

AUDIENCE QUESTIONS FROM THE ANDRUS CENTER SALMON CONFERENCE
Boise State University April 23, 2019

Introduction. The Andrus Center conference on salmon, dams, water and people attracted an audience of close to 400 people. When invited to submit questions in writing as the panels and speeches progressed, dozens of people did so. But time permitted only a few of them to be read and responded to.

Here we have provided all the written questions audience members submitted. Those to a particular speaker are noted, followed by those addressed to panelists in general. Some category grouping has occurred, but with a light touch. All questions or comments are as written by the individuals who submitted them.

One value of these questions is aggregate. These are the issues and questions on the minds of the informed and engaged people who attended. Another value is the individual force of particular questions.

Morning Panels on Salmon and Energy

For Giulia Good Stefani, Natural Resources Defense Council, Oregon:

You are to be commended for bringing up climate change. What solutions to ocean conditions would you recommend, given that salmon spend 75% of their lives in the ocean?

In the study that looked at the economic impact of removing dams along the Columbia River – does the \$1/per month ratepayer increase account for the role of hydropower in shifting to renewable energy sources? Would dam breaching make this shift more difficult and expensive?

For Chris Wood, Trout Unlimited, Washington D.C:

The highest water temperatures ever recorded from the Salmon River – Middle Fork – were two years ago. This follows large forest fires in the Frank Church Wilderness which removed large forested sections. How do we stabilize water temperature in our “let it burn” environment?

You said the problem is fish can't migrate. Isn't it true that cormorants and sea lions present a biological barrier to fish migration?

For both Chris and Giulia: Harvest question was NOT answered during the first panel. Exempting tribal harvest rights, how would a multi-year commercial harvest ban effect salmon returns? What is the position of NRDC and TU on commercial harvest of a threatened and endangered species?

For Roger Gray, Pacific Northwest Generating Cooperative, Oregon:

How should external costs be factored into future discussions around the costs/benefits of lower Snake dams?

Lewiston has not really prospered.

If the lower Snake dams are the cheapest power in BPA's system, what assets in BPA's portfolio are the reason they have burned \$900 million of cash reserves while borrowing billions and raising rates?

Explain how energy is sold and bought – BPA's role in NW energy.

For Bear Prairie, Idaho Falls Power:

You mentioned that the citizens are already contributing to salmon conservation, but are they contributing in the most efficient way possible? It seems as though pumping hatchery fish upstream of dams is not helping anadromous native species, instead reducing genetic diversity. Wouldn't citizen money be used better to remove four dams?

For Darrel Anderson, Idaho Power Company:

Reaching a carbon free future for 2045 sounds great. But the salmon are dying today. There has to be a better way.

In making your "clean by 2045" commitment, how much will you rely on hydro to meet that goal?

You spoke of no easy solutions. The NW Power Act of 1980 required "equitable treatment" of salmon with power production. The essence of the Act has NEVER been implemented. Are political tampering, failure to follow the NW Power Act, and suppression of science the actual reasons why we have failed to recover salmon? Thank you!

How many dams does Idaho Power have that do not have fish ladders. How many are in fish migration paths?

Why hasn't Idaho Power looked creatively at pumped storage projects to firm up intermittent energy sources like wind and solar?

For Jason Miner, Office of Governor Kate Brown, Oregon: Oregon is a signatory to several agreements which are leading to the restoration of the Klamath River Basin. Are there lessons learned from that initiative that are relevant to the discussion today?

For Michael Garrity, Washington Department of Fish and Wildlife: Why did the state of WA and Oregon lift the ban on gill nets in the Columbia River below Bonneville Dam?

For Elliott Mainzer, Bonneville Power Administration, Portland:

If BPA is relying on new innovation and technologies to promote the 100% clean energy initiative, how will your company reach this goal if the technology isn't as substantial as you are predicting? How willing are you to make sacrifices in order to reach this goal?

No one doubts BPA is vital. However, the lower Snake dams seem to be bleeding BPA resources. Considering those dams cannot be liquidated, what is BPA's plan to stop the hemorrhage the dams are causing BPA and its ratepayers?

Given the lower Snake dams are unnecessary for power capacity, but still provide important services to the grid (spinning reserves, storage), has BPA evaluated the cost of batteries doing that job vs. the costs of operating the dams, including salmon-related costs? Has BPA done a recent RFP for battery and other storage options for its grid resilience needs? Costs are falling so fast, going to the market to get updated costs is critical to protect the public interest and ratepayers.

Is the power from the lower Snake dams still necessary? And, are the Snake River dams part of the issues with BPA's rates?

The ghost of Peter Johnson [former BPA Administrator and Idahoan] haunts this discussion. Nearly 40 years ago he was being burned in effigy for facing the largest municipal bond default in history to that time. It took courage. Does Bonneville have courage today?

Would Bain Capital or other investment funds be interested in buying BPA? Why or why not? What changes would they want in order to be interested?

You answered the question of what BPA would look like without the lower Snake dams. What would an energy system rely on for base power without the dams – independent of BPA?

What's the future of BPA with high debt to equity ratio, and need to replace aging turbines, and non-competitive rate structure?

You have mentioned the Columbia River System Operations Review – the EIS process ordered by the federal district court. The draft EIS will be issued in February or so next year, and the final EIS 3-4 months later. Doesn't that mean that what NW people say about your draft won't be able to change it in any real way – because there is no time between draft and final to make any major change?

Questions not addressed to a particular speaker:

Are there plans in place for future generations to reintroduce wild salmon and steelhead if our efforts fail today? Do we have genetically diverse embryos and sperm stored?

Declining fish populations are a world-wide trend. The Fraser River is undammed and is seeing similar issues. Why are we acting as if the dams are the problem?

What do you say to the Elwha success? Why can't that be a model?

Governor Little said that things change. The big change affecting this discussion is the potential extinction of the apex predator on earth, due to lack of chinook salmon.

If the four dams are removed will my power bill go down by 15-20%, because Bonneville could stop paying for fish recovery?

Regarding power generation, what might be the consequences if the four LSR dams were to be removed?

If we were to breach Snake River and Columbia River hydropower dams, what power source would fill the region's energy demands?

Fish and wildlife investments, like the modernization and improvement of the NW hydropower fleet, are very important. Like the projects themselves, the investments are also multiple use. Do you agree that spending this money domestically is an important part of these investments to bolster the U.S. economy?

We have existing technologies for managing peak energy draws. What is the time line for making a smarter grid? To make that "fast flex" concept of consumer use available to Idaho?

The solar field halfway to Mountain Home from Boise has been in place for over a year now. Is there history available for the output of the solar field, including reliability – the power output curve?

What are the processes to help educate the customers, and rural Idaho communities?

How do we maintain flood control if dams are removed?

Why has no one done a real, bipartisan, unbiased study of the economic disaster removing the lower Snake dams would be, and how to mitigate for that realistically? Germany and Denmark electric rates have doubled in the last 10 years by relying on renewables.

On April 4, my wife and I drove from Lewiston to Hood River Oregon. We passed maybe 1000 wind turbines. The Snake was glass, so was the Columbia. Maybe 10% of the turbines were turning at all. How is that a power that is renewable or dependable? People do not want to wait for their power when they need it.

If smolts are making it to the estuary on the way and to the Pacific, and do not return, how is that the dams' fault? What is happening in the ocean?

How does the Snake River dams' removal or survival balance in the future financially, re the cost to keep the dams working or to remove them in an economical sense?

Rocky Barker gave us the good economics of removing the four dams many years ago in the Idaho Statesman. Aren't those economics even more favorable to removal today?

How is science informing policy and industry decisions related to salmon recovery (e.g., the science of restoring the lower Snake)?

Why has the implementation of solar been directed towards developing/installing panel facilities on open space/rural lands, rather than utilizing residential and urban footprints (like roof tops) already in place?

No mention of oil and gas exploration, extraction and transportation, including active fracking – in Payette County. Actual drilling is underway. What is your position on this and its impact on waterways and salmon?

We have options and can be creative to solve our energy and other needs. The fish only have one option – leave the Salmon River, go to the ocean, then return. What will it say about us a society if we do not use our creativity to allow them to continue to exist?

What is the panel's opinion on the value of large scale energy storage via pumped storage hydro in terms of moving the PNW more toward salmon recovery and a greener energy economy?

Will the panelists agree that, if the power and grid services provided by the dams can be replaced at little or no net cost, and irrigation and transportation needs can be addressed, the lower Snake dams should go?

Everyone is talking about iterations on the current model of energy generation and salmon recovery, yet salmon are trending towards extinction and BPA has burned \$900 million of cash reserves while raising rates and borrowing billions against its U.S. Treasury credit card. Are any of you thinking about systems-level changes to the conceptual framework governing salmon recovery and energy?

A general question for all: how can we reduce the dependence on hydropower, and give more "river" back to the salmon? (Flex spill is unlikely to be enough for Idaho fish.)

How do you decrease water temperature below Hells Canyon Dams?

When are the water temperature standards at the four lower Snake dams going to start being enforced?

The moderator said that we haven't operated the system in a significantly different way since the ESA. But haven't the \$2 billion spent on new technology for fish at lower Columbia and lower Snake dams made a big difference in fish passage survival?

How does the 120% Total Dissolved Gas standard affect carbon release, and how will the 125% further impact that?

What would be the effect of a 5-year moratorium on all salmon fishing, in the Columbia Basin?

The Galloway Dam proposed on the Weiser River would help on fish passage, flood control, Hells Canyon water temperature, and other positives. Thoughts?

I'm hearing "customer needs" and concepts like "demand response." We can demonize the power companies, and sometimes for good reason, but real elephant in room is "human nature", the tragedy of the commons. Let's have real conservation pricing to reduce demand. It's like taking a plastic bag in the market for single use. When it's free, it promotes indiscriminate waste. It's beyond a "need."

Keynote Speaker

To Idaho Congressman Mike Simpson:

What should be done about climate change?

What should Congress do about climate change?

Mike, to get to sustainable populations of salmon in Idaho, what is the next step?

My 16-year-old son wanted to be here to hear you, but was worried to miss school. On his behalf, thank you for what you have said. You are good at solving problems.

Bottom up question/solution re "stakeholders": How do we get voters to be educated enough on getting involved in "participating" in the solution, and vote for the right political candidates from rural Idaho. I am from rural Idaho.

Is there an estimate and plan for dam removal? Is Congress going to pay for it?

Would you be willing to hold town halls throughout your district to discuss solutions to salmon sustainability in the development of a "program"?

How would one go about "NW Power Act 2.0"?

Nearly 40 years ago Peter Johnson led BPA thru the then-largest municipal bond default in U.S. history – \$2.4 billion. Wild salmon will be extinct within the decade if the four

lower Snake dams are not removed. Where and who is the hero to lead us through this much worse risk?

What can we do as citizens to help?

Simpson for President.

Afternoon Panels on Agriculture and Communities

For Steve Howser, Idaho Water Users Association:

Is it that universities teach students to identify problems and not create solutions? Or is it that you don't like the solutions they come up with because it exposes the extent to which your industry is built off the backs of dead salmon and orca?

When you say, "We'd like to see you pony up", are you talking about taxpayers, Indian tribes, fish advocates, or others? It seems that \$16 billion in investments is already a significant ponying up.

If the four Lower Snake dams are removed, how will north central Idaho, eastern Washington and eastern Oregon grain growers get their wheat to Asian Pacific markets as fast as river barging provides? 960,000 bushels in 72 hours from Lewiston to Portland, or 57.6 million pounds.

Would your folks be willing to trade the 200,000 acre-feet spill from the Snake system [the actual number is 427,000 acre-feet of flow augmentation annually] to flush fish for the elimination of the four lower Snake dams?

For Stephanie Solein, Governor Jay Inslee's Orca Task Force, Seattle:

Governor Inslee included in his state budget \$750,000 to do community outreach to discuss what might mitigate lower Snake dam removal. Don't you think it's too early to start that dialog since removal a federal decision?

Why have none of the Orca Task Force's six meetings been held east of the Cascades? That's where the lower Snake dams are. Will you come? Communities want to hear your plans.

What immediate benefit, if any, would orcas see if the Snake dams were breached tomorrow? Please include suspended silt and loss of BPA mitigation resources for habitat restoration in your response.

Describe the Washington State stakeholder process a little more. How do you think it could complement the Salmon Work Group announced by Governor Little?

Isn't there a lack of genetic diversity in the J-pod for southern resident killer whales a reason for the deaths in newborn orcas?

Importance of Columbia River salmon for orcas: NOAA scientists say approximately 5% of orca diet comes from Columbia/Snake Basin. Yet many activists claim it is much higher. Why? Isn't NOAA the expert on this?

Why isn't more focus being placed on Fraser River salmon and Puget Sound contamination for recovery of Southern Resident orcas – vs. Snake River dams that are 400 miles away?

According to NOAA Fisheries (2016 Fact Sheet), “the increase in chinook returns to the Columbia and Snake Rivers helps support the southern residents to the extent it improves salmon abundance.” Why isn't more focus being placed on the Fraser River salmon and Puget Sound contamination for southern resident orca survival?

For David Reeploeg, Tri-Cities Development Council, Washington:

If the lower Snake dams must be removed, the Port of Pasco will expanded commerce. Would new facilities be needed to handle it?

Sport harvest for spring chinook in the Clearwater River is only 470 adults this year. Can you offer any constructive suggestions on how to address harvest to better Idaho's runs?

For Jeff Gordon, Gordon Wines, Washington:

Could you drill wells for water instead of going out of business? Could well drilling be subsidized? What is the aquifer?

Why would removing the LSR dams mean you can't stay in business? Is it water rights? Or not enough water – elimination of acre-foot allotment? Or just that you need to dig a deeper well or need new pumps?

For Sam White, PNW Farmers Co-op Grain Division, Idaho and Washington:

What does “made whole” mean? Do you believe business has an ethical/moral obligation to help restore wild salmon?

For Messrs. White, Howser and Gordon:

Building on the Congressman's comments, “are you OK with salmon extinction?”

Could the subsidies barging and the waterway receive be used to build or update the rail system?

Grain transport by barge is subsidized by taxpayers to pay for dredging and lock maintenance. If the lower Snake dams were removed, subsidy could also be provided for rail transport.

How do you see the future for tribal communities in blocked areas that have already lost salmon?

Questions not addressed to a particular speaker:

I'm surprised there are no young people on these panels. What do they have to say about the degraded environment and salmon-free rivers we are leaving for them?

Only four of 13 threatened and endangered species of fish are on the Snake. Isn't it logical that the remaining four dams will then be targeted for removal if Snake dam removal is achieved?

The people and population in Idaho, Oregon and Washington has more than tripled from 4.5 to 13.5 million since 1950. How are salmon going to compete with the environmental demands of the people population?

Passage at Snake dams: My understanding is that Snake River dams have some of the best passage in the nation – 95% survival, reaching undammed river levels. Why not put money into passage into Hells Canyon facilities?

What would the loss of steelhead and salmon sport fishing opportunities mean to river communities in Idaho?

Why do speakers think that solar and wind and renewables are not cost-effective energy sources? Solar is the fastest growing energy source in the nation, and pays salaries 20% higher than median national job salaries. Here in Idaho the most recent and cheapest energy deal was a 20-year PPA Idaho Power signed for solar from a 150 MW project south of Twin Falls. This is ready now, how can nuclear be considered the only option? Where is the data? The facts don't support it.

Why do we assume the solutions have to be win/win? Maybe it's time to rethink water law and focus on essential need. Win and food for farm animals or export to Asia are not essential.

Would you suppose that farmers could be subsidized for grain transportation costs if they lose their barging capabilities? Subsidized rails?

Does the increased flow on Columbia and Snake kill or endanger any ESA-listed adult salmon or smolts with nitrogen supersaturation? Is that a “take” issue someone should be responsible for?

Time is short. Tell me how to save the salmon in 24 months.

There is a very good chance that removing all the dams won't recover the ESA-listed fish (look at the crisis on the Fraser River). How can you guarantee that removing the dams will solve the problem?

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