the APA, which directs courts to set aside agency action that is “arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A); *see Bennett v. Spear*, 520 U.S. 154, 171–74 (1997).

B. NMFS Failed to Draw a Rational Connection Between Its Findings and Its Conclusion that SRKWs Are Not Jeopardized.

NMFS must articulate a rational connection between the facts found and its

⁴ NMFS, Alaska, and the Trollers’ arguments are largely duplicative. The Conservancy cites only to NMFS’s arguments except when addressing issues uniquely raised by Alaska or the Trollers.

“no jeopardy” conclusion. *E.g.*, *Wild Fish Conservancy*, 628 F.3d at 525–29; *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1065 (9th Cir. 2004). NMFS failed to meet this requirement because it did not explain how the salmon fisheries will not continue to starve SRKWs into extinction, regardless of whether mitigation goals are realized.

In *Wild Fish Conservancy*, a BiOp found a bull trout population was vulnerable to extirpation, declining in size, and likely to continue declining due largely to hatchery operations. 628 F.3d at 526. FWS nonetheless concluded that the hatchery would not jeopardize bull trout. *Id.* at 526–27. The Court faulted the BiOp because FWS failed to explain the apparent contradiction between the factual findings and the “no jeopardy” opinion. *Id.* at 527–29. While FWS may have believed that the population could be lost without jeopardizing the entire species, a BiOp can be affirmed only on the bases articulated and FWS’s record did not include such a finding. *Id.* at 529.

The SEAK BiOp suffers from this same deficiency. NMFS considers SRKWs among the most at risk species. 3-SER-721–22. The SRKW “has declined to historically low levels,” primarily because of reduced fecundity that “is largely due to nutritional limitation.” 5-ER-962, 968, 972–73, 1120; 6-ER-1190. Indeed, “the effects of prey abundance on fecundity and survival ha[ve]the largest impact on the population growth rate.” 5-ER-964; 6-ER-1190. Under NMFS’s fishery

management over the last 10 years, “salmon availability has not been sufficient to support [SRKW] population growth.” 6-ER-1190.

Chinook salmon abundance would need to increase by 15% to achieve the growth rate targeted for recovery of SRKWs. 5-ER-964. NMFS did not identify the prey increase needed to merely stop the population’s decline.

Southeast Alaska harvests under the 2019 Treaty will reduce SRKW prey in coastal waters from 0.2% to 12.9%, and in inland waters from 0.1% to 2.5%. 5-ER-1125–26. The fisheries reduce larger Chinook salmon preferred by SRKWs from its critical habitat by 0.1% to 2.5%, “with the greatest reductions expected” “when the forage ratio is relatively low.” 5-ER-969; 6-ER-1194. Canadian and U.S. west coast fisheries (south of Canada) impose similar prey reductions. 6-ER-1191–92.

NMFS optimistically assumed the prey increase program will eventually increase prey by 4% to 5%. 5-ER-1118. Those efforts are intended to provide mitigation for all Treaty fisheries. *See* 5-ER-889–90; Opening Br. of Appellant-Intervenor Alaska 24. That is far below the 15% increase needed to achieve the SRKW’s recovery goal. *See* 5-ER-964. It is also below what is needed to stabilize the species, as NMFS predicted that the “**downward trend in population growth**” **will continue**. *Id.* (emphasis added).

Yet, NMFS concluded that the Southeast Alaska salmon harvests, when

added to other fisheries included within the environmental baseline, are not likely to jeopardize the SRKW. 6-ER-1191, 1195; *see also* 50 C.F.R. § 402.14(g)(4) (describing NMFS’s process to determine whether an action is likely to jeopardize species). NMFS failed to draw a rational connection between that conclusion and the facts found. Specifically, SRKWs are declining because of insufficient prey, Southeast Alaska fisheries and other fisheries will continue to reduce prey to far below the levels needed for SRKWs, the supposed mitigation (even if fully realized) would not produce the prey needed by SRKWs, and the “downward trend in population growth” will continue. *See* 5-ER-964.

This Court should find the SEAK BiOp arbitrary for failing to draw a rational connection between the facts found and the “no jeopardy” conclusion. *See Wild Fish Conservancy*, 638 F.3d at 525–29 (finding BiOp deficient for failing to draw a connection between its finding that the “long-term negative population trend” would continue and the no jeopardy conclusion).

II. NMFS’s Extensive and Egregious ESA and NEPA Violations Warranted Vacatur of Both the ITS and Prey Increase Program.

The district court did not abuse its discretion in partially vacating the ITS, but did abuse its discretion by allowing the illegally-adopted prey increase program to continue indefinitely.

A. Standard of Review.

The Court reviews equitable remedies, including vacatur, for an abuse of discretion. *See United States v. Alisal Water Corp.*, 431 F.3d 643, 654 (9th Cir. 2005); *Coal. to Protect Puget Sound Habitat v. U.S. Army Corps of Eng'rs*, 843 F. App'x 77, 80 (9th Cir. 2021). This “review is limited and deferential.” *United States v. California*, 921 F.3d 865, 877 (9th Cir. 2019) (citation omitted). A district court abuses its discretion if the decision is based on an incorrect legal standard or clearly erroneous factual findings. *Lands Council v. McNair*, 537 F.3d 981, 986 (9th Cir. 2008) (en banc). “Under this standard, ‘as long as the district court got the law right, it will not be reversed simply because the appellate court would have arrived at a different result if it had applied the law to the facts of the case.’” *Id.* at 987 (citation omitted).

B. There Is a Strong Presumption that Unlawful Agency Actions Should Be Vacated.

The district court did not “misappl[y]” standards, as NMFS contends, in finding that the APA carries a presumption that unlawful agency decisions are to be set aside. *See Fed. Defs.’ First Br.* 20. It is well-established in this Circuit that the presumptive remedy under the APA is vacatur and a party seeking to avoid that relief must demonstrate that the equities demand the court withhold vacatur.

The APA instructs that courts “shall . . . set aside” unlawful agency actions. 5 U.S.C. § 706(2). “Congress could not have chosen stronger words to express its

intent that [vacatur] be mandatory” See *United States v. Monsanto*, 491 U.S. 600, 607 (1989) (discussing a statute that instructs a “court ‘shall order’ forfeiture”). This Court has regularly explained that courts “must set aside” agency decisions found to be arbitrary or not in accordance with law. E.g., *City & County of San Francisco v. U.S. Env’t Prot. Agency*, 75 F.4th 1074, 1088 (9th Cir. 2023); see also *E. Bay Sanctuary Covenant v. Barr*, 964 F.3d 832, 857 (9th Cir. 2020).

Nonetheless, there are “rare” or “limited circumstances” when “equity demands” a court withhold vacatur. *Cal. Cmty. Against Toxics v. U.S. Env’t Prot. Agency*, 688 F.3d 989, 994 (9th Cir. 2012); *Humane Soc’y of the U.S. v. Locke*, 626 F.3d 1040, 1053 n.7 (9th Cir. 2010); *Idaho Farm Bureau Fed’n v. Babbitt*, 58 F.3d 1392, 1405–06 (9th Cir. 1995). In considering a request to leave an illegal agency decision intact, courts consider “how serious the agency’s errors are ‘and the disruptive consequences of an interim change that may itself be changed.’” *Cal. Cmty.*, 688 F.3d at 992 (quoting *Allied-Signal, Inc. v. U.S. Nuclear Regul. Comm’n*, 988 F.2d 146, 150–51 (D.C. Cir. 1993)).

However, “vacatur is the presumptive remedy under the APA,” and the party opposing such relief bears the burden of demonstrating that equity demands the unlawful agency action be left in place. *350 Mont. v. Haaland*, 29 F.4th 1158, 1177 (9th Cir. 2022); see also *Nat. Res. Def. Council v. U.S. Env’t Prot. Agency*, 38 F.4th 34, 51 (9th Cir. 2022); *Env’t Def. Ctr. v. Bureau of Ocean Energy Mgmt.*, 36 F.4th

850, 882 (9th Cir. 2022); *All. for the Wild Rockies v. U.S. Forest Serv.*, 907 F.3d 1105, 1121–22 (9th Cir. 2018) (vacating where party failed to “overcome the presumption of vacatur”); *Locke*, 626 F.3d at 1053 n.7. That is “binding circuit authority.” *See Hart v. Massanari*, 266 F.3d 1155, 1171–72 (9th Cir. 2001). The district court accurately identified these standards. *See* 1-ER-19–20.

NMFS argues, relying on inapposite case law, that the district court erred in acknowledging the APA’s presumption for vacatur. Fed. Defs.’ First Br. 21–22 (discussing *Monsanto Co. v. Geertson Seed Farms*, 561 U.S. 139 (2010)).

Monsanto reiterated that “[a]n injunction is a drastic and extraordinary remedy, which should not be granted as matter of course” for NEPA violations. 561 U.S. at 156–58, 165. A plaintiff seeking an injunction under NEPA must satisfy the traditional four-factor test for such relief. *Id.* at 156–58. The Supreme Court reversed entry of the injunction, but left in place vacatur of the agency’s decision. *See id.* at 144. The Supreme Court distinguished the extraordinary remedy of an injunction from vacatur under the APA:

If a less drastic remedy (such as partial or complete vacatur of [the agency’s] . . . decision) was sufficient to redress respondents’ injury, no recourse to the additional and extraordinary relief of an injunction was warranted.

Id. at 165–66. *Monsanto* does not support NMFS’s request to disregard binding precedent and superimpose injunction standards onto the APA’s prescribed remedy

of vacatur. Instead, *Monsanto* demonstrates that an injunction is very different from vacating illegal agency decisions under the APA.

The district court appropriately cited precedents finding that the APA carries a presumption that illegal agency actions should be vacated. 1-ER-19–20.

C. NMFS’s Violations Were Extensive and Serious.

NMFS erroneously argues that the district court, in evaluating the seriousness of the violations under *Allied-Signal*, “should have considered only whether NMFS may adopt the same decision” on remand. Fed. Defs.’ First Br. 25–26. Certainly, one of the considerations is “the extent of doubt [as to] whether the agency chose correctly.” *Allied-Signal*, 988 F.2d at 150–51 (citation omitted). However, the primary focus should be the “effect the error has in contravening the purposes of the statutes in question.” *W. Watersheds Project v. Zinke*, 441 F. Supp. 3d 1042, 1083 (D. Idaho 2020). For example, “[f]ailure to provide the required notice and to invite public comment” of a proposed rule “is a fundamental flaw that ‘normally’ requires vacatur of the rule” because those are “critical elements of the [APA’s] rulemaking process.” *Heartland Reg’l Med. Ctr. v. Sebelius*, 566 F.3d 193, 199 (D.C. Cir. 2009); *AFL-CIO v. Chao*, 496 F. Supp. 2d 76, 91 (D.D.C. 2007).

In environmental cases, courts also consider the environmental risks posed by the unlawful action. See *Nat. Res. Def. Ctr.*, 38 F.4th at 52; *Pollinator*

Stewardship Council v. U.S. Env't Prot. Agency, 806 F.3d 520, 532 (9th Cir. 2015);
All. for the Wild Rockies, 907 F.3d at 1121–22.⁵

1. NMFS's ESA Violations Were Serious.

NMFS's procedural and substantive ESA violations undermine key congressional objectives and pose severe risks to SRKWs and threatened salmonids. These violations are plainly serious.

The Court has “described Section 7 as the ‘heart of the ESA,’” which requires federal agencies to ensure their actions do not jeopardize ESA-listed species. *Karuk Tribe of Cal. v. U.S. Forest Serv.*, 681 F.3d 1006, 1019 (9th Cir. 2012) (en banc) (citation omitted). Through this provision, Congress intended agencies to protect imperiled species under a policy of “institutionalized caution,” even “giv[ing] endangered species priority over the ‘primary missions’ of federal agencies.” *Hill*, 437 U.S. at 185, 194. The consultation requirements of section 7 of the ESA are essential to ensuring compliance with the substantive mandate to “insure” against jeopardy: “If a project is allowed to proceed without substantial compliance with those procedural requirements, there can be no assurance that a violation of the ESA’s substantive provisions will not result.” *Thomas*, 753 F.2d at

⁵ Some opinions considered environmental harms posed by the agency’s decision within the “seriousness of the error” factor of *Allied-Signal*, see *Pollinator Stewardship*, 806 F.3d at 532, while others treated this as a separate consideration outside the *Allied-Signal* factors, see *Nat. Res. Def. Ctr.*, 38 F.4th at 51–52.

764; *see also Wash. Toxics Coal. v. Env't Prot. Agency*, 413 F.3d 1024, 1034 (9th Cir. 2005). NMFS's ESA violations contravene these central ESA requirements.

SRKWs are at a severe and worsening risk of extinction due primarily to inadequate Chinook salmon for prey. *See* 2-SER-346–49 ¶¶ 4–14, 18; 4-ER-607–08 ¶¶ 5–7; 4-SER-906 ¶ 6.b, 913 ¶ 17. The Treaty set harvests at levels that will continue to substantially reduce prey. *See* 5-ER-1125–26; 6-ER-1194. NMFS could have imposed restrictions to comply with ESA section 7's requirement to ensure the harvests do not jeopardize species. *E.g.*, 5-ER-898, 1054, 1122. Instead, NMFS issued the ITS authorizing harvests that will continue to starve SRKWs towards extinction in hopes the agency will be able to develop adequate mitigation in time to prevent extinction of SRKWs. The ESA does not allow such gambling. To “insure” against jeopardy, mitigation relied upon “must describe, in detail” the plan to offset harm in a manner that satisfies the “no jeopardy” standard, “must constitute a ‘clear, definite commitment of resources,’ and [must] ‘be under agency control or otherwise reasonably certain to occur.’” *Bernhardt*, 982 F.3d at 743. All three mitigation components NMFS relied upon for its “no jeopardy” conclusion fell far short of these standards. 4-ER-640–44.

Those errors were magnified by NMFS's complete failure to consult on harm to ESA-listed species from one component of the mitigation—the prey increase program. Chinook salmon populations throughout the Columbia River and

Puget Sound basins already suffer from high percentages of hatchery fish on spawning grounds—i.e., high pHOS levels—caused by excessive hatchery releases that contribute to “low productivity of the natural populations” of these threatened salmon. 2-SER-591–93 ¶¶ 51–53, 596–97 ¶¶ 63–64; 2-SER-337–39 ¶¶ 6–7.

Indeed, NMFS’s Mitchell Act BiOp required significant reductions in hatchery releases by 2022 to avoid jeopardizing Lower Columbia River Chinook salmon. *See* 3-SER-789–92. Yet, NMFS altogether failed to evaluate whether increasing hatchery production under the prey increase program will jeopardize threatened Chinook salmon. 4-ER-644–46. Dr. Luikart explained that the program will likely “further inhibit the prospects for the continued survival, much less the recovery, of Chinook salmon populations in the Puget Sound Chinook salmon ESU and the Lower Columbia River ESU.” 2-SER-342–43 ¶¶ 20–21.

NMFS also violated its substantive ESA obligations. By relying on the woefully deficient SEAK BiOp, NMFS failed to ensure that the fisheries and prey increase program will not jeopardize SRKWs and threatened Chinook salmon. 4-ER-646–47.

Finally, although not addressed by the district court, the SEAK BiOp is also deficient because NMFS failed to draw a rational connection between the facts found and the “no jeopardy” conclusion for SRKWs. *See supra* at 23–27. The SRKWs are at high risk of extinction and declining because of inadequate prey

due, in large part, to fisheries, and NMFS predicts the species will continue its decline. *See id.* NMFS failed to explain how its “no jeopardy” opinion is consistent with those factual findings. Indeed, NMFS appears to be managing fisheries to allow SRKWs to go extinct.

These are egregious violations of procedural and substantive requirements that constitute “the heart of the ESA.” *Karuk Tribe*, 681 F.3d at 1019. These errors significantly increase extinction risks for SRKWs and undermine recovery efforts for threatened salmonids. NMFS’s ESA errors were plainly serious because they undermine central congressional objectives and increase environmental risks. *See Natural Res. Def. Ctr.*, 38 F.4th at 52; *Pollinator Stewardship*, 806 F.3d at 532; *Zinke*, 441 F. Supp. 3d at 1083.⁶

2. NMFS’s NEPA Violations Were Serious.

NMFS’s comprehensive NEPA violations were serious under any measure.

While NEPA is procedural, Congress intended the procedures to “serve[]

⁶ Courts regularly find similar and less substantial ESA violations serious. *See, e.g., Ctr. for Biological Diversity v. Haaland*, Nos. CV 20-181-M-DWM, 20-183-M-DWM, 2022 U.S. Dist. LEXIS 94822, at *12–14 (D. Mont. May 26, 2022); *Def. of Wildlife v. U.S. Fish & Wildlife Serv.*, 584 F. Supp. 3d 812, 833–34 (N.D. Cal. 2022); *Sovereign Iñupiat for a Living Arctic v. Bureau of Land Mgmt.*, 555 F. Supp. 3d 739, 795–804 (D. Alaska 2021); *Cook Inletkeeper v. Raimondo*, 541 F. Supp. 3d 987, 990–92 (D. Alaska 2021); *N. Plains Res. Council v. U.S. Army Corps of Eng’rs*, 460 F. Supp. 3d 1030, 1037–38 (D. Mont. 2020); *Klamath-Siskiyou Wildlands Ctr. v. Nat’l Oceanic & Atmospheric Admin. Nat’l Marine Fisheries Serv.*, 109 F. Supp. 3d 1238, 1243–45 (N.D. Cal. 2015).

[the statute’s] ‘action-forcing’ purpose” by ensuring that agencies fully consider detailed environmental information before making decisions and by ensuring that relevant information is available to the public and others that play a role in the decisionmaking process. *See Robertson*, 490 U.S. at 349. Allowing a decision to remain effective where there was a “significant deficiency” in the NEPA process would “vitate” the statute. *Oglala Sioux Tribe v. U.S. Nuclear Regul. Comm’n*, 896 F.3d 520, 536 (D.C. Cir. 2018). Courts consider NEPA violations, other than “mere technical or procedural formalities,” serious. *See Klamath-Siskiyou*, 109 F. Supp. 3d at 1244–45.

For both the prey increase program and the ITS authorizing Southeast Alaska salmon fisheries under the 10-year regimes set by the 2019 Treaty, NMFS violated NEPA by failing to prepare an EA or an EIS or otherwise provide **any** NEPA procedures. *See* 4-ER-648–51. NMFS recently announced its intent to prepare two separate EISs in response to these proceedings, conceding that the prey increase program and the ITS each constitute a major federal action **significantly affecting the quality of the environment**. *See* 88 Fed. Reg. 68,572 (Oct. 4, 2023); 88 Fed. Reg. 54,301 (Aug. 10, 2023); 42 U.S.C. § 4332(2)(C); *Env’t Def. Ctr.*, 36 F.4th at 872.

NEPA requires agencies “study, develop, and describe appropriate alternatives to recommended courses of actions.” 42 U.S.C. § 4332(2)(E); *see also*

Hodel, 852 F.2d at 1228–29. NEPA also requires public notice and an opportunity for comment. 40 C.F.R. § 1503.1(a)(4). The EIS “must ‘inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.’ . . . The analysis ‘presents the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmakers and the public.’” *League of Wilderness Defs.-Blue Mountains Biodiversity Project v. U.S. Forest Serv.*, 689 F.3d 1060, 1068–69 (9th Cir. 2012) (citations omitted). This alternatives analysis is considered “the heart” of an EIS. 40 C.F.R. § 1502.14.

NMFS’s failure to develop and consider alternatives, particularly those that pose less ecological risks, is an egregious NEPA violation. *See, e.g., Wild Fish Conservancy v. Nat’l Park Serv.*, No. C12-5109-BHS, 2014 U.S. Dist. LEXIS 105689, at *7–8 (W.D. Wash. July 31, 2014). For example, instead of spending tax dollars to increase hatchery production that will harm threatened Pacific Northwest salmonids to offset and subsidize commercial fisheries, NMFS could have reduced harvests and compensated impacted parties, similar to Canada’s current efforts to purchase and retire Chinook salmon commercial fishing permits. *See* 2-SER-358. NMFS’s failure to provide the public with notice and opportunity to comment is also a patently serious violation. Indeed, “[f]ailure to provide the required notice

and to invite public comment” “is a fundamental flaw that ‘normally’ requires vacatur of the rule.” *Heartland Reg’l Med. Ctr.*, 566 F.3d at 199 (citation omitted); *see also Allina Health v. Sebelius*, 746 F.3d 1102, 1110 (D.C. Cir. 2014).

NMFS also failed to assess cumulative impacts; i.e., NMFS failed to take a “hard look” at anticipated results from adding the ITS and the prey increase program to “other past, present, and reasonably foreseeable future actions.” *See Te-Moak Tribe*, 608 F.3d at 602–03. NMFS thereby failed to assess the harmful impacts from increasing hatchery production under the prey increase program and from the commercial fisheries authorized by the ITS, in light of other actions impeding recovery of SRKWs and salmonids including other hatchery programs and harvests. NMFS also failed to consider how climate change will greatly exacerbate harm to salmonids and SRKWs from these actions. *See AquAlliance v. U.S. Bureau of Reclamation*, 287 F. Supp. 3d 969, 1028–32 (E.D. Cal. 2018). These are plainly serious violations. *See Klamath-Siskiyou*, 109 F. Supp. 3d at 1245 (“A failure to analyze cumulative impacts will rarely—if ever—be so minor an error as to satisfy the first Allied-Signal factor.” (citation omitted)).

NMFS’s failure to comply with NEPA before adopting two major federal actions that will significantly impact the environment was a serious violation.

3. NMFS’s Violations Were Serious Because NMFS Will Not Issue the Same Decisions on Remand.

NMFS’s violations were further serious because NMFS will not issue the

same decisions on remand.

Under this analysis, courts consider “whether the agency would likely be able to offer better reasoning or whether by complying with procedural rules, it could adopt the same rule on remand.” *Pollinator Stewardship*, 806 F.3d at 532. “[F]undamental flaws in the agency’s decision make it unlikely that the same rule would be adopted on remand.” *Id.* “Technical” errors, on the other hand, may be less serious because it is more likely the agency will reach the same conclusion on remand. *Nat’l Family Farm Coal. v. U.S. Env’t Prot. Agency*, 966 F.3d 893, 929 (9th Cir. 2020).

NMFS will not issue the same decision on remand. Instead, NMFS has split the SEAK BiOp into two parts and is preparing an EIS for the fisheries and a separate EIS for the prey increase program. The outcome of those two decisionmaking processes will look nothing like the SEAK BiOp.

Further, NMFS’s complete failure to comply with **any** NEPA requirements is not a “technical” error but instead an all-encompassing “fundamental flaw” that makes it unlikely the same decisions will be issued on remand. *See Pollinator Stewardship*, 806 F.3d at 532–33; *Nat’l Family Farm*, 966 F.3d at 929. “[C]ourts should harbor substantial doubt that ‘the agency chose correctly’” when it failed to prepare an EIS before adopting a decision. *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs*, 985 F.3d 1032, 1052–53 (D.C. Cir. 2021); *see also 350 Mont. v.*

Haaland, No. CV 19-12-M-DWM, 2023 U.S. Dist. LEXIS 23219, at *8–9 (D. Mont. Feb. 10, 2023).

NEPA requires that NMFS take a “hard look” at the fisheries and the prey increase program’s impacts and disclose and meaningfully consider alternatives to those actions, as opposed to merely “rationaliz[ing] or justify[ing] decisions already made.” *See Metcalf v. Daley*, 214 F.3d 1135, 1142, 1146 (9th Cir. 2000) (citation omitted); *Env’t Def. Ctr.*, 36 F.4th at 882. NMFS’s insistence that it will merely adopt the same decisions on remand is inconsistent with NEPA’s requirement “to give full and meaningful consideration to all reasonable alternatives” and amplifies the seriousness of the violations, as it demonstrates that NMFS has unlawfully predetermined the current NEPA processes. *See Wild Fish Conservancy*, 2014 U.S. Dist. LEXIS 105689, at *7–8; *Metcalf*, 214 F.3d at 1143–45; *Env’t Def. Ctr.*, 36 F.4th at 882.

The ESA violations further undermine any contention that NMFS could issue the same decisions on remand. With respect to the prey increase program, **there was no plan whatsoever** beyond NMFS’s hope to “work collaboratively” with hatchery operators to “develop a program” in the future that “provides the best chance of increasing prey.” *See* 4-ER-640–44; 5-ER-1119; 6-ER-1212. NMFS cannot issue the same plan on remand because there was no plan in the first place.

NMFS’s failure to consult on harm to salmonids from the prey increase

program is also a fundamental flaw that precludes issuance of the same decision on remand. Vacatur was appropriate in *Pollinator Stewardship* because, after the agency considers additional studies on remand, it “may conclude that a lower maximum application rate of [a pesticide] is warranted, or that [the pesticide] cannot be registered at all.” 806 F.3d at 532–33. Here, NMFS did not conduct a jeopardy analysis or provide an ITS for the prey increase program. *See* 4-ER-644–46; 6-ER-1205–06. Similar to *Pollinator Stewardship*, NMFS may find when conducting its jeopardy analysis that a substantially smaller program is warranted or that no program should be implemented to protect ESA-listed salmonids. Chinook salmon populations that will be affected are already exceeding applicable pHOS levels. 2-SER-337–39 ¶ 6. NMFS cannot further increase hatchery production in these watersheds consistent with the ESA’s mandate to avoid jeopardizing salmonids. *See* 2-SER-339–43 ¶¶ 8–18, 20–21. However, even if NMFS does move forward with increased hatchery releases, any BiOp would include an ITS with new conditions designed to reduce impacts to ESA-listed species. *See* 50 C.F.R § 402.14(i)(1)(ii), (iv), (i)(3). NMFS therefore will not issue the same decision on remand. *See Pollinator Stewardship*, 806 F.3d at 532–33.

NMFS’s failure to provide a rational connection between its findings and its conclusion that the fisheries will not jeopardize SRKWs is a fundamental error that makes it unlikely that NMFS will issue a similar ITS on remand. *See supra* at 23–

27. Contrary to Alaska’s unsupported contentions, NMFS may restrict the fisheries under the ESA. *See* Opening Br. of Appellant-Intervenor Alaska 53; 5-ER-898, 1054, 1122. NMFS cannot continue authorizing the same levels of take of Chinook salmon without the SRKW going extinct. Unlike the SEAK BiOp, NMFS’s recent BiOp for west coast fisheries included harvest limits to protect SRKWs that are triggered during low salmon abundance periods. *See* 3-ER-447–49. At a minimum, any new ITS for Southeast Alaska fisheries would likely need to include similar restrictions.

NMFS’s violations constitute fundamental errors that cast substantial doubt that NMFS “chose correctly.” *See Allied-Signal*, 988 F.2d at 150–51.

4. NMFS’s Violations Remain Serious.

NMFS suggests that certain violations are no longer as serious because, according to NMFS, it is achieving the mitigation objectives of the SEAK BiOp and has conducted “site specific” ESA and NEPA review for the prey increase program. Those contentions are demonstrably false.

NMFS argues that its unlawful reliance on mitigation to authorize “take” of SRKWs and threatened Chinook salmon has been “effectively cured” by its “subsequent implementation” of the prey increase program. Fed. Defs.’ First Br. 27–28. This argument fails for at least three reasons.

First, the district court held that NMFS failed to “describe[] ‘in detail the

action agency’s plan to offset the environmental damage caused by the [fisheries]” and to “include specific requirements by which to confirm that the mitigation is being implemented in the manner and on a schedule needed to avoid the extinction of the SRKW.” 4-ER-641–42 (quoting *Bernhardt*, 982 F.3d at 743). Agencies cannot rely on vague mitigation plans because, inter alia, “it will be difficult to know at which point or whether the action agency has failed to comply” and therefore must reinitiate ESA consultation on the action. *Bernhardt*, 982 F.3d at 743–44. These conditions remain and continue to threaten SRKWs. NMFS has not developed a detailed plan showing how, when, and where hatchery fish will be released and how, when, and where those releases will benefit SRKWs to avoid jeopardy. Instead, NMFS submitted declarations that assert in conclusory fashion that the prey increase program is “on track to provide the benefits” intended in the SEAK BiOp. *E.g.*, 2-ER-275 ¶ 3. These self-serving declarations that lack specific facts showing how NMFS’s efforts to implement the prey increase program is benefiting SRKWs carry little or no weight. *See, e.g., Nigro v. Sears, Roebuck & Co.*, 784 F.3d 495, 497–98 (9th Cir. 2015). NMFS has not “cured” its failure to develop a detailed plan showing how and when mitigation will be implemented in a manner that avoids jeopardizing species.

Second, it is **undisputed** that NMFS has released **less than half** of the hatchery smolts contemplated in the SEAK BiOp. NMFS intended the prey

increase program would release 20 million smolts annually. 5-ER-889, 6-ER-1193. That is not happening; NMFS's records show that the program released 597,242 smolts in 2020, 6.3 million smolts in 2021, and 8 million smolts in 2022. 2-ER-296 ("PST," or Pacific Salmon Treaty, denotes prey increase program releases). To hide that shortcoming, NMFS repeatedly provided figures that included smolt releases funded by Washington State under an entirely different program that always existed independent of NMFS's program. *See, e.g.,* 2-ER-296; 2-ER-275 ¶ 3. Washington's program does not compensate for NMFS's failure to implement the prey increase program. Those State efforts were not intended to mitigate for prey reductions caused by Treaty fisheries, as demonstrated by NMFS's continued insistence on the need for the prey increase program despite Washington's separate efforts. Moreover, Washington's smolt releases occurred under annual budgets passed by the State Legislature—there is no legal obligation or binding plan to continue them and there is no basis to assume they will continue. *See* 2-ER-283. Those measures therefore cannot be relied upon to offset harm to ESA-listed species from the fisheries. *See Bernhardt*, 982 F.3d at 743. NMFS's contention that its mitigation "is on track to provide the benefits to SRKWs" intended in the SEAK BiOp is demonstrably false.⁷

⁷ NMFS's predictions regarding prey increase efforts have repeatedly proven false. For example, NMFS informed the district court that "more than 20 million" smolts

Third, NMFS has altogether failed to implement a key component of the mitigation. The SEAK BiOp contemplated a new conservation hatchery program in Mid-Hood Canal to benefit Puget Sound Chinook salmon and SRKWs. 5-ER-888. To the Conservancy’s knowledge, that program was never implemented.

NMFS further argues that its violations are somehow less serious because, NMFS contends, it has conducted “site-specific” ESA and NEPA reviews for each individual disbursement of funds under the prey increase program. Fed. Defs.’ First Br. 28–29. That argument fails for at least two reasons.

First, NMFS is not conducting site-specific reviews for each individual disbursement. Instead, NMFS decided that some disbursements do not require any ESA or NEPA review and that most others are somehow covered by reviews that pre-date the prey increase program. *See* 2-SER-397–98; 2-ER-276 ¶ 5; 1-SER-31 ¶ 5; 1-SER-52–300; 2-SER-302–24; 2-SER-414 (NMFS arguing that the Conservancy “incorrectly assumes that NEPA will be triggered for each site-specific project”). Those pre-existing reviews have nothing to do with the prey increase program—they addressed hatchery programs and their impacts to listed species as they existed at the time and not impacts to threatened salmonids from the new prey increase program. *See, e.g.*, 1-SER-56–277.

would be released in 2021 under NMFS’s and Washington’s program combined. *See* 3-SER-859 ¶¶ 12–13. Fewer than 14 million smolts were released. 2-ER-296.

For example, NMFS cites a BiOp for salmon propagation in the Lower and Middle Columbia River as its supposed “site-specific” ESA review for increased hatchery production at three facilities: Little White Salmon National Fish Hatchery (“NFH”), Carson NFH, and Spring Creek NFH. 1-SER-53. That BiOp was completed in 2007—**twelve years** before the prey increase program. 1-SER-56. That BiOp did not evaluate the “current status and environmental baseline” of affected species in 2019 or the “effects of the action” (or any part thereof) “in light of the status of the species” in 2019 as required under the ESA. *See* 50 C.F.R. § 402.14(g)(1)–(4).

The same applies with NEPA, as demonstrated by NMFS’s reliance on the Mitchell Act EIS for its increased hatchery production in the Columbia River. *See* 1-SER-53–54. That document addressed NMFS’s decision in 2014 for funding around 62 hatchery programs in the Columbia and Snake Rivers under the Mitchell Act. Mot. for Judicial Notice, Ex. 2, p. 2. That EIS was not a “site-specific” NEPA review for NMFS’s 2019 prey increase program; e.g., that 2014 EIS did not identify the purpose and need for the prey increase program, nor did it assess the status of the affected environment in 2019, the impact of increasing hatchery production in 2019, or alternatives to the prey increase program. *See* 40 C.F.R. §§ 1502.13–16; Mot. for Judicial Notice, Ex. 2, pp. 3, 7–13. NMFS’s remarkable contention that a 2007 BiOp and a 2014 EIS satisfy the agency’s ESA and NEPA

obligations for its 2019 proposal for the prey increase program represents a complete dereliction of NMFS's statutory obligations.

Second, even if NMFS were evaluating each individual disbursement under the ESA and NEPA, this Court has repeatedly rejected such piecemeal reviews. *See, e.g., Conner*, 848 F.2d at 1453–58; *Wild Fish Conservancy*, 628 F.3d at 521–25; *Save the Yaak Comm. v. Block*, 840 F.2d 714, 720 (9th Cir. 1988); *see also* 40 C.F.R. § 1508.25(a)(1). Under this approach, NMFS would evaluate whether each individual increase in hatchery production may jeopardize species, without ever evaluating whether the entire program would cause jeopardy. That is incompatible with the ESA, as it would allow a species to “be gradually destroyed, so long as each step on the path to destruction is sufficiently modest.” *See Wild Fish Conservancy*, 628 F.3d at 523 (citation omitted). “Site-specific review cannot cure a failure to consult at the programmatic level, and incremental-step consultation is inadequate to comply with the ESA.” *Env't Def. Ctr.*, 36 F.4th at 891; *see also Save the Yaak*, 840 F.2d at 720 (discussing improperly segmented NEPA review).

Accordingly, NMFS has not “effectively cured” its errors.

D. This Court Should Affirm Partial Vacatur of the ITS.

The district court carefully considered the seriousness of NMFS's violations and the environmental and economic consequences of vacating the ITS and determined that a partial vacatur of the ITS was warranted. NMFS has failed to

show any abuse of discretion in that decision.

1. **The District Court Did Not Abuse Its Discretion in Finding the Seriousness of Violations Favors Vacatur of the ITS.**

The district court found that the seriousness of NMFS’s errors favored vacatur of the ITS because the violations clearly undermine central congressional objectives. 1-ER-31–32. The district court also held that vacatur of the ITS was appropriate because it was not sufficiently likely that NMFS would issue the same ITS on remand. 1-ER-41. Those findings were not clearly erroneous. *Supra* at 32–42.

The district court further found that the “environmental harm to the SRKW from leaving the ITS in place” “counsels in favor of vacatur.” 1-ER-39. The district court explained:

Though there is uncertainty as to how much prey would ultimately reach the SRKW, the record before the Court suggests that closure of the fisheries meaningfully improves prey available to the SRKW, as well as SRKW population stability and growth, under any scenario.

1-ER-34 (citation omitted). Despite NMFS’s arguments to the contrary, those findings were not clearly erroneous. *See McNair*, 537 F.3d at 986; Fed. Defs.’ First Br. 35–38.

The current condition of SRKWs is “unprecedented,” with more than a fifth of the population likely vulnerable and emaciated. 2-SER-347–48 ¶¶ 10–14. “[A]n immediate increase in the abundance of Chinook [salmon]” is needed “to avoid

functional extinction.” 2-SER-349 ¶ 18. The record shows overwhelmingly that partial vacatur of the ITS would reduce risks to SRKWs by providing desperately needed additional prey.

Dr. Lacy developed the Vortex PVA relied upon by NMFS’s SEAK BiOp and “is among the world’s most experienced, respected, and sought-after modelers for conducting [PVA].” 2-SER-581 ¶ 23; 4-SER-908–11 ¶¶ 9–13; 5-ER-964, 968; 6-ER-1190. Dr. Lacy’s modeling consistently found that prey abundance is the primary factor limiting SRKW population growth. *See* 6-ER-1190; 4-SER-923 ¶ 33.b; 3-SER-624 ¶ 20; 4-ER-608 ¶ 7. His most recent model prepared in 2022 found that a 5% increase in prey is needed to merely stop the SRKW’s decline. 4-ER-607–08 ¶ 6.

Dr. Lacy noted that the SEAK BiOp suggests that the Southeast Alaska salmon fishery reduces prey by about 6% (and the commercial troll fishery by about 4.85%), but there is “considerable uncertainty around this number.” 4-ER-608–09 ¶ 8. Dr. Lacy therefore modeled impacts to the SRKW from closing the fishery under different assumptions; i.e., if the fishery reduces prey by 3%, 6%, 9%, and 12%. 4-ER-609–10 ¶¶ 10–11. Each projection showed a meaningful improvement to SRKW viability; however, if the fishery reduces prey by 3%, closure alone would slow but not stop the species’ decline. *See id.*

NMFS suggests the district court should have deferred to NMFS’s expertise instead of considering Dr. Lacy’s opinions. Fed. Defs. First Br. 37–38. NMFS cites only authorities explaining that courts defer to agency expertise when reviewing the merits of a decision made within the agency’s delegated authority. *See id.* Courts do not presume deference to agencies on remedy issues. *Sierra Forest Legacy v. Sherman*, 646 F.3d 1161, 1185–86 (9th Cir. 2011).

Deference to NMFS’s witness—Ms. Lynne Barre—would have been particularly unwarranted because she lacks qualifications to opine on Dr. Lacy’s modeling, as underscored by her misguided criticisms. *See* 2-ER-301 ¶¶ 1–2; 2-SER-402–03 ¶¶ 1–3; 3-SER-862–63 ¶¶ 1–3. For example, she attacked Dr. Lacy’s modeling by explaining “not all of the Chinook salmon caught in SEAK troll fisheries would migrate south into SRKW habitat” and be consumed by SRKWs. 2-ER-303–04 ¶ 8. Dr. Lacy responded that “no one claims that all the fish escaping the fishery would be consumed by the whales, and it is illogical to assert that such an assumption is necessary in order to estimate the impacts on [SRKWs] of a change in overall [prey] abundance.” 3-SER-620 ¶ 15.

Perhaps most odd was Ms. Barre’s contention that Dr. Lacy’s model “focus[ed] on SEAK fisheries alone as the only factor influencing recovery of the SRKW population.” 3-SER-871–72 ¶ 16. That is simply false, as the model included impacts from PCBs, vessel disturbances, and other factors. 3-SER-620–

21 ¶ 16. NMFS has PVA experts that understand this, as demonstrated by the SEAK BiOp’s description of Dr. Lacy’s model. 5-ER-968 (identifying various threats and explaining that Dr. Lacy’s modeling “attempted to identify which threats are most significant”); 6-ER-1189. NMFS’s decision to critique Dr. Lacy’s model through an individual that lacks qualifications on the topic suggests that NMFS does not actually dispute Dr. Lacy’s opinions.

NMFS argues that the fisheries cause smaller prey reductions than those assumed in Dr. Lacy’s model because the greater prey reductions occur at times and places when SRKWs are not present. Fed. Defs.’ First Br. 35–36. The SEAK BiOp found that the fisheries reduce prey in coastal waters from 0.2% to 12.9% and in inland waters from 0.1% to 2.5%. 5-ER-1125–26. The SEAK BiOp explained that SRKWs were “more often observed” in coastal waters from October to June, where the fisheries reduce prey by 0.2% to 3.5%, and that SRKWs “on average” “spend a substantial amount of time in inland waterways during July through September,” where the fisheries reduce prey by 1.0% to 2.5%. 5-ER-1126–27. Focusing on these “seasonal movements,” NMFS argues that prey reductions are: “an average of 0.5% in the coast during winter (up to 1.1%), and an average of 1.8% in the inland during summer (up to 2.5%).” 2-ER-57 ¶ 11.

Even if those reductions were representative of impacts to SRKWs, it is NMFS’s burden to demonstrate that vacatur is unwarranted and NMFS failed to

show that those prey reductions are not meaningful. Notably, NMFS predicted that the fisheries reduce the larger salmon preferred by SRKWs from the whale's designated critical habitat by 0.1% to 2.5%, "with the greatest reductions expected" "when the forage ratio is relatively low." 6-ER-1194; *see* 5-ER-969. NMFS explained that this "may cause [SRKWs] to spend more time foraging than when prey is plentiful and increase the risk of poor body condition and nutritional stress." 6-ER-1194. Given the current vulnerable and emaciated condition of the SRKW population, such impacts are significant.

Further, NMFS's approach would underestimate the fisheries' impacts by focusing only on prey reductions at locations where the SRKWs are present somewhat more often than others, ignoring greater impacts simply because the SRKWs are not there as often. SRKWs are "highly mobile," and there has always been variability in their patterns. 5-ER-966–67. Moreover, inadequate prey is affecting migration patterns, with SRKWs spending less time in inland waters and being forced to forage in coastal areas where the fisheries have a more significant impact on prey availability. 4-SER-955–56 ¶ 10; 5-ER-966–67; 5-ER-1127. NMFS failed to credibly challenge Dr. Lacy's opinions.

NMFS argues that most salmon caught in the fishery are not from stocks deemed "of greatest importance" to SRKWs. Fed. Defs.' First Br. 36. The SEAK

BiOp indicated that over 70% of the Chinook salmon harvested are from stocks deemed priority prey, as summarized below:

Priority Stock Number	Stocks caught per NPFMC BiOp Table 99	Percentage of SEAK Catch (Average 1985-2015)
1	PS Hatchery fingerlings	0.21%
	Skagit	0.09%
	Stillaguamish summer/fall	0.06%
	Nooksack fall	0.04%
	Puget sound Natural	0.03%
	Snohomish summer/fall	0.03%
2	Fall cowlitz Hatchery	1.00%
	Lewis River wild	0.86%
3	Columbia Upriver Brights	18.11%
	Fraser early	3.96%
	Spring Cowlitz Hatchery	0.10%
4	Mid-Columbia Brights	6.64%
6	WA Coastal wild	2.72%
	WA Coastal Hatchery	2.23%
9 (Fraser summer)	Fraser Late	0.15%
11 (Upper Willamette)	Willamette River Hatchery	2.22%
14 (Northern/Central Or coast)	Oregon coastal North Migrating	13.68%
15 (West Coast Vancouver Island; WCVI)	WCVI Hatchery	15.17%
	WCVI wild	2.88%
	Total:	70.18%

See 5-ER-971 (identifying SRKW priority stocks); 5-ER-1130–31 (identifying stocks harvested).

That was reaffirmed by data submitted by Alaska on new studies undertaken by NMFS, Washington, and Alaska since the SEAK BiOp was issued. 1-SER-12–

14 ¶¶ 13–14. Those efforts found that **57%** of the Chinook salmon harvested in the Southeast Alaska troll fishery are from stocks considered “high priority” prey for SRKWs ($76,603 \div (76,603 + 34,715 + 22,676)$) and **83%** are from stocks used by SRKW as prey ($((76,603 + 34,715) \div (76,603 + 34,715 + 22,676))$). 1-SER-27.

Those data show that the troll fishery harvests around 110,000 Chinook salmon annually from stocks consumed by SRKWs. *Id.* (total high and low priority stock). By comparison, the prey increase program hopes to release 20 million smolts, which would produce around 150,000 adult salmon. *See, e.g.*, 3-SER-672 (identifying smolt-to-adult return ratios in the range of 0.5% to 1.0%). NMFS found that would provide a “meaningful increase” in prey for SRKWs of four to five percent. 5-ER-888.

The record fully supported the finding that partial vacatur of the ITS would benefit SRKWs.

2. The District Court Substantially Mitigated Disruptive Consequences by Partially Vacating the ITS.

Contrary to NMFS’s bizarre new argument, vacatur of the ITS would not pose environmental risks. While it will cause economic disruptions, the district court fully considered and substantially mitigated those impacts. That was not an abuse of discretion.

The district court explained that “there does not appear to be any environmental disruption stemming from disallowing Chinook salmon harvests permitted by the ITS.” 1-ER-34. NMFS did not argue otherwise below. NMFS manufactures a new argument on appeal in contending that vacatur of the ITS could somehow cause environmental harm by “pitting fishing communities against [SRKW] conservation.” Fed. Defs.’ First Br. 39–40. The Court should reject this wholly unsupported and speculative argument. To the contrary, allowing agencies to continue implementing actions adopted in violation of the ESA and NEPA encourages all agencies to “build first and consider the environmental consequences later,” greatly undermining environmental protections intended by Congress. *See Standing Rock Sioux Tribe*, 985 F.3d at 1051 (citation omitted).

The Court should similarly reject NMFS’s vague and unsupported argument that partial vacatur of the ITS would somehow upset the “complex regulatory framework for managing fisheries” and the “balance struck” in the Treaty. Fed. Defs.’ First Br. 33–34. The Treaty was “negotiated with a clear understanding” that either party may restrict fisheries beyond the limits set therein “as necessary to meet domestic objectives, such as those required to meet ESA obligations.” 5-ER-1054; *see also* 5-ER-898. Canada has done just that to protect Chinook salmon stocks and SRKWs. 2-SER-357–59, 365–71.

While vacatur of the ITS would cause economic disruptions, such impacts were substantially mitigated by the district court. The “presumptive remedy” is “full vacatur” of the SEAK BiOp, including the ITS. *See Coal. to Protect Puget Sound*, 843 F. App’x at 80. The district court, however, issued a narrow partial vacatur that allows most fisheries covered by the illegal ITS to continue. The district court vacated the ITS only to the extent it authorized “take” “resulting from commercial harvests of Chinook salmon during the winter and summer seasons (excluding the spring season) of the troll fisheries.” 1-ER-45.

Dr. Hans Radtke is an “economist specializing in natural resource economics, especially fisheries economics.” 3-ER-581 ¶ 2; *see also* 2-SER-328–34. He explained that the total harvest value for all commercial salmon fisheries in Southeast Alaska in 2020 was \$55.2 million. 3-ER-588 ¶ 15, 591. Of the species harvested, chum salmon provided the most value, representing 36 percent of the total harvest value. 3-ER-591. “The troll fishery accounted for 38 percent of all [commercial] SEAK salmon (all species) harvest value in 2020 at \$21.2 million.” 3-ER-597 ¶ 21.a; *see also* 3-ER-591. For the troll fishery, Chinook salmon accounted for 54 percent of the harvest value (\$11.5 million), coho salmon was 44 percent (\$9.3 million), and sockeye, pink, and chum salmon accounted for two percent (\$0.4 million). 3-ER-591, 597 ¶ 21.b. Thus, the harvest value of Chinook salmon caught in the toll fishery (\$11.5 million) was around 21 percent of the total

harvest value (\$55.2 million) of the Southeast Alaska commercial salmon fisheries. *See* 3-ER-588 ¶ 15, 591, 597 ¶ 21.b. Therefore, **seventy-nine percent** of the commercial salmon harvest value covered by the illegal ITS would be unaffected by the partial vacatur; i.e., commercial net/seine harvests of all species are unaffected, as are all non-Chinook salmon commercial troll fisheries. Further, the vacatur would not even affect all commercial harvests of Chinook salmon in the troll fisheries; it allows harvests during the spring season. 1-ER-45. Beyond the commercial fisheries discussed above, there are significant sport and subsistence salmon fisheries unaffected by the partial vacatur. 3-ER-583–84 ¶ 11.a.

Accordingly, the district court’s equitable remedy would affect a small fraction of the Southeast Alaska salmon harvests authorized by NMFS’s faulty ITS.

Dr. Radke estimated that the potential economic impact of closing the winter and summer seasons of the commercial troll Chinook salmon fishery would be around \$9.5 million. 4-ER-603–04 ¶ 31. Josh Keaton, NMFS’s Acting Assistant Regional Administrator of Sustainable Fisheries for the Alaska Region, estimated that the “annual economic output of the Chinook salmon commercial troll fishery in the winter and summer seasons to be approximately \$29 million.” 3-ER-506, 522. Dr. Radke’s estimates were based on “income” generated consistent with professional standards, as opposed to an “output measurement,” which “tends to convey an inflated notion of economic activity” and “is subject to double-

counting.” 1-SER-4-6 ¶¶ 6-10. Regardless, the district court considered evidence presented by both sides on these issues. 1-ER-35.

The actual economic impact may be substantially less than these estimates, as federal law authorizes relief funding for fishery disasters, including those resulting from “judicial action.” *See* 16 U.S.C. § 1861a. Such funds could negate most economic losses.

NMFS has failed to show any erroneous findings with respect to the disruptive consequences of vacating the ITS.

3. The District Court Did Not Abuse Its Discretion in Partially Vacating the ITS.

The district court applied APA standards, weighed the *Allied-Signal* factors, and issued a narrow partial vacatur of the ITS. That decision was not an abuse of discretion and should be affirmed.

NMFS argues that “[t]he district court abused its discretion in weighing the equities” by “discount[ing] the disruptive consequences of vacatur.” Fed. Defs.’ First Br. 30. The district court fully considered economic impacts to commercial fishers and communities that benefit from their tax revenue and explained that it “does not take such economic consequences lightly.” 1-ER-35. Ultimately, however, the district court found that the economic consequences “do not overcome the seriousness of NMFS’s violations given the presumption of vacatur” and the risks posed to the endangered SRKW. *Id.* That decision was consistent with

this Court’s precedents and not an abuse of discretion. *McNair*, 537 F.3d at 987 (“[A]s long as the district court got the law right, it will not be reversed simply because the appellate court would have arrived at a different result if it had applied the law to the facts” (citation omitted)).

The “rare circumstances” where this Court withheld vacatur involved instances where vacatur itself would cause environmental harm or where “vacatur would cause serious and irreparable harms that significantly outweigh the magnitude of the agency’s error.” See *Klamath-Siskiyou*, 109 F. Supp. 3d at 1242–43 (citation omitted) (summarizing case law). For example, this Court withheld vacatur for a relatively minor error—failure to disclose certain documents considered on a nearly-completed power plant—where vacatur would threaten a “billion-dollar venture” and risk blackouts that would **increase** air pollution, “the very danger the Clean Air Act aims to prevent.” *Cal. Cmty.*, 688 F.3d at 992–94. The Court declined to vacate where an agency violated the Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”) by failing to fully consider one mechanism of harm—impacts to a butterfly from killing milkweed growing on agricultural fields—where there was otherwise “full compliance with the ESA and substantial compliance with FIFRA.” *Nat’l Family Farm.*, 966 F.3d at 929–30. This Court remanded without vacatur under “unique facts” where “vacatur would likely harm the environment more” because it would cause increased use of more

toxic alternatives. *Ctr. for Food Safety v. Regan*, 56 F.4th 648, 668 n.15 (9th Cir. 2022).

Further, *Regan*, *National Family Farm*, and *California Communities* involved instances where this Court had original jurisdiction and determined to withhold vacatur in the first instance. To the Conservancy’s knowledge, this Court has only **once** reversed a district court’s decision to impose the APA’s presumptive remedy of vacatur in an environmental case. There, the agency’s only violation was a failure to make a report publicly available during rulemaking. *Idaho Farm Bureau*, 58 F.3d at 1405. The challenged rule applied ESA protections to an endangered snail, and vacatur risked “potential extinction.” *Id.* This Court found that the equities demanded leaving the rule in place to protect the endangered snail while the agency remedied the violations. *Id.* at 1405–06.

The district court’s partial vacatur of the ITS was entirely consistent with these authorities because the relief will not cause environmental harm and because the economic consequences, while not inconsequential, cannot outweigh the seriousness of the ESA and NEPA violations. Indeed, this Court routinely vacates agency actions for far less serious violations where vacatur will not cause environmental harm. *See, e.g., Neighbors of the Mogollon Rim, Inc. v. U.S. Forest Serv.*, No. 22-15259, 2023 U.S. App. LEXIS 11031, at *10 (9th Cir. May 5, 2023) (vacating for NEPA violations and explaining that “the presumption of vacatur is

not overcome” where the agency’s errors “are significant and vacatur will not cause an environment harm”); *Nat. Res. Def. Council*, 38 F.4th at 51–52; *Env’t Def. Ctr.*, 36 F.4th at 882; *Bernhardt*, 982 F.3d at 751; *All. for the Wild Rockies*, 907 F.3d at 1121–22; *Pollinator Stewardship*, 806 F.3d at 532–33; *Locke*, 626 F.3d at 1053. And contrary to NMFS’s suggestions, this Court has never found that economic consequences alone outweigh serious agency violations but has instead vacated illegal decisions despite substantial economic disruptions. *See, e.g., Nat’l Family Farm Coal. v. U.S. Env’t Prot. Agency*, 960 F.3d 1120, 1144–45 (9th Cir. 2020) (vacating despite significant economic impacts to farmers across the country); *Coal. to Protect Puget Sound Habitat v. U.S. Army Corps of Eng’rs*, 466 F. Supp. 3d 1217, 1226 (W.D. Wash. 2020), *aff’d* 843 F. App’x 77; *Bernhardt*, 982 F.3d at 751.

Further, Congress intended imperiled species be prioritized over monetary and other interests: “Congress has spoken in the plainest of words, making it abundantly clear that the balance has been struck in favor of affording endangered species the highest of priorities, thereby adopting a policy which it described as ‘institutionalized caution.’” *Hill*, 437 U.S. at 194; *see also Env’t Def. Ctr.*, 36 F.4th at 891 (explaining the ESA “‘did not seek to strike a balance between competing interests’ but rather ‘singled out the prevention of species’” extinction “as an overriding federal policy objective.” (citation omitted)). Accordingly, courts tip the

scale in favor of protecting listed species in considering vacatur under the APA. *E.g., Klamath-Siskiyou*, 109 F. Supp. 3d at 1242; *see also N. Plains Res. Council*, 460 F. Supp. 3d at 1037–38. Notably, the social, cultural, and economic costs to communities throughout the Pacific Northwest that would result from the loss of SRKWs or salmon populations is “incalculable.” *See Hill* 437 U.S. at 187–88.

In sum, the district court thoughtfully applied the *Allied-Signal* factors and carefully crafted a narrow partial vacatur of the ITS in lieu of the presumptive remedy of complete vacatur. Given the extensive and serious ESA and NEPA violations, that was far from an abuse of discretion. This Court should affirm the partial vacatur of the ITS.

E. This Court Should Reverse the Decision to Leave the Illegal Prey Increase Program Intact.

Allowing NMFS to continue implementing the illegal prey increase program, despite it being adopted without any required NEPA review and without any ESA consultation on the program’s serious harm to threatened salmonids, was an abuse of discretion. The district court relied on erroneous factual findings and misapplied legal standards in withholding the presumptive remedy of vacatur. This Court should reverse and vacate the program.

1. The District Court Relied on Erroneous Findings in Assessing the Seriousness of the Violations.

The district court correctly found that the violations were “sufficiently serious” because “they clearly undermine central congressional objectives of the ESA and NEPA.” 1-ER-33. However, the district court made additional findings related to the seriousness of the violations that were erroneous and that the district court relied on in declining to vacate the prey increase program.

First, the district court erroneously believed that NMFS was conducting “site-specific NEPA reviews” on each disbursement of funds for the prey increase program. 1-ER-41–42. It is undisputed that NMFS has not conducted “site-specific” NEPA (or ESA) reviews for each disbursement. Instead, for most disbursements NMFS “identified” old documents that pre-date and have nothing to do with the prey increase program but that NMFS claims somehow provide coverage for its new decisions to increase hatchery production under this program. *Supra* at 45–47; Fed. Defs.’ First Br. 28 (NMFS explaining that it “identified” pre-existing documents).

Second, the district court made contradictory and erroneous findings on the likelihood of NMFS adopting the prey increase program on remand. 1-ER-41. The district court correctly explained that this factor “appears to favor vacatur” because “NMFS will need to consult and consider alternatives” “such as reduced salmon harvests” “in lieu of increased hatchery production,” and it therefore “does not

appear ‘likely’” that NMFS will issue the same decision on remand. *Id.* (citation omitted). However, the district court then erroneously found that NMFS “appears poised on remand to remedy deficiencies” with respect to the prey increase program “now that [it] ha[s] been funded and in place.” *Id.* Those findings are inconsistent. As discussed above, NMFS will not issue the same decision on remand. *Supra* at 38–42.

Third, the district court drastically minimized the substantial and illegal harm to threatened salmonids caused by the prey increase program. The district court acknowledged that “hatchery production poses some risk to wild salmon populations,” but found that “such risk can conceivably be mitigated to minimize negative effects.” 1-ER-40. Regardless of whether such risks can “conceivably” be mitigated, the prey increase program is causing substantial harm.

The pHOS levels for most rivers affected by the prey increase program already exceed the HSRG’s recommended pHOS limits of 5% or 10%, many by alarming amounts. 2-SER-591–92 ¶ 51; 2-SER-337–39 ¶ 6. Dr. Luikart explained that these observed pHOS levels “are of significant conservation concern” and “it is imperative to significantly and rapidly *reduce* the current levels” “if these Chinook populations are to have a reasonable chance of surviving and recovering.” 2-SER-340 ¶ 9, 341–42 ¶ 18. The prey increase program will exacerbate these

pHOS levels and “further inhibit the prospects for the continued survival” of threatened Chinook salmon. 2-SER-339–42 ¶¶ 8–16, 20–21.

NMFS did not credibly refute Dr. Luikart’s opinions. NMFS presented only conclusory assurances from Allyson Purcell that its hatchery increases will not jeopardize ESA-listed species and that each increase will be reviewed under the ESA and NEPA. 2-ER-275 ¶ 4. Even if NMFS was consulting under the ESA on each increase in hatchery production, which it is not, such piecemeal consultations are unlawful. *See Env’t Def. Ctr.*, 36 F.4th at 891; *supra* at 45–47.

Ms. Purcell never identified what pHOS levels NMFS deems acceptable and how the prey increase program will comply with those limits. *See* 2-ER-276–77 ¶¶ 5–8. It is apparent that the program is violating NMFS’s own standards. For example, NMFS set pHOS limits in the 2017 Mitchell Act BiOp to avoid jeopardizing Lower Columbia River Chinook salmon. 3-SER-809, 820. Those limits became (or become) legally effective after implementation of measures to reduce pHOS required no later than Spring of 2022, which included reduced hatchery releases and installation of weirs to limit the number of hatchery fish reaching spawning grounds. *See* 3-SER-789–95, 808–09. Regardless of whether NMFS’s pHOS limits are technically effective yet, excessive take of threatened Chinook salmon is occurring and significant reductions in hatchery releases are needed to prevent extirpation of these populations:

Tributary	pHOS Limit in Mitchell Act BiOp	Mean pHOS Identified by Dr. Luikart
Elochoman/Skamokawa	50%	72%
Mill/Germany/Abernathy	50%	72% / 78% / 85%
Coweeman	10%	14%
Toutle	30%	57% / 63%
Kalama (fall)	10%	65%
Washougal	30%	50%

Compare 3-SER-809, with 2-SER-338–39. Yet, NMFS’s prey increase program includes releases from hatcheries that will increase these pHOS levels, including from the Umatilla Hatchery, Bonneville Hatchery, the Little White/Willard NFH, and Spring Creek NFH. *See 2-ER-290–91, 293–95; 2-SER-341 ¶¶ 13–17.* Those releases are likely to contribute to further violations of the Mitchell Act BiOp’s pHOS limits.

Moreover, Washington failed to implement weirs required under the Mitchell Act BiOp—a key measure intended to reduce pHOS. Mot. for Judicial Notice, Ex. 3, p. 1, Ex. 5, p. 2. That invalidates the Mitchell Act BiOp’s authorization to take threatened salmonids. *See Bennett*, 520 U.S. at 170. Yet, NMFS is relying on this BiOp for its prey increase program. *See 2-ER-298.*

While the district court correctly found that the violations were serious because they undermine central congressional objectives, it erroneously found that NMFS was conducting site-specific reviews for each prey increase program

disbursement. The district court also failed to appreciate the severe and illegal harm to threatened salmonids caused by this program.

2. **The District Court Relied on Erroneous Findings in Assessing the Consequences of Vacating the Prey Increase Program.**

The district court's primary concern in declining to vacate the prey increase program was the potential for adverse impacts to SRKW. However, the district court's analysis relied on clearly erroneous findings.

The district court indicated that the prey increase program is on track to provide the benefits anticipated for SRKWs, stating “[o]ver \$5.4 million of funds were distributed by NMFS in the 2022 fiscal year for the prey increase program, with more than 19 million juvenile Chinook salmon released.” 1-ER-36. That is indisputably wrong and a product of NMFS's intentional obfuscation. The prey increase program released 8,041,509 smolts in 2022. 2-ER-296. Washington's entirely separate program released the difference of 11.3 million smolts and would not be affected by relief issued in this case. *Id.*; *see also supra* at 43–44. The district court erroneously found that the disruptive consequences of vacatur would be **more than double** the actual consequences.

Moreover, the district court's assumption that the hatchery releases would benefit SRKWs is not supported by the record. NMFS's failure to produce a detailed plan showing how the prey increase program will be implemented and

how it will benefit SRKWs is a violation that persists today. *Supra* at 42–43. Dr. Luikart explained that excessive hatchery influence is likely contributing to “low productivity of the natural populations” of wild Chinook salmon and that the prey increase program will exacerbate that problem; i.e., increased hatchery production will **reduce** wild production. 2-SER-596–97 ¶¶ 63–64; 2-SER-342–43 ¶¶ 20–21; *see also* 3-SER-683 (HSRG explaining that hatcheries “represent a trade-off of natural production loss for [hatchery] abundance gain”). NMFS has yet to address that relationship or otherwise show that the prey increase program will provide a net benefit for SRKWs. Dr. Luikart also warned that the program poses substantial risks to the continued survival of numerous wild Chinook salmon populations. 2-SER-578–79 ¶ 17; 2-SER-342–43 ¶¶ 20–21. The loss of such populations would pose severe long-term risks for SRKWs.

The district court relied on clearly erroneous findings with respect to the disruptive consequences associated with vacatur of the prey increase program.

3. The District Court Abused Its Discretion in Declining to Vacate the Prey Increase Program.

In addition to relying on erroneous factual findings, the district court’s discussion to leave the prey increase program intact is inconsistent with precedent and legal standards. The Court should reverse and vacate the prey increase program.

This Court has found remand without vacatur appropriate where the

magnitude of the violations is significantly outweighed by the severe consequences posed by vacatur. *Supra* at 59–61. This is not such a case. The prey increase program will have significant environmental impacts, including harmful impacts to ESA-listed species, that require a full EIS under NEPA. *See* 88 Fed. Reg. 54,301 (Aug. 10, 2023). Allowing this major federal action with significant environmental impacts that was adopted without any required NEPA procedures and without consulting under the ESA on its harm to threatened species to continue is unprecedented and would eviscerate these statutes, encouraging agencies to “build first and conduct comprehensive reviews later.” *See Standing Rock Sioux Tribe*, 985 F.3d at 1052 (citation omitted).

NMFS tells the Court that it merely intends to “offer better reasoning on remand in support of its decision” “to adopt the prey increase program.” Fed. Defs. First Br. 29. The district court misapplied legal standards in holding that such representations supported withholding vacatur. *See* 1-ER-41–42. The “heart” of NEPA is the alternatives analysis, which requires that agencies develop and disclose alternatives that could avoid or reduce harmful impacts. *League of Wilderness Defs.*, 689 F.3d at 1068–69; 40 C.F.R. § 1502.14. Those procedures must occur **before** the agency adopts and implements the action and cannot be used “as a subterfuge designed to rationalize a decision already made.” *Metcalf*, 214 F.3d at 1142; *see also Env’t Def. Ctr.*, 36 F.4th at 882. Allowing NMFS to

continue implementing the prey increase program while it supposedly evaluates under NEPA whether to implement that program or an alternative would “‘vitiate’ the statute” by ensuring the agency merely rationalizes its prior decision. *See Standing Rock Sioux Tribe*, 985 F.3d at 1052 (citation omitted). Vacatur is needed to ensure that NMFS “take[s] the clear-eyed hard look” required under NEPA on remand. *See Metcalf*, 214 F.3d at 1146.

The district court’s decision to leave the illegal prey increase program intact was driven by its erroneous findings on the risks to SRKWs from vacatur. *See* 1-ER-35–39. However, it is undisputed that the program is releasing fewer than half of the hatchery fish than understood by the district court, leading to a gross overestimation of the disruptive consequences of vacatur. *Supra* at 67. Given the extent of NMFS’s ESA and NEPA errors and the harm posed to threatened salmonids, this is not a rare case where the disruptive consequences outweigh the seriousness of the violations. The district court abused its discretion in declining to vacate the prey increase program.

III. The Evidentiary Rulings Were Not an Abuse of Discretion.

The district court did not abuse its discretion in striking certain opinion testimony from the Trollers. Regardless, the evidentiary rulings were not material to the district court’s ultimate decision.

“[T]he admissibility of expert testimony [is] a subject peculiarly within the sound discretion of the trial judge, who alone must decide the qualifications of the expert” *United States v. Chang*, 207 F.3d 1169, 1172 (9th Cir. 2000) (citation omitted). This Court “accord[s] a high degree of deference” and “cannot reverse unless [it] ha[s] a definite and firm conviction that the district court committed a clear error of judgment.” *Id.*; *United States v. Benavidez-Benavidez*, 217 F.3d 720, 723 (9th Cir. 2000). The Court must also find that the error was prejudicial to reverse; i.e., that the error probably materially altered the outcome. *McEuin v. Crown Equip. Corp.*, 328 F.3d 1028, 1032, 1034, 1035 (9th Cir. 2003); *Barranco v. 3D Sys. Corp.*, 952 F.3d 1122, 1127 (9th Cir. 2020).

The district court struck testimony from Mr. Paul Olson and Mr. Tad Fujioka because the declarants lacked expert qualifications. 1-ER-27–28. Mr. Paul Olson is a troller and an attorney who did not identify any relevant qualifications for his critique of Dr. Radtke’s economic analysis. 3-ER-528–41.

The Trollers argue that Mr. Olson’s experience “review[ing] and collect[ing]” economic data and his work to publish an annual report quantifying the value of various economies qualifies him as an expert. Trollers First Cross-Appeal Br. 45. Reviewing and collecting economic data does not qualify one to be an economist or to otherwise analyze economic data, and Mr. Olson’s does not explain his role on the annual report. *See* 3-ER-530. Given Mr. Olson’s failure to

identify experiences in modeling economic impacts or otherwise opining on economic analyses, the district court did not abuse its discretion in finding that Mr. Olson did not establish the foundation needed to opine on the economic issues involved. 1-ER-27–28.

The Trollers incorrectly argue that the district court “implicitly” decided that Mr. Olson qualifies as an expert by failing to strike earlier declarations, but those submissions were immaterial and uncontested. Trollers First Cross-Appeal Br. 45, 47; *see generally* 7-ER-1587–16068, 8-ER-1803–04 (no mention of Mr. Olson’s declarations). Regardless, the district court was free to alter prior evidentiary rulings. *See Luce v. United States*, 469 U.S. 38, 41–42 (1984).

Mr. Fujioka is a member of the Trollers and other industry groups and committees and is “a commercial salmon troller, with a bachelor’s degree in engineering and applied sciences, but claims he has ‘an extensive background in data analysis.’” 1-ER-28 (citing 3-ER-560–63). Mr. Fujioka sought to critique Dr. Lacy’s analysis with opinions on how Treaty fisheries affect SRKWs and how they may change if the ITS is vacated. 3-ER-0563–71. Mr. Fujioka does not explain, nor is it apparent, how his experiences qualify him to opine on these matters. *See* 3-ER-0560–63. The district court did not abuse its discretion in concluding that Mr. Fujioka failed to identify “specialized experience in data analysis that would qualify him to provide an expert opinion on impacts to the fisheries from closure or

to rebut Dr. Lacy's population viability analysis." 1-ER-0028 (citing 3-ER-0565–71); *see Avila v. Willits Env't Remediation Trust*, 633 F.3d 828, 839 (9th Cir. 2011).

Regardless, the evidentiary rulings did not prejudice the Trollers. Notably, the excluded opinions would not have changed the ultimate outcome given the plainly serious ESA and NEPA violations. Further, many of the excluded opinions were substantially similar to testimony that was not excluded, including economic testimony from Mr. Keaton. *Compare* 3-ER-521 ¶ 40, *with* 3-ER-540 ¶ 41; *see also Defs. of Wildlife v. Bernal*, 204 F.3d 920, 928 (9th Cir. 1999). Given the extensive testimony from all parties considered by the district court, any additional testimony from the Trollers would not have changed the district court's decision. 1-ER-30–42.

IV. CONCLUSION.

Wild Fish Conservancy respectfully requests that this Court determine that, in addition to the errors found by the district court, the SEAK BiOp is arbitrary for failing to draw a rational connection between the facts found and the conclusion that the fisheries will not jeopardize SRKWs. The Conservancy requests this Court affirm the district court's partial vacatur of the ITS. Finally, the Conservancy requests this Court reverse the district court's decision to leave the prey increase program intact, and requests this Court vacate that program.

Respectfully submitted this 29th day of November 2023.

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STATEMENT OF RELATED CASES

I hereby certify that I am unaware of any cases that are related to this matter within the meaning of Circuit Rule 28-2.6.

DATED this 29th day of November 2023.

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CERTIFICATE OF COMPLIANCE

I hereby certify that this brief complies with the requirements of Federal Rules of Appellate Procedures 32(a)(5) and (a)(6) because it has been prepared in 14-point Times New Roman font, a proportionally spaced font.

I further certify that this brief complies with Circuit Rule 28.1-1(c) because the brief, excluding items exempted by Federal Rule of Appellate Procedure 32(f), contains 16,495 words.

DATED this 29th day of November 2023.

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