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

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

WILD FISH CONSERVANCY,
Plaintiff/Appellee,

v.

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

and

ALASKA TROLLERS ASSOCIATION, and STATE OF ALASKA,
Defendant-Intervenors/Appellants

Appeal from the United States District Court for the Western District of Washington
No. C-20-417 (Hon. Richard A. Jones)

FEDERAL DEFENDANTS' RESPONSE SUPPORTING THE STATE OF ALASKA'S MOTION FOR A STAY PENDING APPEAL

Of Counsel:

SHEILA LYNCH
Attorney
Office of General Counsel
National Oceanic and Atmospheric Administration
Seattle, WA

MOLLY E. WATSON
Attorney
Office of General Counsel
National Oceanic and Atmospheric Administration
Juneau, AK

TODD KIM
Assistant Attorney General
RACHEL HERON
REBECCA JAFFE
COBY HOWELL
FREDERICK H. TURNER
THEKLA HANSEN-YOUNG
Attorneys
Environment and Natural Resources Division
U.S. Department of Justice
Post Office Box 7415
Washington, D.C. 20044
(202) 307-2710
thekla.hansen-young@usdoj.gov

TABLE OF CONTENTS

TABLE OF AUTHORITIES

Cases

Statutes and Court Rules

Federal Regulations

Other Authorities

GLOSSARY

AR	Administrative Record
ESA	Endangered Species Act
EEZ	Exclusive Economic Zone
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
PST	Pacific Salmon Treaty
SA	State Appendix Attached to Motion for a Stay in the Ninth Circuit
SEAK	Southeast Alaska
SRKW	Southern Resident killer whales

INTRODUCTION

The Endangered Species Act ("ESA") protects the threatened Chinook salmon and the endangered Southern Resident killer whale. The salmon is prey for the whale, meaning that Alaska's management of the Chinook salmon fisheries in state and federal waters—the latter of which is subject to federal delegation and oversight—may affect both species. The National Marine Fisheries Service ("NMFS") concluded in a 2019 biological opinion that the federal government's continued delegation of management authority to Alaska (and other related federal actions) complies with the ESA with regard to both species. NMFS then issued an incidental take statement exempting take of threatened salmon and endangered killer whales associated with the Chinook salmon commercial troll fisheries from ESA liability, which enabled the fisheries to operate consistently with the ESA subject to limitations.

The district court concluded that NMFS's biological opinion was lacking in certain respects. But Alaska's motion for a stay pending appeal does not require the Court to determine if that conclusion was correct. The motion instead presents the question whether the district court abused its discretion by vacating—as opposed to remanding without vacating—the relevant portion of the incidental take statement. Unless stayed by this Court, that remedy disposition will have the effect of shuttering Alaska's commercial Chinook salmon winter and summer troll fisheries, with devastating economic impacts and only small and uncertain benefits to killer whales.

This Court should enter a stay pending appeal because Alaska has shown that it is likely to succeed on the merits of its appeal, that it will suffer irreparable harm

absent the stay, and that the balance of the equities and the public interest favor the stay. *See Nken v. Holder*, 556 U.S. 418, 434 (2009).

STATEMENT OF THE CASE

A. Statutory background

1. The Endangered Species Act

Section 7 of the ESA mandates that federal agencies must ensure that their actions are "not likely to jeopardize the continued existence of any endangered or threatened species." 16 U.S.C. § 1536(a)(2). To satisfy this substantive mandate, federal agencies must consult NMFS whenever the agency's action "may affect" a listed marine species. *Id.*; 50 C.F.R. § 402.14(a); *see generally* 50 C.F.R. Pt. 402. Where NMFS itself proposes to take an action that may affect listed species, NMFS is both the action and consulting agency. If the action under consultation is "likely to adversely affect" listed species or critical habitat, the agencies must engage in formal consultation, which culminates in the consulting agency issuing a biological opinion. *Id.* § 402.14(h). Among other things, a biological opinion includes the consulting agency's opinion on whether the proposed action is likely to jeopardize the continued existence of the species. *Id.*

ESA Section 9 separately prohibits the "take" (*i.e.*, harassment, harm, hunting, trapping, capturing, killing) of a listed species by any person. 16 U.S.C. §§ 1538(a)(1)(B), 1532(19). When a consulting agency determines that the federal action under consideration is not likely to jeopardize a listed species' existence but is reasonably certain to result in "take," the agency issues along with its biological

opinion an "incidental take statement" that identifies the extent of anticipated take, reasonable and prudent measures to minimize the extent of take, and terms and conditions to implement the reasonable and prudent measures. *Id.* § 1536(b)(4). Take in compliance with the incidental take statement is exempt from Section 9's prohibition. *Id.* § 1536(o).

2. The National Environmental Policy Act

The National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321-4347, establishes a process for federal agencies to consider the environmental impacts of their proposed actions. *Vt. Yankee Nuclear Power v. NRDC*, 435 U.S. 519, 558 (1978). NEPA imposes procedural, not substantive, requirements. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989). Under NEPA, a federal agency must prepare an environmental impact statement for "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C).

3. The Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act provides NMFS the authority to regulate fisheries in the United States' Exclusive Economic Zone ("EEZ"), which extends from the seaward boundary of each coastal state to 200 nautical miles from the coastline. 16 U.S.C. §§ 1802(11), 1811(a), 1854, 1855(d). The Act empowers NMFS to review and implement fishery management plans, which are developed by Regional Fishery Management Councils. *Id.* § 1854(a). States can regulate fishing in the EEZ when the fishery management plan delegates management

to the State and when the State's regulations follow that plan. *Id.* § 1856(a)(3)(B). As relevant to this case, Alaska has been delegated authority to regulate the Chinook salmon fisheries in the EEZ. SA-608 (AR-47198).

B. Southern Resident killer whales and Chinook salmon

Southern Resident killer whales are a distinct population segment of killer whales found in the coastal and inland waters of the Pacific Northwest, mostly off the coast of British Columbia, Washington, and Oregon. They were listed as an endangered species subject to the ESA's protection in 2005. SA-686-88 (AR-47276-78). These killer whales face various threats, including limits on the quantity and quality of prey, toxic chemicals, oil spills, vessels, and sound. SA-692-700 (AR-47282-90).

Chinook salmon serve as the Southern Resident killer whale's primary source of prey. Chinook salmon spawn and rear in freshwater and migrate to the ocean, where they mature. SA-614 (AR-47204). They travel substantial distances, spawning in the Pacific Northwest and migrating back through Alaskan and Canadian waters. Most mature in 3-5 years and return to their spawning ground in 4-5 years. *Id.*; SA-262 (Dkt. No. 133-2, Third Barre Decl. ¶ 12). NMFS has listed certain populations (known as "evolutionarily significant units") of Chinook salmon under the ESA, 16 U.S.C. § 1532(16). SA-628 (AR-47218). Hatchery-produced salmon—i.e., salmon raised in a hatchery and then released to the wild—provide a "significant component of the salmon prey base returning to watersheds within" the Southern Resident killer whale's range. SA-692-93 (AR-47282-83); SA-696 (AR-47286).

Because of migratory patterns, fish that originate in the United States are often caught by those fishing in Canada, and vice versa. SA-604, 614-16 (AR-47194, AR-47204-06). To help manage conflicts that arose from this dynamic, the United States and Canada signed the Pacific Salmon Treaty in 1985, which established a management framework for Pacific salmon and set upper limits on Chinook salmon harvest. SA-604-05 (AR-47194-95); Pacific Salmon Treaty, Jan. 28, 1985, T.I.A.S. No. 11091; Pacific Salmon Treaty Act of 1985, Pub. L. No. 99-5, 99 Stat. 7 (1985). The United States and Canada most recently agreed upon an updated fishing regime in 2019 (the "2019 Agreement"), which was included in Chapter 3, Annex IV of the Treaty and set annual harvest limits for a ten-year period. The limits for Southeast Alaska fisheries were reduced by 7.5 percent in most years compared to the previous agreement made in 2009, which itself had reduced historic harvest limits. SA-622 (AR-47212).

C. The 2019 Biological Opinion

In 2019, NMFS issued a biological opinion that considered the combined effects of three actions on listed species including Southern Resident killer whales and four evolutionarily significant units of threatened Chinook salmon (Puget Sound Chinook salmon, Upper Willamette River Chinook salmon, Lower Columbia River Chinook salmon, and Snake River Fall-run Chinook salmon). SA-603-14 (AR-47193-204). The three actions are: (1) the delegation of management authority to Alaska over salmon fisheries in federal waters off Alaska's coast; (2) Federal funding of Alaska's

implementation of the Treaty; and (3) Federal funding of a conservation program designed to benefit threatened Chinook salmon and killer whales.

One component of the conservation program—the prey increase program—sought to release hatchery-raised salmon into the wild to serve as additional prey for the killer whale. The prey increase program was estimated to result in the release of millions of hatchery-raised young salmon per year to increase the availability of prey for killer whales. SA-612-13 (AR-47202-03). At the time the 2019 biological opinion issued, NMFS's analysis of this conservation program was considered "programmatic," meaning that the agency assessed impacts of the program at the framework level. NMFS would then assess the future, site-specific projects that actually received funding once the specifics of those projects became known, to determine whether the projects are adequately covered by an existing biological opinion or require additional consultation. SA-612-13 (AR-47202-03).

The biological opinion concluded that the three actions under consideration were not likely to jeopardize the continued existence of either the Chinook salmon or the Southern Resident killer whale. SA-927 (AR-47517).

The biological opinion also included an incidental take statement that exempted take resulting from the Southeast Alaska fisheries up to the levels of annual catch allowed by the 2019 Agreement. Given that the fisheries' primary effect on the killer whale is through possible reduction in prey availability, NMFS used the annual limit of Chinook salmon catch as a surrogate for measuring the incidental take of killer whales caused by the fisheries. NMFS exempted those fisheries only from the take

associated with a reduction in prey available to the killer whales; no other type of take of killer whales was identified. SA-928-29 (AR-47518-19). Consistent with regulations, NMFS did not exempt take associated with the prey increase program because it was evaluated at a programmatic level. *See* 50 C.F.R. §§ 404.2, 402.14(i)(6). NMFS instead explained that it would address any take associated with the prey increase program in site-specific consultations. SA-929 (AR-47519).

NMFS did not specifically analyze under NEPA the effects of either the incidental take statement included in the biological opinion or the prey increase program at the programmatic level. NMFS has, however, since completed or identified applicable site-specific ESA consultations and NEPA analyses for specific hatchery programs implementing the larger program. SA-411 (Dkt. No. 133-3, Third Purcell Decl. ¶ 5); Federal Exhibit ("FE") 1-3 (Dkt. No. 183-3, Third Purcell Decl. Attachment 2); FE-20-22, 38-41 (Dkt. No. 183, Fourth Purcell Decl. ¶¶ 9-11 and Attachment 2).

D. Proceedings below

Plaintiff Wild Fish Conservancy sued NMFS in March 2020 to challenge the biological opinion and incidental take statement, raising several claims under the APA, ESA, and NEPA. Alaska and a representative of the Alaskan commercial fishing industry (the Alaska Trollers Association) intervened as co-defendants. In September 2021, a magistrate judge issued a report and recommendation on the parties' cross-motions for summary judgment, which report the district court adopted in full in August 2022. Dkt. Nos. 111, 122. The court found that NMFS's finding of no-

jeopardy in the 2019 biological opinion was arbitrary and capricious—and that NMFS therefore violated its duty under Section 7 of the ESA to ensure that its actions are not likely to jeopardize listed species—because NMFS relied on the effects of mitigation measures that were uncertain to occur. Dkt. No. 111 at 25, 33-34.

Specifically, the district court found that NMFS erroneously relied on the anticipated effects of the prey increase program to conclude that the actions addressed in the biological opinion as a whole were not likely to jeopardize killer whales; the court perceived the prey increase program to be too vaguely described and uncertain to support a no-jeopardy finding. *Id.* at 28-31. The court also found that NMFS had improperly "segmented" its analysis by taking the prey mitigation program into account when considering the likely (beneficial) effects of agency action on the killer whales, without simultaneously considering the effects of that program on the Chinook salmon (which the Conservancy believes may be negative). *Id.* at 31-33. The court also held that NMFS should have analyzed under NEPA the effects of both the issuance of the incidental take statement and the prey increase program under NEPA. *Id.* at 34-38.

Remedy proceedings followed. In December 2022, the magistrate judge issued a report and recommendation recommending partial vacatur of the biological opinion to remedy the ESA and NEPA violations that the district court had identified at summary judgment. Dkt. No. 144. On May 2, 2023, the court adopted the report in full. Dkt. No. 165. The parties presented evidence to the court demonstrating both that vacating the incidental take statement would cause devastating harm to the

fisheries and that the previously-uncertain prey increase program had definitively materialized since 2019. *See* Dkt. Nos. 133-36, 149. Nevertheless, the court vacated those "portions of the [biological opinion] concerning the incidental take statement that authorizes 'take' of the Southern Resident Killer Whale and the Chinook salmon resulting from commercial harvests of Chinook salmon during the winter and summer seasons (excluding the spring season) of the troll fisheries." Dkt. No. 144 at 2.

Alaska, Alaska Trollers Association, the Conservancy, and NMFS each appealed. Alaska moved for a stay of the remedy order insofar as it vacated the portion of the incidental take statement exempting take from commercial fisheries. The Conservancy moved for an injunction pending appeal of the remedy order to the extent that the order did not vacate the portion of the biological opinion relating to the prey increase program. On May 26, 2023, the district court denied the motions of Alaska and the Conservancy. Dkt. No. 193. Alaska moved for a stay pending appeal in this Court the same day. The Conservancy has since filed its own motion in this Court, which NMFS plans to address in a separate filing.

REASONS FOR GRANTING A STAY

A stay pending appeal requires a showing that Alaska is likely to succeed on the merits of its appeal, will suffer irreparable harm while the appeal is pending if the stay is not granted, and that the balance of the equities and the public interest favor the

stay. *Nken*, 556 U.S. at 434.[1] Because these requirements are met, the Court should grant Alaska's request for a stay.

I. Alaska is likely to succeed on the merits of its appeal because the decision to vacate was an abuse of the district court's discretion.

The merits argument presented in Alaska's motion concerns the district court's selection of a remedy. A district court's decision to vacate rather than remand agency action is subject to review for abuse of discretion. *Cachil Dehe Band of Wintun Indians of Colusa Indian Cmty. v. California*, 618 F.3d 1066, 1082 (9th Cir. 2010). Although the abuse of discretion standard is "highly deferential to the district court," reversal is required where the district court makes an error of law or where this Court is "convinced firmly that the reviewed decision lies beyond the pale of reasonable justification under the circumstances." *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 881 (9th Cir. 2012).

This Court is likely to find that the district court abused its discretion when it vacated the portion of the incidental take statement applicable to the winter and summer seasons of the Chinook commercial troll fisheries in Southeast Alaska.

A. The district court misapplied the relevant standards.

While vacatur has sometimes been described by this Court as the presumptive remedy for an APA violation, *see, e.g.*, *Alliance for the Wild Rockies v. United States Forest*

[1] This Court has stated that an injunction may also be appropriate if the movant shows "serious questions" on the merits, but only if it carries its burden on the other factors and if the balance of hardships "tips sharply" in its favor. *All. for the Wild Rockies v. Cottrell*, 632 F.3d 1127, 1134–35 (9th Cir. 2011). For the reasons discussed below, the State meets either standard.

Service, 907 F.3d 1105, 1121 (9th Cir. 2018), this Court has also held that it is not mechanically "required to set aside every unlawful agency action." *Nat'l Wildlife Fed'n v. Espy*, 45 F.3d 1337, 1343 (9th Cir. 1995); *Allied-Signal, Inc. v. U.S. Nuclear Regul. Comm'n*, 988 F.2d 146, 150-51 (D.C. Cir. 1993). A court's decision to vacate an agency action remains an equitable remedy, which should be granted only in accordance with traditional equitable considerations. *Nat'l Wildlife Fed'n*, 45 F.3d at 1343; *cf. Hecht Co. v. Bowles*, 321 U.S. 321, 329 (1944) (explaining that Congress enacted the APA against a background rule that statutory remedies should be construed in accordance with "traditions of equity practice"); *Monsanto Co. v. Geertson Seed Farms*, 561 U.S. 139, 157 (2010) (explaining that an injunction "should issue only if the traditional four-factor test is satisfied" and rejecting the "presum[ption] that an injunction is the proper remedy for a NEPA violation except in unusual circumstances"—"[n]o such thumb on the scales is warranted").[2]

This Court set forth the standard that it applies when determining whether to vacate agency action in *California Communities Against Toxics v. EPA*, 688 F.3d 989, 992 (9th Cir. 2012). There, the Court explained that the question whether to vacate "depends on how serious the agency's errors are and the disruptive consequences of an interim change that may itself be changed." *Id.* at 992 (quotation omitted). Other decisions have explained that, to evaluate the seriousness of an agency's errors, courts

[2] The position of the United States is that vacatur is not authorized by Section 706 of the APA. *See United States* v. *Texas*, No. 22-58 (S. Ct.), Gov't Op. Br. 40-44; Gov't Reply Br. 16-20. The federal government acknowledges that this Circuit's precedent on APA remedies controls at this stage of the proceedings.

may 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, or whether such fundamental flaws in the agency's decision make it unlikely that the same rule would be adopted on remand." *Nat'l Fam. Farm Coal. v. EPA*, 966 F.3d 893, 929 (9th Cir. 2020) (quotation omitted). Courts may also consider the consequences to the environment. *Id.*; *see, e.g., California Communities*, 688 F.3d at 992.

Here, the district court abused its discretion when it erroneously assumed that a court should presumptively vacate an agency's action when that action violates the APA, rather than evaluate whether vacatur is an appropriate remedy under the traditional factors that govern equitable relief. *See, e.g.*, Dkt. No. 144 at 14, 24, 30. *California Communities* nowhere stated that the government must overcome a presumption in favor of vacatur. And while various opinions of this Court and the district courts refer to vacatur as the "normal" or "presumptive" APA remedy, vacatur remains an equitable remedy and therefore should be granted only if the relevant equitable considerations favor relief. *See Nat'l Wildlife Fed'n*, 45 F.3d at 1343; *California Communities*, 688 F.3d at 992. This is particularly true when that relief substantially affects entities beyond the defendant federal agency. To the extent that the district court put a thumb on the scale in favor of vacatur, rather than neutrally considering the specific facts before it, that was error.

B. Vacatur is not warranted on this record.

The district court abused its equitable discretion by ignoring or giving unreasonably little weight to certain facts in the judicial record.

In concluding that the agency's errors were serious enough to require vacatur, the district court abused its discretion by failing to account for developments that arose since the issuance of its decision finding that the agency had violated the ESA and NEPA. One of the district court's central reasons for finding an ESA violation was the perception that NMFS relied on the anticipated effects of the prey increase program despite uncertainties about future funding and details of implementation. Dkt. No. 144 at 26 (citing Dkt. No. 111 at 27-34). But regardless of whether the details of that program were sufficiently concrete for the agency to rely on them when it issued the biological opinion in *2019*, the record before the district court at the remedy phase showed that in fact the prey increase program has been funded and implemented each year since 2020. Dkt. No. 144 at 31; SA-417-19 (Dkt. No. 133-4, Second Rumsey Decl. ¶¶ 7-9); SA-261-67 (Dkt. No. 133-2, Third Barre Decl. ¶¶ 11, 13, 22). The implementation of the prey increase program as anticipated has effectively cured (or at a minimum, reduced the significance of) any error on the part of NMFS in relying on the program to reach its no jeopardy determinations in the 2019 biological opinion. Yet, ignoring the new factual developments, the district court's discussion of the seriousness of the agency's errors parroted its earlier conclusion that the agency relied on "uncertain and indefinite mitigation measures." Dkt. No. 144 at 26.

The district court also abused its discretion by concluding that the legal errors it identified were serious enough to warrant vacatur, rather than remand without vacatur, simply because the ESA requires the agency to ensure against the jeopardy of

listed species, the agency did not comply with the ESA or NEPA, and killer whales remain at a high risk of extinction. *Id.* at 27-28. While it is certainly possible that the stakes of an agency's error under the ESA or NEPA may be high if a listed species is in greater peril, the district court failed to consider whether the specific errors it found here would exacerbate the killer whale's condition during the remand, given that the prey increase program has been funded and operational for the past three years. As explained above, the identified legal deficiency no longer fits the remedy. Moreover, for every hatchery program receiving funding under the prey increase program, NMFS has since completed site-specific ESA and NEPA analyses or identified existing ESA and NEPA analyses that evaluated the effects of increased hatchery production, including impacts to listed salmon. SA-411 (Dkt. No. 133-3, Third Purcell Decl. ¶ 5); Federal Exhibit ("FE") 1-3 (Dkt. No. 183-3, Third Purcell Decl. Attachment 2); FE-20-22, 38-41 (Dkt. No. 183, Fourth Purcell Decl. ¶¶ 9-11 and Attachment 2). Contrary to the court's conclusion, Dkt. No. 144 at 36, this analysis suggests that NMFS will be able to offer better reasoning on remand in support of its decision in the 2019 biological opinion and adopt the same decision in response to the district court's remand.

Beyond the district court's analysis of whether the errors it identified were sufficiently serious, the court independently abused its discretion in both too heavily discounting the disruptive consequences of vacatur and overstating the benefits to whales from vacatur. Dkt. No. 144 at 30.

By explaining that "vacatur of the incidental take statement does not result in a prohibition on fishing in and of itself in federal or state waters," Dkt. No. 193 at 3-4, the district court appears to have misunderstood the sweeping consequence of its decision, which effectively closes the winter and summer commercial Chinook salmon troll fisheries in Southeast Alaska. Without exemption from Section 9 take in the incidental take statement, the State cannot open the fisheries without risking severe civil and criminal penalties. *See* Dkt. No. 134 at 7; Dkt. No. 94 at 24. Thus, as the record before the district court demonstrated, the vacatur will lead to the loss of $29 million each year in an industry that helps ensure the livelihoods of thousands of people. *See* SA-249-54 (Dkt. No. 133-1, Keaton Decl. ¶¶ 31-40); FE-55-58 (Dkt. No. 184, Harrington Decl. ¶¶ 34-40). There are over one thousand active permit holders who participate in the troll fisheries annually, and many participants are small-scale participants who rely heavily on income from the troll fisheries. FE-54, 58 (Dkt. No. 184, Harrington Decl. ¶¶ 32, 41). The troll fisheries support over 23 communities in Southeast Alaska, most of which are small and isolated, some of which are Alaska Native communities, and some of which depend heavily on the commercial troll fisheries. *Id.* ¶ 41. Businesses may close and jobs will be lost. SA-438-39 (Dkt. No. 136, Second Vincent-Lang Decl. ¶¶ 4-7); *Am. Passage Media Corp. v. Cass Commc'ns, Inc.*, 750 F.2d 1470, 1474 (9th Cir. 1985) ("[t]he threat of being driven out of business is sufficient to establish irreparable harm.").

The district court further abused its discretion when evaluating the benefits of vacatur. NMFS presented evidence supporting its expert conclusion that operation of

the fisheries pending appeal will not jeopardize the Southern Resident killer whale. SA-260-61 (Dkt. No. 133-2 (Third Barre Decl.) ¶ 10); *Nat'l Wildlife Federation v. NMFS*, 886 F.3d 803, 819 (9th Cir. 2015) (while "[s]howing an extinction-level threat to listed species is not required," plaintiffs nonetheless must demonstrate "a definitive threat of future harm" to the species) (citation omitted); *cf. Pac. Coast Federation of Fishermen's Ass'ns v. Gutierrez*, 606 F. Supp. 2d 1195, 1210 n.12 (E.D. Cal. 2008) (Issuance of an injunction based on harm to individuals of a species is appropriate only where "the loss of those individuals would be significant for the species as a whole."). NMFS estimated that fishing in *all* Southeast Alaska fisheries—of which the fisheries at issue here are only a part—would reduce prey availability for killer whales by an average of 0.5% in the coastal waters where whales are generally present during the winter and an average of 1.8% in inland waters where whales are generally present during the summer. SA-260 (Dkt. No. 133-2, Third Barre Decl. ¶ 9); FE-09 (Dkt. No. 182, Fourth Barre Decl. ¶ 11); *see* SA-850-51 (AR-47440-41); SA-915 (AR-47505). The reductions in prey expected to result from only the winter and summer commercial Chinook salmon troll fisheries would necessarily be lower. Additionally, not all fish that go unharvested in the subject Alaska fisheries will become available as prey due to "natural mortality and harvest in other fisheries," such as Canadian fisheries. FE-53-54 (Dkt. No. 184, Harrington Decl. ¶ 31). NMFS and state, local, and tribal partners are also taking efforts to minimize impacts to killer whales and promote recovery, such as the imposition of mandatory and voluntary vessel measures that reduce interference with killer whale foraging, cleaning up or reducing inputs of

harmful contaminants, conservation hatchery programs, and habitat restoration projects. SA-266-67 (Dkt. No. 133-2, Third Barre Decl. ¶ 22); SA-918 (AR-47508) ("starting in 2018, additional protective measures" "are being implemented to reduce impacts from fisheries and vessels in key foraging areas").

Instead of properly deferring to the agency's expertise, *Friends of Animals v. United States Fish & Wildlife Serv.*, 28 F.4th 19, 29 (9th Cir. 2022); *San Luis & Delta-Mendota Water Auth. v. Locke*, 776 F.3d 971, 993 (9th Cir. 2014), the district court declared in cursory fashion that despite the admitted "uncertainty as to how much prey would ultimately reach" killer whales, "closure of the fisheries meaningfully improves prey available to the [whale]," Dkt. No. 144 at 29, 34. But the small reductions in prey availability resulting from operation of the fisheries mean that the (uncertain) benefits of closing the fisheries are just as small. This is all the more true because the prey increase program has been in operation from 2020 to the present and has resulted in "a certain and definite increase in prey," Dkt. No. 144 at 31, available to killer whales over the next two years. *See* SA-260-61 (Dkt. No. 133-2, Third Barre Decl. ¶ 9-10); FE-58 (Dkt. No. 184, Harrington Decl. ¶ 41); FE-6-7, 11 (Dkt. No. 182, Fourth Barre Decl. ¶¶ 7, 15); FE-20, 28-29 (Dkt. No. 183, Fourth Purcell Decl. ¶¶ 6-8 and Attachment 1). NMFS also plans to complete its new analyses pursuant to the district court's merits decision no later than November 2024, Dkt. No. 150 ¶ 5, which means that any impacts resulting from the operation of the commercial Chinook salmon troll fisheries during the remand period and pending

appeal would be short lived. The Conservancy is free to challenge any new analysis completed by NMFS.

In contrast, the record is unequivocal that, during that same time frame, individuals and businesses in Southeast Alaska will be irreparably harmed by vacatur of the incidental take statement. *See California Communities*, 688 F.3d at 993-94 (finding vacatur inappropriate where vacatur would halt construction of a "much needed power plant" that employed 350 workers, resulting in "economically disastrous" impacts); SA-438-39 (Dkt. No. 136, Second Vincent-Lang Decl. ¶¶ 4-7); *Am. Passage Media Corp.*, 750 F.2d at 1474; *Los Angeles Mem'l Coliseum Comm'n v. Nat'l Football League*, 634 F.2d 1197, 1203 (9th Cir. 1980) (acknowledging that the potential closure of a business constitutes irreparable harm). The severity of the economic impact weighs heavily against vacatur and the district court failed to give those grave harms sufficient weight, particularly considering the limited benefit that would accrue to killer whales resulting from the closure and the likelihood that NMFS will be able to adopt the same approach on remand.

II. Alaska has shown a likelihood of irreparable harm while this appeal is pending, and the balance of equities and the public interest favor a stay.

Alaska must also show that it will be irreparably harmed absent a stay, that a stay pending appeal would serve the public interest, and that the balance of equities is in its favor. *Cf. Drakes Bay Oyster Co. v. Jewell*, 747 F.3d 1073, 1092 (9th Cir. 2014) (discussing standard for preliminary injunction).

For the same reasons that the district court abused its discretion in elevating impacts to killer whales and concluding that vacatur would not be too disruptive, Alaska can show that a stay is in the public interest and that irreparable harm will result in its absence. There is no evidence that economic disruptions to those engaged in fishing in Southeast Alaska may be repaired, and the impacts to killer whale prey abundance will be minimal. *See supra* pp. 15-18.

A stay is also in the public interest because, without it, the complex regulatory framework for managing fisheries and broader efforts to promote the recovery of ESA-listed species will be frustrated. Within that framework, NMFS works with its regional partners, including the States of Washington, Oregon, Alaska, and Tribes with treaty fishing rights, to manage fisheries and mitigate the effects of the fisheries and to establish a suite of restoration and recovery actions that benefit species such as endangered killer whales and threatened Chinook salmon. Vacating the incidental take statement would interfere with this regulatory framework and would not engender public support for killer whale recovery efforts. NMFS, with its regional partners, has worked very hard to promote actions that will recover killer whales, one of which is the prey increase program that balances the coastwide fisheries that target salmon allowed under the Treaty and the prey needs of killer whales. The remedy frustrates those efforts by creating tension between killer whale conservation efforts and fishing communities. Pitting an endangered species against unnecessary economic dislocation harms NMFS, and more importantly, the endangered Southern Resident killer whales. *See* FE-16-17 (Dkt. No. 182, Fourth Barre Decl. ¶¶ 25, 27).

Congress has made decisions to fund the prey increase program against the backdrop of the ESA and the endangered status of Southern Resident killer whales, and with the understanding that commercial Chinook salmon fisheries coastwide will continue to operate under the rubric of the 2019 Agreement. *See* SA-417-19 (Dkt. No. 133-4, Second Rumsey Decl. ¶¶ 7-9); *see, e.g.*, Consolidated Appropriations Act, 2020, Pub. L. No. 116-93, 133 Stat. 2317 (2019); Consolidated Appropriations Act, 2021, Pub. L. No. 116-260, 134 Stat. 1182 (2020). Indeed, that was the very reason Congress funded, and continues to fund, the prey increase program. "Courts of equity cannot, in their discretion, reject the balance that Congress has struck in a statute." *United States v. Oakland Cannabis Buyers' Co-operative*, 532 U.S. 483, 497 (2001).

CONCLUSION

For all these reasons, Alaska's motion for a stay pending appeal should be granted.

Respectfully submitted,

s/ Thekla Hansen-Young

TODD KIM
Assistant Attorney General
RACHEL HERON
REBECCA JAFFE
COBY HOWELL
FREDERICK H. TURNER
THEKLA HANSEN-YOUNG
Attorneys
Environment and Natural Resources Division
U.S. Department of Justice

Of Counsel:

SHEILA LYNCH
Attorney
Office of General Counsel
National Oceanic and Atmospheric Administration
Seattle, WA

MOLLY E. WATSON
Attorney
Office of General Counsel
National Oceanic and Atmospheric Administration
Juneau, AK

June 1, 2023
DJ# 90-8-6-08342

CERTIFICATE OF COMPLIANCE

This motion response contains 5,198 words, excluding the items exempted by Cir. R. 27-1(1)(d). The type size and typeface comply with Fed. R. App. P. 27(d)(1)(E).

s/ Thekla Hansen-Young
THEKLA HANSEN-YOUNG

Counsel for Federal Defendants-Appellants

LIST OF FEDERAL EXHIBITS

Third Purcell Declaration

Attachment 2

FE-01

Attachment 2, Third Purcell Declaration.

PST Funded SRKW hatchery production for FY2020 - FY2022 and NMFS' corresponding ESA and NEPA evaluations.

Program	Species	Operator	ESA Coverage	NEPA Coverage
Columbia River Basin				
Little White Salmon NFH	Spring Chinook	USFWS	Biological Opinion: USFWS Artificial Propagation Programs in the Lower Columbia and Middle Columbia River (Attachment 2a)	Environmental Impact Statement: Mitchell Act. Available at: https://www.fisheries.noaa.gov/resource/document/final-environmental-impact-statement-inform-columbia-river-basin-hatchery
Carson NFH				
Spring Creek NFH	Fall Chinook (tule)			
Little White Salmon NFH	Fall Chinook (brights)			
Dworshak NFH	Spring Chinook	Nez Perce/USFWS	Biological Opinion: Five Clearwater River Basin Spring/Summer Chinook Salmon and Coho Salmon Hatchery Programs (Attachment 2b)	
Wells	Summer Chinook	Douglas PUD	Biological Opinion: Yakima River Spring Chinook Salmon, Summer/Fall Chinook Salmon, and Coho Salmon Hatchery Programs (Attachment 2c)	
East Bank		Yakima Nation	Biological Opinion: Yakima River Spring Chinook Salmon, Summer/Fall Chinook Salmon, and Coho Salmon Hatchery Programs. (Attachment 2c)	
Marion Drain				
Umatilla	Fall Chinook (URB)	Confederated Tribes of the Umatilla Indian Reservation/ODFW	Biological Opinion: Umatilla River Spring Chinook Salmon, Fall Chinook Salmon, and Coho Salmon Hatchery Programs (Attachment 2d)	
Bonneville	Fall Chinook (tule)	ODFW	Biological Opinion: Mitchell Act Final Environmental Impact Statement preferred alternative and administration of Mitchell Act hatchery funding (Attachment 2e)	
SAFE	Spring Chinook	ODFW	Biological Opinion: Select Area Fisheries Enhancement (SAFE) Spring Chinook	

			Salmon and Coho Salmon Programs (Attachment 2f)	
Puget Sound Region				
Issaquah	Fall Chinook	WDFW	Biological Opinion: Five Hatchery Programs for Salmon in the Lake Washington Drainage (Attachment 2g) Biological Opinion: Hatchery Releases in Puget Sound (Attachment 2j)	Environmental Assessment: Lake Washington Basin Hatcheries Available at: https://media.fisheries.noaa.gov/2022-07/FINAL_Lake_Washington_EA_FONSI_BAT-2.15.2022_07262022.pdf
Soos Creek-Palmer Pond	Fall Chinook	WDFW	Biological Opinion: Ten Hatchery Programs for Salmon and Steelhead in the Duwamish/Green River Basin (Attachment 2h) Biological Opinion: Hatchery Releases in Puget Sound (Attachment 2j)	Environmental Impact Statement: Duwamish-Green Hatcheries Available at: https://www.fisheries.noaa.gov/resource/document/final-environmental-impact-statement-eis-duwamish-green-hatcheries
Tulalip Bernie Gobin	Summer Chinook	Tulalip Tribe	Biological Opinion: Seven Hatchery and Genetic Management Plans for Snohomish River basin Salmon (Attachment 2i) Biological Opinion: Hatchery Releases in Puget Sound (Attachment 2j)	Supplemental Environmental Assessment: Snohomish Hatcheries Available at: https://media.fisheries.noaa.gov/2022-09/SnohomishHatcheries_SupplEA_FONSI_20210506.pdf
University of Washington	Fall Chinook	Muckleshoot Indian Tribe	Biological Opinion: Five Hatchery Programs for Salmon in the Lake Washington Drainage (Attachment 2g) Biological Opinion: Hatchery Releases in Puget Sound (Attachment 2j)	Environmental Assessment: Lake Washington Basin Hatcheries Available at: https://media.fisheries.noaa.gov/2022-07/FINAL_Lake_Washington_EA_FONSI_BAT-2.15.2022_07262022.pdf

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

WILD FISH CONSERVANCY, Plaintiff, v. JENNIFER QUAN, *et al.*, Defendants, and ALASKA TROLLERS ASSOCIATION, Defendant-Intervenor and STATE OF ALASKA, Defendant-Intervenor.	Case No. 2:20-cv-417-RAJ-MLP FOURTH DECLARATION OF Lynne Barre, National Marine Fisheries Service, West Coast Region

I, Lynne Barre, declare and state as follows:

Introduction

1. I am currently a Branch Chief in the Protected Resources Division of the National Marine Fisheries Service (NMFS), West Coast Region (WCR) and my duties have included leading the recovery program for Southern Resident killer whales (SRKW) since 2002.
2. My responsibilities in my current and previous positions with NMFS have included implementation of the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA). Since 2002 I have worked on the endangered listing of the SRKW, designated SRKW critical habitat, finalized a SRKW Recovery Plan and implemented actions to conserve and recover SRKW. Since SRKWs were listed under the ESA in 2005, I've worked on ESA section 7 consultations for a variety of projects, including fisheries actions, analyzing effects on SRKW and their designated critical habitat. In 2018-2019 I served as a member of the Washington State Orca Task Force, participating in Task Force meetings and threat-based workgroup meetings on prey, vessels/noise and contaminants.
3. In my current role as a Branch Chief, I oversee a team of employees working on implementation of a variety of MMPA and ESA programs, including completing section 7 ESA consultations for SRKW and other listed species, close collaboration with NMFS science centers and other research partners, and

coordinating with internal and external salmon recovery and management programs.

4. In preparation for this declaration I reviewed plaintiff's Motion for Injunction Pending Appeal and the State of Alaska's Motion for a Partial Stay Pending Appeal. For previous declarations, I reviewed the declarations submitted with Plaintiffs' filings, including the declarations of Dr. Robert Lacy and Dr. Deborah Giles. I am familiar with the scientific literature regarding SRKW.

The Effect of Plaintiff's Remedies on Southern Resident Killer Whales.

5. I was asked to provide my opinion on the effect of vacating portions of the 2019 Opinion on Southeast Alaska (SEAK) salmon fisheries (2019 Opinion) and shutting down NMFS's prey increase program for SRKW.

6. My previous declarations have addressed these topics in detail and summaries of key points are included here. The motions do not alter my conclusions and opinions in my first three declarations regarding the impacts on SRKWs of closing SEAK fisheries and shutting down the prey increase program. Nor is there any new scientific information or data that alters my previous conclusions.

7. As previously stated in the 2019 Opinion and based on our analysis, the prey reductions from the SEAK troll fisheries, particularly in the most important locations and seasons for the whales, are small and, considered in concert with the prey increase program, will not jeopardize their survival or recovery. Closing the SEAK fishery will provide only a small benefit to SRKWs. In contrast, shutting down the prey increase program will have a significant negative effect on

SRKWs. The prey increase program, designed to support the prey base for SRKWs and as implemented beginning in 2020, provides a meaningful increase in prey abundance and benefits SRKWs. Closing the SEAK troll fisheries and shutting down the prey increase program will likely result in a net reduction in prey available to the whales.

8. As described in my First Declaration, the relationship between SRKW and their prey is complex, and our understanding of that relationship has been evolving and is subject to considerable scientific uncertainty. Plaintiff's expert, Dr. Robert Lacy, reported effects from the SEAK fisheries on SRKW using his Population Viability Analysis (PVA) model; the primary assumption in this model is based on outdated correlations between Chinook abundance and SRKW fecundity and survival. Based on my review of recent scientific review and guidance, and my understanding of the complexity and uncertainty surrounding the SRKW/prey relationship, I find the plaintiff's estimate of the reduction in prey available due to SEAK fisheries is based on an outdated relationship quantifying specific changes in SRKW reproduction or survival metrics from specific Chinook salmon abundances and therefore presents an inaccurate assessment of the effects on SRKWs.

9. The Pacific Fishery Management Council (PFMC), an entity involved with management of ocean fisheries, formed an Ad Hoc Workgroup, which included a scientist with SRKW PVA modeling expertise, to evaluate the effects of Council-managed fisheries on SRKW. The Workgroup made efforts to quantify the relationships described above. In their 2020 report to the Council the Workgroup

described their analysis, results, and characterized the uncertainty for both abundance and demographic rates (PFMC 2020, Attachment B to Second Declaration of Allyson Purcell). They found the previous relationships between Chinook salmon abundance and SRKW demographic rates, which Dr. Lacy relies on in his model, have weakened or are not detectable, and therefore we do not rely on them in our analysis. That is, the relationship that Dr. Lacy relies on to support his opinions is no longer the best available science. Prior to the Ad Hoc Workgroup, an expert panel (Hilborn et al. 2012) also cautioned against overreliance on correlative studies or implicating any particular fishery in evaluating the status of SRKWs. The small SRKW population size limits the ability to detect a relationship to input into a PVA, the relationships are likely not constant over time, and we acknowledge that multiple factors, not just prey abundance, may be impacting the vital rates of the whales.

10. Aside from the problematic quantitative relationship between Chinook salmon abundance and SRKW population parameters used in the Lacy model, Plaintiff's estimate of a 4.8% increase in prey from closing the winter and summer troll fisheries and the general benefits to the SRKW population is oversimplified and overstates the benefits that would likely be realized by the whales. This is particularly true if the fishery is closed for just one year when Chinook abundance is not particularly low. Both the Chinook salmon prey and SRKW predators are highly mobile. Thus, not all of the Chinook salmon caught in SEAK troll fisheries would migrate south into SRKW habitat and those that would migrate south would not all survive or be intercepted by the whales.

11. The analysis of SEAK fisheries effects on SRKW and conclusions in our 2019 Opinion considered overall average prey reductions, however, we gave weight to a more detailed seasonal and spatial analysis for three time periods in both coastal and inland habitat areas. When taking SRKW seasonal movements into consideration and times and locations when Chinook salmon are expected to become potential prey for SRKW (i.e., coastal areas during Oct-Apr, inland areas during July-Sep), we estimated that prey reductions from all SEAK salmon fisheries that are part of the action, not just summer and winter troll fisheries, would be much lower: 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%) [see 2019 Opinion pp. 248-249, 313]. Prey reductions from the summer and winter Chinook commercial troll fisheries, which are the subject of the court's vacatur, would be even lower than the estimates for all of the SEAK salmon fisheries.

12. NMFS concluded in the 2019 Opinion that SEAK salmon fisheries would cause adverse effects to the whales by removing prey from their habitat, but not cause injury or mortality that would jeopardize the SRKW population. The conclusions were based on our assessment of prey reductions for all SEAK salmon fisheries, focused on the times and areas most important to the whales, and relied on multiple lines of evidence about the SRKWs' diet, their energy needs, Chinook salmon abundance, how the fisheries will reduce available prey, and how the whales might change their behavior. In addition to the magnitude of prey reductions, we considered the context of Chinook salmon abundance levels, including natural variability in ocean conditions, and also other actions that are

being taken to improve the whales' ability to survive and recovery. We also relied on the conservation funding program described in the 2019 Opinion.

13. The conservation funding program includes funding for hatchery production to benefit SRKW by increasing Chinook abundance (prey increase program), conservation hatchery programs, and habitat restoration projects to support vulnerable populations of Puget Sound Chinook salmon with the added benefit of increasing SRKW prey abundance. Hatchery produced Chinook salmon support the prey base for the whales since the whales do not distinguish between hatchery produced or wild fish. As described in the 2019 Opinion, hatchery fish often contribute to the salmon stocks consumed by the whales (Hanson et al. 2010). The design of the prey increase program for SRKW focuses on achieving a "meaningful increase" in prey abundance with broad distribution to supplement prey where it is most important to whales (i.e. coastal areas during Oct-Apr, inland areas during July-Sep) as those times and areas were identified as most limiting for prey availability.

14. In the 2019 Opinion we acknowledged the initial delay in increased prey until 3-5 years following the first years of implementation, while hatchery fish mature and then become available to the whales as prey in times and areas that overlap with and are important to the whales. We also recognized that not every Chinook salmon produced would go directly to SRKWs, as there are other factors and predators driving salmon mortality, and in the 2019 Opinion we acknowledged that our ability to fully understand the efficacy and predict performance of the program was limited. We are not able to assign increases in prey availability

resulting from the hatchery funding as direct offsets for any particular fishery managed under the Pacific Salmon Treaty agreement (SEAK, U.S. West Coast or Puget Sound) because of the variability in annual reductions of available prey from those fisheries. However, even with these limitations, based on the best available science, we concluded that the prey increase program would provide a meaningful increase in prey abundance and benefit SRKWs. Since the 2019 Opinion my confidence in the benefits of the prey increase program for SRKW has only grown.

15. There has been significant progress on funding and implementation of the prey increase program for the benefit of SRKWs. The prey increase program considered in the 2019 Opinion is being implemented (see Fourth Purcell Declaration) and we anticipate increases in prey abundance starting in 2023, as we reach the 3-5 year maturation time frame following the first year of implementation.

16. We will continue monitoring the number of smolts produced by the hatchery programs funded by the prey increase program and other partners, as well as the increases in estimated levels of adult Chinook salmon prey available to the whales, to evaluate the efficacy of the program in achieving a meaningful increase in prey abundance.

17. The overall abundance of Chinook salmon is variable and affected by ocean conditions and the realized percent increase in prey abundance will be dependent on estimates of the overall abundance of Chinook salmon each year. That is, as natural abundance decreases, the effect of the prey increase program increases,

and vice versa. The funded hatchery production may be most important in a year in which overall Chinook abundance is low, and in such a low abundance year, the percent increase resulting from the funded production may be higher. Although the funded production would still make a contribution in a high Chinook salmon abundance year, the percent increase would be lower if overall Chinook salmon abundance is very high in any year.

18. In the 2019 Opinion, and also in our recent biological opinion on West Coast salmon fisheries (NMFS 2021, Attachment 1), which analyzes the effects of removing adult Chinook salmon prey that might otherwise be available to the SRKW, as well as in the Risk Assessment completed by the Council Ad Hoc Workgroup (PFMC 2020, Second Purcell Decl. Att. B), we identify that reductions in prey are expected to have the greatest impacts on the whales in low Chinook salmon abundance years. When prey are scarce, the SRKWs likely spend more time foraging compared to periods of high prey abundance. Increased energy expenditure and prey limitation can result in nutritional stress, which has been linked to reduced body condition, and lower birth and survival rates. The increase in abundance anticipated from the prey increase program will contribute to overall Chinook abundance, and reduce the potential for SRKWs to experience low abundance conditions in general.

19. Based on pre-season estimates of Chinook salmon abundance we are not anticipating a low abundance year for the 2023-2024 fishing season. In our recent analysis of impacts from Puget Sound salmon fisheries on SRKW (NMFS 2023, Attachment 2), we projected the pre-season abundance estimate for Chinook

salmon ages 3-5 in the Salish Sea was 706,713, which is slightly higher but similar to the post-season average annual abundance estimate of approximately 675,393 fish for the retrospective time period of 2009-2018. We also reviewed the pre-season estimate for the North of Falcon area[1] to evaluate whether Chinook salmon abundance was below the threshold that would trigger additional management measures to reduce fishery impacts on SRKW under Amendment 21 to the Pacific Fishery Management Council's Salmon Fishery Management Plan. The projected North of Falcon abundance was 889,900, which is above the threshold of 623,000 indicating low abundance and higher risk for SRKW (see Table 5 in Salmon Technical Team Report 1: Preliminary Analysis of Tentative 2023 Ocean Salmon Fishery Management Measures, Attachment 3). NMFS is particularly concerned with reductions in Chinook prey in years when pre-fishery Chinook abundance is low relative to historical abundances; this concern drives the approach taken in the PFMC's Amendment 21, and has been important in our analysis of the effects of the Puget Sound fisheries on SRKW. Because projected Chinook salmon abundance for Puget Sound and the North of Falcon areas is expected to be close to average in 2023, we are less concerned about the impacts of Chinook prey reductions resulting from the 2023 SEAK fisheries than we would be if abundances were lower than average.

[1] The North of Falcon area refers to the ocean area between the U.S./Canada border and Cape Falcon, Oregon. The mix of salmon stocks present in the ocean differs significantly between the areas north and south of Cape Falcon. The Council's Workgroup concluded that Chinook abundance in the North of Falcon area is of particular importance to SRKW.

20. Disrupting the prey increase program will reduce the amount of food available to SRKWs and negatively impact their foraging behavior, energy balance, health and reproduction, particularly in years of low abundance. If the prey increase program for SRKWs is enjoined or disrupted, the hatchery production actions that have been funded and implemented in 2020, 2021, and 2022, would still be expected to increase prey at some level through 2027 as those fish mature; however, additional hatchery production specifically targeted to benefit the SRKW could be compromised in later years. Any disruption in funding would result in a gap in additional prey abundance. In the absence of the intended prey increase, there would be lower overall abundance of Chinook salmon and there could be an elevated risk of Chinook salmon abundance falling to the low abundance levels associated with increased risk to the health of the SRKWs.

21. Plaintiff's declarants have asserted that prey abundance has the largest impact on the population growth rate of SRKWs and that increases in prey abundance are needed for SRKWs to recover, and yet disrupting the prey increase program would result in reduced future abundance of prey for SRKWs. The goal of the prey increase program is to help support increased prey available to SRKWs and support their recovery. It is difficult to precisely estimate the increased risk to the health of SRKWs from disrupting the prey increase program, but it could manifest in the whales foraging for longer periods, traveling to alternate locations, or abandoning foraging efforts. Changes to foraging behavior could result in SRKWs not consuming sufficient prey to meet their energetic needs, which could

affect the health of individual whales, reproduction and the status and growth of the population, as cited in the Plaintiff's declarations and our 2019 Opinion.

22. As described in the Fourth Purcell Declaration, ESA consultations have been completed to evaluate the potential impacts on threatened and endangered salmon. Therefore, in addition to supporting recovery of SRKWs, we have concluded that the hatchery production will not jeopardize survival or recovery of listed salmon.

23. In addition to the reductions in fisheries under the PST and the prey increase program, we continue to work on a comprehensive recovery program that addresses all of the primary threats to SRKW, including vessel disturbance and contaminants, and not only prey. We also acknowledge that all of the threats are potential limiting factors, not just prey availability, and that they are interconnected, as vessels and sound can impact the whales' ability to forage, access, and consume the prey that are available in their habitat. NMFS Recovery Plan and other documents such as the Washington State Orca Task Force (Task Force) 2018 and 2019 reports and recommendations, and the Canadian Recovery Plan for SRKW, also acknowledge the importance of and interactions between multiple threats.

24. Conservation and recovery of SRKW and their Chinook salmon prey is complex and challenging because there are multiple interacting threats over large geographic and transboundary landscapes and we have endangered predators relying on prey, some of which are also threatened or endangered. Both SRKW and Chinook salmon face impacts from many human activities, variable oceanographic conditions, and environmental change in their vast habitats.

Recovery programs for both species include a variety of tools and actions that can have short-term or long-term benefits. Significant actions have been taken that are effective in the short term and make the existing abundance of prey more available and accessible to SRKW, including reductions in fisheries to protect salmon and SRKW, and mandatory and voluntary vessel measures that reduce interference with SRKW foraging. Other actions like cleaning up or reducing inputs of harmful contaminants or recovering runs of salmon have a longer-term outlook for realizing benefits to SRKWs.

25. As part of the action considered in the 2019 Opinion, the conservation programs to aid Puget Sound Chinook salmon include continuing conservation hatchery programs and implementing habitat restoration projects. It will likely take many years before ecosystem services of the habitat are restored and they support increased Chinook salmon productivity. The prey increase program for SRKW, however, has already been implemented for multiple years and is increasing the prey available to SRKW now. With four years of funding and implementation resulting in additional prey for the whales starting in 2023, effects evaluated for threatened and endangered salmon, and protections for salmon in place, it fills an important gap until other longer-term actions for salmon and SRKW are successful. NMFS and our Federal, State and Tribal partners recognize the importance of working on actions with both short-term and long-term benefits to the SRKW, including the prey increase program, to help stop the decline of the endangered SRKW population and support their recovery.

26. A study published in 2023 (Kardos et al. 2023, Attachment 4) provided new insight into the role of genetic inbreeding in limiting the SRKW population through increased mortality and reduced reproductive capacity for females with shorter life spans. While the results of this study provide a new context for considering actions to address the threats, including actions to increase prey available to the whales, it does not change our conclusions about the importance of prey to the whales, impacts of SEAK fisheries, or benefits from the prey increase program.

27. Disrupting the prey increase program would result in fewer Chinook salmon available to SRKW, and increase the risk for harm to SRKW through behavioral and physiological impacts. Disruptions could affect the long-term support and commitment needed to fund this program and provide benefits to SRKW over the next decade and could negatively impact the critical partnerships and momentum for recovery and conservation of SRKW and salmon. The prey increase program is a critical tool to help address a primary threat to SRKW and without it there will be a negative impact on the recovery program for SRKW.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on May 22, 2023, in Seattle, WA.

BARRE.LYNNE.M.1365828128 Digitally signed by BARRE.LYNNE.M.1365828128 Date: 2023.05.22 16:17:21 -07'00'

Lynne Barre

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

WILD FISH CONSERVANCY, Plaintiff, v. JENNIFER QUAN, *et al.*, Defendants, and ALASKA TROLLERS ASSOCIATION, Defendant-Intervenor. and STATE OF ALASKA Defendant-Intervenor.	Case No. 2:20-cv-417-RAJ-MLP FOURTH DECLARATION OF Allyson Purcell, National Marine Fisheries Service, West Coast Region

I, Allyson Purcell, declare and state as follows:

Introduction

1. I am currently the Division Manager for the National Marine Fisheries Service's (NMFS's) West Coast Region's Sustainable Fisheries Division. I previously prepared three declarations that were submitted in this matter; my first declaration was submitted on May 11, 2020 (First Purcell declaration) and my second declaration was submitted on May 25, 2021 (Second Purcell declaration); my third declaration was submitted on October 3, 2022 (Third Purcell declaration).

2. Prior to taking my current position within NMFS in 2022, and beginning in 2017, I was the Branch Chief for the Anadromous Production and Inland Fisheries Branch of the West Coast Region's Sustainable Fisheries Division. In that position I oversaw a team of biologists, who work with hatchery operators across Oregon, Washington, and Idaho to ensure their hatchery programs do not jeopardize the survival and recovery of species listed under the Endangered Species Act (ESA). In addition, the Anadromous Production and Inland Fisheries Branch administers the Mitchell Act grant program, which provides approximately $16 million in annual funding for hatchery programs in the Columbia River Basin.

3. I have worked for NMFS since 2002. Since 2002, my primary duties have included evaluating salmon and steelhead hatchery programs under the ESA and National Environmental Policy Act (NEPA).

4. I hold a Master of Science in Fisheries and Allied Aquaculture from Auburn University and a Bachelor of Science in Biology from Vanderbilt University.

5. In this fourth declaration, I provide an update on the Pacific Salmon Treaty's prey increase program for Southern Resident killer whales (SRKWs), and respond to specific allegations by the Wild Fish Conservancy in their motion for an injunction pending appeal.

Status of the Prey Increase Program

6. In previous declarations, I described how the prey increase program for SRKWs was implemented in fiscal year 2020, 2021 and 2022 (Second and Third Purcell Declarations). Attachment 1 to my third declaration included tables showing amounts spent and fish released from programs receiving funding. Attachment 1 to this declaration updates those tables; it includes updated juvenile Chinook release numbers with fiscal year 2020 through 2022 funding and includes information on what was funded in fiscal year 2022.[1] In summary, over $5.4 million of funds were distributed (after overhead removed) by NMFS in fiscal year 2022 for the prey increase program. More than 17 million juvenile Chinook were released in 2022 as a result of federal and Washington State legislature funding for additional hatchery Chinook production to increase prey for SRKW.

7. For fiscal year 2023, NMFS has not yet distributed funds, but we anticipate distributing more than $5.6 million in 2023.

8. Chinook salmon mature and become available as prey to SRKW at age three to five. Fourth Declaration of Lynne Barre, ¶ 14-15. Over 11 million additional juvenile Chinook salmon were released in 2020 to increase prey for SRKW using a combination of federal and state funding. Many of these fish are now adults and contributing to the SRKW prey base. More than 13 million additional juvenile Chinook salmon were released in 2021 and many of these fish will soon be adults and contributing to the SRKW prey base.

NMFS' Evaluation of the Prey Increase Program

[1] Some numbers in Attachment 1 to this declaration differ from the numbers in the tables in Attachment 1 to my third declaration; these changes are due to updated reporting from hatchery managers, either reporting actual releases in place of estimated releases, or correcting prior errors.

9. As described in my previous declaration (Second Purcell Declaration) and Attachment 1 to my third declaration (Third Purcell Declaration), NMFS uses a series of criteria when determining which hatchery production to fund as part of the prey increase program for SRKWs. In addition to considering where hatchery production will have the most value to SRKWs, NMFS considers the potential adverse effects of increased production on ESA-listed species. One of the criteria we use in deciding which programs to fund is that increased production cannot jeopardize the survival and recovery of any ESA-listed species. Another criterion is that all increased production must be reviewed under the ESA and NEPA, as applicable, before NMFS funding can be used. NMFS plans to continue to use these criteria to make funding determinations in 2023 and 2024.

10. Attachment 2 summarizes the ESA and NEPA analyses that NMFS has completed on the effects of the increased production proposals that have been awarded federal funds to date. In some cases, the effects of the increased production proposals were fully evaluated in previously completed ESA and NEPA documents. However, in other cases, the increased production proposals required new ESA and NEPA analyses. Each year, NMFS reviews the proposals and determines which ones need additional ESA and/or NEPA review. As Attachment 2 demonstrates, before these funds can be utilized, NMFS ensures the funded production is covered by site-specific ESA and NEPA reviews.

11. Our site-specific ESA and NEPA analyses are the best way to evaluate risks associated with the prey increase programs because it is difficult to understand biological risks without knowing the project-level details. That is, to fully evaluate effects, we need to know where the fish will be released, the origin of the broodstock (e.g., local or non-local), how many natural-

origin fish will be included in the broodstock, how will the fish be acclimated and released, how the returning adults will be managed (e.g., will they be removed at a weir), and what the role of the affected population(s) is in recovery of the species. Our site-specific ESA analyses ensure that none of the increased hatchery production jeopardizes survival and recovery of listed salmon or adversely modify designated critical habitat.

12. Wild Fish Conservancy argues that NMFS is relying on "outdated" site-specific biological opinions and NEPA analyses for programs awarded funds under the prey increase program. This is not the case. In some instances, NMFS is relying on biological opinions and NEPA documents that pre-date the funding program, but the fact that these documents pre-date the funding does not render them "outdated." This is because in many cases the hatchery operators ask NMFS to evaluate the effects of higher levels of production than what is typically produced in a hatchery program to give them the flexibility to increase production if additional funding becomes available. NMFS tracks production levels and other parameters on which hatchery managers are required to report under the incidental take statements associated with the relevant biological opinions. NMFS also tracks new scientific information on the effects of hatchery production, as new research is conducted and papers are published. If we become aware of new factual or scientific information that might trigger reinitiation of any of the biological opinions on which we rely, or which might require new or supplemental NEPA analysis, we reinitiate consultation and conduct new analyses. We are not aware of any such new information with regard to the hatchery programs that have received funds through the prey increase program, other than those programs for which we did new consultations and NEPA analyses specifically to address the prey increase funding.

13. NOAA has substantial experience with hatchery programs and has developed and published a series of guidance documents for designing and evaluating hatchery programs following best available science (Hard et al. 1992; Jones 2006; McElhany et al. 2000; NMFS 2004; NMFS 2005; NMFS 2008).

14. Over the past decade, we have completed biological opinions and NEPA documents (Environmental Assessments or Environmental Impact Statements) on close to 200 hatchery programs using best available science. Our biological opinions include a detailed assessment of genetic risks, competition and predation, facility effects, and disease risks to ESA-listed species. Our NEPA documents evaluate the effects of a full range of alternatives on the human environment, including an assessment of cumulative effects.

15. The major genetic risks that NOAA evaluates in our review of hatchery programs include loss of genetic diversity (both within and among populations) and the loss of fitness due to selection for traits favorable in the hatchery but deleterious in the wild. The Hatchery Scientific Review Group (HSRG) has developed recommendations for reducing genetic risks by managing the proportion of hatchery-origin fish spawning naturally (pHOS) and the proportion of natural-origin fish incorporated into the broodstock (pNOB). A population's Proportionate Natural Influence (PNI) is determined based on pHOS and pNOB values. The HSRG's recommendations for PNI and pHOS vary depending on whether a hatchery program is segregated or integrated.[2] Their recommendations also vary based on the biological significance of the population for ESA recovery (i.e., primary, contributing, or stabilizing) and the affected

[2] An integrated hatchery program includes natural-origin adults in the broodstock. Generally, an integrated program intends for the natural environment to drive the adaptation of a composite population of fish that spawns both in a hatchery and in the natural environment. A segregated hatchery program intends to isolate hatchery-origin fish from natural-origin fish, creating an isolated hatchery-origin population and an isolated natural-origin population.

population's recovery phase (i.e., preservation, recolonization, local adaptation and full restoration) (HSRG 2018).

16. Although NOAA has not formally adopted the HSRG's gene flow recommendations, we believe they are important and we use them along with other best available science in our review of hatchery programs. For a particular program, we may, based on specifics of the program, consider a pHOS or PNI level to be a lower risk than the HSRG would but, generally, if a program meets HSRG standards, NOAA will typically consider the risk levels to be acceptable.[3] Optimal pHOS will depend upon multiple factors, such as the importance of the population to ESA recovery and the fitness differences between hatchery-origin and natural-origin fish. NMFS considers these factors in its site-specific ESA evaluations. In addition, we consider the cumulative impacts of all other hatchery programs that may be contributing to pHOS for a particular population.

17. NOAA has worked tirelessly with hatchery operators to ensure that none of the increased production programs jeopardize the survival or recovery of ESA-listed species. Furthermore, we have been working with the hatchery operators to implement tools that allow us to increase prey for SRKW while simultaneously reducing genetic risks to ESA-listed salmon. For example, during development of our biological opinion on ten hatchery programs in the Green/Duwamish River Basins, we worked with the hatchery operators to implement some key changes in the fall Chinook hatchery program that we expect will

[3] There are a few exceptions. Based on recent guidance from the HSRG (HSRG 2018), the HSRG does not recommend PNI and pHOS standards during the "preservation" or "rebuilding" recovery phases. NOAA believes that unless hatchery programs are specifically designed to aid in the recovery of a population, pHOS and/or PNI should be managed during the preservation and rebuilding phases. Another exception where NOAA appears to be more conservative than the HSRG is with steelhead hatchery programs that use highly domesticated broodstocks. NOAA has imposed more stringent guidelines than recommended by the HSRG (NMFS 2016).

substantially increase PNI while producing an additional 2 million smolts to augment prey for endangered SRKW.

Impact of Interrupting Funding for the Prey Increase Program

18. It is hard to predict what would happen if funds for the prey increase program are interrupted. Without continued funding, hatchery operators would likely not spawn additional adult fish this fall to provide increased prey to SRKW. In addition, there are currently juvenile fish in the hatchery facilities that have been produced using FY 2022 funds. Without continued funding, hatchery operators may not be able to rear these fish until the time when they would normally be released. If the funds were interrupted, one potential result is that the hatchery operators would use other sources of funds to rear the juvenile fish in the hatcheries until they are ready for release. Another scenario would be that the hatchery operators release the fish early, in which case they would have lower chance of survival, reducing their potential contribution to SRKW diet. Another important biological concern is that if the fish are released early, they would probably not be externally marked (e.g., adipose fin clip) or tagged. Marking and/or tagging of hatchery-origin salmon allow us to monitor and manage genetic risks. As an example, in some tributaries, weirs are used to block the passage of fish so that hatchery-origin fish can be removed to control pHOS. If the hatchery fish are not marked, they will likely be indistinguishable from the wild fish and would be passed above the weir to spawn naturally, which would increase pHOS and could potentially increase genetic risk in those tributaries.

Conclusion

19. It is my opinion that NOAA is implementing the prey increase program in a thoughtful and careful manner. All increased production proposals are being reviewed in site-specific ESA and NEPA evaluations before federal prey increase funding is used. As a result, NOAA is able to ensure that the funding for the prey increase program is not resulting in irreparable harm to ESA-listed salmon, while providing benefits to endangered SRKW. Interrupting funding for the prey increase program is likely to decrease available prey to SRKW. Interrupting funding for the prey increase program may also increase risks to ESA-listed Chinook salmon species if it results in hatchery-origin fish being prematurely released from the hatcheries without being marked or tagged.

20. I declare under penalty of perjury that the foregoing is true and correct. Executed on May 22, 2023, in Portland, OR.

PURCELL.ALLYSON.OUZTS.1365850964 Digitally signed by PURCELL.ALLYSON.OUZTS.1365850964 Date: 2023.05.22 16:15:43 -07'00'

Allyson Purcell

Attachment 1

Table 1. Washington State Funding for SRKW Prey in the 2019-2021 biennium

Facility	Region	Species	Entity	Increased Proposal	Brood Source	Release Location	2019 Release	2020 Release	2021 Release
Kendall	Puget Sound	Sp. CK	WDFW	500,000	Kendall	Kendall	704,170	449,199	381,725
Whatcom Cr.	Puget Sound	F. CK	WDFW	500,000	Samish	Whatcom Cr.	200,000	670,000	491,747
Hupp Springs	Puget Sound	Sp. CK	WDFW	500,000	Minter	Hupp	259,873	388,909	543,034
Samish	Puget Sound	F. CK	WDFW	1,000,000	Samish	Samish	1,089,148	1,217,867	0
Wallace River	Puget Sound	Sum. CK	WDFW	400,000	Wallace River	Wallace River	-	260,745	0
Wallace River	Puget Sound	Sum. CK	WDFW	100,000	Wallace River	Wallace River	-	34,938	44,158
Soos/Palmer	Puget Sound	F. CK	WDFW	2,000,000	Green River	Palmer	282,638	1,210,986/[a]	-
Marblemount	Puget Sound	Sp. CK	WDFW	400,000	Marblemount	Marblemount	-	203,095	574,408
Sol Duc	WA Coast	Sum. CK	WDFW	500,000	Sol Duc	Sol Duc	500,143	582,479	480,291
Sol Duc	WA Coast	Sum. CK	WDFW	0	Sol Duc	Sol Duc	-	-	67,787
Humptulips *	WA Coast	F. CK	WDFW	500,000	Humptulips	Humptulips	-	-	-
Minter	Puget Sound	F. CK	WDFW	400,000	Minter	Minter	763,333	321,497	332,672
Naselle	WA Coast	F. CK	WDFW	2,500,000	Naselle	Naselle	-	-	1,472,258
Forks Creek	WA Coast	F. CK	WDFW	50,000	Forks Creek	Forks Creek	567,560	2,278,497	257,338
Wells Hatchery	Columbia River	Sum. CK	DPUD	500,000	Wells	Wells Hatchery	0	541,299	482,734
Quinault Lake	WA Coast	F. CK	Quinault Indian Nation	500,000	Quinault	Quinault Lake	-	-	500,000
Sol Duc/Bear Springs	WA Coast	Sum. CK	Quileute Tribe	150,000	Sol Duc	Bear Springs	-	-	147,913
Sol Duc/Bear Springs	WA Coast	Sum. CK	Quileute Tribe	75,000	Sol Duc	Bear Springs	-	70,000	70,758
Wilkeson Creek	Puget Sound	F. CK	Puyallup Tribe of Indians	1,075,200	Voights	Wilkeson Creek	-	728,587	246,849
White River	Puget Sound	Sp. CK	Muckleshoot Indian Tribes	200,000	White River	White River	-	-	167,557
Squaxin/South Sound Net Pens	Puget Sound	F. CK	Squaxin Island Tribe	500,000	Deschutes / Green River	Squaxin/South Sound Net Pens	-	-	-
Lummi Bay Hatchery	Puget Sound	Sp. CK	Lummi Nation	500,000	Kendall	Lummi Bay	-	50,000	222,168
Skookum Creek	Puget Sound	Early CK	Lummi Nation	1,000,000	Skookum Creek	Skookum Cr.	-	870,000	794,626

FE-28

Facility	Region	Species	Entity	Increased Proposal	Brood Source	Release Location	2019 Release	2020 Release	2021 Release
Klickitat Hatchery	Columbia River	F. CK	Yakama Nation	1,000,000	Klickitat/Little White	Klickitat River	-	1,000,000	-
Lewis River	Columbia River	Sp. CK	WDFW	-	Lewis River	Lewis River	944,425		389,959
TOTAL							**5,311,290**	**10,878,098**	**7,278,023**

[a] Partially funded by PST with FY19 funds

SP CK = spring Chinook; F. CK = fall Chinook; WDFW = Washington Department of Fish and Wildlife

FE-29

Table 2. Washington State Funding for SRKW Prey in the 2021-2023 biennium

Facility	Region	Species	Entity	Increased Proposal	Brood Source	Release Location	2022 Release	Estimated 2023 Release
Kendall	Puget Sound	Sp. CK	WDFW	500,000	Kendall	Kendall	635,697	500,000
Whatcom Cr.	Puget Sound	F. CK	WDFW	500,000	Samish	Whatcom Cr.	543,181	500,000
Hupp Springs	Puget Sound	Sp. CK	WDFW	500,000	Minter	Hupp	515,642	476,000
Samish	Puget Sound	F. CK	WDFW	1,000,000	Samish	Samish	906,459	1,200,000
Wallace River	Puget Sound	Sum. CK	WDFW	400,000	Wallace River	Wallace River	1,049,421	1,200,000
Wallace River	Puget Sound	Sum. CK	WDFW	100,000	Wallace River	Wallace River	0	79,315
Marblemount	Puget Sound	Sp. CK	WDFW	500,000	Marblemount	Marblemount	128,022	500,000
Marblemount	Puget Sound	Sp. CK	WDFW	500,000	Marblemount	Marblemount	0	100,000
Sol Duc	WA Coast	Sum. CK	WDFW	500,000	Sol Duc	Sol Duc	558,969	436,000
Sol Duc	WA Coast	Sum. CK	WDFW	0	Sol Duc	Sol Duc	28,588	64,982
Minter	Puget Sound	F. CK	WDFW	400,000	Minter	Minter	291,083	400,000
Naselle	WA Coast	F. CK	WDFW	2,500,000	Naselle	Naselle	2,577,982	1,800,000
Forks Creek	WA Coast	F. CK	WDFW	50,000	Forks Creek	Forks Creek	108,072	90,000
Wells Hatchery	Columbia River	Sum. CK	DPUD	500,000	Wells	Wells Hatchery	520,239	514,000
Quinault Lake	WA Coast	F. CK	Quinault Indian Nation	500,000	Quinault	Quinault Lake	446,651	500,000
Sol Duc/Bear Springs	WA Coast	Sum. CK	Quileute Tribe	75,000	Sol Duc	Bear Springs	115,179	120,000
Sol Duc/Bear Springs	WA Coast	Sum. CK	Quileute Tribe	75,000	Sol Duc	Bear Springs	72,651	23,000
Wilkeson Creek	Puget Sound	F. CK	Puyallup Tribe of Indians	1,075,200	Voights	Wilkeson Creek	611,685	1,400,000
White River	Puget Sound	Sp. CK	Muckleshoot Indian Tribes	200,000	White River	White River	238,335	273,385
Squaxin/South Sound Net Pens	Puget Sound	F. CK	Squaxin Island Tribe	500,000	Deschutes / Green River	Squaxin/South Sound Net Pens	0	0
Lummi Bay Hatchery	Puget Sound	Sp. CK	Lummi Nation	500,000	Kendall	Lummi Bay	499,193	504,080
Skookum Creek	Puget Sound	Early CK	Lummi Nation	1,000,000	Skookum Creek	Skookum Cr.	0	800,000
Klickitat Hatchery	Columbia River	F. CK	Yakama Nation	1,000,000	Klickitat/Little White	Klickitat River	574,715	641,914
Lewis River	Columbia River	Sp. CK	WDFW	-	Lewis River	Lewis River	268,950	290,000
TOTAL							**11,090,714**	**12,412,676**

FE-31

Table 3. Programs that received FY20 PST funding for the Hatchery Production Initiative for SRKW

Facility	Region	Species	Entity	Increased Proposal	Brood Source	Release Location	2020 Release	2021 Release/[a]	2022 Release/[a]	Operating Cost	Infrastructure Cost	Total Cost
Tulalip Bernie Gobin Hatchery	Puget Sound	Sum CK	Tulalip Tribe	1,000,000	Wallace	Tulalip Bay	-	-	958,415	$555,914	$783,414	$1,339328
Tulalip Bernie Gobin Hatchery	Puget Sound	Sum CK	RCO overhead	-	N/A	-	-	-	-	-	-	$55,180
Soos Creek Hatchery	Puget Sound	F. CK	WDFW	2,000,000	Green River	Green River	-	2,003,244/[c]	-	$245,559	-	$245,559
Soos Creek Hatchery	Puget Sound	F. CK	RCO overhead	-	N/A	-	-	-	-	-	-	$10,117
Partial funding for NWIFC marking trailer	Puget Sound	All	NWIFC	-	N/A	-	-	-	-	-	$500,000	$500,000
Partial funding for NWIFC marking trailer	Puget Sound	All	RCO overhead	-	N/A	-	-	-	-	-	-	$20,600
Marion Drain Hatchery	Columbia River	Sum. CK	Yakama Nation	500,000	Entiat/ Wells/ Chelan	Yakima River	-	279,594	-	$43,000	-	$43,000
Select-Area Fishery Enhancement (SAFE)	Columbia River	Sp. CK	ODFW	1,320,000/[a]	Willamette River	Youngs Bay or Tongue Point	-	1,345,310	-	$600,000	-	$600,000
SAFE	Columbia River	Sp. CK	ODFW	1,500,000	Willamette River	Youngs Bay or Tongue Point	-	-	-	$251,477 /[b]	-	$251,477
Umatilla Hatchery	Columbia River	F. CK (URB)	ODFW	120,000	Little White	Umatilla River	-	-	-	$30,000	_	$30,000
Parkdale Hatchery	Columbia River	Sp. CK	CTWSR	Not enough BS; Funds need to be reallocated	Hood River	N/A	-	-	-	$31,230	-	$31,230
Round Butte Hatchery	Columbia River	Sp. CK	ODFW	Not enough BS. Funds reallocated to Bonneville tules	Deschutes River	N/A	-	167,000	-	$0	-	$0
Bonneville Hatchery	Columbia River	F. CK (tules)	ODFW	200,000	Bonneville Pool	Columbia River	-	344,122	-	$25,000	-	$25,000

Facility	Region	Species	Entity	Increased Proposal	Brood Source	Release Location	2020 Release	2021 Release/[a]	2022 Release/[a]	Operating Cost	Infrastructure Cost	Total Cost
Wells Hatchery	Columbia River	Sum. CK	DPUD	500,000	Wells	Columbia River	-	482,734	-	$170,000	-	$170,000
Little White/Willard National Fish Hatchery (NFH)	Columbia River	F. CK (URB)	USFWS	630,000	Little White	Little White River	479,694	-	-	$200,000	-	$200,000
Little White/Willard NFH	Columbia River	F. CK (URB)	USFWS	650,000	Little White	Little White River	-	649,356	-	$165,000	$140,000	$305,000
Little White/Willard NFH	Columbia River	Sp. CK	USFWS	400,000	Spring Chinook	Columbia River	-	-	380,578	$160,000	-	$160,000
Spring Creek NFH	Columbia River	F. CK (tules)	USFWS	2,000,000	Columbia River Gorge tules	Columbia River	-	688,509	-	$360,000	$515,000	$875,000
TOTAL							**479,694**	**5,959,869**	**1,338,993**	**$2,585,703**	**$1,938,414**	**$4,861,491**

[a] Tag codes will be available after the fish are tagged. [b] Additional funding will be needed in FY21 to complete rearing and release of these fish. [c] Partially funded by WDFW
RCO = WA's Recreation and Conservation Office; CTWSR = Confederated Tribes of the Warm Springs Reservation of Oregon; DPUD = Douglas Public Utility District; USFWS = United States Fish and Wildlife Service; ODFW = Oregon Fish and Wildlife Service; NWIFC = Northwest Indian Fisheries Commission; BS = broodstock; URB = Upriver Bright fall Chinook salmon; NFH = National Fish Hatchery; SP CK = spring Chinook; F. CK = fall Chinook

FE-32

Table 4. Programs that received FY21 PST funding for the Hatchery Production Initiative for SRKW

Facility	Region	Species	Entity	Increased Proposal	Brood Source	Release Location	2021 Release	2022 Release	2023 Release	Operating Cost	Infrastructure Cost	Total Cost
Issaquah Hatchery	Puget Sound	F. CK	WDFW	1,000,000	Issaquah/ Soos Creek	Issaquah Creek	-	707,026	-	$135,000	-	$135,000
Issaquah Hatchery	Puget Sound	F. CK	RCO overhead	-	NA	-	-	-	-	-	-	$5,562
Soos Creek Hatchery	Puget Sound	F. CK	WDFW	2,000,000	Green River	Green River	-	2,077,000	-	$428,000	-	$428,000
Soos Creek Hatchery	Puget Sound	F. CK	RCO overhead	-	N/A	-	-	-	-	-	-	$17,634
Marking trailer	Puget Sound	All	WDFW	-	N/A	-	-	-	-	-	$1,500,000	$1,500,000
Marking trailer	Puget Sound	All	RCO overhead	-	N/A	-	-	-	-	-	-	$61,800
Clark Creek Hatchery upgrades	Puget Sound	N/A	Puyallup Tribe	These upgrades will create additional capacity to raise fish	N/A	-	-	-	-	-	$1,200,000	$1,200,000
Clark Creek Hatchery upgrades	Puget Sound	N/A	RCO overhead	-	N/A	-	-	-	-	-	-	$49,440
University of Washington Hatchery	Puget Sound	F. CK	Muckleshoot Indian Nation	180,000	N/A	-	-	-	-	-	$325,000	$325,000
University of Washington Hatchery	Puget Sound	F. CK	RCO overhead	-	N/A	-	-	-	-	-	-	$13,390
Marblemount Hatchery	Puget Sound	N/A	WDFW	These upgrades will create additional capacity to raise fish	N/A	-	-	-	-	-	$346,587.02	$346,587.02
Marblemount Hatchery	Puget Sound	N/A	RCO overhead	-	N/A	-	-	-	-	-	-	$14,892.82
Enhanced monitoring plan for ecological effects	Puget Sound	All	WDFW	-	N/A	-	-	-	-	$5,000	-	$5,000
Enhanced monitoring plan for	Puget Sound	All	PSMFC overhead	-	N/A	-	-	-	-	$457		$457

FE-33

Facility	Region	Species	Entity	Increased Proposal	Brood Source	Release Location	2021 Release	2022 Release	2023 Release	Operating Cost	Infrastructure Cost	Total Cost
ecological effects												
East Bank and Marion Drain Hatcheries	Columbia River	Sum. CK	Yakama Nation	500,000	Entiat/ Wells/ Chelan	Yakima River	-	19,755	-	$137,707	-	$137,707
Klickitat Hatchery	Columbia River	F. CK	Yakama Nation	These upgrades will create additional capacity to raise an additional 1,000,000 F. CK (URB)	N/A	-	-	-	-	-	$55,000	$55,000
Select-Area Fishery Enhancement (SAFE)	Columbia River	Sp. CK	ODFW	1,500,000	Willamette River	Youngs Bay or Tongue Point	-	1,507,467	-	$851,476	-	$851,476
Umatilla Hatchery	Columbia River	F. CK (URB)	ODFW	120,000	Little White	Umatilla River	-	127,931	-	$30,000	_	$30,000
Bonneville Hatchery	Columbia River	F. CK (tules)	ODFW	250,000	Bonneville Pool	Columbia River	-	250,000	-	$56,430[b]	-	$56,430
Umatilla and Bonneville Hatchery	Columbia River	F. CK (URB)	ODFW	100,000	Little White	Umatilla River	167,010	-	-	$35,778	-	$35,778
Wells Hatchery	Columbia River	Sum. CK	DPUD/WDFW	500,000	Wells	Columbia River	-	550,000	-	$175,000	-	$175,000
Dworshak NFH	Columbia River	Sp. CK	Nez Perce Tribe	500,000	Clearwater River	Clearwater River	-	544,979	-	$81,000	$75,000	$156,000
Little White NFH	Columbia River	Sp. CK	USFWS	650,000	Little White	Little White River	-	-	497,692	$200,915	$98,050	$289,965
Spring Creek NFH	Columbia River	F. CK (tules)	USFWS	2,000,000	Columbia River Gorge tules	Columbia River	-	66,294	-	$317,989	$88,200	$406,189
Carson NFH	Columbia River	Sp. CK	USFWS	100,000	Carson	Wind River	-	-	74,123	$65,459	$96,600	$162,059
TOTAL							**167,010**	**5,300,452**	**571,815**	**$2,519,754**	**$3,784,437.02**	**$6,467,367**

FE-34

Table 5. Programs that received FY22 PST funding for the Hatchery Production Initiative for SRKW

Facility	Region	Species	Entity	Increased Proposal	Brood Source	Release Location	2022 Release	Anticipated 2023 Release	Anticipated 2024 Release	Operating Costs	Capital Costs	Total Cost
Issaquah Hatchery	Puget Sound	F. CK	WDFW	1,000,000	Issaquah Hatchery	Issaquah Creek	-	1,000,000	-	$135,000	-	$135,000
Automatic marking trailer	Puget Sound	N/A	WDFW	N/A	NA	NA	-	-	-	-	$1,500,000	$1,500,000
Soos Creek-Palmer Pond Hatchery Chinook	Puget Sound	F. CK	WDFW	2,000,000	Green River	Green River	-	2,000,000	-	$428,000	-	$428,000
Tulalip Bernie Gobin Hatchery	Puget Sound	Sum. CK	Tulalip Tribe	2,000,000	Wallace	Tulalip Bay	-	1,600,000	-	$555,914	-	$555,914
Tulalip Bernie Gobin Hatchery	Puget Sound	Sum. CK	RCO overhead	-	NA	NA	-	-	-	-	-	$22,904
University of Washington Hatchery	Puget Sound	F. CK	Muckleshoot Indian Tribe	180,000	NA	NA	-	-	-	$75,071	$315,261	$390,332
University of Washington Hatchery	Puget Sound	F. CK	RCO overhead	-	NA	NA	-	-	-	-	-	$16,082
Spring Creek NFH	Columbia River	F. CK (tule)	USFWS	2,000,000	Columbia River Gorge tules	Columbia River	-	0	-	$346,235	$156,993	$503,228
Little White Salmon NFH	Columbia River	Sp. CK	USFWS	650,000	Little White	Little White Salmon River	-	-	650,000	$214,477	-	$214,477
Carson NFH	Columbia River	Sp. CK	USFWS	100,000	Carson	Wind River	-	-	100,000	$89,281	$63,000	$152,281
Wells Hatchery	Columbia River	Sum. CK	WDFW/DPUD	500,000	Wells	Columbia River	-	514,000	-	$175,000	-	$175,000
East Bank and Marion Drain Hatcheries	Columbia River	Sum. CK	Yakama Nation	500,000	Entiat/Chelan/Wells	Yakima River	-	109,876	-	$148,212	-	$148,212
Dworshak NFH	Columbia River	Sp. CK	Nez Perce Tribe	500,000	Clearwater Spring Chinook/Dworshak NFH	Dworshak NFH	-	493,858	-	$140,775	-	$140,775
SAFE	Columbia River	Sp. CK	ODFW	1,500,000	Willamette Tribs	SAFE	-	1,430,813	-	$876,956	-	$876,956
Bonneville Hatchery	Columbia River	F. CK (tule)	ODFW	250,000	Bonneville	Tanner Creek	-	250,000	-	$150,854	-	$150,854

FE-35

Umatilla and Bonneville Hatcheries	Columbia River	F. CK (URB)	ODFW	100,000	URB (Little White)	Umatilla	-	0	-	$30,318	-	$30,318
TOTAL				**11,280,000**				**7,398,547**	**750,000**	**$3,366,093**	**$2,035,254**	**$5,440,333**

Table 6. Summary of 2020, 2021, 2022, and actual and anticipated 2023 hatchery-origin Chinook salmon releases

Funding Source	**Release Years**			
	2020	**2021**	**2022**	**2023 (Actual and Anticipated)**
PST FY20	479,694	5,959,869	1,338,993	-
PST FY21	-	167,000	5,300,452	571,815
PST FY22			-	7,398,547
Washington State Legislature ('19-'21)	10,850,280	7,278,023	-	-
Washington State Legislature ('21-'23)	-	-	11,090,714	12,412,676
TOTAL	11,357,792	13,404,892	17,730,159	20,383,038

FE-37

Attachment 2

Attachment 2, Fourth Purcell Declaration.

Pacific Salmon Treaty Prey Increase Program Funded SRKW hatchery production for FY2020 - FY2022 and NMFS' corresponding ESA and NEPA evaluations.

Program	Species	Operator	ESA Coverage	NEPA Coverage
Columbia River Basin				
Little White Salmon NFH	Spring Chinook	USFWS	Biological Opinion: USFWS Artificial Propagation Programs in the Lower Columbia and Middle Columbia River (Attachment 2a)	Environmental Impact Statement: Mitchell Act. Available at: https://www.fisheries.noaa.gov/resource/document/final-environmental-impact-statement-inform-columbia-river-basin-hatchery
Carson NFH				
Spring Creek NFH	Fall Chinook (tule)			
Little White Salmon NFH	Fall Chinook (brights)			
Dworshak NFH	Spring Chinook	Nez Perce/USFWS	Biological Opinion: Five Clearwater River Basin Spring/Summer Chinook Salmon and Coho Salmon Hatchery Programs (Attachment 2b)	
Wells	Summer Chinook	Douglas PUD	Biological Opinion: Yakima River Spring Chinook Salmon, Summer/Fall Chinook Salmon, and Coho Salmon Hatchery Programs (Attachment 2c)	
East Bank		Yakima Nation	Biological Opinion: Yakima River Spring Chinook Salmon, Summer/Fall Chinook Salmon, and Coho Salmon Hatchery Programs. (Attachment 2c)	
Marion Drain				
Umatilla	Fall Chinook (URB)	Confederated Tribes of the Umatilla Indian Reservation/ODFW	Biological Opinion: Umatilla River Spring Chinook Salmon, Fall Chinook Salmon, and Coho Salmon Hatchery Programs (Attachment 2d)	
Bonneville	Fall Chinook (tule)	ODFW	Biological Opinion: Mitchell Act Final Environmental Impact Statement preferred alternative and administration of Mitchell Act hatchery funding (Attachment 2e)	
SAFE	Spring Chinook	ODFW	Biological Opinion: Select Area Fisheries Enhancement (SAFE) Spring Chinook Salmon and Coho Salmon Programs (Attachment 2f)	

Dworshak NFH	Spring Chinook	Nez Perce/USFWS	Biological Opinion: Five Clearwater River Basin Spring/Summer Chinook Salmon and Coho Salmon Hatchery Programs (Attachment 2b)	Environmental Assessment: Snake River Basin Hatcheries
Wells	Summer Chinook	Douglas PUD	Biological Opinion: Yakima River Spring Chinook Salmon, Summer/Fall Chinook Salmon, and Coho Salmon Hatchery Programs (Attachment 2c)	Supplemental Environmental Assessment: Wells Summer Chinook Salmon Program
Puget Sound Region				
Issaquah	Fall Chinook	WDFW	Biological Opinion: Five Hatchery Programs for Salmon in the Lake Washington Drainage (Attachment 2g) Biological Opinion: Hatchery Releases in Puget Sound (Attachment 2j)	Environmental Assessment: Lake Washington Basin Hatcheries Available at: https://media.fisheries.noaa.gov/2022-07/FINAL_Lake_Washington_EA_FONSI_BAT_-2.15.2022_07262022.pdf
Soos Creek-Palmer Pond	Fall Chinook	WDFW	Biological Opinion: Ten Hatchery Programs for Salmon and Steelhead in the Duwamish/Green River Basin (Attachment 2h) Biological Opinion: Hatchery Releases in Puget Sound (Attachment 2j)	Environmental Impact Statement: Duwamish-Green Hatcheries Available at: https://www.fisheries.noaa.gov/resource/document/final-environmental-impact-statement-eis-duwamish-green-hatcheries
Tulalip Bernie Gobin	Summer Chinook	Tulalip Tribe	Biological Opinion: Seven Hatchery and Genetic Management Plans for Snohomish River basin Salmon (Attachment 2i) Biological Opinion: Hatchery Releases in Puget Sound (Attachment 2j)	Supplemental Environmental Assessment: Snohomish Hatcheries Available at: https://media.fisheries.noaa.gov/2022-09/SnohomishHatcheries_SupplEA_FONSI_20210506.pdf
University of Washington	Fall Chinook	Muckleshoot Indian Tribe	Biological Opinion: Five Hatchery Programs for Salmon in the Lake Washington Drainage (Attachment 2g) Biological Opinion: Hatchery Releases in Puget Sound (Attachment 2j)	Environmental Assessment: Lake Washington Basin Hatcheries Available at: https://media.fisheries.noaa.gov/2022-07/FINAL_Lake_Washington_EA_FONSI_BAT

Case: 23-35324, 07/21/2023, ID: 12758398, DktEntry: 3-2, Page 24 of 24

				- 2.15.2022_07262022.pdf

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

WILD FISH CONSERVANCY, Plaintiff, v. JENNIFER QUAN, *et al.*, Defendants, and ALASKA TROLLERS ASSOCIATION, Defendant-Intervenor, and STATE OF ALASKA, Defendant-Intervenor.	Case No. 2:20-cv-417-RAJ-MLP DECLARATION OF GRETCHEN HARRINGTON

I, Gretchen Harrington, declare:

1. I am the Assistant Regional Administrator of the Sustainable Fisheries Division, National Marine Fisheries Service ("NMFS") Alaska Region, which is an operating unit within the National Oceanic and Atmospheric Administration ("NOAA"), a component of the United States Department of Commerce ("DOC"). I have occupied this position since December 5, 2022. My duties generally include managing the Sustainable Fisheries Division,

providing technical and policy advice, and assisting in the preparation and review of regulatory documents. Prior to my current position, I served as the Assistant Regional Administrator for the Habitat Conservation Division, the National Environmental Policy Act Coordinator for Alaska Region, and the Fishery Management Plan Coordinator, including the Salmon Fishery Management Plan, for the Sustainable Fisheries Division. I have worked for NMFS Alaska Region since 1998, primarily in the Sustainable Fisheries Division, where I worked on developing and implementing the regulatory programs covering federal fisheries in Alaska.

2. As part of my official duties, I assist the Alaska Region in carrying out duties delegated by the Secretary of Commerce, Gina M. Raimondo ("Secretary"). This includes carrying out the Secretary's responsibilities for complying with the Magnuson-Stevens Fishery Conservation and Management Act ("Magnuson-Stevens Act"), as that statute applies to the implementation of fishery management plans ("FMPs") and FMP amendments for fisheries in the exclusive economic zone ("EEZ") off Alaska. I assist with coordinating the development and implementation of policies governing the management of Federal fisheries off Alaska, including the salmon fisheries off Alaska under the "Fishery Management Plan for the Salmon Fisheries in the EEZ Off Alaska" ("Salmon FMP"). I also serve on the North Pacific Fishery Management Council ("Council") as the voting alternate for NMFS Alaska Region. I am familiar with the Salmon FMP, its amendments, and its implementing regulations.

3. I am familiar with the issues in this litigation, and I have read nearly all of the parties' briefing on their motions for summary judgment and their motions for a post-judgment stay and injunction.

4. In the following paragraphs, I affirm and update the statements that my predecessor, Josh Keaton, had provided, including: (1) a brief history of the Salmon FMP; (2) an explanation of the Salmon FMP's delegation of management of fishing in federal waters (the EEZ off Southeast Alaska) to the State of Alaska; (3) an overview of the Southeast Alaska Chinook salmon commercial troll fishery; and (4) an overview of the economic value of the Southeast Alaska Chinook salmon commercial troll fishery.

Brief History of the Salmon FMP

5. The State of Alaska has managed Southeast Alaska salmon fisheries inside and outside of state waters since statehood in 1959.

6. In 1976, Congress passed the Magnuson-Stevens Act, which established federal fishery management authority over the exclusive economic zone, 16 U.S.C. § 1811, which in Alaska generally includes waters from 3 to 200 nautical miles offshore. The State of Alaska manages fisheries that occur in waters up to 3 nautical miles offshore.

7. The Secretary of Commerce approved and implemented the original Salmon FMP in 1979. The 1979 Salmon FMP established the Council's and NMFS's authority over the commercial and sport salmon fisheries occurring in the EEZ, or federal waters, off Alaska and divided the EEZ into two areas – an East Area and a West Area – at the longitude of Cape

Suckling. 50 C.F.R. § 679.2 (defining the East Area as the area of the EEZ in the Gulf of Alaska east of the longitude of Cape Suckling (143° 53.6' W)).

8. In the East Area, the 1979 Salmon FMP authorized commercial fishing for salmon with hand troll or power troll gear and prohibited commercial fishing for salmon with any other gear type. The FMP also authorized sport fishing for salmon in the East Area. The 1979 Salmon FMP's primary function was to limit entry in the commercial troll fishery; the Council intended the rest of the Salmon FMP management measures for the sport fishery and the commercial troll fishery in the East Area to be complementary with State of Alaska regulations for the salmon fisheries in adjacent state waters. The 1979 Salmon FMP adopted the State of Alaska's harvest restrictions and management measures.

9. In 1990, the Council comprehensively revised the Salmon FMP with Amendment 3. In recommending and approving Amendment 3, the Council and NMFS reaffirmed that existing and future salmon fisheries occurring in the EEZ require varying degrees of Federal management and oversight. Under Amendment 3, the 1990 Salmon FMP continued to authorize sport fishing and commercial hand troll and power troll gear fishing in the East Area and to limit entry in the commercial troll fishery. However, in order to address the inefficiencies and management delays inherent with the federal system duplicating the State of Alaska's harvest restrictions and management measures for state waters, Amendment 3 delegated management authority to the State of Alaska to regulate the sport and commercial troll fisheries in the East Area.

10. Pursuant to the Magnuson-Stevens Act, 16 U.S.C. § 1856(a)(3)(B), NMFS may delegate management of a fishery in the EEZ to a state. In making this delegation, the

Salmon FMP was amended to include a chapter governing Council and NMFS oversight of the State's exercise of delegated authority.

11. In 2012, NMFS approved Amendment 12 to the Salmon FMP. With regard to the East Area, Amendment 12 updated the Salmon FMP to include several provisions that addressed new requirements arising from revisions to the Magnuson-Stevens Act; these provisions included annual catch limits and accountability measures. Amendment 12 also reaffirmed the existing delegation of management authority for the sport and commercial troll salmon fisheries in the East Area to the State of Alaska, as well as the prohibition on net fishing in the East Area.[1]

Delegation of Management Authority in the East Area to the State of Alaska

12. The Salmon FMP sets forth the Council's management policy and objectives for the salmon fisheries in the EEZ off Alaska (Chapter 3 of the Salmon FMP). The Salmon FMP establishes the management areas and the salmon fisheries to be managed by the FMP (Chapter 2 of the Salmon FMP). The Salmon FMP also specifies the commercial gear types authorized (Chapter 5), the status determination criteria applicable to salmon fisheries in the East Area (Section 6.1), and identifies and describes essential fish habitat and habitat areas of particular concern for the salmon stocks managed by the FMP (Chapter 7). However, the

[1] Since Amendment 12, the Council and NMFS have amended the FMP three times. The 2018 FMP amendment (Amendment 13 to the Salmon FMP) updated the description and identification of essential fish habitat for salmon species, *see* 83 Fed. Reg. 31,340 (July 5, 2018). The 2021 FMP amendment (Amendment 15 to the Salmon FMP) updated the FMP to clearly and accurately explain bycatch reporting consistent with requirements to establish standardized bycatch reporting methodology in FMPs, *see* 86 Fed. Reg. 51,833 (Sept. 17, 2021). Another 2021 FMP amendment (Amendment 14 to the Salmon FMP) addressed management of salmon fishing in Cook Inlet, in the West Area, *see* 86 Fed. Reg. 60,568 (Nov. 3, 2021). There is ongoing litigation over management in the West Area, but that does not implicate the provisions of the FMP that apply to the East Area. The 2018 and 2021 FMP amendments do not alter the Council's and NMFS's delegation of management of the commercial troll and sport fisheries in the East Area to the State of Alaska.

Salmon FMP delegates all other management and regulation of the commercial troll and sport salmon fisheries in the East Area to the State of Alaska pursuant to 16 U.S.C. § 1856(a)(3)(B) of the Magnuson-Stevens Act.

13. Chapter 4 of the Salmon FMP describes the roles of the various agencies in implementing the FMP. Section 4.3.2 describes the role of the Alaska Department of Fish and Game ("ADF&G"). Under the Salmon FMP, the Council and NMFS delegated regulation of the commercial troll and sport salmon fisheries in the East Area to the State of Alaska. In general, these fisheries are controlled by State of Alaska regulations prescribing limits on harvests, fishing periods and areas, types and amounts of fishing gear, commercial fishing effort, minimum length for Chinook salmon, and reporting requirements. State regulations apply to all fishing vessels participating in these fisheries regardless of whether the vessel is registered under the laws of the State of Alaska.

14. ADF&G manages the fisheries during the fishing season (e.g., inseason) and issues emergency regulations to achieve conservation objectives and to implement allocation policies established by the Alaska Board of Fisheries. ADF&G also monitors the fisheries, collects data on the stocks and the performance of the fisheries, and provides annual reports on stocks and fisheries for each of the State of Alaska's management areas.

15. Although the Salmon FMP delegates to the State of Alaska much of the day-to-day management of the sport and commercial troll salmon fisheries occurring in the East Area, State of Alaska management measures applicable to the sport and commercial troll salmon fisheries in the East Area must be consistent with the Salmon FMP, the Magnuson-Stevens Act, and other applicable federal law. Chapter 9 of the Salmon FMP states that the Council

and NMFS stay apprised of state management measures and ensure that the delegation of fishery management authority to the State is carried out in a manner consistent with the Salmon FMP, the Magnuson-Stevens Act, and other applicable federal law.

The Southeast Alaska Chinook Salmon Commercial Troll Fishery

16. The following paragraphs are based on my review of publicly-available reports and information provided by ADF&G and the Pacific Salmon Commission's Chinook Technical Committee, and my review of a publicly-available report published by the McDowell Group on the Economic Impact of the Pacific Salmon Treaty on the Alaska Troll Fleet.

17. Under management provisions of the Pacific Salmon Treaty, ADF&G announces annual all-gear catch limits for treaty Chinook salmon. The all-gear catch limit for Southeast Alaska is based on a forecast of the aggregate abundance of Pacific Coast Chinook salmon stocks subject to management under the Pacific Salmon Treaty.

18. The Southeast Alaska Chinook salmon all-gear catch limit is allocated among sport and commercial fisheries under management plans specified by the Alaska Board of Fisheries. Under the current plans, the commercial purse seine, commercial drift gillnet, and commercial set gillnet are first allocated their limit, as follows: commercial purse seine, 4.3 percent of the all-gear catch limit; commercial drift gillnet, 2.9 percent of the all-gear catch limit; and commercial set gillnet, 1,000 Chinook salmon. After subtraction of the net gear limits, the remainder of the all-gear catch limit is allocated as follows: commercial troll, 80 percent; sport, 20 percent.

19. Over the previous five years (2018 to 2022), I estimate that the three net gear fisheries were allocated on average 7.78 percent of the annual all-gear Chinook catch limit, the sport fishery was allocated on average 18.44 percent of the annual all-gear Chinook catch limit, and the troll fishery was allocated on average 73.78 percent of the annual all-gear Chinook catch limit. The annual allocation to the troll fishery is therefore a significant portion of the overall treaty Chinook limit for the State of Alaska, with the sport fishery receiving the second highest portion of the overall treaty Chinook limit for the State of Alaska.

20. The spring fishery occurs in May and June and mostly targets Alaska hatchery-produced Chinook salmon. Non-Alaska hatchery fish are counted towards Alaska's annual catch limit of Chinook salmon under the Pacific Salmon Treaty. In 2021, the trollers harvested 12,952 treaty Chinook in the spring season. I estimate the commercial troll spring fishery harvested an average of 10,833 treaty Chinook salmon, and 13,865 total Chinook salmon, per year from 2017 through 2021, based on the Pacific Salmon Commission, Joint Chinook Technical Committee's Annual Reports of Catch and Escapement.

21. The winter season is currently October 11 to March 15. The State-established guideline harvest level (GHL) for the winter fishery is 45,000 non-Alaska hatchery-produced Chinook salmon (meaning, treaty Chinook subject to the Pacific Salmon Treaty). Any treaty Chinook salmon not harvested during the winter fishery are available for harvest in the spring and summer commercial troll fisheries. Based on ADF&G's Regional Information Report No. 1J21-14, the troll fleet has not harvested the entire GHL since 2016. In the 2020/2021 winter fishery, a total of 268 permits were fished, and the five-year average number of permits fished per year was 353 permits. The trollers harvested 14,013 treaty Chinook salmon in the

winter season in 2021. I estimate the commercial troll winter fishery harvested an average of 18,745 treaty Chinook salmon per year from 2017 through 2021 (of the total annual average of 19,811 Chinook salmon per year, an average of 8.8 percent were of Alaska hatchery origin), based on the Pacific Salmon Commission, Joint Chinook Technical Committee's Annual Reports of Catch and Escapement.

22. The summer season is July 1 through September 30. Most of the Chinook salmon harvested in the summer fishery are non-Alaska hatchery origin (meaning, treaty Chinook subject to the Pacific Salmon Treaty). The summer fishery targets the number of treaty Chinook salmon remaining on the annual troll allocation after the winter and spring troll treaty Chinook harvests are subtracted. The State of Alaska manages the summer troll fishery to achieve the remaining catch limit of treaty fish available for the troll fleet, with an additional harvest of Chinook salmon produced in Alaska hatcheries. The trollers harvested 128,626 treaty Chinook salmon in the summer season in 2021. I estimate the commercial troll summer fishery harvested an average of 100,200 treaty Chinook salmon per year from 2017 through 2021 (of the total annual average of 102,254 Chinook salmon per year, an average of 3 percent were of Alaska hatchery origin), based on the Pacific Salmon Commission, Joint Chinook Technical Committee's Annual Reports of Catch and Escapement.

23. For the winter and summer seasons, I estimate the commercial troll fleet harvested an average of 118,945 treaty Chinook salmon per year from 2017 through 2021. For all three seasons, I estimate the commercial troll fleet harvested an average of 129,802 treaty Chinook salmon per year from 2017 through 2021 (and 135,930 total Chinook salmon per year). During this same time period, all Southeast Alaska salmon fisheries (net, troll, and sport)

harvested an average of 170,627 treaty Chinook salmon (and 204,362 total Chinook salmon per year). Troll harvest therefore constituted on average 76 percent of the harvest of the Southeast Alaska all-gear catch limit for treaty Chinook salmon, and on average 67 percent of the harvest of all Chinook salmon in Southeast Alaska.

24. The estimated most recent five-year average catch of 129,802 treaty Chinook salmon and 135,930 total Chinook salmon in the troll fishery appears to be a marked decline considering the 2011-2020 average of 201,718 Chinook salmon per year, and the 1962-2020 average of 243,435 Chinook salmon per year, as reported by ADF&G (Fishery Management Report No. 22-05). While catch increased in 2020 and 2021, troll harvests were quite low in 2017 through 2019, with the lowest troll catch since 1962 reported in 2018.

25. The commercial troll fleet uses two fishing methods: hand trolling and power trolling.

26. Chinook salmon are the highest value per pound of the five salmon species harvested in Southeast Alaska, and Chinook salmon caught in the troll fishery have the highest value per pound for all gear types harvesting Chinook salmon. For example, in 2021, the average ex vessel price per pound for troll-caught Chinook salmon was $7.50 per pound, while the net fisheries per pound price ranged from $4.00 to $5.60 per pound. By comparison, the second highest value species are coho salmon: in 2021, price per pound of coho salmon caught in the troll fishery was $2.97 per pound, while the net fisheries per pound price ranged from $0.75 to $1.73 per pound.

27. The Southeast Alaska troll fishery operates in both federal and State of Alaska waters, although the majority of the catch and effort occurs in state waters. The commercial troll

fishery operates in both federal and state waters in only the summer season. The spring and winter commercial troll fisheries and all net fisheries (the commercial purse seine, drift gillnet, and set gillnet) occur in state waters.

28. The State of Alaska relies on information reported on state Fish Tickets to estimate the proportion of fish harvested in state waters and federal waters. Over the 2011-2019 period, we have estimated that, on average, 14 percent (28,915 fish) of the total troll fishery Chinook salmon harvest occurred in federal waters each year. Both the amount and the proportion of Chinook salmon harvested in federal waters has varied over this time period (2011-2019). The proportion of Chinook salmon harvested in federal waters each year can vary depending on oceanographic conditions, weather, or other factors, and commercial fishing vessels targeting Chinook salmon independently decide where to fish, depending on each vessel's operating decisions. Overall the proportion of Chinook salmon harvested in federal waters each year generally represents a small proportion (14 percent average) of total Chinook salmon harvested by the commercial troll fishery. *See* Merrill Decl. ¶¶ 22-23 (Doc. 43-2).

29. Most of the Chinook salmon harvested in Southeast Alaska are of non-Alaska origin, caught consistent with the terms of the Pacific Salmon Treaty. The non-Alaska component of the harvest is made up of both hatchery and wild stocks emanating from British Columbia and the Pacific Northwest. For example, for the winter troll fishery, ADF&G estimates the coastwide hatchery contribution of fish caught in the winter troll fishery, which includes hatchery fish from Alaska, British Columbia, Idaho, Oregon, and Washington. For the 2020-2021 fishery, the coastwide hatchery contribution was 42 percent of catch, with Alaska

hatchery fish comprising 11 percent. For the 2021-2022 fishery, the coastwide hatchery contribution was 35 percent of catch, with Alaska hatchery fish comprising 7 percent.

30. If the troll fishery did not operate, only a portion of the fish allocated to the State of Alaska under the Pacific Salmon Treaty would return to rivers and hatchery facilities in British Columbia and the Pacific Northwest due to natural mortality and harvest in other fisheries (for example, Canadian and southern U.S. fisheries). In addition, Chinook salmon return to spawn at various ages (from ages two to seven), and not all of the fish caught in the fishery would return in the same year to spawn. The fishery catches fish of all ages.

Economic Value of the Southeast Alaska Chinook Salmon Commercial Troll Fishery

31. If the incidental take statement (ITS) were vacated as to the Chinook salmon troll fishery, the Southeast Alaska troll fleet would no longer have incidental take coverage under the Endangered Species Act (ESA) for the take of listed species. Vacatur of the ITS could have significant disruptive consequences for the prosecution of the Chinook salmon troll fishery, as trollers would be forced to decide between fishing without ESA incidental take coverage and risking liability under the ESA or halting fishing activities to avoid liability under the ESA and therefore foregoing economic revenue. If the trollers did not operate in the winter and summer seasons, however, it is not certain that the reduction in harvest in Southeast Alaska would mean that all their unharvested treaty fish would be available to Southern Resident killer whales in their habitat. Recent average catches in the troll winter and summer seasons have totaled 118,945 treaty Chinook salmon from 2017 through 2021 (see ¶ 23). Not all of those treaty fish (meaning non-Alaska wild and hatchery fish that are returning to rivers and hatchery facilities in British Columbia and the Pacific Northwest)

would return to Southern Resident killer whale habitat due to natural mortality and harvest in other fisheries. To estimate economic impacts to the Chinook troll fleet if that fleet was unable to fish for Chinook salmon, I looked at the number of troll permits issued and the ex-vessel value of the Chinook troll fleet, information that is publicly available on ADF&G's website. I also looked at a report on the total economic impact from the entire troll fleet. I referenced these outside reports because they are the best information available to NMFS.

32. ADF&G reports the number of permits that are issued and fished each year. In 2021, the hand troll fleet had 902 issued permits, with 202 permit holders reporting salmon landings. ADF&G reports an annual average (2011-2020) of 971 issued permits and 295 fished permits for hand troll. In 2021, the power troll fleet had 957 issued permits, with 629 permit holders reporting salmon landings. ADF&G reports an annual average (2011-2020) of 961 issued permits and 715 fished permits for power troll. Based on these reports, on average from 2011 to 2020, there were over 1,000 annual active permittee holders (combined for power and hand troll permittees). While all troll permit holders might not target Chinook salmon, trollers harvest 76 percent of Southeast Alaska's total Pacific Salmon Treaty Chinook harvest, on average (and 67 percent of all Chinook salmon harvest in Southeast Alaska, on average) (see ¶ 23). Based on my professional understanding of the commercial fisheries in Southeast Alaska, there are several Southeast Alaska communities that are dependent on the Chinook troll fishery (to process fish, and/or provide services like fuel) and therefore could be disproportionately affected if the Chinook troll fleet did not operate.

33. ADF&G reports the ex-vessel value of the commercial salmon fisheries. Ex-vessel value measures the dollar value of commercial landings and is usually calculated by

considering the price per pound at the first purchase multiplied by the total pounds landed. Based on ADF&G's annual overviews of the Southeast Alaska salmon fisheries, ADF&G calculates ex-vessel value by multiplying the number of salmon caught by the average weight by the average price per pound.

34. Based on the ADF&G Fishery Management Report No. 22-05, in 2021, the ex-vessel value of the entire troll fishery (including all species of salmon) was $32,218,063, with the ex-vessel value of the troll fishery for Chinook salmon totaling $13,560,260. Based on ADF&G's annual overviews of the fishing seasons from 2017 through 2021 (Fishery Management Reports No. 22-05, 21-12, 20-18, 19-06, and 18-01), I estimate the five-year annual average of the ex-vessel value of the entire troll fishery is $28,128,983.20, with a five-year annual average of the ex-vessel value of the Chinook troll fishery of $11,462,827.60. I also estimate that the ex-vessel value of the Chinook troll fishery is on average 41.56 percent of the total ex-vessel value of the entire troll fishery.

35. Based on the ADF&G Fishery Management Report No. 22-05, in 2021, the ex-vessel value of all Southeast Alaska salmon fisheries (all gear types, all salmon species) was $142,949,849, and I estimate that the Chinook troll fishery constituted 9.49 percent of that total ex-vessel value. Based on the ADF&G's annual overviews of the fishery seasons from 2017 through 2021 (Fishery Management Reports No. 22-05, 21-12, 20-18, 19-06, and 18-01), I estimate that the ex-vessel value of the Chinook troll fishery is on average 10.91 percent of the total ex-vessel value of all Southeast Alaska salmon fisheries (2017-2021), but can be as high as 20.81 percent of total ex-vessel value of all Southeast Alaska salmon fisheries, as was the case in 2020.

36. Ex-vessel value is one measurement of the value of a fishery, but it does not account for additional value created by, for example, wages, processing, and tax revenue. A report prepared the McDowell Group on the Economic Impact of the Pacific Salmon Treaty on the Alaska Troll Fleet examined the following impacts of the troll fleet: direct (skipper and crew income), indirect (jobs and wages generated by the purchase of goods and services in support of troll fishing operations), and induced (jobs and wages generated when skippers and crew spend their fishing income in support of their households) impacts. The McDowell Group report was based on five-year averages from 2014 to 2018, and included the following information on the economic output of the fleet:

- Ex-vessel earnings averaged $32.9 million.
- An average of 729 permits were fished, and approximately 1,400 fishermen earn income directly from the fishery, including skippers (permit holders) and crew.
- Total direct, indirect, and induced employment is estimated at 735 jobs.
- Direct labor income (the amount skippers and crew take home) is estimated at $20.4 million.
- Total direct, indirect, and induced labor income is estimated at $28.5 million.
- Total annual output is estimated at $44.1 million. Output is a measure of total spending related to the commercial troll fleet. It includes the total amount trollers are paid for their catch plus all the secondary spending in Southeast Alaska that occurs as fishermen purchase goods and services. It does not include effects of processing troll-caught fish.
- Processors add value to the troll catch, generating total average annual first wholesale value of the troll harvest totaling about $70 million (based on statewide relationship between ex-vessel and first wholesale values for species harvested by trollers).
- Though it is difficult to attribute specific seafood processing jobs to the troll catch (as employees process fish from other commercial fisheries at the same time), approximately one-third of the added value is the cost of labor, or about $12 million annually.
- Including fishing, processing, and all related multiplier effects, the entire troll fleet (all species of salmon) has a total annual economic impact of approximately $85 million, as measured in terms of total output.

- Chinook accounted for about 44 percent of the power troll fleet's total ex-vessel value over the 2014 to 2018 period. All other factors held equal, Chinook account for approximately $37 million in annual economic output in Southeast Alaska.

- Total ex-vessel value of the hand troll harvest averaged $1.6 million, with an average of 285 permits fished. The hand troll fleet's total regional economic impact, as measured in terms of total output, is approximately $3.3 million annually.

37. Looking at the most recent five years of data (2017 to 2021) from ADF&G's Fishery Management Reports (Fishery Management Reports No. 22-05, 21-12, 20-18, 19-06, and 18-01), I estimate that the average annual ex-vessel value of the entire troll fleet declined to $28,128,983.20, a $4,771,016.80 (or 14.50 percent) reduction from the annual ex-vessel value in the McDowell Group report of $32,900,000. I assume a 14.50 percent reduction in the ex-vessel value would correspond to similar reductions in economic impacts used to estimate the total annual economic output of the troll fleet, and therefore reduce the estimate by the McDowell Group of $85,000,000 by 14.50 percent. This results in an estimate of the total annual economic impacts of the entire troll fleet of $72,675,000. These reductions in value seem consistent with the decline in catch numbers of Chinook salmon (see ¶ 24) and the reductions in catch agreed to under the 2019 Pacific Salmon Treaty Agreement, which in most years imposes a 7.5 percent reduction in Chinook salmon harvest levels in Southeast Alaska.

38. Over the most recent time period (2017 to 2021), the ex-vessel value of Chinook caught by the troll fleet constituted a slightly smaller percentage of the ex-vessel value of all salmon species caught by the troll fleet (41.56 percent compared to 44 percent used by the McDowell Group). I used this updated percentage to estimate the annual economic output of the Chinook salmon commercial troll fishery (for all three seasons) at $30,203,730.

39. Finally, I account for the ex-vessel value of the spring fishery. Based on the annual overviews published by ADF&G of the fishery seasons from 2017 through 2021 (Fishery Management Reports No. 22-05, 21-12, 20-18, 19-06, and 18-01), I estimate that the average annual ex-vessel value (2017 to 2021) of the spring Chinook salmon commercial troll fleet is $1,054,893.66.

40. Based on the McDowell Group report and my review of the most recent ADF&G data on the ex-vessel value of the troll fleet (including, specifically the Chinook troll fleet), I therefore estimate the total annual economic output of the Chinook salmon commercial troll fleet, for the winter and summer seasons specifically, to be approximately $29 million ($29,148,836.34).

41. While troll fishing vessels are small, their economic impacts are far reaching, especially in Southeast Alaska, where nearly every community includes individuals who earn their living by trolling for salmon. The salmon troll fisheries support over 23 communities around Southeast Alaska. Further, a number of the communities where troll fishermen work and live are Alaska Native communities. Notably, the Southeast Alaska commercial salmon troll fisheries have an 85 percent Alaska residency rate, the highest level of local ownership of any major Alaska fishery, with about one in every 50 people in Southeast Alaska working on a trolling boat. The small, rural, isolated Southeast Alaska communities that are dependent on the Chinook salmon troll fishery (to homeport, to process fish, and/or to provide services like fuel), including Alaska Native communities, would be disproportionately affected if the Chinook troll fleet did not operate during the summer and winter seasons. A loss of troll fishing income would be devastating to these small coastal communities.

42. In sum, if the ITS for the Chinook salmon commercial troll fishery in the winter and summer seasons were to remain vacated, there will likely be significant consequences to the Chinook troll fleet and fishing communities in Southeast Alaska if the troll fleet was unable to fish for Chinook salmon in the absence of ESA take coverage. In addition to the disruptive and hard to quantify impacts described above, I find:

- Based on my review of reports from ADF&G, the ex-vessel value of the Chinook salmon commercial troll fishery totaled $13,560,260 in 2021, with an estimated five-year annual average of $11,462,827.60. Excluding the estimated five-year annual average ex-vessel value of the spring season, I estimate the annual average ex-vessel of the Chinook salmon commercial troll fishery in the winter and summer seasons to be $10,407,933.94.

- Based on my review of reports from ADF&G and a report from the McDowell Group, and accounting for recent declines in ex-vessel value and the estimated ex-vessel value of the spring fishery, I estimate the total annual economic output of the Chinook salmon commercial troll fishery in the winter and summer seasons to be approximately $29 million.

Pursuant to 28 U.S.C. § 1746, I swear under penalty of perjury that the foregoing is true and correct.

HARRINGTON.GRETCHEN.ANNE.1365893833

Digitally signed by HARRINGTON.GRETCHEN.ANNE.1365893833
Date: 2023.05.22 13:12:11 -08'00'

GRETCHEN HARRINGTON
Assistant Regional Administrator,
Sustainable Fisheries Division, Alaska Region
National Marine Fisheries Service

May 22, 2023
DATE