Northwest **Power** and **Conservation** Council

John Shurts
General Counsel

***National Wildlife Federation v. National Marine Fisheries Service*:**
Briefing on the recent decision from the Oregon federal district court on the 2014 Federal Columbia River Power System Biological Opinion

1. Reminder on the nature of the agency action/litigation/court decision

- Endangered Species Act (ESA) Section 7 consultation on the operation of the Federal Columbia River Power System (FCRPS) as affecting listed salmon and steelhead.

- Agency actions challenged:
  - NOAA Fisheries 2014 FCRPS Supplemental Biological Opinion, supplement to the 2008 Biological Opinion and an earlier 2010 Supplement
  - Records of Decisions on FCRPS operations from two of three Action Agencies (Corps of Engineers and Bureau Reclamation)
    -- note on the third: Bonneville Power Administration: Ninth Circuit

- *NWF v. NMFS* is on-going litigation in federal district court of Oregon
  - Remand rulings on 2000, 2004, 2008/10 BiOps before this.
  - 2014 FCRPS Supplemental BiOp was prepared on remand from 2011 ruling of Judge Redden on 2008/10 BiOp. Case now before Judge Simon.
  - Review of agency decisions on cross-motions for summary judgement and the administrative record of the agency decisions.

- Plaintiffs are a coalition of environmental/fishing groups and the State of Oregon. Nez Perce Tribe is an amicus participant supporting the plaintiffs.

- Besides federal defendants, intervenors in support of the federal defendants are the States of Washington, Idaho and Montana, the Kootenai Tribe of Idaho, the Confederated Salish and Kootenai Tribes, Northwest RiverPartners, and the Inland Ports and Navigation Group. Confederated Tribes of the Warm Springs Reservation of Oregon, Confederated Tribes of the Umatilla Indian Reservation,

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Yakama Nation, and Confederated Tribes of the Colville Reservation are amicus participants in support of the defendants.

- Additional amicus participants are the Council (participation limited to issues that overlap and implicate Northwest Power Act requirement); Columbia Snake River Irrigators Assn; Spokane Tribe (participated in past; did not file a brief in 2014 BiOp challenge).

2. Summary of rulings

- NOAA Fisheries violated the Endangered Species Act (and Administrative Procedures Act) in determining that the Reasonable and Prudent Alternatives (RPAs) in the 2014 FCRPS BiOp would not jeopardize the continued existence of listed salmon and steelhead.

- NOAA did not violate the Endangered Species Act (and APA) in determining that the 2014 FCRPS BiOp RPA would not adversely modify the critical habitat of the listed species or in determining that the RPAs are not likely to adversely affect endangered Southern Resident Killer Whales.

- Corps of Engineers and Bureau of Reclamation failed to comply with the National Environmental Policy Act (NEPA) by not preparing and considering an environmental impact statement before approving the records of decisions for operating the FCRPS.

3. Remand order

- ESA ruling: Prepare a new FCRPS BiOp by March 1, 2018.

- NEPA ruling: Action Agencies must prepare an EIS that complies with NEPA. Submit a plan for proposed timing and scope of NEPA compliance. Submitted on June 3 (see below).

- 2014 Biological Opinion left in place - *not* vacated. Continues to provide incidental take coverage; agencies to continue to fund and implement.

4. Specific issues ruled on

Summary:

- "recovery" prong of jeopardy standard ("trending toward recovery")
- uncertain habitat benefits and other uncertainties
- climate change
- critical habitat: hydrosystem migration corridor
- NEPA EIS and alternatives

Details:

- Recovery "prong" of jeopardy *standard*: "trending toward recovery"

- Jeopardy *analysis* with regard to effects on listed salmon and steelhead - arbitrary and capricious" review standard

    1. "likelihood of recovery" analysis
        a. issues about relevance of abundance and recovery end-points
        b. Oregon's issues regarding SARs/latent mortality/dam testing
        c. declining R/S metric

    2. estuary and tributary habitat
        a. estuary habitat
        b. tributary habitat

    3. climate change

    4. steelhead kelt management

    5. avian predation
        a. double-crested cormorants
        b. Caspian terns

    6. treatment of uncertainty in general
    7. environmental baseline/cumulative effects/contingency plan

- Critical habitat
    1. standard - "retaining the current ability to become functional" standard
    2. analysis - critical habitat analysis

- National Environmental Policy Act (NEPA)
    1. inadequacy of existing NEPA coverage
    2. comprehensive EIS required
    3. alternatives

5. Next steps

- Federal defendants filed their NEPA compliance timing plan on June 3.
    - Feds view: Will take five years to complete comprehensive NEPA review.
    - Feds recognize that how to coordinate a five-year NEPA process with the need to produce a new FCPRS BiOp in two years (March 2018) is a puzzle; needs more time to think through how to intertwine the NEPA and ESA consultation process.
    - Plaintiffs to file a response by June 17; feds a reply after that.

- Particular court order regarding the NEPA ruling will follow, presumably.
- Proposal focused on NEPA coverage to analyze FCRPS operations in context of salmon and steelhead species listed under ESA. But of course, FCRPS operations affect other listed species and important non-listed species, too, and federal responsibilities include not just satisfying ESA but also Northwest Power Act responsibilities. Broader matters recognized but not explicitly discussed in filing; how this all works out will be complicated.

- Final judgment and appeal? Or, not appeal and just move to prepare a new BiOp, which had to happen by 2018 in any event, and begin work on NEPA compliance, which had to occur in some fashion, too?

- Will plaintiffs request any interim injunctive request regarding spill or flows or other actions, as they did, for example, following the 2004 BiOp ruling which resulted in Judge Redden's spill order?

- Follow-on agency action.

6. Relationship to other decisions/litigation

- Ninth Circuit litigation vs. Bonneville on its Record of Decision following the 2014 FCRPS BiOp. Stayed pending the result of the challenge in the district court.

- Bureau of Reclamation's 2008 Upper Snake Biological Opinion. Tied together with the 2014 FCRPS BiOp in a comprehensive biological analysis. But not challenged in court this time.

- 2008 Biological Opinion covering the implementation of the *U.S. v Oregon* harvest management agreement. Also tied together with the 2014 FCRPS BiOp in a comprehensive biological analysis. Also not subject to litigation.

- Other biological opinions affecting the FCRPS: e.g., US Fish and Wildlife Biological Opinions on FCRPS regarding effects on bull trout and on Libby Dam regarding effects on Kootenai River white sturgeon; NOAA's Biological Opinions on operation of Corps' projects in the Willamette River.

- Council's **2014 Fish and Wildlife Program** under the **Northwest Power Act**:
  - Reminder on nature of program decision -- protect, mitigate and enhance fish and wildlife affected by hydrosystem; mainstem hydropower actions and offsite habitat and production mitigation.
  - 2014 Fish and Wildlife Program challenged at the Ninth Circuit by Northwest Resource Information Center, Inc., (Ed Chaney).
  - Middle of briefing; petitioner's reply brief later in June.
  - Issue about inclusion of measures that are also actions reviewed under ESA - and thus an issue about effect (or lack thereof) of this new BiOp decision.

Excerpt:
Overview (to p. 20)

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

NATIONAL WILDLIFE FEDERATION, *et al.*,

Plaintiffs,

v.

NATIONAL MARINE FISHERIES SERVICE, *et al.*,

Defendants.

Case No. 3:01-cv-00640-SI

OPINION AND ORDER

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Michael H. Simon, District Judge.

INTRODUCTION AND OVERVIEW

In this lawsuit, Plaintiffs[1] raise two primary questions. First, did Defendant NOAA Fisheries[2] act arbitrarily and capriciously when it issued its latest biological opinion (the "2014 BiOp"), concluding that the operations of the Federal Columbia River Power System ("FCRPS") do not violate the Endangered Species Act of 1973,[3] based on the 73 "reasonable and prudent alternatives" described in the 2014 BiOp?[4] Second, did Defendants U.S. Army Corps of Engineers (the "Corps") and U.S. Bureau of Reclamation ("BOR") violate the National

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[1] The plaintiffs are National Wildlife Federation, Idaho Wildlife Federation, Washington Wildlife Federation, Sierra Club, Pacific Coast Federation of Fishermen's Association, Institute for Fisheries Resources, Idaho Rivers United, Northwest Sport Fishing Industry Association, Salmon for All, Columbia Riverkeeper, NW Energy Coalition, Federation of Fly Fishers, and American Rivers. The State of Oregon is an Intervenor-Plaintiff. The Nez Perce Tribe is an amicus curiae. These parties are collectively referred to as "Plaintiffs."

[2] Defendant National Marine Fisheries Service ("NMFS") is an agency within the National Oceanic and Atmospheric Administration ("NOAA"). Although NMFS is the official name of the agency, it is often referred to simply as "NOAA Fisheries." In this opinion, the Court generally will refer to NMFS as NOAA Fisheries.

[3] 16 U.S.C. §§ 1531 *et seq.*

[4] The 2014 BiOp is the latest in a series of biological opinions issued by NOAA Fisheries since 1992 relating to operations of the FCRPs. NOAA Fisheries previously issued biological opinions that were challenged in this lawsuit in 2000, 2004, and 2008, and a supplemental biological opinion in 2010. Each time, the Court, acting through U.S. District Judge James A. Redden, found certain conclusions by NOAA Fisheries in the biological opinions to be arbitrary and capricious. *See Nat'l Wildlife Fed. v. Nat'l Marine Fisheries Serv.*, 254 F. Supp. 2d 1196 (D. Or. 2003) ("*NMFS I*") (2000 BiOp); *Nat'l Wildlife Fed. v. Nat'l Marine Fisheries Serv.*, 2005 WL 1278878 (D. Or. May 26, 2005) ("*NMFS II*"), *aff'd by Nat'l Wildlife Fed. v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 924 (9th Cir. 2007) ("*NMFS III*") (2004 BiOp); and *Nat'l Wildlife Fed. v. Nat'l Marine Fisheries Serv.*, 839 F. Supp. 2d 1117 (D. Or. 2011) ("*NMFS IV*") (2008 BiOp). In 2005, the U.S. Court of Appeals for the Ninth Circuit provided a detailed history of this case in an opinion that affirmed in part and remanded in part Judge Redden's granting of a preliminary injunction. *See Nat'l Wildlife Fed. v. Nat'l Marine Fisheries Serv.*, 422 F.3d 782, 788-93 (9th Cir. 2005).

Environmental Policy Act of 1969[5] by failing to prepare an environmental impact statement in connection with their records of decision implementing the 73 reasonable and prudent alternatives described in the 2014 BiOp? The answers to both questions are yes.

A. Background

The Columbia River is the fourth largest river on the North American continent. Along with its primary tributary, the Snake River, the Columbia flows for more than 1,200 miles from the Canadian Rockies to the Pacific Ocean, through seven states and one Canadian province in the Pacific Northwest. Every year, salmon and steelhead (collectively, "salmonids") travel up and down the Columbia and Snake Rivers, hatch in fresh water, migrate downstream to the Pacific on their way to adulthood, and later return upstream to spawn and die.[6] This is the natural course of Columbia and Snake River salmonids. They also must attempt to survive the FCRPS, which consists of hydroelectric dams, powerhouses, and associated reservoirs on the Columbia and Snake Rivers.

In 1991 the Snake River sockeye were listed as "endangered" under the Endangered Species Act,[7] and in 1992 the Snake River fall chinook joined the list as "threatened."[8] In 1992, NOAA Fisheries (then known as the "National Marine Fisheries Service" or "NMFS") issued its

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[5] 42 U.S.C. §§ 4321 *et seq.*

[6] All salmon and most steelhead die shortly after spawning.

[7] *NMFS I*, 254 F. Supp 2d. at 1200.

[8] *NMFS III*, 524 F.3d at 925. An endangered species is "any species which is in danger of extinction throughout all or a significant portion of its range," and a threatened species is "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." 16 U.S.C. § 1532. In other words, endangered species "are at the brink of extinction now" and threatened species "are likely to be at the brink in the near future." *What is the Difference Between Endangered and Threatened, available at http://www.fws.gov/midwest/wolf/esastatus/e-vs-t.htm* (last visited May 3, 2016).

first biological opinion relating to the FCRPS and in 1993, NOAA Fisheries issued a biological opinion that concluded that the operations of the FCRPS would not "jeopardize the listed species."[9] The Idaho Department of Fish and Game challenged that opinion in a lawsuit brought in the United States District Court for the District of Oregon.

The court granted summary judgment in favor of the plaintiff. The court ruled that the 1993 biological opinion was arbitrary and capricious because NOAA Fisheries failed adequately to explain several of the critical assumptions supporting its jeopardy analysis and conclusion.[10] In the court's decision, U.S. District Judge Malcolm F. Marsh wrote:

> NMFS has clearly made an effort to create a rational, reasoned process for determining how the action agencies are doing in their efforts to save the listed salmon species. But the process is seriously, "significantly," flawed because it is too heavily geared towards a status quo that has allowed all forms of river activity to proceed in a deficit situation—that is, relatively small steps, minor improvements and adjustments—*when the situation literally cries out for a major overhaul. Instead of looking for what can be done to protect the species from jeopardy, NMFS and the action agencies have narrowly focused their attention on what the establishment is capable of handling with minimal disruption.*[11]

Judge Marsh's decision was vacated on appeal as moot because NOAA Fisheries had issued a subsequent biological opinion that found that the FCRPS did, in fact, jeopardize the listed species.[12] After further litigation and additional agency action that is not directly relevant here,

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[9] *NMFS III*, 524 F.3d at 925.

[10] *Idaho Dept. of Fish & Game v. NMFS*, 850 F. Supp. 886 (D. Or. 1994) ("*IDFG*").

[11] *Id.* at 900 (emphasis added).

[12] *NMFS III*, 524 F.3d at 925.

NOAA Fisheries issued a new biological opinion on December 21, 2000 (the "2000 BiOp"), which superseded its previous biological opinions on this subject.[13]

In 2001, 15 years ago, Plaintiffs filed this lawsuit. In their original complaint, Plaintiffs challenged the 2000 BiOp under the Endangered Species Act. In May 2003, U.S. District Judge James A. Redden ruled that the 2000 BiOp was arbitrary and capricious because it relied on (1) federal mitigation actions that were not subject to the consultation process that is required under the Endangered Species Act and (2) non-federal mitigation actions that were not shown to be reasonably certain to occur.[14] Judge Redden ordered NOAA Fisheries to issue a new biological opinion by 2004 that addressed and cured these deficiencies.[15]

As time passed, more and more populations of Columbia and Snake River salmon and steelhead became listed as either endangered or threatened under the Endangered Species Act. Today, there are 13 species or populations of Columbia or Snake River salmonids that are either endangered or threatened. Meanwhile, Judge Redden continued to reject the federal government's 2000, 2004, and 2008 BiOps, and the 2010 Supplemental BiOp issued by NOAA Fisheries. In a decision written in 2011, Judge Redden reviewed the history of this lawsuit, beginning with his first decision. Judge Redden wrote:

> In remanding the 2000 BiOp, I instructed NOAA Fisheries to ensure that a similarly ambitious but flawed mitigation plan was certain to occur. Instead of following this court's instructions, NOAA Fisheries abandoned the 2000 BiOp and altered its analytical framework to avoid the need for any RPA [reasonable and prudent alternatives]. As the parties are well aware, *the resulting BiOp was a cynical and transparent attempt to avoid responsibility for the decline of listed Columbia and Snake River*

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[13] *Id.*

[14] *Id.*

[15] *Id.*

> *salmon and steelhead.* NOAA Fisheries wasted several precious years interpreting and reinterpreting the [Endangered Species Act's] regulations. Also during that remand period, NOAA Fisheries abruptly attempted to abandon summer spill, despite the 2000 BiOp's conclusion that it was necessary to avoid jeopardy. Even now, NOAA Fisheries resists ISAB's[16] recommendation to continue recent spill operations. Given Federal Defendants' history of abruptly changing course, abandoning previous BiOps, and failing to follow through with their commitments to hydropower modifications proven to increase survival (such as spill) this court will retain jurisdiction over this matter to ensure that Federal Defendants develop and implement the mitigation measures required to avoid jeopardy.[17]

In this decision, Judge Redden also stated:

> As I have previously found, there is ample evidence in the record that indicates that the operation of the FCRPS causes substantial harm to listed salmonids. . . . NOAA Fisheries acknowledges that the existence and operation of the dams accounts for most of the mortality of juveniles migrating through the FCRPS. As in the past, I find that irreparable harm will result to listed species as a result of the operation of the FCRPS.[18]

Judge Redden expressly ordered:

> No later than January 1, 2014, NOAA Fisheries shall produce a new biological opinion that reevaluates the efficacy of the RPAs in avoiding jeopardy, identifies reasonably specific mitigation plans for the life of the biological opinion, *and considers whether more aggressive action, such as dam removal and/or additional flow augmentation and reservoir modifications are necessary to avoid jeopardy.*[19]

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[16] "ISAB" refers to the Independent Scientific Advisory Board that serves NOAA Fisheries and others by providing independent scientific advice and recommendations regarding relevant scientific issues.

[17] *NMFS IV*, 839 F. Supp. 2d at 1130 (emphasis added) (internal footnote added).

[18] *Id.* at 1131.

[19] *Id.* at 1131 (emphasis added).

On November 28, 2011, Judge Redden stepped down from his many years of service on this case, and it was reassigned to the undersigned district judge.[20] NOAA Fisheries completed its 2014 BiOp, and Plaintiffs challenged that biological opinion under the Endangered Species Act in their seventh amended complaint in this lawsuit. Both sides moved for summary judgment, and the Court heard oral argument lasting an entire day. A large part of this opinion addresses whether Plaintiffs' challenge to the 2014 BiOp has merit.

In their seventh amended complaint, Plaintiffs challenge not only the 2014 BiOp, but also, for the first time since this lawsuit was filed in 2001, the failure of the Corps and BOR, which are the relevant federal "action agencies," to comply with the National Environmental Policy Act. Plaintiffs contend that this law requires that these action agencies prepare a comprehensive environmental impact statement encompassing all or most of the suite of 73 reasonable and prudent alternatives described in the 2014 BiOp. An environmental impact statement provides the public with an opportunity to comment and also requires the action agencies to consider *all* reasonable alternatives, regardless of whether there currently is a funding source or whether any particular alternative is reasonably likely to occur. In a decision issued in March 2014, the U.S. Court of Appeals for the Ninth Circuit ruled that federal action agencies adopting a record of decision implementing a biological opinion *must* prepare an environmental impact statement when the relevant provisions of the National Environmental Policy Act have been triggered.[21]

It is this combination of the need of the consulting agency under the Endangered Species Act (here, NOAA Fisheries) to address and cure the continuing deficiencies in its biological

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[20] Dkt. 1882.

[21] *San Luis & Delta-Mendota Water Auth. v. Jewell*, 747 F.3d 581, 602, 640-42 (9th Cir. 2014).

opinions, including the 2014 BiOp under review, and the opportunity presented by requirement under the National Environmental Policy Act that the federal action agencies (here, the Corps and BOR) prepare a comprehensive environmental impact statement that evaluates a broad range of alternatives that may finally break the decades-long cycle of court-invalidated biological opinions that identify essentially the same narrow approach to the critical task of saving these dangerously imperiled species. The federal consulting and action agencies must do what Congress has directed them to do. The Court's legal analysis is set forth in detail in this lengthy opinion. To assist the reader, the Court next briefly highlights several of the key findings and conclusions contained in this decision.

B. "Trending Toward Recovery" Standard

In the 2008 BiOp, NOAA Fisheries concluded that the suite of reasonable and prudent alternatives would not jeopardize any of the listed species' likelihood of recovery if the species was "trending to toward recovery." A population of an endangered or threatened species are considered "trending toward recovery" if certain measurements of population growth rates are expected to be anything greater than 1.0. At a growth rate of 1.0, a population is merely replacing itself; it is neither increasing nor declining. NOAA Fisheries incorporated this conclusion from its 2008 BiOp into its 2014 BiOp. Such a standard, however, does not take into account whether a population is already at a precariously low level of abundance.

A population that is dangerously low in abundance could, nevertheless, satisfy the "trending toward recovery" standard NOAA Fisheries uses merely by slightly increasing, even though it remains in a highly precarious state. The Ninth Circuit has already cautioned that the Endangered Species Act prohibits any federal agency action from allowing a species to have a "slow slide into oblivion" and that agency action may not "tip a species from a state of

precarious survival into a state of likely extinction."[22] Further, even NOAA Fisheries' own *Consultation Handbook* recognizes that "the longer a species remains at low population levels, the greater the probability of extinction from chance events, inbreeding depression, or additional environmental disturbance."[23]

NOAA Fisheries' standard of "trending toward recovery" does not consider the individual abundance levels of the various endangered or threatened populations or what growth trends would be necessary in each population to ensure that the likelihood of recovery of the population or the listed species is not appreciably diminished. According to NOAA Fisheries, it set a goal of "anything over 1.0" because it was not possible to define a single goal that was greater than 1.0 that applied to every population. There are at least three flaws with this approach.

First, there is no requirement that a single numerical goal be applicable to all populations, regardless of its present level of abundance. Indeed, NOAA Fisheries created the Interior Columbia Technical Review Team ("ICTRT"), which consists of a number of highly-qualified scientists in several different disciplines.[24] The ICTRT has already identified minimum viable abundance numbers for nearly all populations of the various listed species, yet the methodology NOAA Fisheries employs essentially ignores their findings without explanation. Second, a goal that can be satisfied with only infinitesimally small growth, despite populations that are already

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[22] *NMFS III*, 525 F.3d at 930.

[23] NOAA Fisheries, *Consultation Handbook* at 4-21, NOAA 2004 AR, B.251.

[24] NOAA Fisheries created geographically-based technical review teams. These teams are multi-disciplinary science teams that are tasked with providing science support to recovery planners by developing biologically based viability criteria, analyzing alternative recovery strategies, and providing scientific review of draft plans. *See http://www.nwfsc.noaa.gov/trt/domains.cfm* (last visited May 3, 2016).

dangerously low in abundance, risks tipping species to a point where recovery is no longer feasible. As the Ninth Circuit noted, "a species can often cling to survival even when recovery is far out of reach."[25] Third, without tying its recovery metrics to any estimated recovery abundance levels and the timeframe needed to achieve those levels, even roughly, NOAA Fisheries cannot rationally conclude that its set of reasonable and prudent alternatives will be sufficient to avoid appreciably reducing a species' chance of recovery.

C. Uncertain Habitat Benefits

In the 2014 BiOp, NOAA Fisheries assumes very specific numerical benefits from habitat improvement. These benefits, however, are too uncertain and do not allow any margin of error. Further, a key measure of survival and recovery employed in the 2014 BiOp already shows a decline, but NOAA Fisheries has discounted this measurement, concluding that it falls within the 2008 BiOp's "confidence intervals." Those confidence intervals, however, were so broad, that falling within them is essentially meaningless.

In addition, the 2014 BiOp was prepared more than halfway through the ten-year timeframe established in the 2008 BiOp. The fact that many of the projected significant gains in key survival measurements had not yet been realized (and, to the contrary, certain important measurements showed decline for many populations of endangered or threatened species) requires more analysis by NOAA Fisheries than merely asserting that any observed declines fall within the broad "confidence intervals" accepted in the 2008 BiOp. To accept NOAA Fisheries' statements at face value at this point contradicts the requirement of the Endangered Species Act that the consulting agency must give the "benefit of the doubt" to the endangered species.[26]

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[25] *NMFS III*, 524 F.3d at 931.

[26] *Sierra Club v. Marsh*, 816 F.2d 1376, 1386 (9th Cir. 1987), *abrogation on other grounds recognized by Cottonwood Envtl. Law Ctr. v. U.S. Forest Serv.*, 789 F.3d 1075, 1088

Further, mitigation measures may be relied upon only where they involve "specific and binding plans" and "a clear, definite commitment of resources to implement those measures."[27] Mitigation measures supporting a biological opinion's "no jeopardy"[28] 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."[29] There are significant deficiencies with this portion of NOAA Fisheries' 2014 BiOp.

D. Climate Change

The best available information indicates that climate change will have a significant negative effect on the listed populations of endangered or threatened species. Climate change implications that are likely to have harmful effects on certain of the listed species include: warmer stream temperatures; warmer ocean temperatures; contracting ocean habitat; contracting inland habitat; degradation of estuary habitat; reduced spring and summer stream flows with increased peak river flows; large-scale ecological changes, such as increasing insect infestations and fires affecting forested lands; increased rain with decreased snow; diminishing snow-packs;

(9th Cir. 2015). This requirement of the Endangered Species Act is similar to what Professor Douglas A. Kysar has called the "precautionary principle," which he defines as "an ex-ante governmental stance of precaution whenever a proposed activity meets some threshold possibility of causing severe harm to human health or the environment." Douglas A. Kysar, REGULATING FROM NOWHERE: ENVIRONMENTAL LAW AND THE SEARCH FOR OBJECTIVITY 9 (2010).

[27] *NMFS III*, 524 F.3d at 935-36.

[28] Case law and industry publications often use the shorthand term "no jeopardy" to indicate a Section 7 consultation agency's determination that an action agency's action is not likely to jeopardize the continued existence of any endangered species or threatened species.

[29] *Ctr. for Biological Diversity v. Rumsfeld*, 198 F. Supp. 2d 1139, 1152 (D. Ariz. 2002) (citing *Sierra Club*, 816 F.2d 1376); *NMFS IV*, 839 F. Supp. 2d at 1125.

increased flood flows; and increased susceptibility to fish pathogens and parasitic organisms that are generally not injurious to their host until the fish becomes thermally stressed. Even a single year with detrimental climate conditions can have a devastating effect on the listed salmonids.

The Court finds that NOAA Fisheries' assertion that the effects of climate change have been adequately assessed in the 2014 BiOp is not "complete, reasoned, [or] adequately explained."[30] NOAA Fisheries' analysis does not apply the best available science, overlooks important aspects of the problem, and fails properly to analyze the effects of climate change, including: its additive harm, how it may reduce the effectiveness of the reasonable and prudent alternative actions, particularly habitat actions that are not expected to achieve full benefits for decades, and how it increases the chances of an event that would be catastrophic for the survival of the listed endangered or threatened species. NOAA Fisheries has information that climate change may well diminish or eliminate the effectiveness of some of the BiOp's habitat mitigation efforts, but it does not appear to have considered or analyzed that information. NOAA Fisheries also did not explain why the "warm ocean scenario" that it rejected was not more representative of expected future climate conditions. Notably, ISAB commented to NOAA Fisheries that even the "warm ocean scenario" may not be sufficiently pessimistic for a sound scientific analysis.

E. Designated Critical Habitat

Under the Endangered Species Act, federal action may not be taken if it is likely to result in "destruction or adverse modification" of designated "critical" habitat of listed species.[31] The Endangered Species Act defines "critical habitat" to include those areas with the physical or

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[30] *Nw. Coal. for Alts. to Pesticides (NCAP) v. U.S. E.P.A.*, 544 F.3d 1043, 1052 n.7 (9th Cir. 2008).

[31] 16 U.S.C. § 1536(a)(2).

biological features "essential to the conservation" of listed species.[32] "Conservation," in this context, means "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary."[33] NOAA Fisheries has designated critical habitat for 12 of the 13 relevant listed species.[34] The designated critical habitat includes the migratory corridor, and NOAA Fisheries concluded that "safe passage" through the migratory corridor, water temperature, water quantity, and water quality are some of the primary constituent elements of this critical habitat.

NOAA Fisheries acknowledges that the migration corridors, among other designated critical habitats, are degraded, are not functional, and do not serve their conservation role. In this situation, where critical habitat is already severely degraded and the operation of the FCRPS has been found to adversely modify critical habitat, questioning whether the suite of 73 reasonable and prudent alternatives is sufficient to allow this degraded habitat to retain its current ability to someday become functional fails to comply with the congressional directive of the Endangered Species Act. NOAA Fisheries must analyze whether the federal action will adversely modify—meaning alter in a manner that appreciably diminishes the value of critical habitat for either survival or recovery of the listed species—the designated critical habitat. Simply maintaining the status quo when there is severely degraded habitat that does not serve its conservation role and will be adversely modified unless changes are made to the operations of the FCRPS does not

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[32] *Id.* at § 1532(5)(A).

[33] *Id.* at § 1532(3).

[34] NOAA Fisheries also published a proposed rule designating critical habitat for the 13th listed species, the Lower Columbia River coho salmon. *See* 2014 BiOp at 43; 78 Fed. Reg. 2726-01 (Jan. 14, 2013).

suffice. The reasonable and prudent alternatives need not restore habitat to a fully functioning level, but they must at least include improvements sufficient to avoid adverse modification. Notwithstanding that NOAA Fisheries applied an incorrect standard in considering adverse modification, this error is harmless in light of the actual analysis performed by NOAA Fisheries and does not render its conclusion that critical habitat will not be adversely modified arbitrary and capricious.

F. Environmental Impact Statement

Plaintiffs argue that the Corps and BOR did not prepare adequate environmental impact statements or engage in the proper analysis as required under NEPA. The Court agrees. The Corps and BOR rely on environmental impact statements prepared in 1992, 1993, and 1997 and some narrowly focused documents prepared more recently for certain projects in the Columbia River Basin. These are insufficient to constitute compliance with NEPA for the records of decision that are at issue today. For purposes of compliance with that law, relying on data that is too stale to carry the weight assigned to it may be arbitrary and capricious.[35] The 2000, 2004, 2008, 2010 Supplemental, and 2014 BiOps discuss actions taken during the past 20 years that affect the physical environment in the Columbia River Basin. Moreover, several new populations of salmonid species have been added during this time to the list of endangered or threatened species and much additional habitat has been designated as "critical" for their survival. NOAA Fisheries, however, does not explain how the environmental impact statements from the 1990s sufficiently address effects to species that were not listed when those statements were prepared or the additional critical habitat. Even more importantly, since the 1990s, there have been significant developments in the scientific information relating to climate change and its effects.

[35] *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1086 (9th Cir. 2011) (citing *Lands Council v. Powell*, 395 F.3d 1019, 1031 (9th Cir. 2005)).

All of this new information leads to the conclusion that the relevant physical environment has changed and our understanding of this environment has improved such that environmental impact statements prepared in the 1990s are neither current nor sufficient. The newer documents, although not as stale, are narrowly focused and some are irrelevant to the FCRPS.

Congress enacted the National Environmental Policy Act to ensure a process in which all reasonable alternatives are given a "hard look" and all necessary information is provided to the public. In addition, a central purpose of an environmental impact statement is "to force the consideration of environmental impacts in the decisionmaking process."[36] For example, the option of breaching, bypassing, or even removing a dam may be considered more financially prudent and environmentally effective than spending hundreds of millions of dollars more on uncertain habitat restoration and other alternative actions.

G. Conclusion

More than 20 years ago, Judge Marsh admonished that the Federal Columbia River Power System "cries out for a major overhaul."[37] Judge Redden, both formally in opinions and informally in letters to the parties, urged the relevant consulting and action agencies to consider breaching one or more of the four dams on the Lower Snake River.[38] For more than 20 years, however, the federal agencies have ignored these admonishments and have continued to focus essentially on the same approach to saving the listed species—hydro-mitigation efforts that minimize the effect on hydropower generation operations with a predominant focus on habitat

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[36] *Thomas v. Peterson*, 753 F.2d , 754, 760 (9th Cir. 1985), *abrogation on other grounds recognized by Cottonwood*, 789 F.3d at 1088.

[37] *IDFG*, 850 F. Supp. at 900.

[38] *See, e.g., NWF v. NMFS*, 2005 WL 2488447, at * 3 (D. Or. Oct. 7, 2005) ("This remand, *like the remand of the 2000* BiOp, requires NOAA and the Action Agencies to be aware of the possibility of breaching the four dams on the lower Snake River, *if all else fails*.") (emphasis in original).

restoration. These efforts have already cost billions of dollars, yet they are failing. Many populations of the listed species continue to be in a perilous state.

The 2014 BiOp continues down the same well-worn and legally insufficient path taken during the last 20 years. It impermissibly relies on supposedly precise, numerical survival improvement assumptions from habitat mitigation efforts that, in fact, have uncertain benefits and are not reasonably certain to occur. It also fails adequately to consider the effects of climate change and relies on a recovery standard that ignores the dangerously low abundance levels of many of the populations of the listed species.

One of the benefits of a comprehensive environmental impact statement, which requires that all reasonable alternatives be analyzed and evaluated, is that it may be able to break through any logjam that simply maintains the precarious status quo. A comprehensive environmental impact statement may allow, even encourage, new and innovative solutions to be developed, discussed, and considered. The federal agencies, the public, and our public officials then will be in a better position to evaluate the costs and benefits of various alternatives and to make important decisions. The Federal Columbia River Power System remains a system that "cries out" for a new approach and for new thinking if wild Pacific salmon and steelhead, which have been in these waters since well before the arrival of *homo sapiens*, are to have any reasonable chance of surviving their encounter with modern man. Perhaps following the processes that Congress has established both in the National Environmental Policy Act and in the Endangered Species Act finally may illuminate a path that will bring these endangered and threatened species out of peril.

In our constitutional representative democracy, it is not the function of a federal court to determine what substantive course of action may be the best public policy. This is particularly

true when there are a number of competing, difficult, and controversial choices. That is a decision that our Constitution places in our elected representatives and, when there is lawful delegation, in the expertise that resides in our executive agencies. Congress already has provided substantive policy direction. One substantive directive that Congress has set is the Endangered Species Act. Congress also has provided certain procedural directions to ensure that before a federal agency acts with potentially serious adverse environmental results there will be a fair and adequate opportunity for public comment and the consideration of all relevant alternatives and cumulative effects. Congress provided for this when it passed the National Environmental Policy Act, which established requirements for preparing environmental assessments and environmental impact statements. It is the proper function of a federal court under our Constitution to ensure that federal agencies comply with the requirements that Congress has established.

STATUTORY FRAMEWORK

A. Endangered Species Act

This case involves the application of Section 7 of the Endangered Species Act ("ESA"). Section 7 "requires federal agencies, in consultation with what is known as the 'consulting agency,' to conserve species listed under the ESA." *NMFS III*, 524 F.3d at 924. Section 7 requires federal agencies to "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [designated critical] habitat . . . ." 16 U.S.C. § 1536(a)(2). "The ESA imposes a procedural consultation duty whenever a federal action may affect an ESA-listed species. . . . the agency planning the action, usually known as the 'action agency,' must consult with the consulting agency" in a process "known as a 'Section 7' consultation." *NMFS III*, 524 F.3d at 924. In this case, NOAA Fisheries