

4. I then moved to Idaho, where I was appointed Director of Idaho Fish and Game and served in that capacity from 2000 through 2002. After Idaho, I served as the Executive Director of the Columbia Fish and Wildlife Authority from 2002 through 2005, until I retired.

5. I was first exposed to the management of the Columbia River salmon resources while at Idaho and my experience was greatly enhanced when I served as the Executive Director of the Columbia Fish and Wildlife Authority. The Authority was a non-profit organization that coordinated the actions of thirteen Indian tribes, two federal agencies, and four state agencies engaged in management of fish and wildlife resources in the Columbia River basin.

6. I feel this experience is a sound basis for this declaration since I have an in depth understanding of the relevant science as well as the policy and political issues swirling around the recovery of salmon and steelhead in the Columbia River. I am very concerned about the current status of the salmonid species in the Snake River and its tributaries. They are facing a very real threat to their existence at this time.

7. The effects of climate change cannot be underestimated. The threat is real and seems to increase every year. Management actions for these fish have not been adequate to stem the tide of decline and I fear for their future.

8. A bit of history is relevant. The management of salmon resources changed radically beginning in 1974. The Puget Sound tribes sued for restoration of their treaty fishing rights and won their case. Judge George Boldt upheld their rights and decided the state and the tribes are required to share all fish harvest equally. This also affirmed their rights to use their own rules for harvest which included nets and other devices that state licensed fishermen could not use. The decision also enabled the tribes to be recognized as having standing in matters affecting fish and wildlife in the federal courts.

9. The decision was wildly controversial. In a short time other tribes sued and won the same rights on the Columbia River. The tribes affirmed their sovereign rights to begin managing their harvest and engaging in fish management efforts. Tribes petitioned to have salmon listed under the ESA and also joined the lawsuits challenging the Biological Opinions.

10. The decline of salmon during the seventies prompted concern that resulted in the passage of the Northwest Power Act of 1980 which established the Northwest Power and Conservation Council to oversee the fish and wildlife program. The program was meant to fund projects that would mitigate the impact of the hydroelectric dams on fish and wildlife resources. There are two members from each of Washington, Oregon, Idaho, and Montana on the Council. The Program has guided expenditures to improve fish and wildlife resources through grants to the fish and wildlife management agencies and the tribes. Hundreds of millions of dollars have been appropriated through this process over the years. The Council is a highly political body and has generally avoided the hard problems if possible.

11. The salmon in the Snake River, particularly the sockeye, began to decline after the dams were built. The run returns reached a low point when a single fish made it back in 1992. A male, it was named “Lonesome Larry,” is now hanging on the wall at the Nature Center run by the Department of Fish and Game to memorialize what happened.

12. The Shoshone Bannock tribe petitioned for the listing of this species, resulting in listing in 1991. The listing under the Endangered Species Act triggered a process that required the preparation of a biological opinion by the managing agency, in this case the National Marine Fisheries Service. The agency assembled its group of scientists and produced a biological opinion that was promptly challenged in the federal courts by the State of Idaho. Judge Malcom Marsh ruled against the agency, finding their efforts in the biological opinion to be arbitrary and capricious. Judge Marsh said “the district court held that NMFS’s action in issuing the 1993 biological opinion was arbitrary and capricious because NMFS had failed to adequately explain several of the key assumptions in its jeopardy analysis.” Judge Marsh sent it back to the agency for another try to get it right. He said, “But the process is seriously, ‘significantly,’ flawed because it is too heavily geared towards a status quo that has allowed all forms of river activity to procede in a deficit situation—that is, relatively small steps, minor improvements and adjustments—when the situation literally cries out for a major overhaul”. The judge also

identified the dams on the Snake River as a significant problem and suggested that they may ultimately need to be removed

13. Other species in the Snake were soon listed. The federal agencies decided to prepare another biological opinion that would address all of the listed species. This was delivered in 2000. It was promptly challenged in the court by a coalition of interest groups. Judge Marsh had retired. Judge James Redden was assigned to the case. He ruled that “While the court understands the complexities involved in trying to balance the competing requirements of the hydro system with the needs of the salmon, the issue before this court is limited to whether NOAA complied with the requirements of the ESA and its implementing regulations in reaching its no-jeopardy conclusion in the 2000 BiOp. The court concludes that it did not, and plaintiffs’ motion for summary judgment is granted”. He remanded the case back to the agency for another try.

14. Judge Marsh had criticized NMFS in his first opinion for protecting the status quo in its inadequate biological opinion. He wrote “Instead of looking for what *can* be done to protect the species from jeopardy, NMFS and the action agencies have narrowly focused their attention on what the establishment is capable of handling with minimal disruption.” The 2000 opinion continued and expanded that bias and offered solutions that had no real chance of being implemented, without significant additions of money to complete many habitat projects by the states and tribes.

15. The economic interests dependent on the dams within the region put up strong resistance to the removal of the dams. They also were quite resistant to modification of the operations of the hydro system such as increasing spill of water over the dams to improve fish passage.

16. The agencies involved obviously were having a hard time dealing with the politics, but also appeared to have difficulty with the complexity of the issues involved. They needed new staff and a lot of research was needed to bring new information to the table. The

dams, however, had been clearly identified as problematic by a the PATH study done by a regional task force of federal, state, and tribal scientists to analyze what should be done to recover the fish. They made a strong statement that the dams were a serious problem in their report in 2000.

17. The study triggered a major concern among the economic interests. Many local elected officials became involved. This changed the biological opinion into a political issue, rather than a scientific one. The region quickly divided into two groups, for and against dam removal. This strong division left little opportunity for any attempt to reach middle ground and strongly affected behavior of the agencies in the preparation of the next biological opinion. This is still the situation today.

18. The year 2000, was an election year and candidate George Bush actively campaigned in the region. Among his promises was a commitment to protect the dams in any salmon recovery actions during his presidency. He made this promise while speaking to the public at the Bonneville dam. He won the election and kept his promise.

19. Judge Redden ordered a remand back to the agency for development of an improved biological opinion, with instructions to the federal agencies:

“At the conclusion of the remand period, the court expects a final report that summarizes what progress has or has not been made to bring the 2000 Biological Opinion and its RPA into compliance with the requirements of the Endangered Species Act, and that identifies all mitigation actions, including hydropower, hatchery, and habitat actions, that will be undertaken to ensure that compliance has occurred.”

This was a clear and direct order to NMFS to pay attention and to protect the fish.

20. The remand required the agency to fix the flaws in the biological opinion and allowed the parts that were adequate to be implemented. One of the actions that were approved was the continuance of summer spill, which enhanced the survival of fish going downstream. The Army Corps of Engineers decided to reduce that spill. The states and

tribes promptly sued for an injunction to keep spill as a vital action to help fish. Judge Redden wrote:

“As the court explained at the July 28 hearing it has given serious consideration to the fact that a decision to enjoin the government will have some impact on ratepayers. Given the danger, however, to the juvenile fish if summer spill is curtailed, and the evidence that the plans and efforts to boost juvenile survival rates are not working, the balance of interests weighs in favor of an injunction. This is particularly the case given that plaintiffs have not just shown a likelihood of success on the merits but, instead, have convinced the court that the defendants were arbitrary and capricious in adopting and approving the modified spill plan.”

21. Judge Redden granted the injunction. The enhanced summer spill proved to be instrumental in the near recovery of Snake River fall chinook. Power interests were enraged, saying that it would be a waste of money since, at the time, few adult fall chinook were returning to spawn. The fish responded and the population of wild fish improved, in spite of the biased reasoning of the Army Corps of Engineers.

22. The Bush administration produced a biological opinion in 2004 that radically departed from the prior efforts. They contended that dams should be considered as part of the *natural* environmental baseline because the dams had been built before the passage of the Endangered Species Act. They also changed the jeopardy standard for measuring progress toward recovery to a measure of trending upward, rather than the population change measures used in the past. Trending toward recovery would obscure the real quantitative changes in favor of a vague measure of real results.

23. Judge Redden did not like this approach and said so, rebuking NOAA Fisheries (aka NMFS) for wasting fish and time:

“Instead of following this court's instructions, NOAA Fisheries abandoned the 2000 BiOp and altered its analytical framework to avoid the need for any RPA. As the parties are well aware, the resulting BiOp was a cynical and transparent attempt to avoid responsibility for the decline of listed Columbia and Snake River salmon and steelhead. NOAA Fisheries wasted several precious years interpreting and reinterpreting the ESA's regulations”.

24. The group that produced this opinion got it wrong. This was clearly an attempt by NOAA to protect the status quo by avoiding the fish survival problems at the dams.

25. The Bush administration left office with little progress toward resolving the problem of protecting the status quo. The Obama administration appeared to take a hands-off approach. The members of the Congressional delegation from the Pacific Northwest largely supported the status quo and some vigorously demanded that the dams not be removed. Science was clearly playing a back seat role to politics.

26. The Obama administration produced yet another biological opinion in 2014. Litigation promptly followed. Since Judge Redden had retired, Judge Michael Simon was assigned to the case. The Court again found the BiOp illegal because it once again failed to avoid jeopardizing the fish. The Court pointed out that, "**NOAA Fisheries acknowledges that the existence and operation of the dams accounts for most of the mortality of juveniles migrating through the FCRPS.**" As in the past, I find that irreparable harm will result to listed species as a result of the operation of the FCRPS." (Emphasis added.) The Court then reproached the federal agencies for their intransigence in failing to draft a Biological Opinion that would protect Snake River salmon and steelhead:

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

For more than 20 years, NOAA Fisheries, the Corps, and BOR have ignored the admonishments of Judge Marsh and Judge Redden to consider more aggressive changes to the FCRPS to save the imperiled listed species. **The agencies instead continued to focus on essentially the same approach to saving the listed species—minimizing hydro mitigation efforts and maximizing habitat restoration.** Despite billions of dollars spent on these efforts, the listed species continue to be in a perilous state." (Emphasis added.)

27. The Obama gang mimicked previous efforts and couldn't find their way to recommend anything other than a no change alternative.

28. The Court then ordered the preparation of an Environmental Impact Statement to evaluate the effects of removing the Snake River dams:

“Although the Court is not predetermining any specific aspect of what *a compliant NEPA analysis would look like in this case, it may well require consideration of the reasonable alternative of breaching, bypassing, or removing one or more of the four Lower Snake River dams. This is an action that NOAA Fisheries and the Action Agencies have done their utmost to avoid considering for decades.*”
(Emphasis added.)

29. The agencies have now completed that analysis. The past record of failure to produce a pathway to recovery did not change, given the institutional bias demonstrated in the prior attempts. Both the new BiOp and the EIS produced by the federal agencies continued that bias and produced recommendations that in my expert opinion, will fail. Many useful and productive actions have been taken over the years, but they are not enough. It is now at the point where nearly everything short of dam removal has been tried.

30. The recent efforts by the governors of Idaho and Washington to find a solution through the use of stakeholder task forces are probably not going to address the removal of the dams. In fact, the Governor of Idaho specifically instructed his task force to keep the dams off the table. Instead, the search is on to find a magic hat with a magic rabbit that will produce the magic bullet to solve the fish recovery problem. Don't hold your breath.

31. The record of poor performance by the agencies is shameful. They have willfully ignored direct orders from three federal judges. The situation will lead to the extinction of Snake River ESA-listed fish, unless major changes are made. The ESA specifically requires the agencies to take aggressive actions to restore a species once it is listed. Nothing is more important, including directions found in other statutes.

32. This abysmal performance has not gone unnoticed, but it has gone unchanged. This is an issue of incompetent leadership which has been approved at the highest levels of our government. Unfortunately, it will probably get worse before it gets better. From the first year that the four Snake River dams were operable, the wild salmon were being pushed into decline. Later studies determined that the one hundred forty mile gauntlet created by the four reservoirs

caused excessive mortality of smolts during the out migration. Mortality is caused by stranding in the pools that is related to the low flow in the slack water. Water temperatures are increased in the pools which act as large collectors of solar energy. These factors create a difficult environment for the smolts. This short stretch of the river is the largest, single source of mortality during the entire journey of the fish.

33. Climate change is now a factor that is having large impacts on summer temperatures and rainfall. Combined with its effects on the ocean there is cause for great concern about the future of wild salmonids in the Snake River. Salmon along the entire west coast of the USA are struggling to maintain viable populations as well. Climate change appears to be a factor in this coast wide decline.

34. The efforts to restore salmon in the Columbia have fostered a large research effort which has documented the major issues affecting recovery. This has been bolstered by one of the most intensive resource monitoring systems in the world. The research effort has produced a large database and is capable of monitoring individual fish as they pass up or down the river. This is a source of data that has been used in multiple studies to produce sound science about the fish. The evidence it has produced is reliable. Most of the fisheries scientists in the region agree that the science is settled and that the salmon in the Snake River are nearing extinction levels. Many agree that the time has arrived for the measure of last resort, lower Snake River dam breaching, to be implemented. In my expert opinion, I agree. Without breaching, Snake River wild salmon and steelhead will continue rapidly to extinction.

35. The science may be settled but the political situation is not. Attempts to breach the Snake River dams are fiercely resisted by the economic interests that benefit from the dams. This is not surprising. It will be almost impossible to breach the dams, unless there is some form of breakthrough that will reduce the opposition.

36. Of all of the regional federal elected members of the Congress, there is only one person who supports dam breaching. Congressman Mike Simpson has authored a mitigation plan and is seeking to gain support in the House of Representatives to pass legislation to

plan and is seeking to gain support in the House of Representatives to pass legislation to implement his ideas. He has been rebuffed by all of the remaining members of the delegations from Idaho, Washington, and Oregon. This lack of support indicates that the Northwest refuses to solve this problem politically. If politics prevail over science, the wild fish in the Snake River are doomed.

37. Administrative efforts have also failed. So far, the Biden administration has not supported any change of strategy. Previous administrations have been reluctant to implement the full measures of the Endangered Species Act, showing more concern about the political blowback, if breaching the dams were to be pursued.

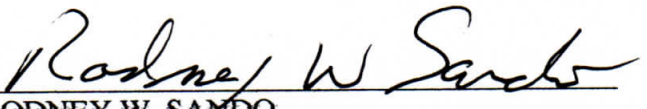
38. The science is settled that without dam breaching, the ESA-listed species will not recover. But there is far from agreement in the political arena, which means that there will be no remedy unless the courts intervene. The record of noncompliance by the relevant agencies is clear. The Court should expect the federal agencies to continue their bad behavior in the absence of court-ordered oversight.

39. Based on my natural resource and wildlife management experience, my relevant science background particularly in salmon recovery, and my related experience in policy and salmon politics, it is my opinion that the Court needs to control the future survival of the ESA-listed species by ordering dam breaching. This may require the appointment of an officer of the Court to oversee and manage the programs to aid the fish and also manage the hydro system to support the recovery of the remaining wild salmonids in the Snake River. Anything less will guarantee the extinction of the fish and the disastrous loss of a legacy resource that has existed for thousands of years.

40. We all watched it happen as we dithered along and nature is losing a verse of its song.

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

Executed on 9-12-21.


RODNEY W. SANDO