

## Columbia Basin Fish and Wildlife Issues

### Biological Opinions (BiOps), National Environmental Policy Act (NEPA), and Agreed Upon Fish Actions

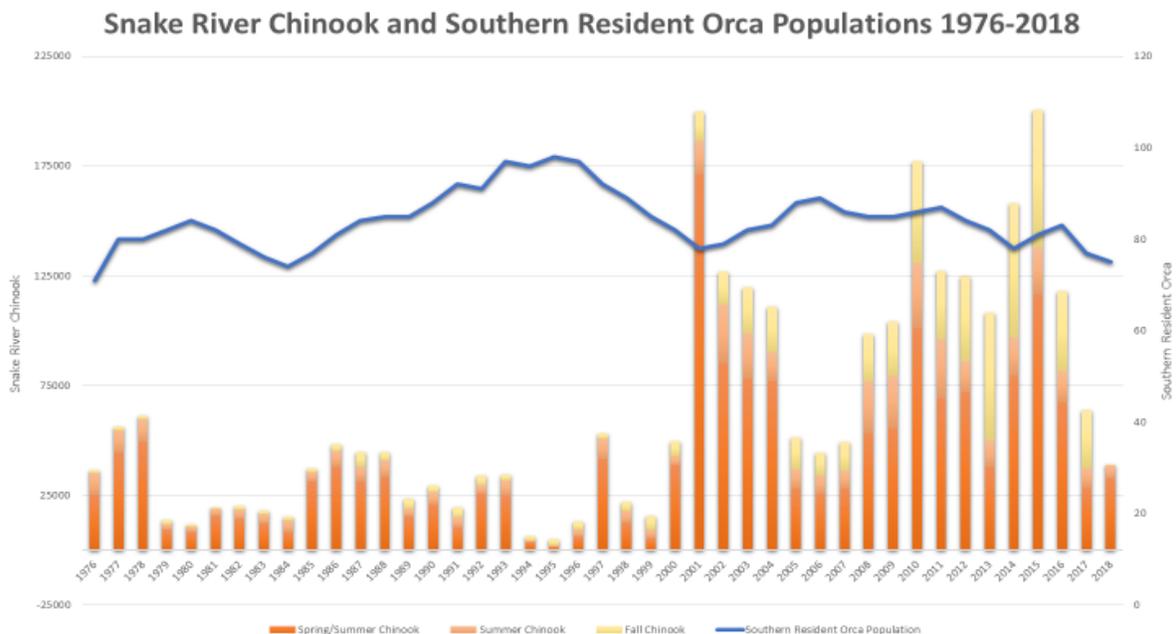
- The Endangered Species Act (ESA) requires any federal agency proposing an action that may have an effect on ESA listed species to render a “Biological Opinion” to ensure the action will not reduce the likelihood of survival of ESA listed species.
- The Federal Columbia River Power System (FCRPS) BiOp includes tailored hydro operations and hundreds of mitigation measures funded by BPA customers. Fish and wildlife related costs are typically about 1/3 of the BPA wholesale rate.
- NOAA’s 2014 Supplemental BiOp was rejected by the Federal District Court in May 2016. The court ordered a NEPA review of the Columbia River System Operations by 2021 (now 2020) and a new FCRPS Biological Opinion thereafter. Federal agencies have expressed confidence that a complete and supportable BiOp can be completed by the 2020 deadline.
- The court also ordered max spring spill in 2018 (24/7 spill to gas caps from April-June, more on “spill” below). BPA estimated this to be a hydro generation loss of 815 aMW, at a cost of nearly \$40 million (about 2 percent of the BPA wholesale rate), and causing an 840,000 metric ton carbon increase in meeting electric demand.
- A recent agreement between BPA, Oregon, Washington, and the Nez Perce Tribe implements “flex spill” operations while the NEPA process is underway. The parties say the pillars of the agreement are that it is: good for fish, revenue neutral to 2018 operations or better, and operationally implementable. BPA says that as implemented, the agreement calls for 16 hours/day of max spill at Lower Columbia and Snake projects and 8 hours/day of lower, BiOp spill levels that allow BPA to take advantage of higher value energy.

### What is “spill”?

- “Spill” is one of several ways to move migrating fish past a dam. Spill moves water from one side of a dam to the other via a dam’s spillway or surface weir instead of through an electric generating turbine.
- Spill is regulated by “total dissolved gas” (TDG) levels allowed by the Clean Water Act. In recent years, via their own state water quality processes, the States of Oregon and Washington have collectively raised total dissolved gas levels beyond Clean Water Act standards for migrating fish on the Columbia and Snake Rivers.
- TDG is important because too much spill can cause gas-bubble trauma which may result in death for fish and other in-river species.
- Spill operations (April-August) are “tailored” to meet ESA survival standards for salmon and steelhead and will see increases in 2019 as part of the aforementioned agreement.

## Southern Resident Killer Whales

- NOAA Fisheries research identifies the primary threats to the Southern Resident killer whale population as:
  - Pollution and chemical contaminants
  - Vessel and traffic noise
  - Reduced prey (Chinook salmon) in some areas
  - Health risks such as inbreeding
- NOAA determined the most crucial salmon stocks to the whales are those returning to the Fraser River in B.C., the rivers draining into the Puget Sound and the Salish Sea, and the Columbia, Snake, Klamath, and Sacramento Rivers.
- Southern Residents spend much of their lives feeding in the Salish Sea and Puget Sound. During winter the whales consume fish from rivers up and down the west coast. Summertime is when NOAA believes Columbia River chinook are most prevalent in the killer whale diet.
- In recent years, the Columbia and Snake River salmon returns have been comparative bright spots as compared to other west coast rivers. NOAA Biological Opinions have concluded that hatchery production of salmon in the Columbia and Snake systems more than offsets any losses of salmon from the killer whale prey base caused by the dams.
- NOAA further concluded that no salmon-related measure on a single river, including dam breaching, will bring about recovery of the Southern Resident population on its own.
- The State of Washington’s Orca Task Force recently made several orca protection recommendations. The State of Washington can take some of the recommended actions unilaterally, but dam breaching requires Congressional authority.



Orca data courtesy of the Center for Whale Research  
 Salmon data courtesy of University of Washington Columbia Basin Research