Salmon reintroduction upstream of Chief Joseph and Grand Coulee Dams

Frequently Asked Questions

1) Why do the tribes want to bring salmon back above Grand Coulee Dam?

Answer: Since time immemorial, indigenous people in the Columbia basin sustained a way of life dependent on a healthy ecosystem. Salmon were, and continue to be, critical to the ecosystem and the physical and spiritual health of Northwest Indian tribes. Eighty years ago, Grand Coulee Dam cut off salmon from thousands of miles of habitat and the indigenous people who inhabit these lands. Reintroduction of salmon will reconnect fish, people and lands together — that is, restoring the health of the river and all life that depends on it. It will also locate hydropower-related mitigation to the area most affected, as well as benefit downstream fisheries and the ecosystem as a whole. Tribes are undertaking this effort to right historic wrongs. It's time to bring the salmon back for the benefit of all.

2) Does the State of Washington support this effort?

Answer: The State of Washington supports the phased approach of the Northwest Power and Conservation Council (NPCC) and the UCUT for reintroduction of salmon and steelhead above Chief Joseph and Grand Coulee Dams (i.e., the blocked area). The Washington Department of Fish and Wildlife has been working with the UCUT for several years to complete the feasibility assessment for reintroduction (Phase 1). The Phase 1 effort is nearing completion and the State is prepared to further assist the tribes with reintroduction by implementing recommended actions during Phase 2 (feasibility testing).

Based on findings in the Phase 1 report, the State of Washington agrees that there is significant salmon and steelhead spawning and rearing habitat available in the blocked area. While this bodes well for reintroduction, there are still many issues to work out, including disease risk, impacts to existing fisheries, genetics and preferred donor stock selection, upstream and downstream passage of adults and juveniles, cost and funding availability, as well as a host of other biological, social and political challenges.

The State is prepared to leverage our experience with salmon and steelhead management and recovery to continue to assist the UCUT as reintroduction moves into testing and strategy implementation. To be successful, close coordination between the

State and tribes on both technical issues and community outreach will be critical to the success of a scientifically sound and socially acceptable permanent reintroduction program.

3) Is there good habitat for salmon in the blocked area?

Answer: Habitat evaluations for salmon are an important component of the Phase 1 investigations. The work done so far shows that there are hundreds of miles of streams with habitat that is available and suitable to support tens of thousands of adult salmon and millions of rearing juveniles.

4) When will reintroduction occur?

Answer: Reintroduction is expected to occur in phases and at various scales over time to meet different purposes. Small 'cultural' releases of salmon by tribes to meet ceremonial or subsistence purposes could happen as soon as 2019. Larger 'experimental pilot' releases may not happen for several more years depending on if or how quickly the region moves into implementation of Phase 2. Reintroduction on a grand scale with bypass facilities and supporting hatchery programs is dependent upon successful feasibility tests in Phase 2 and funding and will therefore take much longer.

5) How many fish will be moved?

Answer: The number of fish moved in any given year will vary depending on the run size of salmon downstream (quantity of surplus salmon) and the objective of the study or release. Initially we expect relatively small numbers of adult salmon (dozens to hundreds) to be trapped and hauled in trucks to meet cultural and educational objectives. As the program grows, we expect the number of adults and juveniles to increase into the thousands — perhaps tens of thousands. We also expect our efforts to be guided by the science-based recommendations coming from the phased reintroduction planning process. One study may require only 100 fish whereas another study may require 50,000, depending on the life stage (adult or juvenile) and the study design.

6) What will salmon reintroduction cost?

Answer: The costs of reintroduction are not clear because the studies to determine feasibility and facility design and effectiveness have not been completed. Phase 1 planning efforts to-date have cost hundreds of thousands of dollars, and we expect that studies and facilities in Phase 2 will cost millions. If Phase 2 experimental releases and interim passage facilities show favorable results, then an important step at the end of Phase 2 will be to determine the preferred options and cost estimates.

7) Who will pay for salmon reintroduction?

Answer: It is not certain at this time who may be a part of funding the reintroduction. To date, several of the upper Columbia tribes and the UCUT organization have paid for most of the assessment effort through tribal funds, with some contributions from the U.S. Bureau of Reclamation and Bonneville Power Administration and in-kind staff time from the Washington Department of Fish and Wildlife. Currently there are three pathways in which the reintroduction is being pursued: 1) Columbia River Treaty, 2) NPCC's Fish and Wildlife Program, and 3) tribal initiatives. If reintroduction is part of the modernized Columbia River Treaty, then it will need Congressional appropriations. If it's part of the NPCC's Fish and Wildlife Program then it will be paid for collectively by user groups, such as electricity rate payers, of the Columbia River System. Restoration efforts in the basin are often funded from various sources: state, federal, tribal, and private forces. Reintroduction will be similar; how much paid by whom is unclear at this time.

8) How will salmon reintroduction affect landowners and businesses upstream?

Answer: The presence of salmon in the watersheds upstream of Chief Joseph and Grand Coulee dams won't add any new regulatory burden. State, federal, and county laws already protect the water, stream channel and streamside vegetation in the blocked area for the benefit of plants and animals that already reside there. The UCUT have no interest in increasing the regulatory burden on upstream landowners or businesses in order to help with the reintroduction of salmon. The primary guiding document to the reintroduction effort was generated from a coalition of 15 Native American tribes and it recommended not using fish listed under the Endangered Species Act (ESA). By not using ESA-listed fish, the tribes (and state and federal partners) will have an easier path for obtaining fish to supply the efforts. Additionally, by using healthy stocks from productive and abundant downstream sources (rather than using struggling ESA stocks), the reintroduction is more likely to be successful. Finally, we expect the reintroduction effort to have a positive benefit to local businesses in the form of jobs, contracts, fishing and tourism.

9) What salmon species will you use?

Answer: Current planning is focused on summer Chinook and Sockeye Salmon. These fish are not listed under the Endangered Species Act and they have healthy and productive sources in nearby downstream locations. By not using ESA-listed fish, the tribes (and state and federal partners) will have an easier path for obtaining fish to supply the efforts. The exact locations and numbers of fish from each location will likely vary from year to year based on the number of fish that return (which can fluctuate widely) to certain rivers and hatcheries. A scientific review of potential donor stocks and their risks and benefits was completed in 2017 and will be used to help guide the preferences for the reintroduction.

10) How will you get the salmon over tall dams?

Answer: There is uncertainty regarding the engineering and the specific kinds of fish passage facilities that may be needed to make the reintroduction successful. This important question cannot be answered until additional studies are completed in Phase 2. Certainly, in recent years, there have been encouraging advances in fish passage efficiency throughout the Columbia River and at tall, or 'high-head,' dams in other areas. We expect that technologies such as floating surface collectors and Whooshh Innovations' salmon cannon will be part of the planning and testing.

11) What happens to the existing fish populations?

Answer: There are no plans to change fish management practices in Lake Roosevelt and Rufus Woods. Rainbow trout and kokanee will still be stocked for local resident fisheries, activities to remove Northern Pike will continue and conservation programs for native fish, such as sturgeon, will remain in place. Additional predator control may be needed to preserve resident fish populations and may subsequently benefit reintroduced salmon, but studies need to be conducted to determine if this will be necessary.

Reintroduction does pose a disease risk to native Redband Trout. A biological reality is that salmon have pathogens, and it is not possible to implement a reintroduction of anadromous fish without increasing the pathogen burden for resident fish. However, resident fish and salmon coexist throughout the Pacific Northwest and they co-evolved in this region for millions of years. All pathogens of concern have been detected in the

blocked area except for one strain (M-Clade) of IHN (Infectious Hematopoietic Necrosis). Salmon hatcheries work hard to reduce the transmission risk and outbreaks of IHN and many precautions can and will be taken to reduce the probability of infecting wild populations of Redband Trout by fish that are reintroduced to the blocked area.

12) Who benefits from salmon reintroduction?

Answer: Restoring salmon to the upper Columbia River basin after an 80-year absence will benefit the entire region. Local tribes who have an ancient and spiritual connection with salmon will feel the immediate benefit, even if initial numbers are small. Reintroduction will also improve the health of the entire ecosystem. After spawning and dying, the salmon will replenish the streams with marine nutrients, benefiting many freshwater organisms, including bears, eagles, otters, coyotes, aquatic insects, fish, vegetation and trees. With successful reproduction and/or hatchery production, there will be more juvenile salmon entering the estuary and more adult salmon in the ocean to feed orcas, seals and seabirds. There will also be more salmon in the economically important fisheries in the ocean and the Columbia River. With larger run sizes, there will be local sport fishing opportunities in Lake Rufus Woods and Lake Roosevelt that would increase recreation opportunity and tourism, as well as bolster the economies these industries support.

13) Where can I get more information?

https://ucut.org/fish/restoring-salmon-upper-columbia-river-basin/