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HON. MICHAEL H. SIMON

UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

NATIONAL WILDLIFE FEDERATION, *et al.*,

Plaintiffs,

v.

NATIONAL MARINE FISHERIES SERVICE, *et al.*,

Defendants.

Case No. CV 01-00640-RE

THREE STATES' MEMORANDUM IN SUPPORT OF CROSS-MOTION FOR SUMMARY JUDGMENT AND IN OPPOSITION TO PLAINTIFFS' AND INTERVENOR-PLAINTIFF'S MOTIONS FOR SUMMARY JUDGMENT

REQUEST FOR ORAL ARGUMENT

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INTRODUCTION

The parties are now in their third round of summary judgment motion briefing with respect to the 2008 Biological Opinion ("2008 BiOp") directed to the operation of the Federal Columbia River Power System ("FCRPS"). The Intervenor-Defendant States of Idaho, Montana and Washington (collectively "the Three States") have joined in two prior summary judgment motions, and they now join in a third. The Three States review briefly the history of this litigation in the next section—since understanding where the parties are now requires some understanding of what has gone on in the past—but believe that the core questions as to the 2008 BiOp's validity remain unchanged:

- Has Defendant National Marine Fisheries Service ("NOAA Fisheries" or "NOAA") identified the correct legal standard for determining the jeopardy and adverse modification prongs in Section 7(a)(2) of the Endangered Species Act?
- If so, has NOAA (1) identified proper considerations (whether quantitative metrics or qualitative factors) for assessing whether the FCRPS's operations will jeopardize the affected listed species or will adversely modify their critical habitat and (2) arrived at rational conclusions based upon those metrics' application?

Plaintiffs National Wildlife Federation (collectively, "NWF" or "Plaintiffs") and Intervenor-Plaintiff State of Oregon answer each question "no."

NWF and Oregon reach the wrong answer as to all three questions. However, they run into particularly heavy weather with respect to their extended criticism of NOAA's science- and technically-based conclusions. The issue here is whether NOAA adopted a rational framework for determining if the reasonable and prudent alternative in the 2008 BiOp (as supplemented) satisfies Section 7(a)(2) and whether it made rational findings based upon that framework's

application. NWF and Oregon, together with their experts, direct their main fire on those findings and ask this Court to override NOAA's exercise of its professional judgment and expertise. The Court has neither the institutional competence nor, under settled principles of judicial review, the statutory authority to do what NWF and Oregon propose. The Federal Defendants' and their allied parties' cross-motions for summary judgment should be granted.[1]

LITIGATION SUMMARY

I. GENERAL OVERVIEW

The immediate focus of this round of summary judgment briefing is the 2014 Supplemental Biological Opinion ("2014 BiOp") issued in January 2014. The 2014 Supplement BiOp builds upon the 2008 BiOp and the 2010 Supplemental Biological Opinion ("2010 BiOp"), the latter of which involved consultation under Section 7(a)(2) of the Endangered Species Act ("ESA"), 16 U.S.C. § 1536(a)(2), over the Adaptive Management Implementation Plan ("AMIP") that refined the reasonable and prudent alternative ("RPA") adopted in the 2008 BiOp. The Three States addressed the validity of the 2008 and 2010 BiOps in earlier memoranda filed in support of cross-summary judgment motions. *See* Dkts. 1557, 1653, 1820, 1837. Much of those memoranda's analysis—most particularly the discussion of the jeopardy and adverse modification standards and metrics—remains directly relevant because those standards and metrics provide the framework within which the 2014 BiOp's technical findings and conclusions are made.

It nevertheless bears reiterating that the 2008 BiOp and its supplements reflect the

[1] The Three States do not address the claims raised in NWF's and Oregon's supplemental complaints directed to alleged violation of the National Environmental Policy Act, 42 U.S.C. §§ 4321 to 4347, and to NWF's supplemental complaint alleging violation of the ESA with respect to Southern Resident Killer Whales. *See* Dkt. 1928 ¶¶ 96-103; Dkt. 1973 ¶¶ 63-71. They join in the Federal Defendants' memorandum in support of their cross-motion for summary judgment and in opposition to NWF's and Oregon's summary judgment motions as to those claims.

Federal Defendants' long-standing effort to ensure that operation of the FCRPS, which has been for generations and remains today the principal source of electric energy for the Pacific Northwest, passes muster under Section 7(a)(2). The 2008 BiOp thus constituted the seventh biological operation directed to the FCRPS. All but one (the short-lived 1994 biological opinion) of those opinions prompted ESA-based litigation.[2] The 2008 and 2010 BiOps followed suit with respect to judicial challenge. *See Nat'l Wildlife Fed'n v. NMFS*, 839 F. Supp. 2d 1117 (D. Or. 2011) (Dkt. 1855) ("*NWF IV*"). Two of this lawsuit's decisions provide important guidance for present purposes: The Court of Appeals' 2008 opinion with respect to the 2004 BiOp and this Court's 2011 remand order with respect to the 2008 and 2010 BiOps.

II. *NWF III*: JEOPARDY AND ADVERSE MODIFICATION STANDARDS

In *NWF III*, the Court of Appeals affirmed the *NWF II*-based judgment invalidating the 2004 BiOp. It rejected at the outset NOAA Fisheries' attempt to distinguish between "discretionary" and "non-discretionary" operations, with the effects of the latter excluded from the environmental baseline, because the action agencies congressionally mandated to operate the various FCRPS facilities for flood control and power generation purposes. 524 F.3d at 929

[2] *Pac. N.W. Generating Co-op. v. Brown*, 822 F. Supp. 1479 (D. Or. 1993) (declining to reach, *inter alia*, merits of claim that ITS in 1992 opinion was improperly conditioned on providing flow augmentation), *aff'd*, 38 F.3d 1058 (9th Cir. 1994); *Idaho Fish & Game Dep't v. NMFS*, 850 F. Supp. 886 (D. Or. 1994) (IDFG) (invalidating 1993 biological opinion for applying incorrect jeopardy standard and inadequately explaining analytical assumptions), *vacated on mootness grounds*, 56 F.3d 1071 (9th Cir. 1995) (relying on issuance of 1995 biological opinion as mooting challenge to 1993 biological opinion); *Am. Rivers v. NMFS*, No. 96-384-MA (D. Or. Apr. 3, 1997) (upholding 1995 biological opinion), *aff'd*, No. 97-36159 (9th Cir. Mar. 8, 1999); *Nat'l Wildlife Fed'n v. NMFS*, 254 F. Supp. 2d 1196 (D. Or. 2003) (Doc. 396) (invalidating 2000 biological opinion because of improperly defined "action area" and inclusion in RPA of (a) federal actions over which consultation had not taken place and (b) non-federal action not reasonably certain to occur); *Nat'l Wildlife Fed'n v. NMFS*, No. CV-01-640-RE, 2005 WL 1278878 (D. Or. May 26, 2005) (Dkt. 986) ("*NWF II*") (invalidating 2004 biological opinion on the basis of an improper jeopardy standard for survival-determination purposes, a faulty adverse modification finding, and a failure to consider recovery independently in the jeopardy analysis), *aff'd*, 524 F.3d 917 (9th Cir. 2008) ("*NWF III*").

("[w]hen an agency, acting in furtherance of a broad Congressional mandate, chooses a course of action which is not specifically mandated by Congress and which is not specifically necessitated by the broad mandate, that action is, by definition, discretionary and is thus subject to Section 7 consultation").

The Court of Appeals turned then to the question of *how* the environmental baseline fits into the Section 7(a)(2) jeopardy analysis. It declined to endorse NOAA's "comparison" position; *i.e.*, that the ESA is satisfied so long as the effects of the proposed agency action (which would incorporate the RPA) were appreciably less detrimental to the listed species than "the risk posed by baseline conditions." 524 F.3d at 930 ("[u]nder [NOAA's] approach, a listed species could be gradually destroyed, so long as each step on the path to destruction is sufficiently modest"). The Court held instead that NOAA must "consider the proposed FCRPS operations in their actual context." 524 F.3d at 930. But it simultaneously emphasized that this reading of Section 7(a)(2) does not "have the effect of preventing any federal action once background conditions place a species in jeopardy." *Id.* Rather, "[a]gency action can only 'jeopardize' a species' existence if that agency action *causes some deterioration* in the species' pre-action condition." *Id.* (emphasis added); *see Oceana, Inc. v. Pritzker*, Civ. No. 08-1881 (PLF), 2014 WL 7174875, at *11 (D.D.C. Dec. 17, 2014) (*NWF III* "explain[ed] that the word 'jeopardize' indicates an element of causation"—the further deterioration of the species pre-existing status). Thus, as the Court held, NOAA was obligated not to "include the entire environmental baseline in the 'agency action' subject to review" but "simply [to] appropriately consider the effects [the agency action] 'within the context of other existing human activities that impact the listed species.'" 524 F.3d at 930.

The *NWF III* Court also considered the place of recovery in the Section 7(a)(2) jeopardy

and adverse modification contexts. First, it found unpersuasive NOAA's view that the jeopardy standard was satisfied unless the agency appreciably reduced the likelihood of both survival and recovery. 524 F.3d at 931-32. It recognized that "recovery impacts alone may not *often* prompt a jeopardy finding" (*id.* at 933) but that "to apply the proper 'joint survival and recovery concept,' NMFS must analyze effects on recovery as well as effects on survival" (*id.* at 932).[3] The potential for recovery of the listed species, in other words, must be examined even though an action's negative impact on recovery will rarely warrant a jeopardy determination when the survival prong does not.

Second, the Court reiterated the holding in *Gifford Pinchot Task Force v. USFWS*, 378 F.3d 1059 (9th Cir. 2004), that in assessing the adverse modification component of Section 7(a)(2), the effect of the agency action on critical habitat must be examined with respect to both survival and recovery. 524 F.3d at 933-34. It agreed with this Court that 2004 BiOp's adverse modification analysis failed in three respects: the failure to demonstrate that short-term critical habitat deterioration from the agency action through 2010 "would not affect the fishes' survival

[3] The term "joint survival and recovery concept" was quoted from the section-by-section analysis in the 1986 final interagency cooperation rules issued by the Fish and Wildlife Service and NOAA. 51 Fed. Reg. 19,926 (June 3, 1986). In material part, the analysis stated:

> The principal controversy involving the "jeopardy" and "destruction or adverse modification" definitions was that, under the proposed rule, to find that an action is likely to jeopardize a listed species or result in the destruction or adverse modification of critical habitat, the Service must identify detrimental impacts to "both the survival and recovery" of the listed species. The conjunction "and" was used in the 1978 rule's definitions of these phrases, but the word "both" was added by the proposed rule to emphasize that, *except in exceptional circumstances*, injury to recovery alone would not warrant the issuance of a "jeopardy" biological opinion. The Service adopts these definitions substantially without change from the proposed rule; this does not represent a change in policy, as one commenter charged, because the Service has internally interpreted the "jeopardy" standard as requiring detrimental impacts to the continued existence of a species under a joint survival and recovery concept. Other Federal agencies are assured that the same "jeopardy" standard under which their actions have been evaluated in the past will be continued under this final rule.

Id. at 19,934 (emphasis added).

and recovery, in light of their short life-cycles and current extremely poor habitat conditions (*id.* at 935); the inclusion of removable spillway weirs as part of the agency action to address its "immediate negative effects" without "a clear, definite commitment of resources" for the improvements (*id.* at 936); and the failure to "know roughly at what point survival and recovery will be placed at risk before . . . conclud[ing] that no harm will result from 'significant' impairments to habitat that is already degraded" (*id.*).

III. *NWF IV*: SPECIFIC, VERIFIABLE HABITAT MITIGATION ACTIONS BEYOND 2013

This Court found the 2008 and 2010 BiOps flawed because NOAA Fisheries "failed to adequately identify specific and verifiable mitigation plans beyond 2013 when current plans expire or are scheduled to be completed." 839 F. Supp. 2d at 1125.[4] Quoting from *Center for Biological Diversity v. Rumsfeld*, 198 F. Supp. 2d 1139, 1152 (D. Ariz. 2002), it held that "[m]itigation measures supporting a biological opinion's no jeopardy conclusion must be 'reasonably specific, certain to occur, and capable of implementation; they must be subject to deadlines or otherwise-enforceable obligations; and most important, they must address the threats to the species in a way that satisfies the jeopardy and adverse modification standards.'" 839 F. Supp. 2d at 1125. "By definition," therefore, "unidentified mitigation measures are not 'reasonably specific, certain to occur, and capable of implementation.'" *Id.* at 1126; *see also id.* at 1127 ("[a]part from a vague process for identifying replacement estuary projects if a particular action proves infeasible, there is no mechanism in the 2008 BiOp to ensure that the action agencies will implement specific projects in the 2013–2018 time frame or that 'equally

[4] Because it remanded on this basis, the Court did not address NWF's and Oregon's challenges to the 2008 and 2010 BiOps' "trending toward recovery" jeopardy standard and NOAA's choice of data to estimate the effects of the proposed agency action and the RPA. 837 F. Supp. 2d at 1125.

effective' actions even exist").

The Court summed up its objection as follows:

> Federal Defendants simply cannot substitute their "commitment" to survival improvement for specific actions they have evaluated and determined will provide the necessary biological response. It is one thing to identify a list of actions, or combination of potential actions, to produce an expected survival improvement and then modify those actions through adaptive management to reflect changed circumstances. It is another to simply promise to figure it all out in the future.

839 F. Supp. 2d at 1128. It noted "serious reservations about NOAA Fisheries' habitat mitigation plans for the remainder of this BiOp" (*id.* at 1129) but also recognized "the inherent uncertainty in making predictions about the effect of future actions" (*id.* at 1130). On the latter point, this Court added that "[i]f NOAA Fisheries cannot rely on benefits from habitat improvement simply because they cannot conclusively quantify those benefits, they have no incentive to continue to fund these vital habitat improvements" and that "requiring certainty with respect to the effects of a mitigation plan would effectively prohibit NOAA Fisheries from using any novel approach to avoiding jeopardy, including dam removal." *Id.*

STANDARDS OF REVIEW

In a judicial review proceeding under the Administrative Procedure Act, 5 U.S.C. §§ 701-706, "summary judgment may be granted to either party based upon [the court's] de novo review of the administrative record." *Lands Council v. Powell*, 395 F.3d 1019, 1026 (9th Cir. 2004). The same de novo review function exists when that record has been properly supplemented. *See San Luis & Delta-Mendota Water Auth. v. Jewell*, 747 F.3d 581, 602-03 (9th Cir. 2014), *cert. denied*, Nos. 14-377 & 14-402, 2015 WL 132972 & 132973 (U.S. Jan. 12, 2015). The scope of review is narrow:

> Although our inquiry must be thorough, the standard of review is highly deferential; the agency's decision is "entitled to a presumption of regularity," and we may not substitute our judgment for that of the agency. . . . Where the agency has relied on "relevant

> evidence [such that] a reasonable mind might accept as adequate to support a conclusion," its decision is supported by "substantial evidence." . . . Even "[i]f the evidence is susceptible of more than one rational interpretation, [the court] must uphold [the agency's] findings."

Id. at 601 (citations omitted). The court's review role, moreover, differs from the ordinary Fed. R. Civ. P. 56 process in a quite material way: In an original district court proceeding, "summary judgment is appropriate only when the court finds there are not factual issues requiring resolution by trial[,"] but in an APA judicial review proceeding, "summary judgment is an appropriate mechanism for deciding the legal question of whether the agency could reasonably have found the facts as it did." *Occidental Eng'g Co. v. INS*, 753 F.2d 766, 770 (9th Cir. 1985); *accord League of Wilderness Defenders/Blue Mountains Biodiversity Project v. Connaughton*, No. 3:12-cv-02271-HZ, 2014 WL 6977611, at *4 (D. Or. Dec. 9, 2014).

Two other review considerations apply here. First, the ESA's requirement that the "best scientific and commercial data available" (16 U.S.C. § 1536(a)(2)) be used adds a consideration, but even it comes with significant sideboards:

> The best *available* data requirement 'merely prohibits [an agency] from disregarding available scientific evidence that is in some way better than the evidence [it] relies on.'" . . . "Essentially, FWS 'cannot ignore available biological information.'" . . . Thus, "insufficient . . . [or] incomplete information . . . does not excuse [an agency's] failure to comply with the statutory requirement of a comprehensive biological opinion using the best information available" where there was some additional superior information available. . . . On the other hand, where the information is not readily available, we cannot insist on perfection: "[T]he 'best scientific . . . data available,'" does not mean "the best scientific data possible."

Id. at 601-02 (citations omitted). The Court of Appeals thus has rejected the notion "that the statute's reference to "*best scientific data available*" requires the Secretary to find and consider any information that is arguably susceptible to discovery." *Sw. Ctr. for Biological Diversity v. Babbitt*, 215 F.3d 58, 60-61 (9th Cir. 2000). Second, where Congress demands an agency to exercise expert judgment, the Judicial Branch's review authority is at a nadir. *Lands Council v.*

McNair, 537 F.3d 981, 993 (9th Cir. 2008) (en banc) ("[w]e are to be 'most deferential' when the agency is 'making predictions, within its [area of] special expertise, at the frontiers of science'"); *accord Soda Mountain Wilderness Council v. USBLM*, 945 F. Supp. 2d 1162, 1186 (D. Or. 2013). As *Lands Council* pointedly observed, a court does not "act as a panel of scientists that instructs the Forest Service how to validate its hypotheses regarding wildlife viability, chooses among scientific studies in determining whether the Forest Service has complied with the underlying Forest Plan, and orders the agency to explain every possible scientific uncertainty." 537 F.3d at 988.

ARGUMENT

I. 2014 SUPPLEMENTAL BIOP CORRECTLY CONCLUDES THAT POST-2013 HABITAT MEASURES, IN CONJUNCTION WITH ADAPTIVE MANAGEMENT, PROVIDE A SUITE OF MEASURES THAT ARE REASONABLY CERTAIN TO OCCUR AND, WHEN COMBINED WITH OTHER RPA MEASURES, SUPPORT A NO JEOPARDY DETERMINATION

A. CONTEXT FOR HABITAT MEASURES AND THE ALL-H PARADIGM

As early as the 2000 FCRPS BiOp, the action agencies, NOAA, and fishery managers in the region, all embraced the principle of an "All-H" perspective when evaluating both threats to listed salmonids, and the utility of actions that might be taken in response to their listing under the ESA. The All-H perspective acknowledges that threats to salmonids, and potential responses, are driven by a mix of hydropower,[5] habitat, hatchery, and harvest dimensions. Indeed, it is generally recognized that avoiding jeopardy for federal actions related to any of the four H's (the Section 7(a)(2) analysis), and making progress on recovery (the Section 4

[5] As the BiOp and the briefs of other parties reflect, "hydropower" is a simplified term for the array of dams that were constructed within the Columbia River Basin in the past—and for present purposes called the FCRPS. In addition to power production, these dams are managed for a host of important objectives including irrigation, navigation, flood control, and fish and wildlife.

objective) requires an All-H approach. This is true in practical terms, not because the ESA itself mandates such an approach as a matter of law. On the Columbia River, the threats to salmonids, and possible responses, are simply too interconnected and there is too much scientific uncertainty, to adopt any other approach. Accordingly, all FCRPS BiOps from 2000 forward, including the 2014 remand effort, have employed this All-H perspective.

While hydropower is generally viewed as a significant contributor to mortality, debate and scientific uncertainty over how to mitigate for mortality from continuing FCRPS operations rapidly ensues as specific components of the system, fish life histories, causative relationships, and mitigation strategies are examined. Declaration of Tweit, ¶ 4. Indeed, polarized views exist on all these aspects, but none are typically capable of resolution with anything near certainty.

In terms of a preference for a focus on specific mitigation strategies, that debate too is polarized, with science positions advocated in support, but room for divergent scientific opinion. Some, like NWF and the Nez Perce Tribe, prefer a much greater emphasis on dam breaching.[6] Some, like Oregon, want an *even greater*[7] focus on experimental manipulation of mainstem hydro-operations.[8]

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[6] Leaving aside the debate over the relative utility of dam-breaching, the absence of any congressional authorization precludes dam breaching as an alternate RPA because RPAs are limited to those alternative actions capable of being implemented. 16 U.S.C. § 1536(b)(3)(A). There are instead FCRPS objectives mandated by federal law. *See Nat'l Wildlife Fed'n v. USACE*, 384 F.3d 1163, 1179 (9th Cir. 2004) ("Congress alone in its legislative function must determine if the dams are to remain").

[7] The Three States emphasize the phrase "even greater" because there can be no argument that real and substantial modifications to both FCRPS infrastructure and its operation have been put into place since 2000 and provide a foundation for the overall RPA evaluated in the 2014 BiOp. So much has been done in the hydropower arena that many argue there is not much to be wrung from further hydro system operations (which is arguably part of the reason that some parties to this litigation so vigorously criticize habitat actions as an effective mitigation measure and call for dam breaching as the best remaining alternative – thus, in effect, shutting down the FCRPS at least in part).

[8] Oregon and NWF argue for implementation of what has been called "The Spill Experiment,"

Idaho, Montana, and Washington remain in the All-H camp. *See, e.g.*, Declaration of Tweit, ¶¶ 4, 17, 41, 45. Since 2000, and particularly with the advent of the collaborative remand during which NMFS and the Action Agencies fully engaged the expertise of state and tribal fishery managers, the Three States have continued to argue that a focus on habitat restoration as part of the development of an overall RPA is both necessary and of great value. The adoption and refinement of the AMIP was particularly significant, both legally and scientifically, because it was a way to both address the reasonably certain to occur dimension of any Section 7 analysis, and a scientifically sound approach to fish management.

While the Three States respect the views of their sister State in this litigation, the ultimate question for this Court is not whether one of those two viewpoints is more or less correct. There are sincere science views in both camps. Declaration of Tweit, ¶ 18. The question in this APA review case is whether NMFS considered the various views and made a rational decision irrespective of which camp's views tended to prevail in the final analysis. Idaho, Montana and Washington feel NMFS went far further than required by the APA, the ESA or this Court's prior orders: The agency exercised unprecedented openness and engagement as to every issue raised in connection with formulation of the 2008, 2010 and 2014 BiOps. NMFS confronted the scientific issues, employed the best available science, and met the task of ensuring that out-year habitat restoration is reasonably certain to occur and produce meaningful benefits for listed salmonids.

B. THE REMAND DIRECTIVE

This Court's 2011 opinion and remand order did not take issue with the action agencies'

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but this proposal was viewed as more of a trial balloon in need of further development and evaluation than a fully formed experimental proposal capable of being evaluated for utility at the time of the remand. *See Review of the Proposed Spill Study, available at* http://www.nwcouncil.org/fw/isab/isab2014-2 (last visited Mar. 2, 2015).

use of tributary and estuary habitat measures *per se*. Indeed, nothing in that opinion found fault with the identification and implementation of habitat projects as part of the RPA through 2013. However, the Court worried about the process for identifying and implementing habitat projects starting in 2013—the point at which the 2010 BiOp shifted from pre-planned projects[9] to an adaptive management process that relied on identification of desired benefits, identification of classes of potential projects, and a commitment to employ that process. This Court concluded that the 2010 approach to out-year habitat mitigation "not reasonably certain to occur." *NWF IV*, 839 F. Supp. 2d at 1125. Specifically, the opinion and order elaborated that the approach to identifying and implementing out-year mitigation projects was insufficiently developed and thus a vague commitment to "figure it all out in the future." *Id*. at 1128. This sense that future mitigation measures were too vague was based on the absence of specifically identified types of projects in the out-year period *and* the Court's concern that it was "unclear whether [NMFS and the action agencies] will be able to identify feasible and effective mitigation measures during that period." *Id*. at 1126.

Nevertheless, the Court did not reject the propriety of habitat restoration as both an immediate and long-term strategy even where out-year projects will necessarily be subject to a measure of reasonable uncertainty. It noted that "federal defendants need not detail every detail of a habitat management plan" (839 F. Supp. 2d at 1128)—and that it may be possible to identify a list of potential actions, together with "expected survival improvement" (*id.*), to adapt these targeted commitments in the fullness of time to address real world facts and circumstances that

[9] This shift in approach recognizes that planning actual projects farther out in the timeline is fraught with its own uncertainty. Adaptive management bridges this gap in uncertainty to tailor specific projects in a realistic time-frame. The challenge then is to employ that approach in a manner that is both scientifically sound and consistent with the reasonable certainty demanded as a matter of law in the Section 7 context.

come into better focus—the hallmark of adaptive management. This very exercise was the focus of the regional remand effort. NWF and Oregon complain that the 2014 BiOp stays on track with the overall approach used in 2010. To the extent that this means the remand built upon the 2010 approach, but appropriately engaged the vagueness concern articulated in 2011 by this Court, nothing more is required. To the extent the focus thus remains an All-H effort, that approach is also welcomed by many in the region.

C. THE REMAND FOCUS

In order to be faithful to this Court's remand directive, NMFS laid the groundwork for habitat project identification and evaluation with the following three principles:

- Whether the effects of the habitat RPA actions including those from the newly developed projects are reasonably certain to occur;
- Whether the projects the Action Agencies have identified for implementation after 2014 when added to projects implemented since 2007 are likely to achieve the RPAs Habitat Quality Improvement objectives set forth in RPA Action 35 Table and the associated survival improvements for listed salmonids in tributary habitat as well as the estuary survival improvements objectives set forth in RPA Actions 36 and 37; and
- Whether the methodology used by the Action Agencies to determine the efficacy of the habitat actions uses the best science available.[10]

RPA Actions 34 through 39 and 56 through 61 are the product of this approach. The manner in which the associated habitat projects were developed and evaluated is discussed in the 118 pages of the BiOp comprising Sections 3.1 (Tributary Habitat Measures) and 3.2 (Estuary Habitat Measures). The Three States do not attempt a complete recapitulation of NMFS'

[10] *See, e.g.*, NMFS000033

analysis here (which is more fully discussed in the Federal Defendants' briefing to this Court). However, from the Three States' perspective, the RPA development and evaluation faithfully confronted the remand order as outlined in the three remand principles set forth above.

In a nutshell, in order to identify useful habitat projects, the first step is to identify factors that limit the functionality of habitat. Remedial actions are then identified based upon their ability to alleviate limiting factors with a view to increasing survival of listed salmonids. This process is grounded in specific stream segments for specific populations, with prioritization based upon predicted survival improvements.

This approach was initially developed for the 2008 and 2010 BiOps after rigorous vetting with regional fishery managers (the Remand Collaboration Habitat Workgroup), and was further updated and applied using expert panels for the 2014 remand effort. NMFS 000231. Verification of the approach continues as part of the AMIP and was again evaluated in connection with the 2014 remand. NMFS000238-242. The ability to actually achieve anticipated survival benefits through 2018, evaluated in relation to the performance standards that are employed, was also considered and updated in the remand effort. NMFS000242-44. Declaration of Tweit, ¶¶ 8-14, 23-35.

While these science-based processes, and the associated decision-making, are not free of uncertainty (the real world of fisheries management), they are most certainly grounded in the best science currently available. Moreover, this "best available science" is not mere speculation or a hoped for experiment in salmon recovery. Habitat restoration is a universal feature in salmon recovery efforts. It is no less valid when applied as a means to avoid jeopardy for continued operation of the FCRPS. Moreover, the series of BiOps and recent remand efforts have verified the utility of the approach and sharpened the ability to usefully employ the

technique. The use of expert panels outside of NMFS and the Action Agencies to articulate the process for identifying limiting factors in specific areas and for specific populations, to estimate survival benefits, and develop specific projects, is far more than a vague commitment "to figure it all out in the future." It reflects a systematic process that was employed during the remand and that continues with the AMIP to attain a reasonable level of certainty with regard to project selection, implementation, monitoring, and appropriate reaction if additional action becomes necessary.

D. HABITAT RESTORATION AND REASONABLE CERTAINTY

Estimates of habitat restoration, just like predictions of what will happen with spill or flow modifications, involve a combination of quantitative data mixed with qualitative analysis. However, complete certainty is not required (nor can any fishery manager claim such power in salmonid management). Indeed, decisions can even be made where the science is unclear, provided the best available science is used in a reasonable manner. *Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 52 (1983) (agency may act even "on the basis of serious uncertainties if supported by the record and reasonably explained"). In the case of Section 7, habitat restoration mitigation measures pass muster where there is some reasonable certainty that the mitigation function will ultimately work to address the jeopardy issue. *Natural Res. Def. Council v. Kempthorne*, 506 F. Supp. 2d 322, 350-55 (E.D. Cal. 2007). The *Kempthorne* framework—"some form of measureable goals, action measures, and a certain implementation schedule" (*id.* at 355)—is met here. There are population specific targets for habitat improvements (2008 BiOp - RPA 35, Table 5), a process for selecting and reviewing projects that will be implemented to ensure that the projects are designed to provide the benefits needed (2008 AR B.89; 2008 BiOp - RPA 35, Table 5; as updated, NOAA B48: 4204-16),

together with a detailed RM&E process to evaluate progress, learn from successes and failures, and implement corrective action (*id.*). In connection with the remand, an updated set of habitat restoration projects was identified for the 2014-2018 period (NOAA B48: 4309-37) and fully evaluated (2014 BiOp at 227-318).

NWF IV did not require abandoning the overall habitat restoration approach previously employed. Rather, *NWF IV* mandated the elimination of the lack of specificity for out-year project identification and the sense of indefiniteness that lead this Court to conclude the process was simply a commitment to figure it out on the fly. The 2014 BiOp accomplished this directive through a deeper investigation and refresh of the scientific underpinnings of the habitat approach, together with the use of expert panels to apply the process across the entire action area throughout the 2018 timeframe, all backstopped by the AMIP process. Declaration of Tweit, ¶¶ 7, 27 & 29.

The continuing critique of NWF and Oregon does not really attack the underlying habitat restoration approach as updated by the 2014 remand. Indeed, those parties claim to embrace habitat restoration in general (as they should), but make a "legal" argument that it just is not certain enough for a Section 7(a)(2) analysis. Their case for this centers on two points, neither of which is sufficient to impugn either the intensive regional collaboration on habitat restoration or NMFS' reasoned evaluation of that effort.

NWF does not take issue with the science or processes that have been developed around the implementation of habitat mitigation. It cannot. Instead, NWF grounds its uncertainty argument upon the position that reasonable certainty with regard to habitat restoration requires each and every project to be fully developed, and with identifiable benefits that are fully verified. But that level of certainty is impossible, and everyone in the region, whether as part of recovery

planning or as part of the Section 7 regional collaboration, has always recognized as much. *See, e.g.*, Declaration of Tweit, ¶ 35. Instead, the remand effort sought to improve on the available science and utilize processes that substantially increased the ability to identify and predict habitat restoration benefits. Declaration of Tweit, ¶¶ 9, 11, 12, 25, 26. The inability to eliminate all uncertainty is also why adaptive management, via AMIP, is critical to the success of habitat restoration (and, it should be added, is part of the identification and implementation of other measures like spill, flow augmentation, or infrastructure improvements like removable spillway weirs).[11] Nor is the level of certainty demanded by NWF what this Court ordered for the remand effort. *NWF IV*, 839 F. Supp. 2d at 1128 (contrasting "identify[ing] a list of actions, or combination of potential actions, to produce an expected survival improvement and then modify[ing] those actions through adaptive management to reflect changed circumstances" with "simply promis[ing] to figure it all out in the future").

Finally, NWF casts stones by focusing on the areas where progress has not been made. But it is clear plenty of progress has been made. The list of progress is chronicled at this web site: Map—Work contributing to APR 2007-2014, www.cbfish.org/Map.mvc/Display/29 (last visited Mar. 3, 2015). Furthermore, as identified above, and as summarized in the Declaration of Bill Tweit, the remand effort and continued RPA implementation have made substantial gains in terms of habitat restoration efforts—*e.g.*, supplemental habitat projects to benefit six primary populations that were not expected to meet targeted habitat quality improvement (HQI) levels;

[11] Any fair appraisal of the years of effort that have gone into studying other mitigation measures like spill, flow augmentation, or infrastructure modifications, will recognize that the consideration of any measure starts with a reasoned hypothesis, experimentation to verify the hypothesis as much as possible, and efforts to implement. Research, monitoring, and evaluation—the bedrock of scientific adaption—are a crucial part of this process. Declaration of Tweit, ¶¶ 27, 41-42. Ironically, NWF's newest uncertainty assertions, applied to these very same measures they favor over habitat restoration, would have raised similar legal arguments as to their implementation in BiOps over the course of the last two decades.

22,000 acres of estuary to be restored by 2018. Declaration of Tweit, ¶¶ 13-14.

Oregon's approach is to question the utility of habitat restoration relative to further experiments in mainstem hydrosystem and pool reconfigurations. In particular, Oregon disputes NMFS' conclusion that, while abundance continues to improve significantly, concerns about lagging recruits/spawner ("R/S") performance measures are probably explained by the phenomenon of density dependence. NMFS reasons that density dependence is likely the operative reason R/S lags in the face of habitat restoration and that it will likely improve as time continues. Oregon disagrees and points to other places where habitat that is not in need of priority restoration has similar R/S issues. *See infra* at Argument II.C.2 (discussing density dependent issue).

Oregon's hypothesis is interesting, and merits careful consideration. But Oregon cannot claim NMFS ignored the problem. The agency did not (and instead meticulously studied it). Nor do the declarations NWF and Oregon supply demonstrate that their experts are unequivocally right in this regard. Other regional fishery managers think the Oregon perspective is interesting, but not remotely definitive. Declaration of Tweit, ¶ 18.

The reality is that there are multiple perspectives on the manner in which density dependence is affecting R/S. In the end, NMFS considered the arguments but came to a different reasoned conclusion. Washington's fishery biologists agree and, on that basis, continue to support the use of habitat restoration measures. Declaration of Tweit, ¶¶ 18, 19, 24, 28. Oregon may have a different perspective on both the science and the relative merits of habitat restoration, but a difference in opinion does not make NMFS' views arbitrary or capricious.

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II. "TRENDING TOWARD RECOVERY" JEOPARDY STANDARD COMPLIES WITH SECTION 7(A)(2) AND IS ACCOMPANIED BY A ROBUST SET OF QUANTITATIVE METRICS AND QUALITATIVE CONSIDERATIONS THAT NOAA HAS APPLIED AND INTERPRETED RATIONALLY

A. JEOPARDY STANDARD OVERVIEW

The 2008 BiOp identified its standard for satisfying the jeopardy and recovery components of Section 7(a)(2) as "whether the species can be expected to survive with an adequate potential for recovery (e.g. trending toward recovery) under the effects of the action, the effects of the environmental baseline, and any cumulative effects." 2008 BiOp at 1-10. It identified quantitative metrics for the six interior Columbia River salmon evolutionarily sensitive units ("ESUs") and steelhead dependent population segments ("DPSs") and qualitative considerations for all 13 ESUs and DPSs to make the jeopardy determination. *Id.* at 7-1 – 7-37.[12]

The Three States discussed the "trending toward recovery" standard, and its general derivation from 2005 memoranda authored by former Regional Administrator D. Robert Lohn, in the 2008 opening memorandum in support of their cross-motion for summary judgment. Dkt. 1557 at 9-17. In brief, NOAA Fisheries examined the Interior Columbia River species' likelihood of survival and recovery at the population level with reference to three metrics—R/S rates, median population growth rates ("lambda"), and the agency's West Coast biological team ("BRT") population trend methodology. 2008 BiOp at 7-22 – 7-26. NOAA added a fourth metric to its survival prong analysis—a "survival gap" analysis using quasi-extinction risk

[12] Aside from the six ESUs and DPSs grouped together as the Interior Columbia River species, six others are included in the Lower Columbia River species grouping. The final ESU, Snake River Sockeye, is treated separately given its unique status as a captive broodstock program. 2008 BiOp at 7-3 – 7-4, 7-36, 8.4-3.

modeling aimed at determining the level of improvement necessary to achieve a five percent or less risk of extinction during the next 24 years.[13]

Qualitative factors for the survival prong of the jeopardy standard include climate change (2008 BiOp at 7-32 – 7-34), viable salmon population ("VSP") criteria—recent abundance, recent productivity, spatial structure and diversity—as well as the effectiveness of safety-net and/or supplementation programs, the effectiveness of the prospective action in reducing limiting factors, and the effectiveness of monitoring/adaptive management protocols (*id.* at 7-34 – 7-35). Qualitative factors for the recovery prong include climate change and the VSP criteria. *Id.* at 7-35 – 7-37.

Using these quantitative metrics and qualitative considerations, NOAA determined that the 13 listed ESUs and DPSs would trend toward recovery with application of the RPA. 2008 BiOp at 8.2-1 – 8.14-23. NOAA followed a several step process that applied the quantitative and/or qualitative analytical tools to each ESU/DPS separately by population and then used the population-specific assessment to reach a species-wide determination (with an intervening major population group roll-up for those species with such groups). *Id.* at 7-48 – 7-51. Application of the quantitative metrics required comparing (1) "base period" condition (population performance for brood years from approximately 1980 through 1999) to its "current" condition (estimated population performance if current management actions continue) and then (2) the population's current condition to its "future" condition (estimated population performance with the RPA's

[13] NOAA established a quasi-extinction threshold of 50 fish because of prediction difficulties with using absolute extinction as threshold (2008 BiOp at 7-15) and because the Interior Columbia Basin Technical Recovery Team has applied that quasi-threshold in its 100-year extinction risk analysis (*id.* at 7-16). An illustration of survival gap analysis with respect to the hydro component of the Marsh Creek population (Snake River spring/summer Chinook salmon ESU) appears in Figure 7.1-2 of the 2008 BiOp. *Id.* at 7-10. The 2014 BiOp summarizes the technical aspects of the extinction risk metric at pages 64-66. A more detailed discussion appears in Richard A. Hinrichsen's report, Appendix B to the 2014 BiOp.

implementation). *Id.* at 7-11.

B. UPDATED RESULTS

NOAA used the Northwest Fisheries Science Center's Salmon Population Summary database for its quantitative jeopardy analysis. 2014 BiOp at 73. The database contained four to nine years of post-2008 BiOp data for most interior Columbia basin population and data for some other populations for which none was available for use in the 2008 BiOp. *Id.*; *see also id.* at 77-78 (Tables 2.1-3 and 2.1-4). Updated quantitative metrics appear for 24-year extinction risk (*id.* at 85-88 (Tables 2.1-7 and 2.1-8)); R/S rates (*id.* at 90-93 (Tables 2.1-9 and 2.1-10)); population growth rates (*id.* at 95-103 (Tables 2.1-11 through 2.1-14)); and BRT Trend rates (*id.* at 105-08 (Tables 2.1-15 and 2.1-16)). NOAA also included data reporting ten-year geometric mean abundance because of their relevance to assessing not only current species status relative to recovery abundance goals but also productivity data. *Id.* at 55, 80-83 (Tables 2.1-5 and 2.1-6).

The new data, although reflecting the same or more positive estimates for virtually all populations, "indicate[] no significant changes in the 2008 BiOp expectations for effects of the RPA at the population level" for the interior Columbia basin species *Id.* at 468. As NOAA explained, "[w]hen the 2008 BiOp's Base Period indicator metrics are corrected based on new information and extended to include additional years with new empirical estimates of population performance, nearly all of the new extended Base Period estimates fall within the statistical confidence limits of the previous estimates." *Id.* at 109. Various point estimates, while within previously calculated confidence intervals, "did change, with point estimates of abundance and BRT abundance trend generally higher, estimates of extinction risk lower (i.e., less risk of extinction), and estimates associated with productivity generally lower (but with exceptions

depending on species and metric) than those in the 2008 BiOp were." *Id.* NOAA concluded that the lower productivity estimates likely reflected the influence of density dependence arising from higher than anticipated abundance. *Id.* at 67-68, 113-19, and App. C.

NOAA also concluded that the new information as to the six lower Columbia basin ESUs and DSPs did not affect their threatened biological risk category. 2014 BiOp at 43 (Table 2-1); 137 (CR chum salmon); 139 (LCR Chinook salmon); 140-41 (LCR coho salmon); 142 (LCR steelhead); 145-46 (UWR Chinook salmon); 147 (UWR steelhead); 473 (general findings).[14] The agency adhered as well to its determination that the captive propagation program established for Snake River sockeye salmon "has likely forestalled extinction of this population and the ESU." *Id.* at 129. It also found that "the risk status of the SR sockeye salmon ESU appears to be on an improving trend" but also noted that long-term use of captive propagation could lead to species domestication. *Id.* NOAA, finally, determined that the new information did not warrant any modification of the anticipated 2008 BiOp's effects on the six lower Columbia basin ESUs and DPSs. *Id.* at 476.[15]

C. NWF'S AND OREGON'S CORE JEOPARDY CRITICISMS

NWF attacks the 2014 BiOp's jeopardy analysis on several grounds. *First*, it reprises its earlier challenge to the trending toward recovery jeopardy standard (Dkt. 1499 at 9-12), which it characterized as untethered to Section 7(a)(2) (Dkt. 1976 at 9) and merely requiring, at most, a

[14] NOAA concluded that the new information "indicates that the effects of the RPA actions will be the same or, for 22 populations, more beneficial than anticipated in the 2008 BiOp." 2014 BiOp at 468. A contrary conclusion was reached only as to two SR spring/summer Chinook salmon populations. *Id.* The agency explained in detail why it determined that the new information did not warrant modifying "the 2008 BiOp's characterization of these two populations to meet indicator metric criteria." *Id.* at 469. Neither NWF nor Oregon responds to the 2014 BiOp's analysis as to those populations.

[15] NWF and Oregon do not address this finding or otherwise substantively discuss the lower Columbia basin species in their summary judgment memoranda.

"detectably growing" ESU or DPS (*id.* at 11). *Second*, NWF challenges NOAA's reliance on the fact that the 2014 BiOp's updated point estimates fall within the 2008 BiOp confidence intervals as support for its conclusion that the ESU's and DPS's status remains stable. *Id.* at 14. That reliance, it argues, "shifts the burden of risk to the species from the action." *Id.* at 17. *Third*, NWF contends that NOAA's qualitative analysis addressing in the quantitative metrics is "formulaic" and fails to explain how that analysis "attenuates" the uncertainty. *Id.* at 19-20. In addition, Oregon takes issue with NOAA's dam performance test results (Dkt. 1985 at 31) and its failure to assign a value to delayed mortality—*i.e.*, mortality "caused by the experience [of passing] through the FCRPS" (*id.* at 32). But all of these attacks should fail. NWF's objection to the trending toward recovery standard ignores *NWF III*. The remaining criticisms run headlong into the deference owed NOAA's resolution of highly difficult technical questions—particularly where relevant data is attended by a large measure of uncertainty.

1. Trending Toward Recovery Standard. NWF's argues that NOAA Fisheries' jeopardy "approach looks backward" because NOAA allegedly asks "with this action, will the species be left appreciably off track to achieve recovery." Dkt. 1976 at 10. This argument sacrifices accuracy in the interest of rhetoric. As the 2008 and later BiOps make clear, the standard actually requires the agency action, as complemented by the RPA, to *increase* the likelihood that the affected species will survive and achieve eventual recovery. Section 7(a)(2) itself requires only that the action not appreciably *decrease* that likelihood.

The Court of Appeals in *NWF III* left no doubt on this score when it held that "[a]gency action can only 'jeopardize' a species' existence if that agency action causes some *deterioration* in the species' pre-action condition." 524 F.3d at 930 (emphasis added). NOAA faithfully applied that standard by, *inter alia*, painstakingly establishing as the base condition of the

interior Columbia Basin species and then measuring that condition against current and prospective conditions to estimate both survival and recovery changes across All-Hs through the RPA's implementation. *E.g.,*, 2008 BiOp at 8.2-37 – 38; 8.3-52 – 55; 8.5-55 – 61; 8.6-40 – 41; 8.7-47 – 48; 8.8-53 – 55. The extended base data did nothing to diminish the accuracy of that assessment. 2014 BiOp at 80-107 (Tables 2.1-5 – 2.1-16). The Three States' earlier argument on this issue remains unimpeached by NWF's reiteration of its idiosyncratic view of Section 7(a)(2) requirements. *See* Dkt. 1557 at 23-27.

2. Confidence Intervals, Point Estimates and Density Dependence. NOAA Fisheries' statistical analysis involved the use of regression models to predict likely outcomes represented by the best-fit line within a five percent confidence interval. NWF does not challenge the data used in the analysis, nor does it question the statistical modeling itself. It instead contends that, in 2008 and now, "the Base Period point estimates of the trend and extinction metrics are too uncertain to provide a rational basis for making reliable predictions about the effects of the RPA." Dkt. 1976 at 13. This issue represents a paradigmatic example of when the APA requires deference to an agency's expertise and exercise of its reasoned judgment. As the Court of Appeals held in *Ecology Center v. Castaneda*, 574 F.3d 652 (9th Cir. 2009), "[t]hough a party may cite studies that support a different conclusion from the one the [agency] reached, it is not our role to weigh competing scientific analyses." *Id.* at 659; *see Colorado River Cutthroat Trout v. Salazar*, 898 F. Supp. 2d 191, 209 (D.D.C. 2012) ("[a]lthough the plaintiffs may disagree with the science or the methodology the FWS elects to use, absent a statutory mandate that requires a particular methodology, the agency's choice of methodology need only be 'reasonable' to be upheld"). Here, NOAA relied on modeling results from unquestioned data that identified the most probable trend lines.

Similar deference is due to NOAA's conclusion that the point estimate differences reported after regressing the new data available for analysis for purposes of the 2014 BiOp—all of which fell within the confidence interval in the 2008 BiOp base condition modeling—did not alter its jeopardy determination. 2014 BiOp at 130-33. The agency explained that, although none of the point estimate changes was statistically significant, they did vary by metric. *Id.* at 109 ("some of the point estimates did change, with point estimates of abundance and BRT abundance trend generally higher, estimates of extinction risk lower (i.e., less risk of extinction), and estimates associated with productivity generally lower (but with exceptions depending on species and metric) than those in the 2008 BiOp were"). NOAA attributed the lower productivity estimates to the effect of density dependence after conducting a detailed statistical examination. *Id.*, App. C at C-10 (finding "strong support of the hypothesis that density-dependent recruitment is occurring in [the analyzed] populations"). NWF may have a counterview on whether density dependence has affected the estimates, but, once again, NOAA's professional judgment on the issue must carry the day under controlling judicial review principles. *W. Watershed Project v. USFWS*, No. 4:13-CV-176-BLW, 2014 WL 4853200, at *8 (D. Idaho Sept. 29, 2014) ("where many factors point in different directions[,]" controlling "case law cited above requires this Court to give deference to the agency").[16]

3. Uncertainty-Related Qualitative Considerations. NWF deems irrational NOAA's reliance on qualitative considerations because the agency "does not explain

[16] NWF argues that "NOAA's approach in the 2014 BiOp . . . impermissibly shifts the burden of risk to the species from the action." Dkt. 1976 at 17 (citing *Sierra Club v. Marsh*, 816 F.2d 1376 (9th Cir. 1987)). *Sierra Club* involved a situation where the availability of mitigation lands depended upon the Corps of Engineers' prevailing on a claim against non-federal parties for the transfer of certain mitigation lands. The Court of Appeals held that "the risk that the COE might not prevail must be borne by the project, not the endangered species." *Id.* at 1386. In plain contrast, NWF's instant burden-shifting claim is simply another way of arguing that NOAA's scientific conclusions are arbitrary. The highly deferential APA standard controls here.

anywhere how it weighs or combines [the non-quantitative] information to support its conclusions." Dkt. 1976 at 19. This claim derives from NOAA's statement, with respect to the uncertainty about the significance of point estimate differences between base and extended base estimates, that "high variability and relatively few observations make it difficult to statistically 'prove' whether a new indicator metric estimate represents a change from the previous estimate or not." 2014 BiOp at 67. The agency consequently "calculate[d] and consider[ed] relevant statistical information, but rel[ies] on a combination of all of the information described in this section in our determination." *Id.* Among this information was its analysis of abundance data—one of the VSP criteria (2008 BiOp at 7-34 – 7-35)—and of density dependence as a possible cause of lower point estimates for productivity metrics (2014 BiOp at 68 & App. C). NOAA also considered the United States Department of Commerce FY 2013 Performance and Accountability Report that, when compared with its 2009 predecessor, stated that at the species level "all interior Columbia species were considered stable except for SR fall Chinook and SR sockeye salmon, which were considered 'increasing.'" *Id.* at 72.

As NWF apparently recognizes, the statement that it seizes upon was made in the context of NOAA's attempt to assess the significance (if any) of the point estimate differences between the two base period calculations. The agency devoted substantial attention to the abundance data, so much so that it performed a statistical analysis to determine whether density dependence might exist. *See* 2014 BiOp, App. C at C-10 (finding "strong support for the hypothesis that density-dependent recruitment is occurring in [the studied] populations"). The Performance and Accountability report additionally supported the conclusion that the extended base period productivity-related metric point estimates, to the extent that they are lower than the original base period estimates, did not reflect any deterioration in the species' status. Whatever particular

meaning that NWF attaches to the terms "weighs" or "combines," no legitimate question exists that NOAA took rational steps to address the uncertainty issue and exercised its professional judgment to conclude that the point estimate differences did not alter its prior jeopardy determinations as to the interior Columbia Basin ESUs and DPSs. Governing APA judicial review standards require deferring to that expertise-based conclusion.[17]

4. Delayed Mortality and SAR Ratios. Oregon asserts that NOAA Fisheries arbitrarily declined to use smolt-to-adult return ("SAR") ratios to assess the delayed mortality phenomenon. Dkt. 1985 at 32-33. Oregon's claim overstates the facts. NOAA merely declined to adopt SAR as a hydrosystem performance metric. It nevertheless did find SAR ratios helpful for certain purposes.

NOAA directly addressed in the 2014 BiOp Oregon's recommendation that the SAR metric be used "to measure the full effects of the FCRPS." 2014 BiOp at 124. The agency chose not to adopt that recommendation "because most of the mortality in this life stage occurs in the estuary and ocean, outside the FCRPS" and because "[t]he degree to which mortality in the estuary and ocean is caused by the prior experience of juveniles passing through the FCRPS (i.e., delayed or latent mortality) is unknown and hypotheses regarding the magnitude of this effect vary greatly." *Id.* Delayed mortality, in sum, is not single-source phenomenon, with the FCRPS's contribution subject to significant scientific debate.

NOAA nonetheless finds that SAR "can be a useful indicator of the status of a species" and "can illuminate the degree to which changes in the R/S correspond to changes in migration corridor and estuary/ocean survival versus changes in tributary spawning and rearing survival."

[17] It additionally bears repeating that, as discussed above in Argument Part I.D, the 2010 BiOp's incorporation of the robust AMIP provides an important hedge against the inherent uncertainties of fish science generally and its application to the Columbia Basin anadromous species specifically.

Id.; *see also id.* at 133 ("[b]ecause SARs represent a significant component of life-cycle survival, we add it as a factor indicative of [SR spring/summer Chinook and SR steelhead] current status, but do not adopt it as a hydro performance measure"). In response to Oregon's recommendation, moreover, NOAA examined SAR estimates in a 2013 study and stated that they are "useful for showing the pattern of combined survival through juvenile migration, the estuary, and ocean over a multi-decadal time period" but that "additional information is needed to relate these SARs to smolt production and R/S goals." *Id.* at 125. NOAA also employed SARs to assess differential delayed mortality between transported (or barged) and in-river migrant juveniles. *Id.* at 377.

Contrary to Oregon's position, therefore, NOAA did not effectively ignore delayed mortality in its analyses. It instead refused on documented technical grounds to accept the thesis that this phenomenon must be laid entirely or in large measure at the FCRPS's doorstep by incorporating it as a hydro metric. The agency explained why it held this position: because studies concluding that SAR ratios "'include[] direct and delayed hydro mortality, as well as mortality unrelated to hydro effects'" (*id.* at 124 (quoting Marmorek, D. (ed.). 1996. Chapter 6: Hydro decision pathway and review of existing information. In: Plan for Analyzing and Testing Hypotheses (PATH) final report on retrospective analyses for fiscal year 1996)) *and* because of the difficulty in determining the hydro component's contribution. NOAA made a reasonable judgment call that is not subject to judicial override. *See San Luis & Delta-Mendota Water Auth. v. Locke*, 776 F.3d 971, 2014 WL 7240003, at *16 (9th Cir. 2014) (explanation of why study provided adequate basis for minimum flow and pulse findings satisfied ESA and APA requirements).[18]

[18] Oregon also criticizes NOAA's juvenile dam passage performance conclusions because the

III. THE RPA IDENTIFIED THE CORRECT STANDARD TO AVOID ADVERSE MODIFICATION OF CRITICAL HABITAT, AND THE MEASURES NECESSARY TO MEET THAT STANDARD

A. NWF ARGUMENTS

NWF first posits that the 2014 BiOp "fails to . . . rationally evaluate destruction or adverse modification of critical habitat." Dkt. 1976 at 1. More specifically, NWF argues that NOAA Fisheries takes an impermissible approach to destruction or adverse modification of critical habitat by "only maintain[ing] critical habitat's current function and [preserving] the option of improving its ability to function in the future." *Id*. at 58. NWF rephrases NOAA's approach as "simply [continuing] the impaired condition of the habitat to support the species' likelihood of recovery." *Id*. at 59.

NWF's real complaint boils down to a difference of opinion about what the law requires for the critical habitat analysis of the jeopardy determination. Its main authority is a federal district court opinion, *Nez Perce Tribe v. NOAA Fisheries*, No. 3:07-cv-00247-BLW, 2008 WL 938430 (D. Idaho Apr. 7, 2008), the circumstances of which bear no resemblance to the case at bar. *Nez Perce* involved an ESA consultation on the impacts of an irrigation project ("LOP") on one population of the Snake River steelhead and its associated critical habitat. The LOP had rendered a portion of critical habitat a "population sink," habitat so degraded that mortality exceeded reproductive success. *Id*., at *4. A key component of the LOP therefore turned on flow commitments that, if not realized, would be insufficient to avoid the population sink. *Id*., at *5. The BiOp found that because production in higher flow years would offset population loss in drought years, the critical habitat was not destroyed or adversely modified.

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underlying studies were conducted during periods of high flows. Dkt. 1985 at 31. As with the more elaborate delayed mortality/SAR argument, Oregon asks this Court to delve into a highly technical issue—NOAA's choice of testing protocols and timing—that the APA's arbitrary, capricious standard assigns to the agency.

Citing *Gifford Pinchot*, *supra*, the *Nez Perce* district court overturned the BiOp fundamentally because of a "grim scenario" in which "steelhead are unlikely to persist under the degraded environmental conditions that presently exist in the action area unless habitat conditions are improved." 2008 WL 938430, at *6. The Court found that in the first ten years of the LOP, "a badly degraded habitat will likely result in the total extinction" of the steelhead subpopulation and moreover, that NOAA had no "scientific data or observational studies" to support the key conclusion that the flow improvement contemplated in the project would reach the most important areas of the critical habitat. *Id.*, at *9. Here, NWF leaps to the conclusion that *Nez Perce* "applies with full force to NOAA's critical habitat analysis in the 2014 and prior BiOps and shows they are illegal." Dkt. 1976 at 59.

There is no reasonable comparison between *Nez Perce* and this case. The 2008 BiOp analyzed the rangewide status of critical habitat for each primary constituent element ("PCE ") of the interior Columbia Basin ESUs and DPS in accordance with the process identified in section 7.4 and implemented in sections 8.2 through 8.7. *See* 2008 BiOp at 8.2-31 (SR fall Chinook) ("Although some current and historical effects of the existence and operation of the hydrosystem and tributary and estuarine land use will continue into the future, critical habitat *will retain* at least its *current* ability for PCEs [primary constituent elements] to become functionally established and to serve its conservation role the species in the near- and long-term. Prospective Actions will *substantially improve* the functioning of many of the PCEs") (emphasis added); *accord id.* at 8.3-45 (SR Spring/Summer Chinook); 8.4-23 (SR sockeye); 8.5-49 (SR steelhead); 8.6-33 (UCR spring Chinook); 8.7-43 (UCR steelhead); 8.8-46 (MCR steelhead). Although NOAA recognizes that critical habitat is not functioning as needed for conservation in many of the designated watersheds (2014 BiOp at 148), no reasonable

question exists that the proposed agency action, as complemented by the RPA, does not diminish the ability of the species' critical habitat to serve its conservation purposes.[19]

Gifford Pinchot demands no more. There, the Court of Appeals upheld the Fish and Wildlife Service's use of a "landscape scale" critical habitat analysis, because it also considered "important local effects." 378 F. 3d at 1076. That is precisely what occurred here. Similarly, *NWF III* cannot be cited as invalidating the critical habitat analyses in the 2008 and 2014 BiOPs. That case held, like *Gifford Pinchot*, that the agency must consider both survival and recovery needs of the species in its adverse modification analysis and rejected a "singular focus" on survival. *NWF III*, 523 F.3d at 931. NWF is simply wrong in alleging that the 2008 and 2014 BiOps meet that description. The 2008 BiOp instead comprehensively assessed the critical habitat issue across All-Hs as to both survival and recovery. *See Conservation Congress v. USFS*, No. 2:12-cv-02800, 2014 WL 2092385, at *5 (E.D. Cal. May 19, 2014) ("Plaintiff acknowledges that Defendant FWS has taken into account survival and recovery habitat for the [Northern Spotted Owl]; the habitat modification analysis in the 2013 BiOp is based upon whether 'the affected critical habitat would continue to serve its conservation function or purpose of the species,'" and on "the effects the proposed action is likely to have on the ability of an area to support life-history needs of the [NSO]").

Chapter 8 of the 2008 BiOp thus contains detailed analysis of status of the interior Columbia Basin species' critical habitat under the environmental baseline and details how the prospective action will mitigate the adverse impact on the species. *See, e.g.*, 2008 BiOp at 8.2-

[19] Another distinction from *Nez Perce* exists: Its observation that even the lack of scientific data or studies would "not necessarily [be] arbitrary and capricious" were it not for the fact that the proposed action failed "to have in place a process to quickly detect errors through monitoring, and change flows to ensure connectivity." 2008 WL 938430, at *9. As discussed above, the AMIP removed any doubt about the presence of a singularly robust RM&E component in the 2008 BiOp.

11 – 14 (SR fall Chinook). It also contains detailed analysis of various qualitative metrics which, as explained in Argument II.B and C above, establish that the prospective action will not diminish the likelihood of survival and recovery of those species. Given the undisputed relationship between the jeopardy determination and the status of their critical habitat, it beggars logic to suggest that NOAA's detailed analysis can be neatly cabined to the jeopardy prong of Section 7(a)(2); it plainly encompasses the adverse modification prong as well. It is, in fact, far more elaborate than required to pass APA muster. *Cf. Oceana*, 2014 WL 7174875, at *10 ("NMFS has identified the reasons underlying its conclusion that the likelihood of loggerheads' recovery would not be appreciably reduced by the operation of the Fishery, and it has articulated a rational connection between these reasons and that conclusion").

B. OREGON ARGUMENTS

Oregon's arguments regarding adverse modification of critical habitat are similarly misplaced and rely heavily on holding up past, dissimilar BiOps as straw men. Oregon's lengthy discussion (Dkt. 1985 at 21-23) of the 2004 BiOp, for example, is wholly irrelevant.[20] Confronted with the array of measures embodied in the 2008, 2010 and 2014 BiOps, Oregon resorts to focusing on the functional capacity of the migratory corridor in the Columbia and Snake Rivers and suggests that adverse modification in one segment of the species' life cycle habitat spells failure under Section 7(a)(2). Dkt. 1985 at 28.

In the end, though, Oregon's arguments are no different than NWF's: The BiOps "fail[ed] to analyze the value of critical habitat for recovery" in derogation of the ESA. Dkt. 1985 at 29. The administrative record, as noted earlier, contradicts that claim. In addition to

[20] *NWF IV* does not support Oregon's arguments about critical habitat this time around. The Court's stated concern about NOAA's methodology in respect to its jeopardy analysis centered on mitigation measures not being reasonably specific or certain to occur post-2013. 839 F. Supp. 2d at 1127-28. That concern is addressed in Argument I.D.

mainstem considerations, the RPA is based on the

> life stages of each species . . . within the action area and [as] affected by the Prospective Actions. Those species with spawning and rearing habitat upstream from one or more of the FCRPS dams are affected in more direct ways than those which spawn downstream from Bonneville Dam. . . . Similarly, those species which must navigate through eight or more dams are more directly affected by dams and reservoirs than those which pass only one or two.

2008 BiOp at 8-3. Furthermore, the BiOp considered that although "proposed RPA actions in tributary habitat areas may affect multiple ESUs, the anticipated effects of such measures are detailed in the ESU-specific analysis." *Id.*

In addition, Oregon, like NWF, complains that the adverse modification standard used by the 2008 BiOP and carried forward into the 2014 BiOp is illegal because it "sets the bar so low that seemingly any operation of the FCRPS could meet it." Dkt. 1985 at 31. The standard, however, is "whether affected designated critical habitat is likely to remain functional (or retain the ability to become functional) to serve the intended conservation role for the species in the near and long term under the effects of the action, environmental baseline and any cumulative effects." 2008 BiOp at 1-10, 1-12. Oregon complains about NOAA's focus on whether the proposed action adversely modifies critical habitat, yet it correctly notes that NOAA "must determine whether *the proposed action* alters the PCEs for the essential migratory life stages to an extent that the conservation value of the habitat for survival and recovery has been reduced appreciably." Dkt. 1985 at 31 (emphasis supplied). Oregon goes on to argue that the 2008 and 2014 BiOps fail to determine whether the RPA would result in an appreciable reduction of the conservation value of critical habitat, but that is not true. As the Service's Consultation Handbook provides:

> Adverse effects on individuals of a species or constituent elements or segments of critical habitat generally do not result in jeopardy or adverse modification determinations unless that loss, when added to the environmental baseline, *is likely to*

> *result in significant adverse effects throughout the species' range*, or appreciably diminish the capability of the critical habitat to satisfy essential requirements of the species.

U.S. Fish & Wildlife Serv. & Nat'l Marine Fisheries Serv., Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act 4–34 (available at https://www.fws.gov/ENDANGERED/esa-library/pdf/esa_section7_handbook.pdf (last visited Mar. 4, 2015)). The BiOps *did* make that rangewide determination, as noted above. Moreover, unless there is some evidence in the record that a "localized risk was improperly hidden by use of large scale analysis," the agency's findings must be upheld. *Butte Envtl. Council v. USACE*, 620 F.3d 936, 948 (9th Cir. 2010). Oregon neither did nor can make such a showing here, since NOAA followed its rangewide analysis with evaluation of each PCE in the critical habitat for each ESU and DPS.

The ESA does not require, contrary to Oregon's argument, a specific articulation of how each RPA action is essential to avoid jeopardy. *Locke*, 2014 WL 7240003, at *29. To do otherwise would impermissibly "impose an onerous, highly precise standard on NMFS under which the district court invalidated RPA Actions anytime NMFS did not explain why the Action was necessary, over all others, to preserve the species." *Id.* But "neither the ESA nor its implementing regulations require this level of precision from the agency." *Id.* In sum, Oregon's criticisms of the adverse modification portion of the 2008 and 2014 BiOps are generally made without citation to legal authority and amount to an argument that its analysis is superior to NOAA's.

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CONCLUSION

Idaho's cross-motion for summary judgment should be granted, and NWF's and Oregon's motions for summary judgment should be denied.

DATED: March 6, 2015

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on March 6, 2015, the foregoing will be electronically filed with the Court's electronic court filing system, which will generate automatic service upon all Parties enrolled to receive such notice.

I FURTHER CERTIFY that on March 6, 2015, the foregoing was forward to the following person by U.S. Mail, first class postage prepaid:

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