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The Role of the Judge in ESA Implementation: District Judge James Redden and the Columbia Basin Salmon Saga

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I. INTRODUCTION

The long-running controversy over salmon migration in the Columbia River reached another milestone in 2011, when Federal District Court Judge James A. Redden once again rejected the federal biological opinion (BiOp) governing hydroelectric operations that adversely affect endangered salmon.¹ This rejection marked the third time that Judge Redden found the government's effort to protect salmon inadequate to avoid jeopardy to the listed species.² This time, however, instead of remanding the entire BiOp, he bifurcated his opinion, allowing the proposed ten-year BiOp to control river operations through 2013 but ordering a new one in 2014.³ Judge Redden then withdrew from the legal controversy he had judged for a decade and, at age 82, retired from the case.⁴

Despite Judge Redden's prudent oversight, the fate of listed Columbia River salmon remains very much in peril, as powerful federal agencies led by the Bonneville Power Administration continue to resist the fundamental changes to the hydroelectric system that both Judge Redden and his predecessor suggested were necessary.⁵ As a result, wild runs of Columbia Basin salmon

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1. *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 839 F. Supp. 2d 1117, 1121 (D. Or. 2011).

2. *See* 16 U.S.C. § 1536(a)(2) (2012) (establishing a duty to avoid jeopardy to listed species); *infra* notes 172-94 234-63, 315-43 and accompanying text (discussing Judge Redden's rejection of the government's 2000, 2004, and 2008/2010 BiOps).

3. *See infra* note 340 and accompanying text.

4. *See* Scott Learn, *Judge James Redden to Step Down After a Decade on the Northwest's Biggest Lawsuit*, THE OREGONIAN, Nov. 23, 2011, http://www.oregonlive.com/environment/index.ssf/2011/11/federal_judge_james_a_redden_t.html.

5. Judge Redden's last opinion ordered a revised government BiOp that would "consider[] whether more aggressive action, such as dam removal and/or additional flow augmentation and reservoir modifications are necessary to avoid jeopardy." *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 839 F. Supp. 2d at 1130. Recently, speaking extrajudicially, Redden suggested that the long-term solution to the salmon saga was the removal of four lower Snake River dams, which are the Ice Harbor, Lower Monumental, Little Goose and Lower Granite: "I think we need to take those dams down. . . . I've never ordered (federal agencies) or even tried to order them that you gotta take those dams down. But I have urged them to do some work on the dams (to improve prospects for

are now just half of what they were thirty years ago, when the 1980 federal Northwest Power Act called for restoring the salmon runs and treating salmon migration and hydropower generation on a coequal basis.⁶ This failure to restore salmon runs has occurred despite the cumulative expenditure of some \$10 billion.⁷

This astonishingly poor record of implementing what is generally thought to be the nation's most protective environmental law⁸ is due largely to the federal government's persistent unwillingness to significantly change hydroelectric operations or reconfigure the system to benefit migrating salmon. Instead, the government has engaged in a kind of "bait and switch" approach of investing heavily in habitat rehabilitation,

salmon), and they have done (so).'" Scott Learn, *Judge James Redden: 'We Need to Take Those (Snake River) Dams Down'*, THE OREGONIAN, Apr. 25, 2012, http://www.oregonlive.com/environment/index.ssf/2012/04/judge_james_redden_we_need_to.html; see also Brooklyn Baptiste, *Balancing Power Needs and the Environment: What James Redden Says on Salmon Recovery Still Matters*, THE OREGONIAN, May 04, 2012, http://www.oregonlive.com/opinion/index.ssf/2012/05/balancing_power_needs_and_the.html ("Redden's comments reminded the tribe how much it respected his integrity and fearlessness. . . . Judges like Redden, acting with independence given to them by the U.S. Constitution, provide a measure of confidence that decisions won't be based on political calculation or power, but on the requirements of existing law. Redden's courage was evident throughout 10 years of handling an extraordinarily complex lawsuit with unwavering independence and care.").

Judge Redden's predecessor, Judge Malcolm Marsh, voiced similar sentiments many years earlier. In striking down the government's first attempt to conform Columbia River operations to the requirements of the ESA in 1994, Judge Marsh stated that small, incremental steps would not satisfy the ESA because "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 . . . when the situation literally cries out for a major overhaul." *Idaho Dep't of Fish & Game v. Nat'l Marine Fisheries Serv.*, 850 F. Supp. 886, 900 (D. Or. 1994). See *infra* notes 134-47 and accompanying text for a discussion of Judge Marsh's first review of a hydropower BiOp.

6. See 16 U.S.C. § 839; *Nw. Res. Info. Ctr., Inc. v. Nw. Power Planning Council*, 35 F.3d 1371, 1378 (9th Cir. 1994) (interpreting the statute as "making fish and wildlife a 'co-equal partner' with the hydropower industry"). See *infra* notes 22-35 and accompanying text for a discussion of current obstacles to Pacific salmon's survival.

7. See Michael C. Blumm, *The Real Story Behind the Columbia Basin Salmon Debacle: Dam Preservation Under the Endangered Species Act*, 41 ENVTL. L. 1363 (2011) (reviewing STEVEN HAWLEY, *RECOVERING A LOST RIVER: REMOVING DAMS, REWILDING SALMON, REVITALIZING COMMUNITIES* 129, 138 (2011)).

8. According to Professor Cheever, "[a]lthough it does not protect biological diversity as such, the Endangered Species Act is one of the world's most powerful species preservation laws and has proved a potent tool for stopping, or at least delaying, projects that create a significant, readily identifiable threat to biological diversity." Federico Cheever, *The Road to Recovery: A New Way of Thinking About the Endangered Species Act*, 23 *ECOLOGY L.Q.* 1, 3-4 (1996).

about which Judge Redden expressed “serious reservations.”⁹ So, despite a mountain of paperwork and several rounds of failed BiOps, the sorry salmon saga will continue for another round of BiOps that will be reviewed by a different federal judge.¹⁰ Judicial calls for a “major overhaul” in system operations, first heard nearly two decades ago,¹¹ may continue, along with claims that the federal government is practicing deception, or worse, in its attempts to implement the Endangered Species Act (ESA).¹²

Judge James Redden stepped into this controversy a decade ago, when he succeeded Judge Malcolm Marsh of the United States District Court of Oregon.¹³ Judge Redden proceeded to find the government’s 2000 BiOp inadequate,¹⁴ and he did so again concerning its 2004 BiOp.¹⁵ Even after the government managed to buy off several of the plaintiffs for \$10 billion over ten years,¹⁶

9. Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., 839 F. Supp. 2d at 1129-30 (noting that while habitat improvement “is vital to recovery,” Judge Redden was troubled by the lack of scientific support for the government’s salmon survival predictions, citing skepticism expressed by independent scientists).

10. Judge Michael Simon, appointed to the bench by President Obama and confirmed by the Senate in 2011, will replace Judge Redden. Notice of Judicial Reassignment, No. 3:01-cv-00640-SI (D. Or. Nov. 28, 2011), ECF No. 1882.

11. See Idaho Dep’t of Fish & Game v. Nat’l Marine Fisheries Serv., 850 F. Supp. 886, 900 (D. Or. 1994).

12. See Michael C. Blumm, Erica J. Thorson & Joshua D. Smith, *Practiced at the Art of Deception: The Failure of Columbia Basin Salmon Recovery Under the Endangered Species Act*, 36 ENVTL. L. 709 (2006) [hereinafter *Practicing Deception*]. Steven Hawley has suggested that the startlingly poor results per dollar expended are due to “a skillfully directed symphony of public relations scams, filthy politics, and crooked science.” HAWLEY, *supra* note 7, at 144.

13. Judge Redden was appointed to the federal bench by President Carter in 1979 and assumed senior status in 1995. Prior to his appointment to the bench, he graduated from Boston College Law School, practiced law for seventeen years in Medford, Oregon, where the federal courthouse is named for him, served for six years in the Oregon House as a Democrat, and was both the state’s Treasurer (1973-1976) and Attorney General (1977-1980). See Fed. Judicial Ctr., *Redden, James Anthony*, <http://www.fjc.gov/servlet/nGetInfo?jid=1977&cid=999&ctype=na&instate=na> (last visited Dec. 2, 2012).

14. Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., 254 F. Supp. 2d 1196, 1213-14 (D. Or. 2003). See *infra* notes 172-94 and accompanying text for a discussion of Judge Redden’s rejection of the 2000 BiOp.

15. Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. CV 01-640-RE, CV 05-23-RE, 2005 WL 1278878, at *7 (D. Or. May 26, 2005). See *infra* notes 234-63 and accompanying text for a discussion of Judge Redden’s rejection of the 2004 BiOp.

16. See 2008 COLUMBIA BASIN FISH ACCORDS MEMORANDUM OF AGREEMENT BETWEEN THE THREE TREATY TRIBES AND FCRPS ACTION AGENCIES (May 2, 2008), available at <http://www.critfc.org/wp-content/uploads/2012/10/moa.pdf> (agreement between tribes and federal agencies guaranteeing the tribes money for restoration of salmon habitat); Rocky Barker, *Salmon Decision Makes BPA Customers Pay Twice*, IDAHO STATESMAN BLOG (Aug. 4, 2011, 8:27 AM), <http://voices.idahostatesman.com/2011/08/03/rockybarker/>

he was unwilling to approve a BiOp in 2011 that would have granted the government ten years of litigation-free implementation.¹⁷ Because Judge Redden provided a skeptical review of government claims of expertise, gave credence to scientific sources critical of the government's claims, and was apparently unwilling to allow the government to prevail by purchasing the support of much of the opposition,¹⁸ he was perhaps the archetypical federal judge in public law litigation, as portrayed long ago in Harvard Professor Abram Chayes' article *The Role of the Judge in Public Law Litigation*.¹⁹ Judge Redden thus leaves behind giant shoes that will be difficult to fill: he demonstrated a willingness to stand up to virtually all the most powerful interests in the region involved in hydropower generation, navigation, and trade on the Columbia River, some of the most formidable lobbies in the Pacific Northwest,²⁰ to say nothing of the federal agencies urging him to defer to their expertise, including the agency responsible for ESA implementation.²¹

salmon_decision_makes_bpa_customers_pay_twice (discussing the economic ramifications of the \$10 billion Columbia Accords plan for restoring salmon). After the \$10 billion agreement, three tribes withdrew from the BiOp litigation, leaving only Oregon, the Nez Perce Tribe, and environmental groups as plaintiffs.

17. See Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 839 F. Supp. 2d 1117, 1128 (D. Or. 2011); *infra* notes 315-43 and accompanying text (discussing the 2011 BiOp decision).

18. See, e.g., *infra* note 292 and accompanying text.

19. See Abram Chayes, *The Role of the Judge in Public Law Litigation*, 89 HARV. L. REV. 1281 (1976) (suggesting that in public law litigation, judges should play a more active role in shaping of claims, discovery, interparty negotiations, the issuance of decrees, and monitoring of litigants' compliance with the court's orders).

20. Defendant-intervenors have included the states of Idaho and Montana, as well as influential groups such as the Northwest Requirement Utilities, the Pacific Northwest Generating Cooperatives, the Industrial Customers of Northwest Utilities, Alcoa, Inc., the International Association of Machinists & Aerospace Workers, the Northwest Irrigation Utilities, the Public Power Council, the BPA Customer Group, the Washington State Farm Bureau Federation, the Franklin County Farm Bureau Federation, the Grant County Farm Bureau Federation, the Clarkson Golf & Country Club, the Kootenai Tribe of Idaho, and the Inland Ports and Navigation Group. See Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 524 F.3d 917 (9th Cir. 2007); Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., No. CV 01-640-RE, 2005 WL 1278878 (D. Or. May 26 2006); Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 254 F. Supp. 2d 1196 (D. Or. 2003).

21. See generally *Practicing Deception*, *supra* note 12. The ESA implementation agency in the case of Columbia Basin salmon is the National Oceanic and Atmospheric Administration (sometimes referred to as NOAA-Fisheries or the National Marine Fisheries Service). The surprising transformation of this agency from a salmon protector to a hydropower defender of status-quo operations is portrayed in Michael C. Blumm & Greg Corbin, *Salmon and the Endangered Species Act: Lessons from the Columbia Basin*, 74 WASH. L. REV. 519, 591-92 (1999) [hereinafter *Salmon and the Endangered Species Act*].

This article discusses Judge Redden's review of Columbia Basin BiOps over the last decade. Part II supplies background on the clash between hydropower operations and salmonids, including a brief overview of the ESA. Part III provides an overview of the concepts of "managerial judging" and public law litigation and discusses the judge's important role in overseeing the hydropower BiOps. Part IV reviews judicial oversight of the hydropower BiOps preceding Judge Redden. Part V evaluates Judge Redden's review of the 2000 BiOp—a product of the Clinton Administration—which was his first opportunity to examine the federal government's approach to avoiding species jeopardy for listed salmon, as required by the ESA. Part VI considers the judge's evaluation of the ensuing 2004 BiOp—this one advanced by the Bush Administration—which the judge also found wanting. Part VII focuses on Judge Redden's consideration of the 2008 BiOp—originally proposed by the Bush Administration and reissued with only minor modifications by the Obama Administration in 2010—which he concluded also failed to satisfy the ESA. Judge Redden's final decision is perhaps the most telling, for it illustrates the importance of the role that the federal judiciary can play in combating the interest-group politics that is so evident in the Columbia Basin salmon saga. Part VIII reviews the effects of Judge Redden's hands-on approach to oversight of the hydropower BiOps on remand. The article concludes by suggesting that the fate of the imperiled Columbia Basin salmon runs rests uneasily in the hands of Judge Redden's successor, as it is hardly clear that the skepticism that Redden so ably deployed will continue.

II. THE CLASH BETWEEN HYDROPOWER AND SALMON

The salmon runs in Columbia River Basin were once the largest in the world,²² prompting Meriwether Lewis to assert in 1805 that "the multitudes of this fish are almost inconceivable."²³ However, beginning in the 1930s,²⁴ water project development

22. See Michael C. Blumm, *River Basin Survey: Columbia River Basin*, in 4 WATERS AND WATER RIGHTS 2 (Amy L. Kelley ed., 3d ed. Matthew Bender 2011) [hereinafter *Columbia River Basin*].

23. See BLAINE HARDEN, *A RIVER LOST: THE LIFE AND DEATH OF THE COLUMBIA* 63 (1996).

24. Even before dams lined the Columbia River, overfishing facilitated by new technologies and increased populations along the river drastically reduced the size of salmon runs. See *Columbia River Basin*, *supra* note 22, at 11 (observing that novel fishing practices began to deplete salmon runs by the 1880s, and that "[t]he 1883 chinook catch

severely compromised salmon²⁵ migratory paths.²⁶ To the great detriment of salmon, by the late twentieth century, 150 dams²⁷ had harnessed Columbia Basin streamflows in the name of flood control, navigation, irrigation, and hydropower,²⁸ creating the largest interconnected hydroelectric system in the world.²⁹

The world's largest salmon runs did not fare well as a result of the development and operation of that system, which changed the very essence of the Columbia River Basin. In effect, the dams turned a mighty river that flows 1,200 miles and drains an area larger than France³⁰ into a series of large reservoirs.³¹ Now,

of forty-three million pounds has never again been matched"). However, it is dams and other aspects of water development on the river that have pushed many populations of salmon to the brink of extinction. See MICHAEL C. BLUMM, *SACRIFICING THE SALMON: A LEGAL AND POLICY HISTORY OF THE DECLINE OF COLUMBIA BASIN SALMON* 88 (2002) [hereinafter *SACRIFICING THE SALMON*] ("Although it is true that salmon habitat has been damaged by logging, grazing, and mining, the predominant cause of the decline of most Columbia Basin salmon runs is the development and operation of the largest interconnected hydroelectric system in the world.").

25. This article refers to "salmon" throughout, but the threatened and endangered species that are its focus consist of both salmon and steelhead, a group technically referenced as "salmonids." *Salmon Populations*, NOAA (Aug. 15, 2011), <http://www.nwr.noaa.gov/ESA-Salmon-Listings/Salmon-Populations/>. A primary difference between steelhead and salmon is that, unlike salmon, steelhead do not die after spawning and therefore may navigate between the ocean and spawning grounds more than once. *Where Do Salmon Go in the Ocean?*, NOAA (June 16, 2011), <http://www.nefsc.noaa.gov/faq/fishfaq2d.html>.

26. See *SACRIFICING THE SALMON* *supra* note 24, at 35; see also *Where Do Salmon Go in the Ocean?*, *supra* note 25, at 4.

27. See *SACRIFICING THE SALMON*, *supra* note 24, at 87.

28. See *Columbia River Basin*, *supra* note 22, at 141.

29. See *SACRIFICING THE SALMON*, *supra* note 24, at 88. The Columbia River Basin produces more than forty percent of the nation's hydropower. See *id.* at 87. For a recent suggestion that the national hydropower capacity could be enhanced by employing concepts of "the normative river" and adaptive management to establish and adjust ecosystem maintenance flows on major rivers, which would reduce or eliminate costs of increasing hydroelectric generation, see Dan Tarlock, *Hydro Law and the Future of Hydroelectric Power Generation in the United States*, 65 *VAND. L. REV.* 1723, 1756, 1764-66 (2012).

30. See *SACRIFICING THE SALMON*, *supra* note 24, at 87 (identifying the Columbia River as "the defining natural resource of the Pacific Northwest," and observing that "[t]he Columbia is the West's biggest River system, with the force to pierce the Cascades. The Columbia has seven times the flow of the Colorado, two hundred times that of the Rio Grande").

31. See *HARDEN*, *supra* note 23, at 71 (referring to the water between dams on the Columbia River as "sluggish and tepid reservoirs"); Don Gayton, "Ghost River": *The Columbia*, 1 *B.C. J. ECOSYSTEMS & MGMT.* 2, 2 (2001) (referring to the Columbia River as the "Ghost River," and asserting that his "culture . . . has chosen to turn the Columbia into a series of industrial reservoirs (to call them 'lakes' is a grievous misuse of the word) and then play God with its salmonid ecology").

although previously traversing 109 waterfalls, the Columbia River flows freely in only two places.³² As author William Dietrich has maintained, the Columbia “is a river not so much transformed as seemingly invented. If you want to see how America dreamed at the height of the American Century, come to the Columbia.”³³ But the manifestation of this dream came at an extremely high cost: chinook salmon and steelhead are now extinct throughout more than fifty percent of their historic range east of the Cascades, and just two percent of the Columbia Basin’s watersheds have strong salmon runs.³⁴ Of historical salmon losses in the Columbia Basin, approximately eighty percent can be attributed to hydropower development and operation.³⁵

A. *Minimizing and Compensating for Salmon Mortality*

Transforming rivers in the Columbia River Basin into what are essentially reservoirs has had numerous deleterious effects on salmon populations. The dams increase water temperatures,³⁶ cause greater predation of juvenile salmon,³⁷ and significantly lengthen the time it takes for juvenile salmon to migrate downriver, which is problematic because salmon are biologically programmed to develop into saltwater animals during a particular timeline as they travel, preparing themselves for survival in the ocean.³⁸ Further, dams present serious physical obstacles to salmon

32. Daniel J. Rohlf, *Lessons from the Columbia River Basin: Follow the Blueprint but Avoid the Barriers*, 19 PAC. MCGEORGE GLOBAL BUS. & DEV. L.J. 195, 195-96 (2006) (“The Columbia itself, which once raged over 109 major falls and rapids, now runs free in only two places: one in the United States and one in Canada.”).

33. WILLIAM DIETRICH, *NORTHWEST PASSAGE: THE GREAT COLUMBIA RIVER* 46 (1995); see also HARDEN, *supra* note 23, at 75 (“Indeed, it is silly to pretend that the Columbia is a river in the sense that Lewis and Clark understood it. The river was killed more than sixty years ago and was reborn as plumbing.”).

34. See SACRIFICING THE SALMON, *supra* note 24, at 88.

35. *Am. Rivers v. Nat’l Marine Fisheries Serv.*, No. Civ. 96-384-MA, 1997 WL 33797790, at *4 (D. Or. Apr. 3, 1997) (reporting an estimate made by the National Marine Fisheries Service). For a detailed discussion of the sharp decline in salmon species in the twentieth century, see *Salmon and the Endangered Species Act*, *supra* note 21, at 525-48.

36. See Craig N. Johnston, *Salmon and Water Temperature: Taking Endangered Species Seriously in Establishing Water Quality Standards*, 33 ENVTL. L. 151, 153 (2003) (asserting that increasing water temperatures contribute significantly to salmonids’ decline).

37. See HARDEN, *supra* note 23, at 71 (reporting that salmon going through turbines are stunned, making them easier prey).

38. See *id.* (“[A]s they swim downstream, juvenile[] [salmon] undergo physical changes that allow them to breathe in saltwater. The timing of this transformation is delicate and easily disrupted. Before there were dams, young fish could reach the sea in

attempting to navigate both up and downriver.³⁹

Those managing the hydroelectric system in the Columbia Basin have attempted to minimize or compensate for the harm dams cause to salmon populations, but their efforts have had only mixed success.⁴⁰ For example, some dams have been equipped with ladders, locks, traps, elevators, and bypass canals; however, those measures have not reversed the overall decline of Columbia Basin salmon runs.⁴¹ In fact, despite bypass devices, up to ninety-one percent of juvenile salmon face mortality while traveling downriver.⁴² Since reducing the juvenile mortality rate is key to recovering listed salmon species, changing dam operations could increase salmon survival rates—but that would cause some power losses.⁴³ Consequently, to prevent diminishing power production, the government has chosen to gather juvenile salmon into trucks or barges for transport downriver as a primary method of avoiding

less than a month. In slackwater, it can take two to three months.”).

39. See *Columbia River Basin*, *supra* note 22, at 30; see also HARDEN, *supra* note 23, at 71 (“The problem with salmon actually *swimming* in the dammed-up river is that, sooner or later, they have to brave a turbine. A Snake River salmon has to pass through eight sets of turbines, four in the lower Snake, four in the middle and lower Columbia. Each turbine on the river kills between [ten] and [fifteen] percent of the fingerling juvenile salmon that get sucked into it. Turbines do not puree these small salmon, rather they kill by creating violent pressure changes that can explode a salmon’s swim bladder. The combined effect of eight dams kills at least three of every four young salmon migrating from Idaho to the sea. Salmon not killed [by the dams] are often stunned, making them easy prey for seagulls and predator fish who hang out behind McNary and other dams.”).

40. See *Columbia River Basin*, *supra* note 22, at 31-34 (discussing attempts to minimize salmon mortality caused by hydroelectric operations, but asserting that salmon populations have continued to decline).

41. See *id.* at 31 (“Bonneville Dam, completed in 1938, included an elaborate system of fish ladders, locks, traps, elevators, and bypass canals to permit upstream migrating adult salmon to ascend the height of the dam and reach their spawning grounds upstream. However, such bypass devices were not feasible at every dam, and some that were built proved unsuccessful. Also, adult fish ladders do not aid juvenile fish migrating downstream, which suffer mortalities due to turbine passage, delay due to low water flows, and predation in reservoirs.”); John M. Volkman, *How Do You Learn from a River? Managing Uncertainty in Species Conservation Policy*, 74 WASH. L. REV. 719, 726-27 (1999) (“[T]he problem of fish passage at high dams proved to be insurmountable.”).

42. See *Practicing Deception*, *supra* note 12, at 728 (citing THE INDEP. SCIENTIFIC GRP., RETURN TO THE RIVER 235, 299 (2000)).

43. See *id.* at 728 (“Dam operators, favoring mitigation that interferes minimally with power production, support barging and trucking salmon and maintain that the efficacy of the transportation program has not yet been undermined by clear scientific proof and continuously declining salmon runs. This successful shifting of the burden of proof to those advocating for salmon—in this case being forced to prove a nearly impossible negative—is commonplace in Columbia Basin salmon/hydropower tradeoffs.”).

salmon mortality caused by the dams.⁴⁴

Another attempt to mitigate the damage caused by Columbia Basin dams has been to compensate for the loss of salmon runs by supplementing stocks with tens of millions of hatchery fish each year.⁴⁵ The result is that hatchery salmon have now largely replaced Columbia Basin wild salmon:⁴⁶ indeed, some salmon runs now consist of more than eighty percent hatchery fish.⁴⁷ The roughly 130 million hatchery fish released every year⁴⁸ do not perform well in the wild,⁴⁹ and they have damaged salmon populations by transmitting disease, outcompeting wild salmon for food, jeopardizing the integrity of wild populations through interbreeding, and sometimes preying on smaller wild salmon.⁵⁰

44. See *Columbia River Basin*, *supra* note 22, at 46. Many states, tribes, scientists, and salmon advocates oppose transport and favor some combination of flow improvements and spill, pointing to statistics indicating that transport causes more juvenile mortality than in-river migration. See *Practicing Deception*, *supra* note 12, at 729.

45. See HARDEN, *supra* note 23, at 74 (“[S]tate and federal fish hatcheries on the Columbia-Snake system seed the rivers with tens of millions of [hatchery fish] throughout the spring and summer.”); *Practicing Deception*, *supra* note 12, at 724 (stating that salmon populations “are heavily supported by hatchery fish”).

46. See Volkman, *supra* note 41, at 727 (referring to the introduction of hatchery fish as a “mechanistic approach[.]” and explaining that, “We assumed that if we did enough of these things we could fix the problem. This idea has appeal in a political system that is disinclined to push restrictions on humans”).

47. See Michael C. Blumm & Hallison T. Putnam, *Imposing Judicial Restraints on the “Art of Deception”: The Courts Cast a Skeptical Eye on Columbia Basin Salmon Restoration Efforts*, 38 ENVTL. L. 47, 69 (2008) [hereinafter *Imposing Judicial Restraints*].

48. See *Columbia River Basin*, *supra* note 22, at 102.

49. According to one article, “[f]isheries biologists have known for years that hatchery-reared individuals show substantial deficits in virtually all aspects of their behaviour.” Culum Brown & Rachel L. Day, *The Future of Stock Enhancements: Lessons for Hatchery Practice from Conservation Biology*, 3 FISH & FISHERIES 79, 82 (2002). For example, foraging and predator evasion behaviors are learned from prior experience, but for hatchery fish, raised in unnatural conditions, those behaviors are “poorly developed and insufficient to cope with life in the wild.” *Id.* at 83. Further, the wild fish, with which hatchery fish interbreed, inherit the hatchery fish’s poor performance in the wild. According to one 1999 study, statistics “imply that supplementation (wherein wild fish interbreed with hatchery fish of reduced fitness) will reduce the productivity of naturally spawning populations, and often may compromise conservation objectives,” and a decline in survival “suggests that the fitness of the next generation would be low even before interbreeding with more hatchery fish, and that continuous supplementation should progressively diminish the productivity of the naturally spawning population.” R. R. Reisenbichler & S. P. Rubin, *Genetic Changes from Artificial Propagation of Pacific Salmon Affect the Productivity and Viability of Supplemented Populations*, 56 J. MARINE SCI. 459, 464 (1999).

50. See *Columbia River Basin*, *supra* note 22, at 33; *Imposing Judicial Restraints*, *supra* note 47, at 69 n.129 (citing Judge Cougenhour as stating in *Trout Unlimited v. Lohn*, No. CV06-0483-JCC, 2007 WL 1795036, at *3 (W.D. Wash. June 13, 2007), that hatchery fish “prey upon smaller wild fish”). According to John Volkman, Senior Policy Advisor at

Improvements in hatchery programs may reduce some of these harms. For example, in 1995, four Columbia Basin treaty tribes with fishing rights—the tribes of the Umatilla, Yakama, and Warm Springs reservations and the Nez Perce tribe—released *The Spirit of the Salmon*, a comprehensive salmon plan that advocated supplementation of natural salmon stocks with hatchery fish.⁵¹ Unlike earlier hatchery management, the tribes' plan stated that their hatcheries would simulate natural conditions to ensure that hatchery fish are managed as one gene pool.⁵² However, although improving hatchery programs may increase salmon survival, clearly more is required to bring some salmon species back from the brink of extinction.

B. Listing Salmon Under the Endangered Species Act

In 1980, Congress responded to the decline in wild salmon runs by including a major salmon restoration project in the Northwest Power Act.⁵³ In that statute, Congress went so far as to elevate salmon to “coequal partner” status with hydropower in the operation of dams in the Columbia River Basin.⁵⁴ However, despite this attempt at system-wide protection, salmon runs continued

NOAA, the massive hatchery release in the Columbia River is a consequence of “misconceptions about salmon life histories, and ambitious expectations about human ability to improve on what was viewed as a wasteful natural world.” See Volkman, *supra* note 41, at 725. For analysis of biological assessments of the effects of hatchery fish on wild salmon, see *Columbia River Basin*, *supra* note 22, at 119-26.

51. Columbia River Inter-Tribal Fish Comm'n, *Wy-Kan-Ush-Mi Wa-Kish-Wit (The Spirit of the Salmon)*, 5B-24 (1995), discussed in Melissa Powers, Comment, *The Spirit of the Salmon: How the Tribal Restoration Plan Could Restore Columbia Basin Salmon*, 30 ENVTL. L. 867 (2000).

52. *Id.* at v-vi.

53. 16 U.S.C. § 839b(h) (2012). However, “Congress first expressed concern about the potential effects of Columbia River hydropower operations on salmon as long ago as 1937, when it enacted the Bonneville Power Act.” *Practicing Deception*, *supra* note 12, at 715; see also 16 U.S.C. § 832a.

54. H.R. REP. NO. 96-976, at 56-57 (1980), reprinted in 1980 U.S.C.C.A.N. 5989, 6015. The Northwest Power Act requires federal water managers to “exercise [their] responsibilities consistent with the purposes of [the Act] and other applicable laws, to adequately protect, mitigate, and enhance fish and wildlife, including related spawning grounds and habitat, affected by [the Columbia River Basin hydropower system] in a manner that provides equitable treatment for such fish.” 16 U.S.C. § 839b(h)(11)(A)(i). According to the Ninth Circuit, the obligation to provide equitable treatment is substantive, requiring results, rather than procedural. *Nw. Envtl. Def. Ctr. v. Bonneville Power Admin.*, 117 F.3d 1520, 1532 (9th Cir. 1997); see also *Nw. Res. Info. Ctr., Inc. v. Nw. Power Planning Council*, 35 F.3d 1371 (9th Cir. 1994) (remanding review of Pacific Northwest Electric Power and Conservation Council’s amendments to Columbia River Basin Fish and Wildlife Program to ensure that the plan was based on recommendations of federal and state fish and wildlife agencies and Indian tribes).

their precipitous decline.⁵⁵ Because the Northwest Power Act failed to accomplish its objective of putting salmon protection on par with hydropower interests,⁵⁶ in 1990, citizens began petitioning to list species of salmon under the ESA.⁵⁷ By 2005, the National Oceanic and Atmospheric Administration (NOAA)⁵⁸ had listed

55. See *Columbia River Basin*, *supra* note 22, at 4 (observing that the restoration program provided under the Northwest Power Act was not sufficient to keep salmon from being listed under the ESA in the early 1990s); see also SACRIFICING THE SALMON, *supra* note 24, at 45-52 (discussing the status of declining salmon populations); *id.* at 173 (“[I]n 1991, the American Fisheries Society’s Endangered Species Committee reported a Pacific Coast-wide salmon crisis: 101 naturally spawning salmon species faced ‘a high risk of extinction;’ another 58 had a ‘moderate risk of extinction;’ and 54 more were judged to be of ‘special concern.’ About one-third of those fish runs were in the Columbia Basin.”).

56. See, e.g., Michael C. Blumm & Andy Simrin, *The Unraveling of the Parity Promise: Hydropower, Salmon, and Endangered Species in the Columbia Basin*, 21 ENVTL. L. 657, 660-61 (1991) [hereinafter *The Unraveling of the Parity Promise*] (“The Northwest Power Act promised that fish and wildlife would be treated ‘on a par’ with other river uses, as a ‘co-equal partner’ with hydropower. Consequently, the two federal fishery agencies suspended their status review in 1981 to allow the Act’s protective measures to take effect. . . . Ten years later, the fruits of the Northwest Power Act failed to prevent a number of ESA listing petitions, and NMFS reinstated ESA status reviews of five Columbia Basin stocks in 1990.”).

57. In 1990, the Shoshone-Bannock Tribe petitioned NOAA to list Snake River sockeye under the ESA. Endangered and Threatened Species: Petition to List Sockeye Salmon in the Snake River, ID, 55 Fed. Reg. 22942-02 (June 5, 1990). NOAA agreed to list Snake River sockeye as an endangered species in November 1991. See SACRIFICING THE SALMON, *supra* note 24, at 174-75 (discussing the Shoshone-Bannock Tribe’s petition and the subsequent ESA listing). For a detailed review of salmon listings, see *Columbia River Basin*, *supra* note 22, at 71-77. Congress enacted the ESA in 1973 “virtually without opposition.” Holly Doremus, *Adaptive Management, the Endangered Species Act, and the Institutional Challenges of “New Age” Environmental Protection*, 41 WASHBURN L.J. 50, 57 (2001). The Senate announced unanimous support for the ESA, and only four members of the House of Representatives voted against the law. STANFORD ENVTL. L. SOC’Y, THE ENDANGERED SPECIES ACT 14 (2001). Signing the ESA into law, President Richard Nixon declared that wildlife conservation was needed, and that wildlife was “an irreplaceable part of our national heritage.” *Id.* Affirming alarm about disappearing species, a congressional finding in the ESA states that “various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation.” 16 U.S.C. § 1531(a)(1). Nevertheless, application of this statute to issues of salmon conservation created a level of controversy rivaling that caused by efforts to preserve northern spotted owls. See Daniel J. Rohlf, *There’s Something Fishy Going on Here: A Critique of the National Marine Fisheries Service’s Definition of Species Under the Endangered Species Act*, 24 ENVTL. L. 617, 620 (1994) (observing that petitions to list salmon created controversy similar to that caused by listing of the northern spotted owl “almost overnight”); *Salmon and the Endangered Species Act*, *supra* note 21, at 589 (“The listings induced a more comprehensive approach to salmon restoration than merely changing hydroelectric operations, expanding the focus of inquiry to hatchery, harvest, and habitat activities that were beyond the scope of the Northwest Power Act. The ESA therefore offered the prospect of designing a restoration program that would address all major sources of salmon mortality, including public land and water use decision-making, not just hydropower.”).

58. NOAA Fisheries was formerly the National Marine Fisheries Service (NMFS), a

thirteen Columbia Basin salmon runs.⁵⁹

Under the ESA,⁶⁰ often referred to as the “law of last resort” for severely compromised species,⁶¹ listing results if either NOAA or the United States Fish and Wildlife Service (FWS)⁶² determines that a species or subspecies is “threatened” or “endangered.”⁶³ For vertebrate fish and wildlife, Congress defined “species” to include “distinct population segment[s]”⁶⁴ in order to protect “significant” populations that are important to a species’ overall survival.⁶⁵ Although providing protections to groupings below the species level had previously been relatively uncontroversial, disagreement over providing ESA protections for Pacific salmon runs prompted NOAA and FWS to reconsider listing salmon populations as distinct population segments.⁶⁶ After some deliberation, NOAA developed a new concept of an “evolutionarily significant unit” (ESU) to determine whether there is a distinct population segment of Pacific salmonids eligible for listing.⁶⁷ To be considered an ESU, a population must meet two criteria: (1) it must be “substantially reproductively isolated from other conspecific population units,” and (2) it must “represent an important component in the evolutionary legacy of the biological

subagency of NOAA. This article will refer to NOAA rather than NMFS for the sake of consistency.

59. See *Practicing Deception*, *supra* note 12, at 717.

60. 16 U.S.C. §§ 1531-1544 (2012).

61. See *Columbia River Basin*, *supra* note 22, at 71.

62. NOAA oversees protection of Pacific salmon, due to its life cycle that includes the marine environment, while FWS is responsible for protection of freshwater and terrestrial species. See Rohlf, *supra* note 57, at 618.

63. A species is listed as “endangered” when it is “in danger of extinction throughout all or a significant portion of its range.” 16 U.S.C. § 1532(6) (2012). A “threatened” species is one that is “likely to become an endangered species within the foreseeable future.” *Id.* § 1532(20).

64. 16 U.S.C. § 1532(16) (2012); Policy Regarding the Recognition of Distinct Vertebrate Population Segments under the Endangered Species Act, 61 Fed. Reg. 4722-01 (Feb. 7, 1996).

65. See *Salmon and the Endangered Species Act*, *supra* note 21, at 527.

66. See Rohlf, *supra* note 57, at 620.

67. Policy on Applying the Definition of Species Under the Endangered Species Act to Pacific Salmon, 56 Fed. Reg. 58,612, 58,612 (Nov. 20, 1991). The concept of an ESU has significantly influenced NOAA’s listing decisions by providing a reason to reject ESA protection for certain salmon runs. For example, citing the possibility of significant gene flow between two salmon runs, the agency has declined to list one run, or has lumped two runs together. See *Salmon and the Endangered Species Act*, *supra* note 21, at 528 n.50 (providing examples of rejections of listing for salmon runs based on the ESU concept).

species.”⁶⁸

Listing a species prohibits federal agencies from proceeding with actions that are likely to jeopardize that species or adversely modify its critical habitat.⁶⁹ To ascertain whether an action jeopardizes a listed species or adversely modifies critical habitat, an agency must decide whether its proposed action has a possible effect on that species or critical habitat.⁷⁰ For Columbia Basin hydroelectric operations, the action agencies are the Bonneville Power Administration (BPA), the United States Army Corps of Engineers, and the Bureau of Reclamation.⁷¹ If one of those action agencies determines that there is a possible effect, it must prepare a biological assessment to evaluate the effects.⁷²

Where a biological assessment indicates that the proposed action is not likely to adversely affect the listed species or its critical habitat, the agency may proceed without formal consultation if NOAA concurs in writing.⁷³ However, even when NOAA makes a “no-jeopardy” conclusion, the agency must provide a written statement (known as an Incidental Take Statement (ITS)) if the

68. Endangered and Threatened Species; Endangered Status for Snake River Sockeye Salmon, 56 Fed. Reg. 58,619, 58,621 (Nov. 20, 1991).

69. 16 U.S.C. § 1536(a)(2) (2012) (describing an “agency action” as an action carried out by a federal agency). The ESA does not define “jeopardy,” but an ESA regulation defines “jeopardize the continued existence of” as “engag[ing] in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.” 50 C.F.R. § 402.02 (2005).

70. 16 U.S.C. § 1536(c)(1) (2012).

71. *See, e.g.*, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., 839 F. Supp. 2d 1117, 1123 (D. Or. 2011).

72. 16 U.S.C. § 1536(c)(1) (2012).

73. 50 C.F.R. § 402.13(a). In theory, the action agency has an independent duty to comply with the congressional directive of avoiding jeopardy, regardless of whether NOAA has done a BiOp. That is, section 7 of the ESA applies to (1) any “agency action,” that (2) “may affect” listed salmon. *See, e.g.*, Peter M. Lacy, *The Irrigated Desert and Imperiled Salmon: “Reclaiming” Illegally Spread Water via the Endangered Species Act*, 4 U. DENV. WATER L. REV. 351, 369 (2001) (“[T]he action agency has an independent duty to comply with the no jeopardy requirement. Unless the action agency is granted an incidental ‘take’ exemption, section 7(a)(2) requires assurance that a proposed action ‘is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat.’ The test for a finding of jeopardy asks whether the action ‘reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species.’ Therefore, for the [Bureau of Reclamation’s] failure to control water spreading to fall within the purview of section 7, a plaintiff must establish that water spreading amounts to (1) an ‘agency action,’ that (2) ‘may affect’ listed salmon.” (internal footnotes omitted)).

action would result in any “take” of the species.⁷⁴ The ITS must: (1) identify the impact of the incidental take on the species; (2) specify the “reasonable and prudent measures” to minimize such impact; (3) set forth terms and conditions governing implementation of the reasonable and prudent measures; and (4) establish the procedures that the agency will use to handle or dispose of any animals that are taken.⁷⁵ Action agencies that comply with the terms and conditions of an ITS are exempt from penalties for takings of listed species or harm to their habitat.⁷⁶

If a biological assessment of a proposed action suggests that the action is likely to result in an adverse effect, the agency must initiate a formal consultation on the effects, resulting in a BiOp made available to the public.⁷⁷ In this BiOp, NOAA or FWS must explain how it arrived at its determination and may suggest reasonable and prudent alternatives as mitigation measures to keep the action from resulting in jeopardy or adverse modification to critical habitat.⁷⁸ Thus, the ESA mandates ostensibly significant protections for listed species like Columbia Basin salmon.

III. JUDGE REDDEN’S ROLE IN ESA IMPLEMENTATION

Judges’ role in fashioning remedies in ESA cases is unique, and Judge Redden’s oversight of the last decade of Columbia Basin hydropower BiOps exemplified judicial involvement in public law litigation. By ordering and participating in status conferences, retaining experts, and otherwise pursuing detailed factual information about the case, Judge Redden became the most influential participant in the saga of salmon protection efforts during the first years of the 21st century. Federal judges who assume such a role in natural resources law litigation are rare.⁷⁹

74. 16 U.S.C. § 1536(b)(4), (c), (o) (2012); *see also* *Ariz. Cattle Growers’ Ass’n v. U.S. Fish & Wildlife*, 273 F.3d 1229, 1233 (9th Cir. 2001) (concluding that ITSs were arbitrary and capricious because they “fail[ed] to properly specify the amount of anticipated take and to provide a clear standard for determining when the authorized level of take has been exceeded”). Under the ESA, the term “take” means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” 16 U.S.C. § 1532(19).

75. 16 U.S.C. § 1536(b)(4) (2012); 50 C.F.R. § 402.14(i).

76. 16 U.S.C. § 1536(o)(2) (2012).

77. 50 C.F.R. § 402.14 (regulations governing formal consultation).

78. 16 U.S.C. § 1536(a)(2), (b)(3)(A) (2012). A BiOp may include an ITS. 50 C.F.R. § 402.14(i).

79. Nevertheless, there have been a few federal judges willing to oversee complex remedies, including Judge George H. Boldt, former Senior United States District Judge for

A. *The Judicial Role in Implementing the ESA*

Judges play an important role in ensuring compliance with the ESA. When a BiOp is unlawful, the ordinary remedy is to vacate and remand the BiOp to the agency so it can reinitiate consultation.⁸⁰ Such a remedy is consistent with the mandate of the Administrative Procedure Act (APA), which states that “the reviewing court *shall* . . . hold unlawful and *set aside* agency action, findings, and conclusions” found to be unlawful.⁸¹ Generally, the result of invalidating an agency action is a reinstatement of the prior action or rule.⁸² However, in some cases, and in the

the Western District of Washington. In the famous “Boldt decision,” Judge Boldt ruled that the state of Washington violated the treaty rights of several Western Washington Indian tribes by denying them a sufficient portion of their off-reservation fishery. *United States v. Washington*, 384 F. Supp. 312, 405-08 (W.D. Wash. 1974), *aff’d*, 520 F.2d 676 (9th Cir. 1975), *cert. denied*, 423 U.S. 1086 (1976). According to the judge, the treaties entitled Indians to a “fair share” of the fish resources at “all usual and accustomed places.” *Id.* at 331. He held that “fair share” meant an “equal share” of fifty percent of the off-reservation fishery at usual and accustomed fishing grounds. *See id.* at 343. Judge Boldt rejected the idea that Indian treaty rights changed upon the granting of statehood to Washington, or by subsequent federal legislation, *id.* at 354, instead finding that treaty rights were binding on the states, *id.* at 337. The judge proceeded to reserve jurisdiction over remedies to ensure state compliance with his decision. *Id.* at 347. Judge Boldt explained that

[s]ubject to suggested limitations by some of the parties, all parties have urged that the court reserve continuing jurisdiction of this case and have suggested various ways in which such jurisdiction might be exercised. . . . From the beginning most, if not all, counsel in this case and the court have anticipated that continuing jurisdiction would be of great value to all parties in promptly putting the court’s rulings into effect and in providing readily available early hearing and determination of factual and legal questions that may arise in interpreting and applying such rulings.

Id. He thus provided an elaborate declaration of judgment and decree, as well as an injunction. *Id.* at 405-20. In ensuing years, Judge Boldt was forced to literally run the Western Washington fishery when the state claimed that it lacked the authority under state law to implement his decree. *See* 520 F.2d at 693 (Burns, J., concurring) (“As was suggested at oral argument, any decision by us to affirm also involves ratification of the role of the district judge as a ‘perpetual fishmaster.’ Although I recognize that district judges cannot escape their constitutional responsibilities, however unusual and continuing duties imposed upon them, I deplore situations that make it necessary for us to become enduring managers of the fisheries, forests, and highways, to say nothing of school districts, police departments, and so on.”).

80. *See Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, 839 F. Supp. 2d 1117, 1128 (D. Or. 2011) (citing *Fla. Power & Light v. Lorion*, 470 U.S. 729, 744 (1985)).

81. 5 U.S.C. § 706(2)(A) (2012) (emphases added).

82. *Nat’l Wildlife Fed’n*, 839 F. Supp. 2d at 1129 (citing *Paulsen v. Daniels*, 413 F.3d 999, 1008 (9th Cir. 2005)).

environmental context in particular, federal district courts have declined vacatur and instead allowed an agency action to remain in place while the agency reconsiders it.⁸³ Indeed, Judge Redden declined to vacate any of the three hydropower BiOps he remanded,⁸⁴ explaining in 2011 that

[d]espite the APA's requirement that an invalid agency action be "set aside," equity can authorize the district court to keep an invalid [BiOp] in place during any remand if it provides protection for listed species.⁸⁵

The question of whether to set aside an agency action is particularly important in the ESA context. First, BiOps may include measures beneficial to listed species, such as habitat restoration, so vacating a BiOp may actually remove some of an imperiled species' protections.⁸⁶ Second, vacatur could compel an agency to halt ongoing operations (e.g., of the hydropower system) to avoid incurring liability for unlawful takes of listed species.⁸⁷ Thus, absent a BiOp and the accompanying ITS, NOAA would be liable for the substantial take of salmon caused by the Columbia River hydropower system.⁸⁸ Consequently, in ESA suits a court may be unwilling to vacate a BiOp, but instead may fashion other ways of addressing the statutory violation in the interim while the agency attempts to correct the deficiencies.

Judge Redden demonstrated this caution in remanding the Columbia River Basin hydropower BiOps without vacatur. To limit the effects of permitting an unlawful BiOp to continue to govern hydropower operations and grant permission for take, the judge retained jurisdiction on remand and ordered detailed remedies.⁸⁹ Given the unusual considerations in remanding ongoing agency

83. *Id.* (citing *Idaho Farm Bureau Fed'n v. Babbitt*, 58 F.3d 1392, 1405 (9th Cir. 1995) (case under the ESA)); *Alaska Ctr. for the Env't v. Browner*, 20 F.3d 981, 986 (9th Cir. 1994) (case under the APA); *W. Oil & Gas Ass'n v. Envtl. Prot. Agency*, 633 F.2d 803, 813 (9th Cir. 1980) (case under the Clean Air Act).

84. *Nat'l Wildlife Fed'n*, 839 F. Supp. 2d at 1122-23, 1129-30.

85. *Id.* at 1129.

86. *Id.* (opining that "such consequences would be disastrous for the listed species").

87. *Id.*

88. *See id.* at 1122 (stating that he had allowed an "ITS to remain to avoid a serious disruption of hydroelectric power and an unmanageable flood of litigation arising from the otherwise unlawful taking of the endangered species").

89. *See generally infra* Parts V.B, VI.C for a discussion of Judge Redden's management of the BiOps on remand.

actions under the ESA, a judge's traditional reactive role is less consistent with the remedial purpose of the statute than a more active approach to remedies, such as that adopted by Judge Redden in the hydropower BiOp litigation.

B. *The "Managerial Judge"*

The traditional model of the American judiciary is one in which the judge remains in the background, a passive and impartial umpire.⁹⁰ However, the perception of the judge as passive has evolved considerably in recent years,⁹¹ because many judges have been thrust into a more active role.⁹² Thus, Judge Richard Posner once commented that "[j]udges, by the way, are not wallflowers or potted plants."⁹³ To describe this more active judicial role, Professor Judith Resnik coined the phrase "managerial judge" in 1982,⁹⁴ and her terminology has since become commonplace.⁹⁵

90. See, e.g., Richard L. Marcus, *Reining in the American Litigator: The New Role of American Judges*, 27 HASTINGS INT'L & COMP. L. REV. 3, 4 (2003). The New Yorker reported in 2009 that at his Senate confirmation hearings, now Chief Justice John Roberts discussed the judiciary's role in terms of passivity and impartiality: "Judges are like umpires,' [Chief Justice] Roberts said at the time. 'Umpires don't make the rules. They apply them. The role of an umpire and a judge is critical. They make sure everybody plays by the rules. But it is a limited role. Nobody ever went to a ballgame to see the umpire.'" Jeffrey Toobin, *No More Mr. Nice Guy*, THE NEW YORKER, May 25, 2009, http://www.newyorker.com/reporting/2009/05/25/090525fa_fact_toobin. However, serving as an umpire is not always consistent with the quest for justice. As Judge Marvin Frankel, district judge for the Southern District of New York, stated: "Many judges, withdrawn from the fray, watch it with benign and detached affection, chuckling nostalgically now and then as the truth suffers injury or death in the process." Marvin E. Frankel, *The Search for Truth: An Umpireal View*, 123 U. PA. L. REV. 1031, 1034 (1975). According to Judge Frankel, "[t]he judge views the case from a peak of Olympian ignorance." *Id.* at 1042.

91. See, e.g., Marjorie O. Rendell, *What Is the Role of the Judge in Our Litigious Society?*, 40 VILL. L. REV. 1115, 1118 (1995) ("To say that the discrete role of judges in 1995 is to preside over trials is like saying that the role of women in the 1990s is to care for the home. Surely, we do that, but we do so much more."); Elizabeth G. Thornburg, *The Managerial Judge Goes to Trial*, 44 U. RICH. L. REV. 1261, 1265 (2010) (referring to the concept of a passive judge as "nostalgic").

92. See Judith Resnik, *Managerial Judges*, 96 HARV. L. REV. 374, 376 (1982) ("Many federal judges have departed from their earlier attitudes; they have dropped the relatively disinterested pose to adopt a more active, 'managerial' stance.").

93. *Tagatz v. Marquette Univ.*, 861 F.2d 1040, 1045 (7th Cir. 1988).

94. See William B. Rubenstein, *A Transactional Model of Adjudication*, 89 GEO. L.J. 371, 371-72 n.4 (2001) (observing that Judith Resnik coined the phrase "managerial judges" and described that paradigm). See generally Resnik, *supra* note 92.

95. See Thornburg, *supra* note 91, at 1267 (stating that Professor Resnik's phrase "managerial judge" "has become a standard part of civil procedure vocabulary").

“Managerial judging” evolved to address an increase in the volume of judges’ work⁹⁶ and greater complexity in cases⁹⁷ by expediting dispute resolution and encouraging settlement.⁹⁸ Prototypical managerial decisions are essentially methods of allocating limited resources⁹⁹—often by disposing of cases through settlement rather than trial.¹⁰⁰ The objective of quick dispositions is often scorned, and from inception, managerial judging has been linked to judicial activism, a longstanding object of criticism from some quarters.¹⁰¹ However, criticisms of pretrial judicial management should not extend to judges’ involvement in complex, posttrial remediation.

In her seminal article on managerial judging, Professor Resnik distinguished between pretrial judicial management and posttrial assignment of remedies,¹⁰² describing the latter as a necessary response to the assertion of novel legal rights and proliferation of public law cases.¹⁰³ Compared to pretrial managerial judging,

96. See Resnik, *supra* note 92, at 379 (“Partly because of their new oversight role and partly because of increasing case loads, many judges have become concerned with the volume of their work.”).

97. See Chayes, *supra* note 19, at 1298 (“The litigation is often extraordinarily complex and extended in time.”).

98. See Thornburg, *supra* note 91, at 1267 (discussing the process of judicial case management as “using various procedural tools to speed the process of dispute resolution and encourage settlement”).

99. See E. Donald Elliot, *Managerial Judging and the Evolution of Procedure*, 53 U. CHI. L. REV. 306, 311 (1986) (“The prototypical ‘managerial’ decision is one that allocates limited resources. The notion that judges are to decide certain issues as ‘managers’ implies that they must take into account the hard economic reality that procedural resources are limited . . .”).

100. See Resnik, *supra* note 92, at 379 (“[J]udges have begun to experiment with schemes for speeding the resolution of cases and for persuading litigants to settle rather than try cases whenever possible.”).

101. See Rubenstein, *supra* note 94, at 417 (“Resnik was quite critical of the judiciary’s attempts to deal with these changes through this new form of what she labeled ‘judicial activism.’”); see also, e.g., William Wayne, *The Two Faces of Judicial Activism*, 61 GEO. WASH. L. REV. 1, 1 (“‘Judicial activism’ is, more often than not, a code word used to induce public disapproval of a court action that a politician opposes, but is powerless to overturn.”). Some academic commentators have argued that managerial judging occurs without guidance from rules or standards, is highly variable, threatens judicial impartiality, and is effectively unreviewable. See Thornburg, *supra* note 91, at 1269-70; see also, e.g., Jonathan T. Molot, *An Old Judicial Role for a New Litigation Era*, 113 YALE L.J. 27, 41 (2003) (“This new managerial role for judges has generated intense controversy.”).

102. See Resnik, *supra* note 92, at 393-94, 409-15 (discussing posttrial judicial case management).

103. See *id.* at 393-94 (“Posttrial judicial management is also a creature, in part, of a shift—this time not in procedure, but in the use of lawsuits by diverse groups to assert novel legal rights. The subject matter of such litigation does not fit easily within our

Professor Resnik asserted, posttrial supervision is more visible to the public, and therefore more legitimate.¹⁰⁴ In other words, she saw managerial judging as more appropriate in the remedies phase than before or during a trial. In addition, Professor Resnik claimed that the bulk of detailed posttrial remediation occurs in public law cases, in which the defendants are federal or state agencies, and thus judges are constrained by their obligation to respect the agencies' autonomy in decision making.¹⁰⁵ That constraint provides guidance for managerial courts.

C. *Public Law Litigation*

Litigation on behalf of the public began in earnest in the 1960s and 1970s, when Congress enacted numerous statutes authorizing administrative oversight of important public interests, including environmental preservation,¹⁰⁶ and public interest groups acquired the resources to pursue social objectives through use of the legal system.¹⁰⁷ In addition, several environmental protection statutes encouraged public law litigation by authorizing "citizen suits"¹⁰⁸ and providing for awards of attorneys' fees.¹⁰⁹ Suits based on environmental statutes that provide attorneys' fees have been

traditional conception of adjudication. The purpose of many public law cases is to reorient the future dealings of the parties: to make wardens alter their treatment of inmates, to reorganize school districts, to reform mental hospitals. Such changes are not accomplished with a simple court order.").

104. *See id.* at 409-10 (asserting that "[p]retrial supervision affects fewer people than does posttrial management, and, as a result, tends to be less visible," raising important political issues).

105. *See id.* at 412. According to Professor Resnik, "a large percentage of posttrial management occurs in public law cases, in which defendants are either federal or state officials. In these cases, federal judges are constrained by the obligation to respect the autonomy of coordinate branches of government and state executives." *Id.*

106. *See, e.g.*, Clean Water Act, 33 U.S.C. § 1365 (1977); ESA, 16 U.S.C. §§ 1531-1544 (1973); Clean Air Act, 42 U.S.C. § 7604 (1970); National Environmental Policy Act, 42 U.S.C. §§ 4321, 4331-4334 (1969).

107. *See* Carl Tobias, *Public Law Litigation and the Federal Rules of Civil Procedure*, 74 CORNELL L. REV. 270, 278-79 (1989) ("The antecedents of many of today's public interest litigants gradually grew from the time the Rules became effective. Only in the 1960s, however, did these entities begin to secure the requisite resources to support substantial expansion of their operations and to plan extensively for the type of suits now considered public law litigation."); *see also* Edward J. Brunet, *A Study in the Allocation of Scarce Judicial Resources: The Efficiency of Federal Intervention Criteria*, 12 GA. L. REV. 701 (1978) (suggesting that public interest groups may best influence judicial decisions through intervention).

108. *See, e.g.*, Clean Water Act, 33 U.S.C. § 1365 (1977); Clean Air Act, 42 U.S.C. § 7604 (1970).

109. *See* Tobias, *supra* note 107, at 285.

termed “private attorney general actions,”¹¹⁰ in which public interest groups step into the role of a public enforcer. As a result of a proliferation of those cases, Professor Carl Tobias has maintained that “public interest litigants have become institutionalized participants in administrative proceedings and in courtroom litigation challenging agency activity.”¹¹¹

In 1976, analyzing changing aspects of litigation and law,¹¹² Professor Chayes introduced the concept of “public law litigation.” Under the model he sketched, public law litigation differed from traditional adjudication in several essential ways, including its broad scope, party structure, concentration on future conditions, concern over public consequences, negotiated remedy, and the fact that the judge is responsible for “credible fact evaluation” and for “shaping the litigation to ensure a just and viable outcome.”¹¹³

110. See, e.g., Jan Chatten-Brown & Douglas Carstens, *Practicing Public Interest Environmental Law in the Private Sector*, 38 No. 5 ABA TRENDS 8 (2007) (“In many environmental legal challenges, irreplaceable resources are protected, but no damages are sought or awarded. Therefore, it is a challenge for nonprofits and community groups to fund public interest litigation to protect the environment. Private attorney general actions, or reliance on statutes that provide for attorneys’ fees, is possible. At the federal level, statutes such as the [Clean Water Act] and the ESA provide for such private enforcement with statutory fee provisions. Moreover, where the statute underlying the litigation does not provide such fees (e.g., [the National Environmental Policy Act]), fees are awardable pursuant to statutes such as the Equal Access to Justice Act.”); see also Edward J. Brunet, *The Primacy of Private Attorney General Enforcement in the United States*, IND. J. OF ALTERNATIVE DISPUTE RESOLUTION (forthcoming 2012); Stephen B. Burbank, Sean Farhang & Herbert M. Kritzer, *Private Enforcement of Statutory and Administrative Law in the United States (and Other Common Law Countries)*, Univ. Penn. Law Sch., Pub. L. & Legal Theory Research Paper Series, Research Paper No. 11-08 (2011).

111. See Tobias, *supra* note 107, at 293. According to Professor Tobias, the rise in public interest litigation “has generated new forms, understandings, relationships, and difficulties. Indeed, public law litigation may have transformed conventional understandings of adjudication, of the judicial function, and of the components of a lawsuit.” *Id.* at 296.

112. Professors Eisenberg and Yeazell have argued that it is the rights public interest litigants are vindicating that are new, not the remedies. See Theodore Eisenberg & Stephen C. Yeazell, *The Ordinary and the Extraordinary in Institutional Litigation*, 93 HARV. L. REV. 465, 516 (1980). Professors Eisenberg and Yeazell explained that they “do not deny that courts have been up to new things, but we conclude that the novelty flows from the new rights created rather than from the remedies employed. Twenty-five years ago few thought the Constitution guaranteed mental patients clean sheets or prisoners hearings before parole revocation. Having found such rights implied by the Constitution, courts have reached for a remedial arsenal fitted out centuries ago for service in other wars.” *Id.*

113. Chayes, *supra* note 19, at 1302. Professor Chayes specifically identified eight characteristics of public law litigation as differing from traditional litigation: (1) the scope of the lawsuit is not uniform but rather shaped primarily by the court and parties; (2) the party structure is “sprawling and amorphous,” involving more than just two parties; (3) the fact inquiry looks not to past occurrences, but to future effects of the litigation; (4)

Professor Tobias subsequently identified two types of public law litigation: (1) institutional reform litigation, which seeks to restructure aspects of institutional performance, and (2) public interest litigation, which challenges the decision making of federal administrative agencies. In the latter, judges assume the role of ensuring that government actions are consistent with public values;¹¹⁴ plaintiffs typically pursue relief affecting numerous people, including many nonparties and even institutional structures; and defendants are usually large bureaucratic institutions.¹¹⁵ Public interest remedies are often quite complex, requiring ongoing judicial participation and novel mechanisms for resolution.¹¹⁶ For example, the Ninth Circuit explained in 2007 that

[w]here the public interest is involved, 'equitable powers assume an even broader and more flexible character than when only a private controversy is at stake.' Unless Congress provides otherwise, '[c]ourts of equity may, and frequently do, go much farther both to give and withhold relief in furtherance of the public interest than they are accustomed to go when only private interests are involved.'¹¹⁷

relief is forward looking and fashioned on flexible and broadly remedial lines, "often having important consequences for many persons including absentees"; (5) the "remedy is not imposed but negotiated"; (6) administration of a decree requires the judge's continuing participation; (7) the judge is not passive but active, "with responsibility not only for credible fact evaluation but for organizing and shaping the litigation to ensure a just and viable outcome"; and (8) the suit is not about private rights, but about public policy. *Id.*

114. See Tobias, *supra* note 107, at 279-83 (providing an overview of institutional reform litigation and distinguishing between the two types of public law litigation). Professor Tobias asserts that "the judge purportedly is a public officer 'empowered by the political agencies to enforce and create society-wide norms, and perhaps even restructure institutions, as a way . . . of giving meaning to our public values.'" See *id.* at 282 (quoting O. Fiss, *The Supreme Court, 1978 Term—Foreword: The Forms of Justice*, 93 HARV. L. REV. 1, 31 (1979)).

115. See Tobias, *supra* note 107, at 280 (observing that public interest plaintiffs "typically pursue relief that could affect numerous people not before the court as well as institutional, political, and economic structures," and "[d]efendants generally are large bureaucratic institutions or agencies of the federal, state, or local government, such as prisons or schools. The subject matter of these lawsuits usually is the policy, practice, operation, or decisionmaking of those entities—in essence, a dispute over the conduct or content of public policy.").

116. See *id.* at 281 (asserting that public interest litigation often requires significant and ongoing judicial involvement).

117. *Nw. Envtl. Def. Ctr. v. Bonneville Power Admin.*, 477 F.3d 668, 680 (9th Cir. 2007) (quoting *United States v. Alisal Water Corp.*, 431 F.3d 643, 654 (9th Cir. 2005) and *United States v. Coca-Cola Bottling Co.*, 575 F.2d 222, 228 (9th Cir. 1978)).

Thus, the nature of public interest litigation has not escaped federal judges, including Judge Redden.

D. Judge Redden's Management on Remand

Litigation over the Columbia Basin hydroelectric BiOps is an archetypal example of Professor Chayes' "public law litigation."¹¹⁸ Disputes over hydropower management have been extremely broad in scope, spanning more than two decades,¹¹⁹ involving numerous interested parties representing government agencies, states, industries, environmental protection, and conservation for public use, among others, and affecting several million people as well as more than a dozen species of listed salmonids.¹²⁰ In addition, the inquiry into the permissibility of hydropower BiOps is primarily forward-looking—in other words, the case revolves around the future of listed salmonids, not the past acts of government agencies.¹²¹ Further, review of overlapping BiOps required continuing supervision from both Judge Redden and his predecessor, Judge Marsh, and Judge Redden extended his influence over the remand process as well as review of the completed BiOps.¹²² Finally, litigation over dam operations and salmon protection is fundamentally about public policy, not private rights. It therefore is quite appropriate to consider Judge Redden's role in the salmon saga in light of the unique qualities of public law disputes.

Another important aspect of the judge's management of BiOp review is that his in-depth involvement took place after litigation had reached some point of termination—here the repeated disposition was remand of an unlawful BiOp.¹²³ Thus, Judge

118. See generally Chayes, *supra* note 19.

119. Judge Marsh first reviewed a Columbia Basin hydropower BiOp in 1993. See *Idaho Dep't Fish & Game v. Nat'l Marine Fisheries Serv.*, 850 F. Supp. 886, 899 (D. Or. 1994); NOAA's next draft BiOp is due in 2014. *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 839 F. Supp. 2d 1117, 1130 (D. Or. 2011).

120. See *supra* note 20 for a list of defendants and defendant-intervenors, *infra* note 172 for a list of plaintiffs, and *supra* note 12 for a source discussing the fact that NOAA has listed thirteen species of Columbia Basin salmonids under the ESA.

121. See, e.g., *infra* note 346 for Judge Redden's statement that his objective was to "help endangered salmon and steelhead."

122. For a review of Judge Redden's remands of the hydropower BiOps, see *infra* Parts V.B, VI.C, and VII.

123. See *supra* note 122.

Redden's oversight should be considered in light of scholarship analyzing posttrial remediation. Indeed, as Professor Resnik predicted,¹²⁴ Judge Redden's supervision of remedies in the hydropower BiOp litigation has been characterized by visibility in the form of publicly available transcripts of meetings, as well as accountability and deference to government agencies. By involving the plaintiffs in discussions of developing and improving the BiOps, the judge made NOAA more accountable for consideration of salmon survival and also fostered a more transparent process of analysis.¹²⁵

Despite rejecting three consecutive BiOps as unlawful,¹²⁶ Judge Redden remained deferential to the government agencies throughout his decade of involvement with the case. For example, he deferred to NOAA's expertise on matters of interpreting scientific results¹²⁷ and granted the agency's request to leave the BiOps in place on remand.¹²⁸ Additionally, he limited his directives, reaching only the questions necessary for him to determine an outcome.¹²⁹ In sum, the judge appropriately permitted public review of policy questions concerning the balance between economic interests and preservation and restoration of listed species, and he did so while exercising considerable judicial restraint and demonstrating respect for agency expertise.

IV. PRE-REDDEN REVIEW OF HYDROPOWER BIOPS

The numerous BiOps on hydropower operations in the Columbia River Basin have been the subject of contention for two decades. In 1992, shortly after listing Snake River sockeye and chinook, NOAA issued its first BiOp on hydroelectric operations in

124. See *supra* notes 95-105 for a discussion of Professor Resnik's distinction between pretrial "managerial judging" and posttrial supervision of remediation.

125. See *infra* Parts V.B, VI.C, and VII for a review of Judge Redden's management of the BiOps on remand, including discussion of meetings that involved both plaintiffs and defendants.

126. For a review of Judge Redden's remands of the hydropower BiOps, see *infra* Parts V.B, VI.C, and VII.

127. See, e.g., *infra* note 285 and accompanying text (granting deference to the agency's scientific judgment and thus approving its proposals for early spring spill, and also summer spill).

128. See *supra* notes 80-89 for an overview of Judge Redden's decision not to vacate the 2000 BiOp.

129. See, e.g., *infra* note 238 (explaining that the four issues Judge Redden considered were dispositive, so he would not reach the others raised by the plaintiffs).

the Columbia Basin.¹³⁰ In this early BiOp, NOAA concluded not only that 1992 operations would not jeopardize the continued existence of listed salmon, but also that operations were actually beneficial because operations under the BiOp would improve survival over the plan adopted by the Northwest Power Planning Council under the Northwest Power Act.¹³¹ Despite concern that merely targeting improvements over the status quo, rather than attempting to ensure viable populations, would not halt decline of the species,¹³² the 1992 BiOp was not questioned in court.¹³³ However, NOAA's finding of no jeopardy did not remain unchallenged for long.

A. *The 1993 BiOp*

In 1993, NOAA issued a second BiOp concerning Columbia Basin hydroelectric operations, in which it refined its analysis of jeopardy.¹³⁴ Under the new analysis, the agency decided that hydropower operations must (1) improve salmon survival, as measured against a 1986-1990 baseline, and (2) in combination with other human activities on the Columbia River, be reasonably likely to reduce salmon mortality.¹³⁵ Because it concluded that the proposed 1993 hydroelectric operations met both criteria, NOAA issued a no-jeopardy finding, announcing a very modest goal of merely stopping the decline in salmon runs over the following

130. See *Salmon and the Endangered Species Act*, *supra* note 21, at 550.

131. NAT'L MARINE FISHERIES SERV., ENDANGERED SPECIES ACT SECTION 7 CONSULTATION/CONFERENCE BIOLOGICAL OPINION: 1992 OPERATION OF THE FEDERAL COLUMBIA RIVER POWER SYSTEM, at 35 (1992); see also *The Unraveling of the Parity Promise*, *supra* note 56, at 666-70 (discussing the Northwest Power Act).

132. See *Practicing Deception*, *supra* note 12, at 736 (asserting that NOAA's 1992 plan for hydroelectric operations "made no attempt to restore salmon populations to healthy, viable levels" and describing the agency's stance on balancing hydropower and salmon as "hopefully the situation will get no worse"). For example, Judge Marsh, Judge Redden's predecessor, discussed what he deemed to be the "incongruous result" caused by focusing on mortality decreases to determine "no jeopardy": "[I]f 100 listed species are expected to survive downstream juvenile migration in 1993, and 99 survived in 1990," a "no jeopardy" finding could result, "even though a 100 survival level may still be considered so low as to constitute a continued threat to the species' existence." *Idaho Dep't of Fish & Game v. Nat'l Marine Fisheries Serv.*, 850 F. Supp. 886, 899 (D. Or. 1994), *vacated as moot*, 56 F.3d 1071 (9th Cir. 1995).

133. See *SACRIFICING THE SALMON*, *supra* note 24, at 179.

134. *Idaho Dep't of Fish & Game v. Nat'l Marine Fisheries Serv.*, 850 F. Supp. 886, 890-91 (D. Or. 1994), *vacated as moot*, 56 F.3d 1071 (9th Cir. 1995).

135. See *id.* at 892-93.

fifteen years.¹³⁶

The states of Idaho and Oregon responded by filing suit, alleging that NOAA's choice of the baseline period and its life-cycle modeling of salmon mortality were arbitrary and capricious.¹³⁷ In *Idaho Department of Fish & Game v. National Marine Fisheries Service*, United States District Court Judge Malcolm Marsh concluded that NOAA's 1986–1990 baseline skewed salmon counts, since salmon runs were at record lows during that period.¹³⁸ As Judge Marsh recognized, a baseline that included years of greater salmon counts would impose a more stringent standard for improving salmon survival.¹³⁹ According to Judge Marsh, NOAA impermissibly “focussed [sic] on the system capabilities tending to the status quo rather than stabilization of the species.”¹⁴⁰ In short, NOAA set the bar too low.

Turning his attention to NOAA's life-cycle modeling, Judge Marsh again rejected an important aspect of the agency's jeopardy analysis. He determined that NOAA had discounted low range assumptions about survival and failed to consider the appropriate range of risk assumptions.¹⁴¹ By disregarding low-end, worst-case assumptions, NOAA had inflated its confidence in salmon survival rates from fifty percent to between sixty and seventy percent.¹⁴² Moreover, the judge concluded that NOAA had inflated confidence levels by failing to consider the effects of the “extinction vortex”—the enhanced risk associated with small populations.¹⁴³ Judge Marsh noted that considering the “extinction vortex” was especially important because, for example, despite obtaining ESA protection, NOAA expected that only five Snake River sockeye and just 242 to 246 fall chinook would return to their spawning grounds in 1993.¹⁴⁴

136. *Id.* at 897-98.

137. *Id.* at 891.

138. *Id.* at 893 (“I find that NMFS' selection of the '86-'90 baseline is arbitrary and capricious because the agency failed to consider relevant facts such as the drought condition and low run numbers of the species during the base period.”).

139. *Id.* (“It is clear that a longer base period which includes years of higher abundance levels would have encompassed higher escapement levels and would have resulted in a higher goal.”).

140. *Id.*

141. *Id.* at 898.

142. *Id.*

143. *Id.* at 898-99.

144. *Id.* at 899. Stating the obvious, Judge Marsh referred to these numbers as “perilously low.” *Id.* Just three years later, in 1997, Snake River sockeye were “virtually

Judge Marsh proceeded to observe that the process NOAA pursued for salmon protection was “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.”¹⁴⁵ Therefore, the judge granted the plaintiffs’ motion for summary judgment, ordering NOAA to reinitiate consultation consistent with his findings.¹⁴⁶ However, no overhaul was forthcoming. Instead of focusing energy on salmon recovery, NOAA continued to prefer changing hydroelectric operations only minimally—at the expense of salmon runs.¹⁴⁷

B. *The 1995 BiOp*

NOAA expanded its next attempt to comply with the ESA by issuing a hydropower BiOp to cover dam operations for five years, from 1995 to 1999.¹⁴⁸ Unlike the 1993 BiOp, the 1995 BiOp concluded that hydropower operations would indeed jeopardize listed salmon species.¹⁴⁹ Nevertheless, environmental groups and the state of Oregon filed suit, claiming that the 1995 BiOp was inadequate because it failed to (1) adequately lay out the ways in which reasonable and prudent alternatives (RPAs) would avoid jeopardy; (2) consider state and tribal life-cycle modeling results,

extinct,” because only one fish returned to Redfish Lake in 1994. *Am. Rivers v. Nat’l Marine Fisheries Serv.*, No. Civ. 96-384-MA, 1997 WL 33797790, at *4 (D. Or. Apr. 3, 1997).

145. *Idaho Dep’t of Fish & Game*, 850 F. Supp. at 900. According to Judge Marsh, “[i]nstead 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.” *Id.*

146. *Id.* at 900-01.

147. *See Practicing Deception*, *supra* note 12, at 738 (“The overhaul Judge Marsh called for never occurred because NOAA persisted [to] disregard . . . precautionary salmon management in favor of traditional hydrosystem operations.”).

148. *Am. Rivers*, 1997 WL 33797790, at *1, *4. Just before Judge Marsh decided *Idaho Fish & Game*, NOAA finished a BiOp intended to cover hydropower operations from 1994 to 1998 that was substantially similar to its 1993 BiOp. To comply with Judge Marsh’s order, the agency reinitiated consultation. *See Columbia River Basin*, *supra* note 22, at 90-91; *Salmon and the Endangered Species Act*, *supra* note 21, at 553, 522-55 (alleging that the move from one- to five-year BiOps was one of the salmon’s several contributions to the ESA that outweighed the ESA’s contributions to listed salmon).

149. *Am. Rivers*, 1997 WL 33797790, at *6. The plaintiffs in this case were environmental groups joined by the State of Oregon. *Id.* at *1. Additionally, the Yakama, Umatilla, Nez Perce, and Warm Springs Tribes, as well as the State of Alaska, filed amicus briefs in support of the plaintiffs and the State of Oregon. *Id.* at *2-3.

relying instead on overly optimistic modeling; and (3) explain why the agency dropped a twenty-four-year period from its analysis, leading to more optimistic results in its review.¹⁵⁰

In contrast to his decision about the 1993 BiOp and encouragement to overhaul plans for salmon protection,¹⁵¹ in *American Rivers v. National Marine Fisheries Service*, Judge Marsh upheld NOAA's 1995 BiOp.¹⁵² After deciding that the agency's explanation of RPAs was sufficient, and that it had made a reasoned evaluation when it chose to rely on certain life-cycle modeling and to drop the twenty-four-year period from its analysis, Judge Marsh deferred to NOAA's judgment.¹⁵³ Ultimately, he concluded that deference was warranted because the ESA "says nothing about risk tolerance, and the limits of judicial review dictate that I not interfere with a federal agenc[y's] exercise of professional judgment or their reasoned decisions."¹⁵⁴ But Judge Marsh explained that deference to NOAA did not amount to judicial confidence with the agency's plans for salmon protection; instead, he indicated unease with the agency's potential recklessness in accepting high levels of risk when managing salmon runs: "Given the dwindling numbers, time is clearly running out. As a long-time observer and examiner of this process, I cannot help but question the soundness of the selected level of risk acceptance."¹⁵⁵

The Ninth Circuit affirmed Judge Marsh's approval of the 1995 BiOp in a brief opinion in 1999.¹⁵⁶ However, when Judge Redden

150. *Id.* at *4-5, *8, *9. In an earlier draft of the 1995 BiOp, NOAA considered recovery over both a twenty-four-year period and a forty-eight-year period, but the final 1995 BiOp included only an analysis of recovery over a forty-eight-year period, which produced the most optimistic results. *Id.* at *9.

151. See *Idaho Dep't of Fish & Game v. Nat'l Marine Fisheries Serv.*, 850 F. Supp. at 900.

152. *Am. Rivers*, 1997 WL 33797790, at *14.

153. For example, Judge Marsh stated that "[a]lthough NMFS' optimism may be criticized, I cannot say that the proposed action within RPA fail to provide a sufficiently reasoned justification for NMFS' no jeopardy conclusion." *Id.* at *9.

154. *Id.* at *10.

155. *Id.*

156. *Am. Rivers v. Nat'l Marine Fisheries Serv.*, No. 97-36159, 1999 U.S. App. LEXIS 3860, at *4, *8 (9th Cir. Mar. 8, 1999) (affirming *Am. Rivers v. Nat'l Marine Fisheries Serv.*, 1997 WL 33797790) ("NMFS reasonably explained the close relationship between jeopardy and critical habitat and identified certain effects of the dam operations (e.g., reduction of water velocity and increase in water temperature) that both jeopardize the species themselves and adversely modify the species' critical habitat. . . . Given NMFS's expertise in this area, the nature of the proposed action (dam operations), and the

assumed review of the case upon Judge Marsh's change to senior judge status in 1998, NOAA's judgment in risking extinction of listed salmon species would face a new round of legal challenges.

V. JUDGE REDDEN'S FIRST REMAND: THE 2000 BIOP

In 2000, NOAA issued a new BiOp on hydroelectric operations from 2001 to 2005.¹⁵⁷ Under the 2000 BiOp, NOAA retained the dual standard approach it employed in its 1995 BiOp,¹⁵⁸ seeking both survival and recovery of salmon species.¹⁵⁹ However, NOAA's definition of "survival" became more favorable to hydropower operations in the 2000 BiOp; that is, a salmon species would achieve "survival" if only one adult salmon returned to spawn over a salmon generation.¹⁶⁰ Nevertheless, even using this weak standard and a likelihood of recovery that was only "moderate to high,"¹⁶¹ NOAA concluded that hydroelectric operations would jeopardize the eight listed salmon species spawning above Bonneville Dam.¹⁶²

As a result of its jeopardy finding, NOAA analyzed RPAs that included mitigation measures needed to meet the agency's standards for survival and recovery.¹⁶³ NOAA's proposed mitigation included studies on salmon survival, a continued reliance on salmon transportation, and changes in spill. But these measures alone did not avoid jeopardy.¹⁶⁴ Consequently, although

species' habitat at issue here, we cannot say that NMFS's conclusion in the 1995 BiOp that the jeopardy analysis 'encompasses' the critical habitat analysis was arbitrary and capricious.").

157. NAT'L MARINE FISHERIES SERV., BIOLOGICAL OPINION, REINITIATION OF CONSULTATION ON OPERATIONS OF THE FEDERAL COLUMBIA RIVER POWER SYSTEM, INCLUDING THE JUVENILE FISH TRANSPORTATION PROGRAM, AND 19 BUREAU OF RECLAMATION PROJECTS IN THE COLUMBIA BASIN (Dec. 21, 2000) [hereinafter 2000 BiOp]. For a detailed description of this BiOp, see *Practicing Deception*, *supra* note 12, at 749-60.

158. 2000 BiOp, *supra* note 157, at 1-13, 1-14.

159. See *Columbia River Basin*, *supra* note 22, at 94.

160. 2000 BiOp, *supra* note 157, at 1-13.

161. *Id.* at 8-3, 8-5, 8-7, 8-13, 8-15, 8-17, 8-23, 8-25 (identifying a "moderate to high likelihood" of recovery for all eight listed salmon species spawning above Bonneville Dam, including all Snake River species, Upper Columbia spring/summer chinook and steelhead, Middle Columbia steelhead, and Columbia River chum).

162. *Id.*

163. *Id.*

164. See *SACRIFICING THE SALMON*, *supra* note 24, at 187 (stating that in its analysis of operational mitigation, "[b]asically the BiOp's approach was to assume that the Lower Snake Dams would not be breached, then attempt to craft an aggressive restoration program around the continued existence of the dams").

most RPAs attempt to mitigate the effects of the action itself,¹⁶⁵ the 2000 BiOp focused on offsite mitigation, relying on proposed changes related to harvest, habitat, and hatchery management instead of major alterations to dam operations.¹⁶⁶ Although unstated, the clear goal of this reliance on offsite mitigation seemed to be to avoid having to recommend breaching dams on the Lower Snake River.¹⁶⁷

In relying on offsite mitigation, NOAA considered the proposed actions in light of an area much larger than the “action area” (the mainstem of the river, where the dams exist), placing the burden of recovering salmon beyond the operation of the dams.¹⁶⁸ Further, implementation of offsite mitigation measures in the 2000 BiOp—including financing and initiating improvements to habitat, funding hatchery program reform, and working with federal, state, and tribal fishery agencies to set and limit harvest rates—was largely left to agencies that had no role in operating hydropower facilities.¹⁶⁹ For example, the 2000 BiOp directed BPA to “work with” other agencies like the Environmental Protection Agency and the United States Geological Survey to develop habitat improvement plans.¹⁷⁰ Based on an assumption that these sorts of mitigation measures would actually occur, NOAA concluded that federal hydropower operations in the Columbia River Basin between 2001 and 2005 would not jeopardize listed salmon

165. See *Practicing Deception*, *supra* note 12, at 753 (“Although RPAs generally attempt to mitigate the adverse effects an agency’s action may have on listed species by altering the proposed action itself, remarkably, the 2000 BiOp called for very few [Federal Columbia River Power System] operational changes, and instead made only minor technical changes.”).

166. 2000 BiOp, *supra* note 157, at 9–1, 9–2; see also *SACRIFICING THE SALMON*, *supra* note 24, at 187 (“This approach drew the BiOp’s focus away from the hydroelectric system, the cause of most man-induced salmon mortalities.”).

167. See Michael C. Blumm & Melissa Powers, *Avoiding Dam Breaching Through Offsite Mitigation: NMFS’s 2000 Biological Opinion on Columbia Basin Hydroelectric Operations*, 32 ENVTL. L. 241, 261–64 (2002) [hereinafter *Avoiding Dam Breaching*] (describing the habitat, hatchery, and harvest elements of the RPA). Even though NOAA determined that breaching Lower Snake River dams provided the most certainty of long-term survival and recovery of salmon species, it rejected this option because it was politically controversial. See *id.* at 241 (“To avoid the politically controversial position of recommending dam breaching, the 2000 biological opinion called for numerous ‘offsite’ mitigation measures involving habitat restoration, hatchery operations, and harvest management.”).

168. 2000 BiOp, *supra* note 157, at 1–9.

169. See *Columbia River Basin*, *supra* note 22, at 95.

170. 2000 BiOp, *supra* note 157, at 9–137; see also *Avoiding Dam Breaching*, *supra* note 167, at 261–67 (discussing offsite mitigation measures in the 2000 BiOp).

species.¹⁷¹

A. *Rejecting the 2000 BiOp*

In response to NOAA's issuance of the proposed 2000 BiOp, numerous environmental and conservation groups filed suit, claiming that the BiOp's finding of no jeopardy was arbitrary and capricious.¹⁷² This time, the environmentalists alleged that the agency had arrived at a no-jeopardy conclusion by relying on proposed federal mitigation measures that had not undergone section 7 consultations, as well as state and private mitigation measures that were not "reasonably certain" to occur, as required by the ESA.¹⁷³ The State of Oregon and the tribes of the Nez Perce, Yakama, Umatilla, and Warm Springs Reservations supported the plaintiffs, submitting amicus curiae briefs.¹⁷⁴ In 2003, in *National Wildlife Federation v. National Marine Fisheries I (NWF v. NMFS I)*, Judge Redden agreed with the environmentalists, forcing NOAA to reconsider its 2000 BiOp.¹⁷⁵

Judge Redden first concluded that NOAA's defined "action area" was arbitrary and capricious because it excluded the range-wide area subject to the indirect effects of hydropower operations.¹⁷⁶ He observed that NOAA's definition of the action area was limited to the area immediately around the dam operations—that is, the Columbia and Snake Rivers.¹⁷⁷ In support of his conclusion that NOAA's narrow definition of the action area

171. *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 254 F. Supp.-2d 1196, 1213-14 (D. Or. 2003).

172. *Id.* at 1199-1200. The sixteen environmental and conservation groups that were plaintiffs in this case included National Wildlife Federation, Idaho Wildlife Federation, Washington Wildlife Federation, Sierra Club, Trout Unlimited, Pacific Coast Federation of Fishermen's Associations, Institute for Fisheries Resources, Idaho Rivers United, Idaho Steelhead and Salmon United, Northwest Sportfishing Industry Association, Friends of the Earth, Salmon for All, and Columbia Riverkeeper. *Id.*

173. *Id.* at 1205 ("Plaintiffs, the Treaty Tribes, and the State of Oregon contend that the no-jeopardy conclusion in the 2000BiOp is arbitrary and capricious, and therefore invalid, because it relies on future federal mitigation actions that have not undergone section 7 consultation. Moreover, plaintiffs contend that the no-jeopardy conclusion also relies on the implementation of non-federal off-site mitigation actions that are not reasonably certain to occur.").

174. *Id.* at 1200.

175. *Id.* at 1215-16.

176. *Id.* at 1212. As the judge noted, "[a]ction area' means all areas to be affected directly or indirectly by the Federal action, and not merely the immediate area involved in the action." *Id.* at 1205 (quoting 50 C.F.R. § 402.02).

177. *Id.* at 1212.

violated the ESA, the judge also noted that the 2000 BiOp relied heavily on offsite mitigation occurring beyond that limited range, with the result that much of the mitigation would actually occur outside the action area.¹⁷⁸

Second, Judge Redden rejected NOAA's reliance on offsite mitigation measures.¹⁷⁹ NOAA premised offsite mitigation success on actions that had a "reasonable chance of being implemented."¹⁸⁰ However, this promise fell short of the ESA requirement that such actions must be reasonably certain to occur.¹⁸¹ Because there was no evidence demonstrating that any of the states, tribes, or private entities responsible for overseeing offsite mitigation had committed to funding or implementing any of the mitigation measures the RPA assigned them, Judge Redden decided that those measures were not in fact "reasonably certain" to occur.¹⁸² Moreover, he concluded that NOAA incorrectly relied on federal mitigation measures, such as habitat and harvest mitigation actions, that had not undergone section 7 consultations.¹⁸³ Judge Redden therefore ruled that the 2000 BiOp's finding of no jeopardy was arbitrary and capricious.¹⁸⁴

Rejecting both NOAA's defined action area and the agency's reliance on uncertain offsite mitigation measures, Judge Redden

178. *Id.* at 1213 ("If the proposed range-wide, off-site mitigation actions are not, in reality, part of the action area, they should not have been included within the 'cumulative effects' analysis of the 2000BiOp. However it is apparent that NOAA included them as part of the RPA in the 2000BiOp to justify its no-jeopardy conclusion.").

179. *Id.* at 1215.

180. *Id.* at 1213 (quoting 1 FED. CAUCUS, CONSERVATION OF COLUMBIA BASIN FISH: FINAL BASINWIDE SALMON RECOVERY STRATEGY 23 (2000), available at http://www.salmonrecovery.gov/Files/BiologicalOpinions/2000/2000_Final_Strategy_Vol_1.pdf).

181. *Id.* at 1214; see also 50 C.F.R. § 402.02 (enumerating ESA regulations defining "indirect effects" as "those that are caused by the proposed action and are later in time, but still are reasonably certain to occur").

182. *Nat'l Wildlife Fed'n*, 254 F. Supp. 2d at 1213-15. Judge Redden quoted Oregon's assertion that the 2000 BiOp "relies on actions for which necessary funding is unavailable, actions for which the agencies lack authority, and actions that are not reasonably certain to occur because of the lack of binding agreements." *Id.* at 1213 (quoting Brief for State of Oregon as Amici Curiae Supporting Plaintiffs, *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 254 F. Supp. 2d 1196 (D. Or. 2002); see also *Or. Natural Res. Council v. Nat'l Marine Fisheries Serv.*, 6 F. Supp. 2d 1139, 1152-56 (D. Or. 1998) (overturning NMFS' decision not to list an ESU of coho salmon as threatened under the ESA, and explaining that NMFS improperly relied on voluntary mitigation measures, rather than regulatory mitigation measures).

183. *Nat'l Wildlife Fed'n*, 254 F. Supp. 2d at 1210, 1215.

184. *Id.* at 1215.

remanded the 2000 BiOp to NOAA.¹⁸⁵ He subsequently held a conference with counsel of record at which all parties agreed that the court should grant NOAA one year to cure the deficiency.¹⁸⁶ At the conference, NOAA requested that Judge Redden leave the 2000 BiOp in place pending issuance of a new BiOp, but the environmental groups objected, instead asking the court to vacate the 2000 BiOp.¹⁸⁷ NOAA objected to this vacatur on three grounds: (1) no additional harm would occur to salmon if the 2000 BiOp was left in place during the one-year remand period; (2) takes of salmon would continue even if the judge vacated the BiOp; and (3) curtailing Columbia Basin hydroelectric operations could significantly damage the “economic and social fabric of the region”¹⁸⁸ by exposing action agencies to ESA liability for those takes of salmon.

On July 1, 2003, Judge Redden denied the environmental groups’ motion to vacate the BiOp.¹⁸⁹ According to the judge, the environmental groups had failed to show that vacating the 2000 BiOp during the remand period would limit jeopardy to salmon.¹⁹⁰ Judge Redden also decided that the environmental groups had not effectively countered NOAA’s concerns that vacatur would substantially disrupt hydropower operations by exposing action agencies to liability under the ESA for takes of salmon during the remand period.¹⁹¹ Thus, he opted to permit the 2000 BiOp to remain in place.¹⁹² However, Redden retained jurisdiction over the case during the remand, setting a date for a conference to discuss

185. *Id.*

186. Order on Motions for Summary Judgment at 2, 254 F. Supp. 2d 1196, No. 3:01-cv-00640-SI, (D. Or. June 2, 2003), ECF No. 406.

187. *Id.*

188. Opinion & Order at 2, 254 F. Supp. 2d 1196, No. 3:01-cv-00640-SI, (D. Or. July 1, 2003), ECF 439-2. In contrast, the State of Oregon encouraged Judge Redden to leave the 2000 BiOp in place but retain jurisdiction during the period of remand and allow motions to assert additional protective measures as necessary to avoid further jeopardy. *Id.* at 3. Although the judge decided to leave the BiOp in place, he declined to entertain motions to assert additional protective measures. *Id.* at 4.

189. *Id.*

190. *Id.* at 3.

191. *Id.*

192. *Id.* at 3-4. For discussions of remand without vacation, see Kristina Daugirdas, Note, *Evaluating Remand Without Vacatur: A New Judicial Remedy for Defective Agency Rulemakings*, 80 N.Y.U. L. REV. 278 (2005); Benjamin W. Tettlebaum, Note, *“Vacation” at the Farm: Why Courts Should Not Extend “Remand Without Vacation” to Environmental Deregulation*, 97 CORNELL L. REV. 405 (2012).

the parameters and timing of periodic reports.¹⁹³ He also appointed a technical advisor to help him understand the intricacies of ESA requirements.¹⁹⁴

B. *Managing the 2000 BiOp on Remand*

On July 21, 2003, Judge Redden established an Attorneys' Steering Committee to facilitate communication and cooperation among the parties and the court.¹⁹⁵ The steering committee meetings were open to the public, and the court ensured that transcripts of the meetings were available to the public.¹⁹⁶ Judge Redden made no rulings at the steering committee meetings, but he participated in discussions and scheduled meetings with the committee at intervals during the remand period.¹⁹⁷

In January 2004, after NOAA released its second quarterly report, Judge Redden met with the steering committee again.¹⁹⁸ After reviewing the report, the judge expressed concern about steps not yet taken because the agency had not yet (1) compiled data on 2001 salmon returns; (2) collaborated with federal agencies, the states, or the tribes; or (3) developed monitoring programs or performance standards necessary to implement reasonable and prudent alternatives, offsite mitigation plans, or habitat and hatchery measures.¹⁹⁹

193. Opinion & Order at 4, 254 F. Supp. 2d 1196, No. 3:01-cv-00640-SI, (D. Or. July 1, 2003), ECF No. 439-2.

194. Opinion & Order at 8, 254 F. Supp. 2d 1196, No. 3:01-cv-00640-SI, (D. Or. Mar. 2, 2005), ECF No. 793. All parties agreed that Judge Redden should have access to a technical advisor, and NOAA agreed to pay for that service. *Id.* Nevertheless, in March 2005, Senior District Court Judge Ancer Haggerty got involved because the intervening irrigators moved to have Judge Redden disqualified from the case, arguing in part that the judge's meetings with the technical advisor constituted *ex parte* contacts. *Id.* However, observing that "[i]t is well known that cases brought under the ESA can involve complex technical and scientific matters," Judge Haggerty declined the irrigators' request for oral argument and denied their motion. *Id.* at 2.

195. *Id.* at 6 ("At an in-court status conference with the parties held July 21, 2003 . . . Judge Redden suggested that a steering committee might be created to monitor the progress of the remand and facilitate the cooperation in consultation required to complete the remand. The parties agreed a steering committee would be a good way to monitor progress and cooperation."). See also Opinion & Order at 2, 245 F. Supp. 2d 1196, No. 3:01-cv-00640-SI, (D. Or. May 13, 2004), ECF No. 496 (discussing the Attorneys' Steering Committee).

196. Opinion & Order at 6, 254 F. Supp. 2d 1196, No. 3:01-cv-00640-SI, (D. Or. Mar. 2, 2005), ECF No. 793.

197. *Id.*

198. See *id.* at 8.

199. *Id.*

After an April 2004 meeting with the parties, the action agencies, and interested members of the public, Judge Redden agreed that some extension of time to complete a revised BiOp was necessary.²⁰⁰ Consequently, in May 2004, he granted a motion for extension, permitting NOAA to have until the end of November 2004 to complete its BiOp.²⁰¹ In his order granting that motion, Judge Redden set the next steering committee meeting for June 4, 2004 and directed the committee to consider hatchery policy and annual spill plans, make progress on securing funding for mitigation measures, and report on NOAA's interpretation of jeopardy, among other things.²⁰² The May 2004 order also indicated to the parties that the judge might want discussion of spill at the next committee meeting.²⁰³

C. *The 2004 Summer Spill Decision*

In July 2004, while NOAA was revising the 2000 BiOp rejected by Judge Redden, BPA and the Army Corps of Engineers issued a "statement of decision" in which the agencies decided to curtail the summer spill at four Columbia River Dams.²⁰⁴ Since spilling water over the dams is the safest way for juvenile salmon to pass hydroelectric dams,²⁰⁵ the 2000 BiOp had assigned summer spill the "highest priority."²⁰⁶ Nevertheless, in July of 2004, NOAA approved the proposal put forth by BPA and the Corps, opting to curtail summer spills at the Dalles and Bonneville dams during the summer of 2004.²⁰⁷

In defense of its decision to approve curtailment of summer spill, NOAA claimed that the measure would generate an additional \$18–28 million in revenue from increased hydropower

200. Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., No. CV 01-640-RE, 2004 WL 1080168, at *1 (D. Or. May 13, 2004).

201. *Id.*

202. *See id.* at *1; Opinion & Order at 3-4, 2004 WL 1080168, No. 3:01-cv-00640-SI, (D. Or. May 13, 2004), ECF No. 496.

203. Opinion & Order at 4, 2004 WL 1080168, No. 3:01-cv-00640-SI, (D. Or. May 13, 2004), ECF No. 496.

204. Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., No. CV-01-6940-RE, 2004 WL 1698050, at *1-2 (D. Or. July 29, 2004).

205. *See Columbia River Basin, supra* note 22, at 97 ("Spill is the safest way for juvenile salmon migrating in the river to pass hydroelectric dams, but water spilled over the dams does not generate power.").

206. *Nat'l Wildlife Fed'n*, 2004 WL 1698050 at *1; *see also* 2000 BiOp, *supra* note 157, at 9–82.

207. *Nat'l Wildlife Fed'n*, 2004 WL 1698050 at *1.

production,²⁰⁸ and also that a series of offsets, including releasing 100,000 acre-feet of water from the Brownlee Reservoir in July 2004 to increase river flows to help juvenile salmon migrate down the river, would mitigate the adverse effects of the lack of spill.²⁰⁹ However, in *National Wildlife Federation v. National Marine Fisheries Service II* (*NWF v. NMFS II*), environmental and conservation groups challenged NOAA's decision to approve curtailed spill.²¹⁰

In July 2004, responding in part to technical advice from Dr. Horton, Judge Redden agreed with the plaintiffs and rejected the proposed curtailment of spill, concluding that there were "fundamental defects in [the agency's] reasoning."²¹¹ First, the judge observed that the 100,000 acre-feet of water from Brownlee Reservoir was not "new" water because the 2000 BiOp assumed that substantial water releases from Brownlee Reservoir would continue.²¹² Second, he determined that NOAA's assumption that the water from Brownlee Reservoir would be released at a uniform rate over twenty-one days, keeping water temperatures within an acceptable range, was "unsupportable."²¹³ Judge Redden concluded that these "flawed assumptions,"²¹⁴ as well as NOAA's own documentation indicating that projected survival improvements had not materialized, undermined confidence in the agency's reasoning.²¹⁵ He therefore enjoined the Corps from implementing summer spill curtailments.²¹⁶

208. See *Practicing Deception*, *supra* note 12, at 764; see also BONNEVILLE POWER ADMIN., 2004 FEDERAL COLUMBIA RIVER POWER SYSTEM JUVENILE BYPASS OPERATIONS STATEMENT OF DECISION (2004).

209. *Nat'l Wildlife Fed'n*, 2004 WL 1698050 at *4.

210. *Id.* at *1. The plaintiffs in this suit were the National Wildlife Federation, Idaho Wildlife Federation, Washington Wildlife Federation, Sierra Club, Trout Unlimited, Pacific Coast Federation of Fishermen's Associations, Institute for Fisheries Resources, Idaho Rivers United, Idaho Steelhead and Salmon United, Northwest Sportfishing Industry Association, Friends of the Earth, Salmon for All, and Columbia Riverkeeper. *Id.*

211. *Id.* at *4-6.

212. *Id.* at *4 (citing 2000 BiOp, *supra* note 157, at 3-1).

213. *Nat'l Wildlife Fed'n*, 2004 WL 1698050, at *4 (recognizing that the assumption of a uniform release rate "was made by the agency despite the fact that the agreement with Idaho Power Company did not require the water to be released at a uniform rate . . . and there was no rational basis to conclude that the water would be released in such a manner given the pattern of releases in prior years"). Judge Redden opined that "the assumption of uniform flow was made to accommodate the limits of the model used by NOAA . . . rather than to reflect real river conditions." *Id.*

214. *Id.* at *5.

215. *Id.*

216. *Id.* at *6.

The *NWF v. NMFS II* decision was noteworthy for demonstrating Judge Redden's willingness to subject the federal operating agencies' reasoning to exacting judicial scrutiny. Moreover, the decision reflected the judge's mounting frustration with NOAA's approval of actions that jeopardized listed salmon species while maintaining or increasing power production.²¹⁷

VI. JUDGE REDDEN'S SECOND REMAND: THE 2004 BIOP

On September 9, 2004, NOAA completed a draft revised BiOp, and the action agencies filed a related implementation plan.²¹⁸ Judge Redden responded by scheduling a status conference for September 28, 2004 to discuss those documents.²¹⁹ He explained that his intent in reviewing the draft BiOp was "to ascertain whether it is likely that the [g]overnment [wa]s headed for a train wreck, and, if so, whether it [could] be avoided."²²⁰ On September 23, 2004, in preparation for the status conference, the judge issued an order with preliminary observations and questions directed to NOAA and the other federal action agencies.²²¹

Earlier, in May 2004, Judge Redden had observed that NOAA appeared to be advocating a new framework for making jeopardy determinations.²²² Now, in his September 23 order, the judge

217. See *Practicing Deception*, *supra* note 12, at 767 (claiming that Judge Redden's decision "revealed [his] growing impatience with attempts by federal hydrosystem managers to obfuscate the effects of [Federal Columbia River Power System] operations on listed salmon species. The judge's observation that ESA implementation required more than a simple 'numbers game' reflected his increasing skepticism of the claims of federal dam operators and NOAA, who were willing to risk large numbers of listed salmon, while professing to fulfill their ESA duty to avoid jeopardy through other actions that allegedly compensated for the increased risk.").

218. Order at 2, *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, No. CV 01-640-RE (D. Or. Sept. 23, 2004), ECF No. 620.

219. *Id.*

220. Opinion & Order at 7, *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, No. CV 01-640-RE (D. Or. Mar. 2, 2005), ECF No. 793.

221. Order at 1-2, *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, No. CV 01-640-RE (D. Or. Sept. 23, 2004), ECF No. 620.

222. Opinion & Order at 4, *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, No. CV 01-640-RE (D. Or. May 13, 2004), ECF No. 496. According to Judge Redden, on May 13, 2004, "[i]t appear[ed] that [NOAA] has now proposed a new analytical framework to determine whether [hydropower operations] pose[] jeopardy to listed salmon." *Id.* The judge suggested topics of discussion related to the change in jeopardy framework. *Id.* Further, he stated that "[t]he court is aware that [NOAA's] policies regarding the listing of Northwest salmonids are in flux, including how fish raised in hatcheries are to be considered when determining whether to list a species or Evolutionary Significant Unit. At the next steering committee meeting, the court would like the parties to address the

stated that although NOAA described its draft 2004 revised BiOp as a new version of the 2000 BiOp, the agency's draft "differ[ed] markedly from the 2000 BiOp in both its analytical approach and its conclusions."²²³ In the same order, Judge Redden urged NOAA to consider several issues for discussion at the status conference, including whether the agency had used the remand period to create a new BiOp and, if so, whether that was permissible; why the agency failed to include a reasonable and prudent alternative even after being directed to do so; and what scientific evidence supported the agency's decision to establish a new concept of the environmental baseline that included the effects of the existence of the dams.²²⁴

After the status conference in late September 2004, NOAA released a revised BiOp in November 2004 on an "updated proposed action."²²⁵ However, rather than being more protective of salmon than the 2000 BiOp, the new 2004 BiOp concluded that operation of the hydroelectric system in the Columbia River Basin would not jeopardize listed salmon species or adversely modify critical habitat.²²⁶ NOAA's new no-jeopardy decision was based in large part on its characterization of the environmental baseline against which it compared proposed actions to determine whether species would be adversely affected.²²⁷

In the 2004 BiOp, designed to cover Columbia Basin hydroelectric operations for ten years, NOAA adopted a novel way to assess jeopardy.²²⁸ The new method of determining jeopardy

possible ramifications, if any, of such policy changes to this case, including any impact on the listing status of Columbia River salmon and steelhead runs. Similarly, the court would like the parties to address the status, substance, and ramifications for this case of rule changes required by the *Alsea* decision." *Id.*

223. Order at 2, Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., No. CV 01-640-RE (D. Or. Sept. 23, 2004), ECF. No. 620.

224. *Id.* at 2-3. Judge Redden also stated that "[p]laintiffs, intervenors, states, Treaty Tribes, and other *amici curiae* may identify and describe their most serious five concerns and e-mail them to the court, defendants, and other parties" by the morning of September 27, 2004—the day before the status conference. *Id.* at 4.

225. NAT'L MARINE FISHERIES SERV., BIOLOGICAL OPINION, CONSULTATION ON REMAND FOR OPERATION OF THE COLUMBIA RIVER POWER SYSTEM AND 19 BUREAU OF RECLAMATION PROJECTS IN THE COLUMBIA BASIN 1-3 (Nov. 30, 2004) [hereinafter 2004 BiOp].

226. *Id.* at 8-4.

227. See, e.g., Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., No. CV 01-640-RE, CV 05-23-RE, 2005 WL 1278878, at *7-8 (D. Or. May 26, 2005) (discussing NOAA's establishment of an environmental baseline in the 2004 BiOp).

228. 2004 BiOp, *supra* note 225, at 1-9.

defined the environmental baseline to include the effects of all existing dam operations, on the apparent assumption that such operations were beyond the agencies' control.²²⁹ According to the agency, "each of the dams already exist[ed], and their existence [was] beyond the scope of the . . . discretion" of the federal agencies.²³⁰ NOAA distinguished between what it termed discretionary and nondiscretionary elements of an action and decided that action agencies were not required to consult on nondiscretionary elements, such as the existence of preexisting projects that were beyond their control.²³¹ NOAA then claimed that most dam operations were nondiscretionary, and thus part of the environmental baseline.²³² In addition to largely excluding existing operations from the jeopardy determination, NOAA conflated recovery and survival and used a long-term balancing test to predict that the species' critical habitat would not be adversely affected.²³³ As with the earlier BiOps, environmentalists objected to this preference for hydroelectric operations at the expense of the recovery of listed salmon.

A. *Rejecting the 2004 BiOp*

In *National Wildlife Federation v. National Marine Fisheries Service III* (*NWF v. NMFS III*), numerous environmental and conservation groups challenged NOAA's 2004 BiOp.²³⁴ In May 2005, Judge Redden upheld their challenge, rejecting NOAA's 2004 BiOp as the "disappointing result" of his remand of the 2000 BiOp.²³⁵ According to the judge, the 2004 BiOp "was a cynical and transparent attempt to avoid responsibility for the decline of listed Columbia and Snake River salmon and steelhead. NOAA wasted several precious years interpreting and reinterpreting the ESA's regulations."²³⁶ Therefore, he rejected it.

229. *Id.*

230. *Id.* at 5–5.

231. *Nat'l Wildlife Fed'n*, 2005 WL 1278878, at *7-8.

232. *Id.* at *7.

233. *Id.* at *16-17.

234. *Id.* at *1.

235. Opinion & Order at 18, *Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, No. CV 01-640-RE, CV 05-23-RE, 2005 WL 1278878 (D. Or. Dec. 29, 2005), ECF No. 1221. After reviewing the 2004 BiOp, Judge Redden opined in December 2005: "We need a viable biological opinion. The public demands and deserves no less." *Id.*

236. *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 839 F. Supp. 2d 1117, 1130 (D. Or. 2011).

Judge Redden gave four reasons for finding the 2004 BiOp inadequate.²³⁷ First, NOAA improperly segregated aspects of dam operations that it claimed were nondiscretionary. Second, the agency impermissibly limited its analysis to only the incremental effects of proposed dam operations instead of considering the aggregate effects of the operations and the dams themselves. Third, NOAA's critical habitat determination was flawed because the agency (1) failed to analyze the short-term negative effects of the proposed action in the context of salmon life cycles and migration patterns; (2) relied on long-term improvements to critical habitat that were not certain in order to offset the short-term degradation of critical habitat; and (3) determined that the listed salmon species' critical habitat was sufficient for recovery, even though the agency did not have information on in-river survival rates sufficient to make that determination. Finally, NOAA failed to separate survival from recovery in its analysis.²³⁸

Judge Redden's reasoning on the first issue was that NOAA could not avoid consultation "where there is some meaningful discretionary involvement or control in the action."²³⁹ He observed that the federal action agencies had "considerable discretion" in administering hydroelectric operations, including in decisions to operate the dams to encourage the divergent interests of hydroelectric power production, fish and wildlife protection, and recreation.²⁴⁰ The judge remarked that the ESA contains only a single exemption for agencies where a statutory directive to undertake a project leaves them with insufficient discretion to avoid jeopardizing a listed species,²⁴¹ but in its 2004 BiOp, NOAA attempted to create a nonstatutory exemption.²⁴²

237. *Nat'l Wildlife Fed'n*, 2005 WL 1278878 at *7.

238. *Id.* Judge Redden declined to address other potential issues with the 2004 BiOp, explaining that "[e]ach of the [four] issues is independently dispositive and, therefore, I need not address other issues raised by the parties." *Id.*

239. *Id.* at *8.

240. *Id.* at *10 ("The action agencies have considerable discretion in their administration of the [hydroelectric] systems, allowing them to meet their mandates and yet adjust operations to fulfill multiple purposes, even though there may be some conflict among the purposes. Decisions in operating the [dams] to accommodate the divergent interests involve choices and the exercise of discretion.").

241. 16 U.S.C. § 1536(h)(1)(A)(i)-(iv) (2012) (establishing an Endangered Species Committee, popularly known as "the God Squad").

242. *Nat'l Wildlife Fed'n*, 2005 WL 1278878, at *10-11 ("For the [existing ESA exemption] to apply, the [Endangered Species] Committee must find, among other things, that there are no reasonable and prudent alternatives to the proposed action; the proposed action is of regional or national significance; and the 'benefits of alternative

Under NOAA's interpretation of what qualified as a nondiscretionary element of an action, the agency did not need to consider the existence of Columbia Basin dams because it decided that some elements of the operation of those dams were nondiscretionary.²⁴³ However, Judge Redden determined that operation of the dams included both discretionary and nondiscretionary elements, concluding that the agency could not be "insulate[d] . . . from accountability because of the nondiscretionary aspects of its proposed actions."²⁴⁴ He therefore decided that NOAA's distinction between discretionary and nondiscretionary elements was contrary to law.²⁴⁵ He also observed that the 2004 BiOp's position on nondiscretionary elements departed from both its 1995 and 2000 BiOps, and that where an agency's interpretation of a regulation conflicts with its previous interpretations of a regulation, the new agency position is entitled to only limited judicial deference.²⁴⁶

Concerning the second issue, Judge Redden determined that NOAA had impermissibly failed to consider the aggregate adverse effects on salmon from all relevant sources.²⁴⁷ The judge explained that by employing a so-called "comparative approach," the 2004 BiOp removed the effects of some elements—the elements the agency deemed nondiscretionary—from any consideration, consigning those effects to the environmental baseline.²⁴⁸ The result, according to Judge Redden, was that NOAA analyzed only the incremental effects of its proposal standing alone, rather than in conjunction with the cumulative effects of a deteriorated environment, balancing the limited impact against beneficial mitigation measures.²⁴⁹ Thus, by basing the jeopardy decision only on the effects of what it decided were discretionary elements of the

courses of action' that are 'consistent with preserving the species or its critical habitat' are clearly outweighed by the benefits of the proposed action.").

243. *Id.* at *11.

244. *Id.* According to Judge Redden, "the action agencies ha[d] not contended that 'the sole cause' of salmon and steelhead decline is 'the existence of the dams and not any discretionary method of operating' them." *Id.*

245. *Id.*

246. *Id.* ("I give only limited deference to NOAA's interpretation. When an agency's new interpretation of a regulation conflicts with its earlier interpretations, the agency is 'entitled to considerably less deference' than a consistently[] held agency view." (citing *Immigration & Naturalization Serv. v. Cardoza-Fonseca*, 480 U.S. 421, 446 n.30 (1987))).

247. *Nat'l Wildlife Fed'n*, 2005 WL 1278878, at *14.

248. *Id.* at *13.

249. *Id.*

proposed dam operations, NOAA “substantially lower[ed] the threshold required for the mitigation elements of the proposed action.”²⁵⁰ Judge Redden concluded that NOAA’s comparative approach was unlawful because it fell short of the comprehensive approach to jeopardy analysis required by the ESA.²⁵¹ For a second time, the judge noted that NOAA was entitled only to limited deference because the agency had departed from its previous interpretation of a regulation.²⁵²

On the third issue, Judge Redden rejected NOAA’s claim that the proposed hydroelectric operations would not adversely modify or destroy designated critical habitat.²⁵³ The judge observed that NOAA must separately consider whether a proposed action will adversely affect both the survival and recovery of a listed species.²⁵⁴ However, although NOAA acknowledged that critical habitat for listed salmon was “poor” and likely to be degraded in the short term and conceded that lowering spill rates would impair safe passage downstream for juveniles in the short term, the agency decided that the proposed action would not adversely modify

250. *Id.* at *14.

251. *Id.*; 16 U.S.C. § 1536(a)(2) (2012); 50 C.F.R. § 402.14(g); *see supra* notes 213-16 and accompanying text (describing the first time Judge Redden gave limited administrative deference due to a change in position).

252. *Nat’l Wildlife Fed’n*, 2005 WL 1278878, at *14 (“The approach of the 2004BiOp stands in sharp contrast to the aggregative approach NOAA used in prior BiOps, which was comprehensive enough to ensure an adequate jeopardy analysis without being so rigid as to foreclose consideration of non-quantifiable factors.”).

253. *Id.* at *16.

254. *Id.* at *15; *see also* Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d 1059, 1070 (9th Cir. 2004) (“The agency’s controlling regulation on critical habitat thus offends the ESA because the ESA was enacted not merely to forestall the extinction of species (i.e., promote a species survival), but to allow a species to recover to the point where it may be delisted. The ESA also defines critical habitat as including ‘the specific areas . . . occupied by the species . . . which are . . . essential to the conservation of the species’ and the ‘specific areas outside the geographical area occupied by the species . . . that . . . are essential for the conservation of the species. . . .’ By these definitions, it is clear that Congress intended that conservation and survival be two different (though complementary) goals of the ESA. Clearly, then, the purpose of establishing ‘critical habitat’ is for the government to carve out territory that is not only necessary for the species’ survival but also essential for the species’ recovery.” (citations omitted)). Judge Redden reported that NOAA’s Consultation Handbook defined “recovery” as “the process by which species’ ecosystems are restored and/or threats to the species are removed so self-sustaining and self-regulating populations of listed species can be supported as persistent members of native biotic communities,” and “survival” as “the species’ persistence . . . with sufficient resilience to allow recovery from endangerment. Said another way, survival is the condition in which a species continued to exist into the future while retaining the potential for recovery.” *Nat’l Wildlife Fed’n*, 2005 WL 1278878, at *17.

critical habitat.²⁵⁵ NOAA arrived at this apparently contradictory conclusion by anticipating that short-term habitat degradation would be offset by habitat improvements that its BiOp promised by 2014.²⁵⁶ Judge Redden declined to follow NOAA's reasoning about balancing habitat degradation with offsets over a period of years, rather than in the short term.²⁵⁷ He concluded that such "optimistic" balancing was "unrealistic," and therefore contrary to the ESA.²⁵⁸

On the fourth and final issue, Judge Redden concluded that the 2004 BiOp was unlawful because, unlike the 1995 and 2000 BiOps, the 2004 BiOp did not include consideration of whether the proposed hydroelectric operations would appreciably reduce the likelihood of listed species' recovery.²⁵⁹ In contrast with the earlier BiOps, the 2004 BiOp focused almost exclusively on the extent to which the proposed dam operations would reduce the reproduction, numbers, or distribution of the listed salmon.²⁶⁰ Consequently, for a third time, Judge Redden gave only limited deference to NOAA's interpretation in the 2004 BiOp that differed significantly from its interpretations in previous BiOps, deciding that the 2004 jeopardy analysis was impermissible because it failed to address prospects for recovery of listed salmon species.²⁶¹ Thus, the judge invalidated NOAA's 2004 BiOp.²⁶²

NOAA appealed Judge Redden's holding that the 2004 BiOp was arbitrary and capricious, but the Ninth Circuit affirmed the district court judge's opinion in all respects.²⁶³

B. BPA's Attempt to Defund the Fish Passage Center

The Northwest Power Act called for the protection and restoration of Columbia Basin fish and wildlife—and salmon in

255. *Nat'l Wildlife Fed'n*, 2005 WL 1278878, at *14-15.

256. *Id.* at *16.

257. *Id.*

258. *Id.*

259. *Id.* at *17.

260. *Id.*

261. *Id.*

262. *Id.* at *3, *7.

263. *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 938 (9th Cir. 2008) ("In short, after a careful review of the record, we affirm the judgment of the district court. Its rejection of the 2004 BiOp was entirely appropriate, and it did not abuse its discretion in entering the remand order."). See *Imposing Judicial Restraints*, *supra* note 47, at 48, for further discussion of the Ninth Circuit's decision.

particular—while assuring a reliable and affordable power supply in plans promulgated by the Northwest Power and Conservation Planning Council (Council),²⁶⁴ an interstate compact agency.²⁶⁵ The Council's Columbia Basin Fish and Wildlife Program established the Fish Passage Center (FPC) to collect and analyze scientific information on Columbia Basin salmon migration and survival.²⁶⁶

Despite its scientific focus, the FPC's studies proved controversial when Judge Redden relied upon them in 2005 as an influence on one of his spill decisions.²⁶⁷ After Redden's initial decision in June 2005 to require federal hydroelectric operators to spill water over the Lower Snake River and McNary Dams during the late spring and summer of 2005,²⁶⁸ the FPC issued a preliminary study reporting that the court-ordered spill had resulted in the highest levels of salmon survival recorded in recent years.²⁶⁹ Judge Redden relied on the FPC's 2005 study when he again required spill during the spring and summer of 2006.²⁷⁰

264. See 16 U.S.C. § 839 (stating that the purposes of the Northwest Power Act were “to encourage, through the unique opportunity provided by the Federal Columbia River Power System . . . conservation and efficiency in the use of electric power, and . . . the development of renewable resources within the Pacific Northwest [and] to assure the Pacific Northwest of an adequate, efficient, economical, and reliable power supply,” as well as “to protect, mitigate and enhance the fish and wildlife, including related spawning grounds and habitat, of the Columbia River and its tributaries, particularly anadromous fish which are of significant importance to the social and economic well-being of the Pacific Northwest”); see also SACRIFICING THE SALMON, *supra* note 24, at 129-60 (discussing passage of the Northwest Power Act).

265. See *Seattle Master Builders Ass'n v. Pac. Nw. Elec. Power & Conservation Planning Council*, 786 F.2d 1359, 1363-66 (9th Cir. 1986) (concluding that although Congress gave the interstate compact Council some attributes of federal law, Council members' appointments, salaries, and administrative options were pursuant to laws of four individual states, and the states ultimately empowered Council members to carry out their duties; thus, the appointments clause of the Constitution, U.S. CONST. art. II, § 2, cl. 2, did not require that members be appointed by the President instead of state governors).

266. See NW. POWER & CONSERVATION COUNCIL, MAINSTEM AMENDMENTS TO THE COLUMBIA RIVER BASIN FISH AND WILDLIFE PROGRAM, 27-28 (2003) [hereinafter COUNCIL'S 2003 FISH AND WILDLIFE PROGRAM], available at <http://www.nwcouncil.org/library/2003/2003-11.pdf> (stating that the FPC “shall . . . [p]lan and implement” smolt monitoring and gather and analyze information related to fish passage).

267. For a discussion of the controversial nature of the FPC's support for spill, see *Practicing Deception*, *supra* note 12, at 729-30, 732-33.

268. *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, No. CV 01-640-RE, CV 05-23-RE, 2005 WL 1398223, at *5 (D. Or. June 10, 2005); see *supra* notes 204-17 and accompanying text (discussing Judge Redden's June 2005 spill order).

269. See *Practicing Deception*, *supra* note 12, at 800.

270. Opinion & Order at 2, 16-17, *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries*

As a result, in late 2005, Congress responded to the FPC's support for spill by inserting language into a conference report that aimed to eliminate funding for the FPC,²⁷¹ suggesting that the FPC should be defunded and its functions transferred to other agencies.²⁷² But the bill's language made no reference to the FPC at all.²⁷³ Nevertheless, a few weeks after the bill passed, BPA cited the conference report language to justify soliciting replacement agencies for the FPC,²⁷⁴ selecting Battelle Pacific Northwest Laboratory and Pacific States Marine Fisheries Commission to replace the FPC in 2006.²⁷⁵

A group of environmentalists and conservationists, led by the Northwest Environmental Defense Center, challenged BPA's decision to transfer the functions of the FPC.²⁷⁶ The plaintiffs argued²⁷⁷ that the transfer was a violation of the agency's duty to act consistent with the Council's Fish and Wildlife Program, which called for continued operation of the FPC, and also that BPA's withdrawal of funding for the FPC violated the Northwest Power

Serv., No. 3:01-cv-00640-SI (D. Or. Dec. 29, 2005), ECF No. 1221.

271. See S. REP. NO. 109-84, at 178-79 (2005) ("The Committee is concerned about the increasing cost of salmon recovery efforts in the Columbia River Basin, and about the potential adverse impact of those increased costs on customers of the Bonneville Power Administration. The Committee also is concerned about the quality and efficiency of some of the fish data collection efforts and analyses being performed. As a result, during fiscal year 2006, the [BPA] may make no new obligations from the [BPA] Fund in support of the [FPC]. The Committee understands that there are universities in the Pacific Northwest that already collect fish data for the region and are well-positioned to take on the responsibilities now being performed by the [FPC].").

272. See H.R. REP. NO. 109-275, at 174 (2005) (Conf. Rep.), reprinted in 2005 U.S.C.A.N. 1065, 1125 ("The conferees call upon [BPA] and the [Council] to ensure that an orderly transfer of the [FPC] functions . . . occurs within 120 days of enactment of this legislation. These functions shall be transferred to other existing and capable entities in the region in a manner that ensures seamless continuity of activities.").

273. Energy and Water Development Appropriations Act, 2006, Pub. L. No. 109-103, 119 Stat. 2247, 2276 (2005).

274. See BPA, INTEGRATED FISH AND WILDLIFE PROGRAM, PROGRAM SOLICITATION—REQUEST FOR APPLICATIONS 1 (2005), available at <http://www.efw.bpa.gov/IntegratedFWP/RequestForApplications.pdf> ("Congress passed legislation (House Report 109-275), which forbids BPA from making additional obligations in support of the [FPC].").

275. Press Release, BPA, *BPA Selects Successors to Fish Passage Center* (Jan. 26, 2006) (on file with BPA). Under the agency's proposed plan, Battelle would "oversee, coordinate, and facilitate broader, nonroutine scientific analysis of that data, including independent peer review" and Pacific States would "[m]anage the smolt monitoring program," "[p]erform functions associated with related data collection and management," and "[c]onduct routine analysis and reporting of that data." *Id.*

276. *Nw. Env'tl. Def. Ctr. v. Bonneville Power Admin.*, 477 F.3d 668 (9th Cir. 2007).

277. *Id.* at 677-78.

Act, which requires BPA to use its funding to “protect, mitigate and enhance fish and wildlife . . . in a manner consistent with” the Fish and Wildlife Program.²⁷⁸

In January 2007, the Ninth Circuit decided that BPA had violated both the APA and Article I of the Constitution by defunding the FPC.²⁷⁹ According to the Ninth Circuit, BPA violated Article I of the Constitution by transferring the functions of the FPC on the basis of mere legislative history.²⁸⁰ Further, the court concluded that the agency had no rational basis for its choice, and thus that it had acted arbitrarily and capriciously, in violation of the APA.²⁸¹ Therefore, the Ninth Circuit granted injunctive relief, requiring BPA to continue to fund the FPC “until it ha[d] established a proper basis for displacing the FPC.”²⁸² Thus, this decision maintained an important source of independent scientific information upon which Judge Redden could rely.²⁸³

278. 16 U.S.C. § 839(b)(h)(10)(A) (2012). Under the Northwest Power Act, the Council must adopt a program to protect, mitigate, and enhance fish and wildlife, which is known as the Fish and Wildlife Program. § 839(b)(h)(1)(A) (2012). The statute requires BPA to use its funding to protect, mitigate, and enhance fish and wildlife “in a manner consistent with . . . the program adopted by the Council.” § 839(b)(h)(10)(A) (2012).

279. *Nw. Envtl. Def. Ctr.*, 477 F.3d at 691; see *Imposing Judicial Restraints*, *supra* note 47, at 57-65 (discussing this decision).

280. *Nw. Envtl. Def. Ctr.*, 477 F.3d at 682. “[C]ourts have no authority to enforce [a] principl[e] gleaned solely from legislative history that has no statutory reference point.” *Id.* at 683 (second and third alterations in original) (quoting *Shannon v. United States*, 512 U.S. 573, 584 (1994)).

281. *Imposing Judicial Restraints*, *supra* note 47, at 91. The Ninth Circuit explained that “the administrative record does not show that BPA . . . considered the relevant facts and used a rational process to decide to transfer the functions of the FPC to other entities. Apart from the evidence in the record reflecting BPA’s incorrect belief that it was required to follow the congressional committee report language, there is no evidence showing how BPA decided to transfer the functions of the FPC and to issue the December 8, 2005 Program Solicitation. This failure presents itself in high relief in light of the Council’s program calling for the continued operation of the FPC.” *Nw. Envtl. Def. Ctr.*, 477 F.3d at 688.

282. *Id.* at 691.

283. *Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, No. CV 01-640-RE, 2005 WL 3576843, at *8 (D. Or. Dec. 29, 2005) (stating that an FPC study “showed that more spill improved the survival rate of salmon passing the dams compared to previous years”). Despite BPA’s attempts to defund it, the FPC still exists. See COUNCIL’S 2003 FISH AND WILDLIFE PROGRAM, *supra* note 266, at 27. The 2003 Mainstem Amendments to the Fish and Wildlife Program, which are currently in force, expressly call for “the continued operation of the Fish Passage Center.” *Id.*

C. *Managing the 2004 BiOp on Remand*

After rejecting the 2004 BiOp, which was the fifth opinion NOAA issued on federal hydroelectric operations in the Columbia Basin, Judge Redden continued to oversee NOAA's efforts to create a BiOp consistent with the ESA.²⁸⁴ In December 2005, worried about spill levels at several dams, environmental groups filed a motion for injunctive relief to require the United States Army Corps of Engineers to increase spill during salmon migration periods, decrease reliance on transportation, and augment flow.²⁸⁵

Judge Redden reviewed the Corps' proposed 2006 spill program, noting that the Corps had adopted a "spread-the-risk" policy, using spill and truck and barge transport in relatively equal measures, because, according to the Corps, "[s]tudies do not establish, with absolute certainty, the relative benefits of spill versus transportation."²⁸⁶ Giving deference to the agency's scientific judgment, the judge approved its proposals for early spring spill and summer spill.²⁸⁷ However, Judge Redden granted the environmental groups' request for injunctive relief in part, ordering important changes to two aspects of the Corps' proposed 2006 spill program.²⁸⁸

The first change the judge ordered was to continue spill in the late spring in the same manner as in the early spring.²⁸⁹ In what Judge Redden described as a "radical departure from past operations" not justified by the best science available to the Corps, the agency proposed to eliminate all late spring spill at three of its

284. *Nat'l Wildlife Fed'n*, 2005 WL 1278878, at *1-3 (observing that he required quarterly reports on NOAA's progress after remanding the 2004 BiOp).

285. Opinion & Order at 2, 4, *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, No. 3:01-cv-00640-SI (D. Or. Dec. 29, 2005), ECF No. 1221. Plaintiffs sought "injunctive relief requiring the Corps to increase spill to assist juvenile spring/summer chinook salmon and steelhead migrating to the ocean during the spring. [Plaintiffs] also s[ought] an order requiring the Corps to increase the amount of water in the river for a proposed [] augmentation of flow, thereby creating a more natural river hydrograph for migrating juveniles and decreasing their travel time to the ocean." *Id.* at 2-3. Judge Redden summarized the parties' positions: "As to spill, the parties' dispute essentially involves the extent to which the Corps intends to rely on transportation, rather than spill, during the spring and summer seasons. To a lesser extent the parties disagree on the amount of spill needed. The parties' dispute as to the augmented flow issue is more fundamental." *Id.* at 5.

286. *Id.* at 6.

287. *Id.* at 7, 10.

288. *Id.* at 11.

289. *Id.*

dams and instead rely exclusively on collection and transportation of juveniles during that time.²⁹⁰ The second change the judge ordered was to continue spill through August 31, rather than ceasing spill by August 15 if ninety-five percent of the salmon run had passed the dam, and he also directed the Corps to examine its reliance on transportation by truck during the remand period.²⁹¹

Judge Redden ordered all the Columbia Basin hydropower action agencies to provide him with a written report describing implementation and progress of the spill program, beginning with the first day of spring and summer spills and continuing every thirty days thereafter.²⁹² Discussing the spill program the Corps proposed for 2006, the judge observed that the FPC's count of fish surviving the 2005 summer migration appeared to demonstrate that increased spill improved the survival of salmon passing dams.²⁹³ According to Redden:

The Fish Passage Center's expertise at gathering such useful data must be replicated for the spring of 2006 and beyond. Only with such data can the relative benefits of spill and/or transportation be determined. The situation demands more certainty.²⁹⁴

However, the judge declined to order the agencies to augment river flows, deciding that the option was not supported by the best available science.²⁹⁵

Over a year after the 2006 spill decision, on April 10, 2007, the court received an anonymous phone message asserting that at the end of March and beginning of April BPA had intentionally violated spill requirements to satisfy commitments to supply power and then attempted to declare a system emergency to conceal the

290. *Id.* at 7-9.

291. *Id.* at 11.

292. *Id.*

293. *Id.* at 16.

294. *Id.* at 16-17.

295. *Id.* at 16. According to Judge Redden, the plaintiffs have "failed to establish that the best available science support[ed] [their] proposal for augmented flow during the summer 2006 migration period." *Id.* The environmental groups subsequently opted not to pursue injunctive relief governing the Corps' 2007 spill program because the federal action agencies entered into an agreement with several treaty tribes for spring and summer 2007, agreeing to continue the spill operations Judge Redden had ordered in 2006. Opinion & Order at 3, *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 477 F.3d 668, No. 3:01-cv-00640-SI, (9th Cir. May 23, 2007), ECF No. 1347. However, that agreement proved insufficient to govern the agencies' spill program.

variance.²⁹⁶ After overestimating and thus overselling power for April 3, 2007—with the result that it could not provide the promised power and meet its spill obligations—BPA violated fish protection measures in an attempt to generate more power in order to meet its commitments.²⁹⁷ Concerned about this willful violation of his decision, Judge Redden issued a May 23, 2007 order in which he stated: “Apparently, BPA’s sales commitments to customers always trump its obligations to protect ESA-listed species. BPA must realize, however, that the fish-protection measures detailed in the 2000 and 2004 BiOps are not optional. Nor is compliance with the ESA.”²⁹⁸ The judge therefore incorporated the terms of a 2007 agreement into a court order outlining the parameters of the 2007 spill program.²⁹⁹ The agencies did not object,³⁰⁰ and their spring and summer spill programs during the next four years complied with the judge’s 2007 order,³⁰¹ a reflection of the success of Judge Redden’s oversight.

After his 2007 order, Judge Redden continued to work with NOAA in the hope that the agency would arrive at a revised BiOp that would satisfy the ESA. For example, on February 18, 2009, the

296. Opinion & Order at 2, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., 477 F.3d 668, No. 3:01-cv-00640-SI, (9th Cir. May 23, 2007), ECF No. 1347.

297. *Id.* at 3-4.

298. *Id.* at 5.

299. *Id.* at 6-7. Judge Redden explained that his order “[wa]s not a product of anger, but frustration. The ESA is the law of the land, and has been since it was signed into law by President Richard Nixon in 1973. Its mandate is clear: federal agencies must ‘afford first priority to the declared national policy of saving endangered species.’ It is clearly written because the drafters sought desirable goals, and knew it would require some sacrifice to save our nation’s precipitously diminishing species. The duty of federal agencies under ESA has been litigated, and reaffirmed in federal courts across the country. Proposed amendments to the Act have repeatedly failed, and its regulations stand firm. We might as well get it right.” *Id.* at 7 (citation omitted).

300. *Id.* at 6.

301. Order for 2011 Summer Operations, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. 3:01-cv-00640-SI (D. Or. June 14, 2011), ECF No. 1852; Order for 2011 Spring Operations, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. 3:01-cv-00640-SI (D. Or. Mar. 24, 2011), ECF No. 1843; Order for 2010 Summer Operations, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. 3:01-cv-00640-SI (D. Or. June 14, 2010), ECF No. 1768; Federal Defendants’ Notice of 2010 Spring Operations, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. 3:01-cv-00640-SI (D. Or. Mar. 31, 2010), ECF No. 1760; Order for 2009 Summer Spill Operations, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. 3:01-cv-00640-SI (D. Or. June 10, 2009), ECF No. 1702; Joint Order for 2009 Spring Operations, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. 3:01-cv-00640-SI (D. Or. Apr. 10, 2009), ECF No. 1694; Order for 2008 Operations, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. 3:01-cv-00640-SI (D. Or. Feb. 25, 2008), ECF No. 1423.

judge issued a letter to the parties to guide an oral argument scheduled for March 6, 2009.³⁰² The letter explained that Judge Redden's goal was to structure oral argument to leave enough time for a discussion of how to go forward if the 2008 BiOp failed review.³⁰³ Having twice remanded NOAA's BiOp for hydropower operations, the judge declared: "I have no desire to remand this [BiOp] for yet another round of consultation. The revolving door of consultation and litigation does little to help endangered salmon and steelhead. Federal Defendants and the sovereigns have worked very hard on this [BiOp], and it shows—we have come a long way from the 2004 BiOp."³⁰⁴ But Judge Redden identified several unresolved issues, including: (1) the adequacy of NOAA's "trending toward recovery" standard for determining jeopardy under the ESA, (2) funding for estuary habitat improvements, and (3) contingency plans in the event that proposed habitat mitigation measures were not effective.³⁰⁵ On February 25, 2009, the judge issued a second letter adding additional questions about the proposed estuary habitat improvements and funding for mitigation projects.³⁰⁶

After oral argument in March 2009, Judge Redden continued to meet with the parties to encourage production of a lawful BiOp. On May 18, 2009, after an April 2, 2009 meeting, he sent a letter to the parties that provided his tentative position on the 2008

302. Letter to Parties at 1, Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., No. 3:01-cv-00640-SI (D. Or. Feb. 18, 2009), ECF No. 1682.

303. *Id.* at 2.

304. *Id.* at 2, 4, 5.

305. *Id.* at 3-6. First, Redden questioned NOAA's "trending toward recovery" jeopardy standard, instructing the parties to discuss the issue at oral argument and providing several detailed questions. *Id.* at 3. The judge asked the agency, among other things, whether it was entitled to deference when it had "ma[d]e no attempt to determine what actual recovery means." *Id.* at 3. Judge Redden also asked whether NOAA's determination that any positive growth in a species' population indicated that the species was "trending toward recovery" meant that only incremental survival is sufficient to avoid jeopardy. *Id.* at 3-4. Second, the judge expressed concern that NOAA relied on estuary habitat improvements to arrive at a no-jeopardy finding but had failed to indicate how it would secure funding for those improvements. *Id.* at 4. The agency estimated that the estuary habitat improvements would cost \$500 million over twenty-five years, but Judge Redden observed that the action agencies, including BPA, actually committed to spending only \$5.5 million for ten years—and much of that funding was dependent on congressional approval. *Id.* Third, Redden instructed NOAA to consider adding a contingency plan to the 2008 BiOp in case the mitigation measures failed. *Id.* at 5-6.

306. Letter to Parties at 1-2, Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., No. 3:01-cv-00640-SI (D. Or. Feb. 25, 2009), ECF No. 1683.

BiOp,³⁰⁷ stating that he had “serious reservations” about whether NOAA’s “trending toward recovery” standard complied with the ESA.³⁰⁸ He proceeded to admonish NOAA, declaring that the agencies “ha[d] spent the better part of the last decade treading water, and avoiding their obligations under the [ESA]. Only recently[] have they begun to commit the kind of financial and political capital necessary to save these threatened and endangered species, some of which are on the brink of extinction. We simply cannot afford to waste another decade.”³⁰⁹

In September 2009, responding to the judge’s concerns about the 2008 BiOp, NOAA issued what it called an Adaptive Management Implementation Plan (AMIP), which added estuary restoration projects as well as research, monitoring, and evaluation.³¹⁰ However, in preparation for a November 23, 2009 meeting, Judge Redden sent letters to the parties, expressing concern that the AMIP, with its “unilateral, post decisional” development of new mitigation actions, research, monitoring, and evaluation, among other things, violated the “record review” rule required by the APA.³¹¹ The judge’s November 2009 letters encouraged NOAA to either persuade him that the AMIP was properly before the court or take steps to incorporate the document into the 2008 BiOp.³¹² On February 19, 2010, Judge Redden granted NOAA’s request for a remand to incorporate the AMIP into the 2008 BiOp,³¹³ and NOAA issued a supplemental BiOp integrating the AMIP later in 2010.³¹⁴

307. Letter to Parties at 1-4, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. 3:01-cv-00640-SI (D. Or. May 18, 2009), ECF No. 1699.

308. *Id.* at 1.

309. *Id.* at 3.

310. FED. COLUMBIA RIVER POWER SYS., FCRPS ADAPTIVE MANAGEMENT IMPLEMENTATION PLAN, 2008-2018 FEDERAL COLUMBIA RIVER POWER SYSTEM BIOLOGICAL OPINION 10 (2009).

311. Letter to Parties at 1-2, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. 3:01-cv-00640-SI (D. Or. Nov. 18, 2009), ECF No. 1736; Letter to Parties at 1, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. 3:01-cv-00640-SI (D. Or. Nov. 13, 2009), ECF No. 1735.

312. Letter to Parties at 2, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., Case No. 3:01-cv-00640-SI (D. Or. Nov. 13, 2009), ECF No. 1735.

313. Order Granting Vol. Remand at 2-3, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. 3:01-cv-00640-SI (D. Or. Feb. 19, 2010), ECF No. 1750.

314. *Id.*

VII. JUDGE REDDEN'S THIRD REMAND: THE 2008/2010 BIOP

Despite Judge Redden's optimism about the 2008 BiOp, that BiOp, even as amended in 2010 (2008/2010 BiOp), failed to survive judicial scrutiny. In 2011 the judge again rejected the agency's proposed plan for federal Columbia Basin hydropower operations, remanding the agency's 2008/2010 BiOp.³¹⁵

In *National Wildlife Federation v. National Marine Fisheries Service IV (NWF v. NMFS IV)*, numerous environmental groups challenged NOAA's 2008/2010 BiOp.³¹⁶ The environmental groups filed suit on three grounds, alleging that (1) the "trending toward recovery" jeopardy standard in the 2008/2010 BiOp was legally flawed; (2) NOAA failed to use the best available scientific data to measure the effects of hydropower operations and the benefits of proposed reasonable and prudent alternatives; and (3) the BiOp relied on actions that were not reasonably certain to occur.³¹⁷ Judge Redden declined to address NOAA's jeopardy standard and scientific methodologies, instead concluding only that the 2008/2010 BiOp relied on mitigation plans that lacked specificity and were unverifiable beyond 2013; therefore, NOAA relied on actions that were not reasonably certain to occur.³¹⁸

Judge Redden explained that the ESA prohibits NOAA from relying on actions not reasonably certain to occur, and that an agency may rely only on mitigation measures that "involve 'specific and binding plans'" and "'a clear, definite commitment of resources to implement those measures.'" ³¹⁹ The judge concluded that in the 2008/2010 BiOp NOAA had relied on habitat mitigation measures that were not specific or certain to occur, and had not even identified some of those measures.³²⁰ That is, although the BiOp authorized federal actions from 2008 to 2018, the agency failed to identify any specific habitat projects after 2013,

315. *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, No. CV 01-00640-RE, 2011 WL 3322793, at *1-2 (D. Or. Aug. 2, 2011). See also *Rohlf and Team Now Three for Three in Protecting Salmon*, EARTHRISE L. CTR., <http://law.lclark.edu/live/news/12828-rohlf-and-team-now-three-for-three-in-protecting> (last visited Apr. 18, 2012).

316. *Nat'l Wildlife Fed'n*, 2011 WL 3322793, at *5.

317. *Id.*

318. *Id.* at *6.

319. *Id.* (citing *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 935-36 (9th Cir. 2008) (finding that the agency's "sincere general commitment to future improvements" was insufficient to support its no jeopardy conclusion)); 50 C.F.R. § 402.02 (2009).

320. *Nat'l Wildlife Fed'n*, 2011 WL 3322793, at *6.

instead assuming that it would later be able to identify and implement appropriate projects.³²¹ NOAA defended its habitat mitigation measures as being “reasonably certain to occur” because the agency had committed to achieving specific, numerical improvements in listed species’ habitat quality and survival.³²² However, after reviewing NOAA’s projected identification of projects, Judge Redden noted that unidentified mitigation measures failed to meet the “reasonably certain to occur” standard.³²³ Worse, the judge observed that NOAA expected that the majority of mitigation measures it relied on to make its no-jeopardy finding would not be identified and implemented until at least 2013.³²⁴ The clear result was that when NOAA seeks approval of a ten-year BiOp, it bears the burden of identifying with specificity the mitigation measures necessary to avoid jeopardy during that term.

Judge Redden proceeded to provide an unflattering summary of the agency’s position: “In other words, [NOAA] do[es] not know what exactly will be needed to avoid jeopardy beyond 2013, or whether those unknown actions are feasible and effective, but the [agency] promise[s] to identify and implement something. This is neither a reasonable, nor a prudent, course of action.”³²⁵ He observed that the agency conceded that it could not identify any specific projects expected to occur between 2013 and 2018.³²⁶ He also determined that, in addition to improper reliance on habitat mitigation measures not reasonably certain to occur, NOAA’s estuary habitat mitigation program was “plagued with uncertainty.”³²⁷ According to the judge, the agency again relied on survival improvements due to estuary habitat projects from unidentified actions.³²⁸

321. *Id.* at 1126 (“NOAA Fisheries relies on two types of habitat mitigation actions. The first includes specific, identified projects scheduled to occur between 2008 and 2013. The second, however, includes broad, unidentified categories of projects that Federal Defendants intend to develop and implement between 2013 and 2018.”).

322. *Id.* at 1126.

323. *Id.* at 1127.

324. *Id.* at 1126.

325. *Id.*

326. *Id.*

327. *Id.*

328. *Id.* at 1126-27 (“Apart 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 to 2018 time frame or that ‘equally effective’ actions even exist.”).

Judge Redden concluded that, absent the benefits projected to result from the unidentified mitigation measures, there was no factual or rational basis for NOAA's no-jeopardy decision beyond 2013.³²⁹ Further, he remarked that not only were the mitigation measures unidentified but, based on the agency's unfortunate history of being unable to properly implement habitat improvements, NOAA failed to show that the mitigation projects were likely to materialize.³³⁰ The judge also observed that, in fact, the 2010 supplemental BiOp showed that habitat mitigation was already behind schedule, many habitat projects were delayed or cancelled, and funding for additional or replacement projects was potentially unavailable.³³¹

Judge Redden therefore rejected NOAA's no-jeopardy decision, describing the agency's approach to mitigation measures as "simply [a] promise to figure it all out in the future."³³² That approach, he stated, was "neither cautious nor rational."³³³ Thus, he found the no-jeopardy decision for the entire ten-year term of the 2008/2010 BiOp to be arbitrary and capricious,³³⁴ expressing renewed concern about NOAA's approach to protecting listed salmon species:

I continue to have serious reservations about NOAA[']s . . . habitat mitigation plans for the remainder of this BiOp. Everyone agrees that habitat improvement is vital to recovery and may lead to increased fish survival, but the lack of scientific support for NOAA[']s . . . specific survival predictions is troubling.³³⁵

Judge Redden also noted that NOAA's own scientists, as well as independent scientists who reviewed the 2008/2010 BiOp, were skeptical about the agency's survival predictions.³³⁶

As he had done with both the 2000 and 2004 BiOps, the judge

329. *Id.* at 1127.

330. *Id.* at 1127, 1130.

331. *Id.* at 1127.

332. *Id.* at 1128.

333. *Id.*

334. *Id.*

335. *Id.* at 1129.

336. *Id.* at 1130 ("Although the [2008/2010] BiOp concludes that these specific survival improvements are necessary to avoid jeopardy, NOAA Fisheries' own scientists, the independent scientists who reviewed the 2008 BiOp, and the Independent Scientific Advisory Board . . . have expressed skepticism about whether those benefits will be realized.").

remanded the 2008/2010 BiOp to NOAA for reconsideration but left the unlawful BiOp in place pending replacement.³³⁷ However, because he concluded that the 2008/2010 BiOp provided some protection for listed species through 2013, he ordered NOAA to fund and implement the BiOp until then.³³⁸ In so doing, Judge Redden explained, he was furthering protection of listed species, because vacating the 2008/2010 BiOp would remove beneficial measures that provided salmon with some minimal protection.³³⁹ The judge instructed NOAA to produce a new BiOp on Columbia Basin hydroelectric operations no later than January 1, 2014.³⁴⁰ Notably, in this, his final review of a hydropower BiOp, the judge acknowledged incremental improvements without foreclosing the possibility of more aggressive action, such as dam removal, flow augmentation, and reservoir modification.³⁴¹

After rejecting yet another BiOp, Judge Redden once again retained jurisdiction, explaining that NOAA had a “history of abruptly changing course, abandoning previous BiOps, and failing to follow through with [its] commitments to hydropower modifications proven to increase survival (such as spill).”³⁴² Based on the survival benefits associated with spill and NOAA’s “history

337. *Id.* at 1131.

338. *Id.*

339. *Id.* at 1128-29 (explaining that “[w]hen a biological opinion is unlawful, the ordinary remedy is to vacate and remand the BiOp to the action agencies for immediate reinitiation of consultation,” but that vacating the 2008/2010 BiOp “would be disastrous for the listed species”).

340. *Id.* at 1130. Judge Redden ordered that “[n]o later than January 1, 2014, NOAA Fisheries shall produce a new biological opinion that reevaluates the efficacy of the [reasonable and prudent alternatives] 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.” *Id.*

341. *Id.* at 1129-30; see also Michael C. Blumm et al., *Saving Snake River Water and Salmon Simultaneously: The Biological, Economic, and Legal Case for Breaching the Lower Snake River Dams, Lowering John Day Reservoir, and Restoring Natural River Flows*, 28 ENVTL. L. 997 (1998) [hereinafter *Saving Snake River Water and Salmon*]. As the *Harvard Law Review* recently observed, “[t]he Columbia River conflict is only the most high-profile manifestation of a growing unease about the environmental and economic costs of dams: 241 dams were demolished nationwide between 2006 and 2010.” *Environmental Law—Endangered Species Act—District of Oregon Invalidates Biological Opinion for Federally Operated Dams on Columbia River—National Wildlife Federation v. National Marine Fisheries Service*, No. CV 01-00640-RE, 2011 WL 3322793 (D. OR. Aug. 2, 2011), 125 HARV. L. REV. 819, 819 (2012); see also Michael C. Blumm & Andrew B. Erickson, *Dam Removal in the Pacific Northwest: Lessons for the Nation*, 43 ENVTL. L. (forthcoming 2012), available at <http://ssrn.com/abstract=2101448>.

342. *Nat’l Wildlife Fed’n*, 2011 WL 3322793, at *11.

of attempting to curtail spill without adequate justification,” Judge Redden also continued to order NOAA’s allies, BPA and the Corps, to maintain summer spill.³⁴³

In October 2011, the federal agencies appealed Judge Redden’s rejection of the 2008/2010 BiOp. However, in response to the agencies’ motion for voluntary dismissal, the Ninth Circuit dismissed the appeal in April 2012.³⁴⁴

VIII. THE RESULTS OF JUDGE REDDEN’S MANAGEMENT ON REMAND

In his review of the 2000, 2004, and 2008/2010 hydropower BiOps and his fashioning of remedies intended to protect listed salmon,³⁴⁵ Judge Redden demonstrated a commitment to ensuring compliance with the ESA. As he stated in February 2009 and in 2011 in his final opinion in this case, his purpose in following the BiOps on remand was to help NOAA arrive at a lawful BiOp and, by doing so, prevent the extinction of listed salmonids and avoid future litigation.³⁴⁶ He thus shepherded the revision of the BiOps on remand, encouraging the agency to make concrete progress that would avoid more litigation.³⁴⁷ Unfortunately, absent close judicial scrutiny, NOAA had little incentive to change status quo operations by making the BiOps more protective of salmon, since status quo federal hydroelectric operations benefitted powerful economic interests.³⁴⁸ Further, NOAA and the other federal action

343. *Id.* at 1131.

344. Order, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. 3:01-cv-00640-SI (9th Cir. Apr. 16, 2012), ECF No. 1890.

345. For a review of Judge Redden’s involvement with the hydropower BiOps, see Parts V.B, VI.C, and VII.

346. See generally Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. CV 01-00640-RE, 2011 WL 3322793, at *3-4 (D. Or. Aug. 2, 2011); Letter to Parties, Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., No. 3:01-cv-00640-SI (D. Or. Feb. 18, 2009), ECF No. 1682 (“I have no desire to remand this [BiOp] for yet another round of consultation. The revolving door of consultation and litigation does little to help endangered salmon and steelhead.”).

347. See *supra* Parts V.B, VI.C, VII. As Justice William Wayne of the United States District Court for the Eastern District of Texas has opined: “[L]itigation is a poor alternative to capable and caring performance by the state officials in the first instance. But [in some instances] litigation may be the only way to bring justice to the continuously expanding number of victims of the state’s malfeasance.” Wayne, *supra* note 101, at 12.

348. See *supra* note 20 for examples of powerful groups that have intervened on behalf of NOAA, supporting the agency’s hydropower BiOps. Professor Resnik has explained that “[t]he issues in public law cases are complex and often depressing. Third parties may impede implementation efforts, and fiscal constraints may limit defendants’

agencies are not only resistant to change but also quite aware that a reviewing court is unlikely to reject a BiOp outright, thus exposing them to liability for take of listed species.³⁴⁹ In any event, as discussed above, regardless of concern for repercussions to the agencies, enjoining a BiOp that contains at least some protections for listed species may be more detrimental than leaving an unlawful BiOp in place.

Judge Redden accomplished several important feats by managing NOAA's BiOps on remand. For example, by working closely with the parties to manage all of the failed BiOps on remand, the judge fostered a tone of collaboration.³⁵⁰ Judge Redden's role in encouraging such collaboration was critical since, according to one knowledgeable participant, "without the establishment of judge-imposed ground rules, initial rounds of negotiations have minimal chance of success, primarily because most of the solutions involve changes to a well-entrenched status quo."³⁵¹ Instead of bowing to the status quo, Judge Redden required accountability for the protection of listed salmon, regardless of pressures from powerful industry groups, by maintaining court involvement throughout the BiOp process.

The judge first ordered quarterly status reports on June 2, 2003, after striking down the 2000 BiOp,³⁵² and he continued to require the reports, as well as hearings on the reports, through preparation of a 2008/2010 BiOp.³⁵³ While NOAA was revising the BiOp on remand, Judge Redden's requirement that the agency provide quarterly reports, as well as his participation in conference meetings and issuance of documents guiding the agency, brought transparency to the process of assessing the effects of hydropower

flexibility to respond promptly to court decrees. Thus, even if personally sympathetic to plaintiffs' claims, and even if angered by defendants' disobedience, judges find it politic and appropriate to exercise restraint." Resnik, *supra* note 92, at 413.

349. See *supra* notes 80-89 and accompanying text for a discussion of vacating BiOps.

350. See, e.g., *supra* notes 195-203 and accompanying text. As Professor Richard Marcus has explained, status conferences set the tone of relationships between judges and parties. Richard L. Marcus, *Reining in the American Litigator: The New Role of American Judges*, 27 HASTINGS INT'L & COMP. L. REV. 3, 18-19 (2003) (quoting Robert F. Peckham, *The Federal Judge as a Case Manager: The New Role in Guiding a Case from Filing to Disposition*, 69 CALIF. L. REV. 770, 782 (1981)).

351. Timothy Weaver, *Litigation and Negotiation: The History of Salmon in the Columbia River Basin*, 24 ECOLOGY L.Q. 677, 687 (1997).

352. Order on Motions for Summary Judgment at 2, Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 254 F. Supp. 2d 1196, No. 3:01-cv-00640-SI (D. Or. June 2, 2003), ECF No. 406.

353. See *supra* notes 195-203, 284, and accompanying text.

on listed salmon. Moreover, the judge ensured that he acquired an objective, third-party perspective on the complex scientific aspects of the case by retaining the “eminently qualified” Dr. Howard Horton as a technical advisor.³⁵⁴

Even though agency decision making theoretically is a product of considering the perspectives and interests of all affected participants, interest-group pressure may cause agencies to discount the weight of certain interests³⁵⁵—like those concerned about the restoration of Columbia Basin salmon runs—relative to others, such as the economic power of Columbia Basin hydroelectric operations. Thus, public participation in agency decision making may be critical to a fair balance between contending interests. Although the ESA provides no right to public comment in section 7 consultation procedures,³⁵⁶ the quarterly status reports Judge Redden ordered had the beneficial effect of forcing NOAA to respond to concerns raised by both the plaintiffs and the court, essentially permitting a limited kind of public involvement.

Where a party has demonstrated protracted resistance to change³⁵⁷—as is certainly the case in the Columbia Basin salmon

354. Opinion & Order at 8-9, *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 254 F. Supp. 2d 1196, No. 3:01-cv-00640-SI (D. Or. Mar. 2, 2005), ECF No. 793. According to Judge Haggerty, “[i]t is well known that cases brought under the ESA can involve complex technical and scientific matters. Judge Redden has called upon Dr. Horton for the type of advice he has rendered to other judges, including Judges Graid, Marsh, and King. Dr. Horton has been providing technical and scientific service to courts for more than 20 years, and his training, experiences, and involvement in cases such as this evidence that he is eminently qualified to serve as [Judge Redden’s] technical advisor.” *Id.* at 8.

355. See, e.g., Tobias, *supra* note 107, at 282-83 (“During the 1960s, numerous observers with different political perspectives increasingly criticized the agencies. They claimed that agencies were ‘captured’ by the very interests they were supposed to regulate, that agencies failed to achieve the goals for which they were established, and that agencies were ineffective or unresponsive. Many courts, writers, and critics came to perceive considerable agency decisionmaking as an essentially legislative process in which the perspectives of all affected individuals and interests were evaluated in making a decision. That understanding was rendered problematic, however, because the interests of many persons and entities were not advocated, much less considered. Judges responded by relaxing restrictions on public participation in administrative processes and courtroom litigation and by rigorously analyzing agency decisionmaking.” (footnotes omitted)).

356. See *Nat'l Ass'n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 660 n.6 (2007); *Interagency Cooperation—Endangered Species Act of 1973, as Amended*; Final Rule, 51 Fed. Reg. 19,926, 19,928 (June 3, 1986) (“Nothing in section 7 authorizes or requires the Service to provide for public involvement (other than that of the applicant) in the ‘interagency’ consultation process.”).

357. See Wayne, *supra* note 101, at 7 (“I firmly believe that when a defendant exhibits a stubborn and perverse resistance to change, extensive court-ordered relief is both

saga³⁵⁸—and a public interest case is complex, continuing judicial supervision is justified.³⁵⁹ In this case, after receiving a third BiOp that he deemed incapable of ensuring the survival of listed salmon, Judge Redden indicated frustration, referring to aspects of the 2008/2010 BiOp as “troubling”³⁶⁰ and “neither cautious nor rational.”³⁶¹ His disappointment seemed almost an echo of his earlier reflection that the balance of habitat degradation and offsets in the 2004 BiOp was “unrealistic,”³⁶² and that the BiOp itself was merely the “disappointing result” of remand of the 2000 BiOp.³⁶³ In turn, Judge Redden’s statements about the 2004 and 2008/2010 BiOps were a continuation of Judge Marsh’s opinion that the situation of dam operations “literally cries out for a major overhaul.”³⁶⁴ Regrettably, NOAA has yet to make the headway in protecting listed salmon species that both judges called for, and that failure now brings a third federal district judge into the role of ensuring that the agency’s BiOps comply with the ESA. Continued close judicial oversight seems necessary if the federal Columbia River hydroelectric system is to operate in a manner consistent with the ESA’s goal of recovering listed salmon.

IX. CONCLUSION

Judge Redden’s oversight of the Columbia Basin saga is a quintessential example of the managerial judging paradigm advanced by Professors Chayes and Resnik.³⁶⁵ Instead of taking an active role in fashioning remedies, he might have merely declared

necessary and proper.”).

358. See generally *Practicing Deception*, *supra* note 12.

359. See also Eisenberg & Yeazell, *supra* note 112, at 494 (remarking that “intransigence and the complex nature of the institutions involved [may] make detailed decrees and some level of supervision inevitable”).

360. See *supra* note 335 and accompanying text.

361. See *supra* note 333 and accompanying text.

362. See *supra* note 258 and accompanying text.

363. See *supra* note 235 and accompanying text.

364. See *supra* notes 145-46 and accompanying text.

365. See Chayes, *supra* note 19; Resnik, *supra* note 92. As Bill Sedivy, Executive Director of Idaho Rivers United, has stated: “Judge Redden has done more for wild salmon than three presidents, five federal agencies and 10 Congresses combined. . . . By demanding that federal salmon managers follow sound science and the law, he has been a tremendous force in slowing the extinction of wild salmon in Idaho and the Northwest.” Aaron Kunz, *Judge Redden to Step Away from Columbia Salmon*, *Hydro Case*, OR. PUB. BROAD., Nov. 23, 2011, <http://earthfix.opb.org/water/article/judge-redden-to-step-away-from-columbia-salmon-hyd/>.

that the federal BiOps on federal Columbia Basin hydroelectric operations failed to satisfy the ESA and let NOAA and the federal action agencies figure out how to comply with the statute. But, possibly because he let stand parts of the BiOps, particularly the incidental take authorizations,³⁶⁶ he took responsibility for giving structure to the agency's approach to the remand periods. Holding conferences with counsel,³⁶⁷ writing frequent letters concerning issues he wanted the BiOps to address,³⁶⁸ requiring agency implementation reports on a quarterly basis,³⁶⁹ and directing studies on the spill program he ordered,³⁷⁰ Judge Redden was an active participant in overseeing agency ESA implementation. He also established several institutional innovations, such as an attorneys' steering committee, which allowed him to frame specific questions to the agencies and helped to shed public light on the otherwise closed proceedings.³⁷¹ Further, Judge Redden made significant use of a science advisor to help him understand the scientific complexities of the case and delve deeply into potential remedies.³⁷²

To move the parties toward resolution, Judge Redden gave specific instructions during a steering committee hearing about issues that the agencies needed to confront during the remand of the 2000 BiOp;³⁷³ he provided an early indication of the infirmities of the 2004 BiOp during a status conference;³⁷⁴ he identified issues in advance on which he wanted oral argument on the 2008 BiOp to focus;³⁷⁵ and he suggested in one of his letters that the 2010 "adaptive management implementation plan" amendments to the 2008 BiOp had APA problems.³⁷⁶ In all of these situations, he was acting as a managerial judge, shaping the parties' responses to his opinions and attempting to preempt future litigation—as well as

366. See *supra* note 73 and accompanying text.

367. See, e.g., *supra* notes 195-203 and accompanying text.

368. See, e.g., *supra* notes 302-09 and accompanying text.

369. See *supra* notes 352-53 and accompanying text.

370. See *supra* note 292 and accompanying text.

371. See *supra* note 195 and accompanying text.

372. See *supra* note 354 and accompanying text. Dr. Horton's technical advice assisted Judge Redden with many aspects of his decisions, including his orders to continue spill.

373. See *supra* note 202 and accompanying text.

374. See *supra* notes 222-24 and accompanying text.

375. See *supra* notes 302-05 and accompanying text.

376. See *supra* notes 311-14 and accompanying text.

the extinction of Columbia Basin salmonids—by helping the parties arrive at solutions.

Judge Redden's managerial judging was not the only remarkable aspect of his Columbia Basin salmon oversight. Perhaps because he retained jurisdiction over the case for over a decade, the judge developed a healthy skepticism concerning the federal agencies' focus on affecting hydroelectric operations only minimally. Like his predecessor, Judge Marsh, who questioned the agencies' willingness to risk species jeopardy,³⁷⁷ Judge Redden was unimpressed with the agencies' attempts to buy off plaintiffs and deflect attention from their unwillingness to significantly change dam operations through elaborate habitat restoration plans.³⁷⁸ Unlike Judge Marsh, however, he would not defer to their claimed expertise, so he ultimately rejected three consecutive BiOps.³⁷⁹ Although Judge Redden avoided reaching some issues—notably NOAA's claim that it could satisfy the ESA's no-jeopardy directive if hydropower operations merely "trend[ed] toward recovery"³⁸⁰—in his remand of the 2008/2010 BiOp, he refused to allow the agency to approve a ten-year plan based largely on nonspecific good intentions and a tenuous link between habitat restoration efforts and salmon survival improvements.³⁸¹ Thus, although the judge's successor will no doubt have to confront some of the issues that Judge Redden avoided, he will also have the benefit of following on the heels of Redden's careful rejections of the 2000, 2004, and 2008/2010 BiOps.

After retiring, Judge Redden, somewhat surprisingly, indicated that he thought the most effective means of restoring Columbia Basin salmon would be to remove the four Corps of Engineers' dams on the lower Snake River, which is the Columbia's principal tributary.³⁸² The alternative of removing the lower Snake dams has been widely considered for at least fifteen years,³⁸³ but that option

377. See *supra* notes 134-56 and accompanying text.

378. See *supra* note 16 and accompanying text.

379. See *supra* Parts V, VI, VII for discussions of Judge Redden's three remands.

380. See *supra* note 305 and accompanying text.

381. See *supra* notes 315-44 and accompanying text. One of us has suggested that the federal agencies' "good intentions" are more accurately described as deceptive practices. See *Practicing Deception*, *supra* note 12, at 806-09.

382. See *supra* note 5 for Judge Redden's 2012 statement about removing the dams.

383. See *Saving Snake River Water and Salmon*, *supra* note 341 (advocating breaching of the lower Snake River dams in 1998).

faces considerable political opposition.³⁸⁴ Still, endorsement of dam removal by the most prominent independent reviewer of the Columbia River salmon saga gives hope that this long-running and contentious dispute may one day reach a satisfactory resolution that restores the Northwest's signature natural resource.

At the end of the day, however, we are left with disquieting questions about the limited capacity of judicial oversight—even from a judge committed to managerial judging, and one willing to give close scrutiny to agency allegations of expertise in an exceedingly complex problem—to effect real change to benefit ESA-listed species. For nearly a decade, Judge Redden consistently told NOAA and action agencies like BPA and the Corps that they were violating the ESA, and he used the remand periods to structure their responses to his opinions. But although he called for significant changes in the operation of the federal Columbia Basin hydroelectric system, apart from requiring a spill program to facilitate salmon passage at the dams,³⁸⁵ he never ordered specific operational changes. Today, status quo dam operations largely continue to inflict high salmon mortalities, and they do so over two decades after a determination that more than a dozen species of Pacific salmonids require ESA protection.

The Columbia Basin salmon saga is perhaps a paradigmatic example of the limits of judicial review to effectuate real improvements in complex natural resources cases where administrative agencies are committed opponents of that change. It may be that the deception agencies like NOAA and BPA have practiced for so long is simply more powerful than a reviewing judge—even one who sees behind the deception. Years of judicial oversight convinced Judge Redden that the solution to the problem of most of the imperiled salmon runs was removal of the four federal dams on the lower Snake River, which some studies have concluded is both an ecological and economically affordable solution.³⁸⁶ But neither Judge Redden nor his successor has the

384. *See, e.g., id.* at 1011 (stating that the alternative of breaching the dams “faces considerable political skepticism”).

385. *See supra* notes 204-17 and accompanying text.

386. For example, the Fish Passage Center has noted that Snake River salmon runs maintained themselves between 1958 and 1968, but that after construction of the lower Snake dams and the John Day Reservoir, they were no longer sustainable. *See* STATE OF IDAHO, OFFICE OF THE GOVERNOR, ENDANGERED SNAKE RIVER SPRING & SUMMER CHINOOK SALMON—CAUSES AND EFFECTS 6 (1994) (quoting M. DEHART, RECOVERY TEAM DISCUSSIONS OF ADEQUATE MIGRATION CONDITIONS, MEMORANDUM TO THE FISH PASSAGE

authority to order removal of those congressionally authorized dams. Only Congress can do that. And given the long odds of congressional intervention, we may be left with many more years of ESA litigation in which the federal agencies operating the largest interconnected system of dams in the world continue an expensive charade of pretending to be serious about restoring Columbia Basin salmon while maintaining hydropower dominance. The result of that stalemate may very well be the extinction of some species of listed salmonids, which is obviously irreparable. This disturbing reality is what Judge Redden's successor will soon confront.³⁸⁷

ADVISORY COMMITTEE (1992)); *see also Saving Snake River Water and Salmon, supra* note 341, at 1012-23 (collecting ecological studies), 1023-31 (collecting economic studies).

387. *See supra* note 10. NOAA's next BiOp is due "[n]o later than January 1, 2014." *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, No. CV 01-00640-RE, 2011 WL 3322793, at *10 (D. Or. Aug. 2, 2011).

