



## 2018 FISH FACTS

*A Public Power Council compilation of relevant facts regarding the BPA ratepayer-funded effort to aid salmon and steelhead in the Columbia and Snake Rivers*

### Status of Columbia and Snake River Salmon Runs

- **Which Runs are Federally Protected:** Twenty-eight West Coast salmon and steelhead populations are listed under the Endangered Species Act (ESA). Of these, thirteen sub-populations, or “runs”, are found in the Columbia and Snake Rivers. Nine runs occur in the mainstem Columbia and Willamette Rivers and four runs are in the Snake River. Four of the Columbia/Snake ESA-listed populations occur primarily below the projects of the Federal Columbia River Power System (FCRPS).<sup>i</sup>
- **Since 2000, salmon and steelhead populations in the Columbia River Basin have been improving due to a combination of ocean conditions, better fish passage survival at the dams, improvements in freshwater habitat, harvest reforms, and predator control.** The FCRPS Biological Opinions initiated many of the mitigation actions that benefit fish. Several stocks of salmon and steelhead have returned in record or near record numbers over the last several years. According to NOAA-Fisheries, ocean rearing conditions were less than optimal for juvenile fish in the springs of 2015-2017 which will likely result in lower adult returns over the next few years.<sup>ii</sup>
- **2017 Salmon Return Results:** The 2017 return of most salmon and steelhead stocks were below recent historical averages. Some stocks, however, returned at relatively high levels including summer chinook at over 88,000 fish, making it the 17<sup>th</sup> largest observed since counts began in 1938.<sup>iii</sup> Over 317,000 fall chinook salmon passed Bonneville Dam in 2017 making it the 18<sup>th</sup> highest return observed since 1938.<sup>iv</sup>
- **Snake River Salmon Stocks Improving:** In 1990, approximately 500 wild Snake River fall chinook returned to the Columbia River Basin.<sup>v</sup> In 2017, an estimated 26,393 Snake River fall chinook returned, which is the ninth highest return since Ice Harbor Dam was built in 1961.<sup>vi</sup> Many of these compose the ESA-listed fish within the population. Returns of these ESA-listed fish have been on a generally strong and positive trajectory for the last 15 years.
- **2018 Forecast:** The 2018 adult salmon and steelhead returns projections are below recent 10-year averages.<sup>vii</sup> Warm ocean conditions coupled with high predator populations reduced the survival of juvenile and adult fish in the ocean. However, river and ocean conditions improved in 2017 so we should see improvements in fish returns starting in 2019.
- **Sea Lion Predation High:** Research by regional scientists suggests one quarter of the 2017 Columbia River spring chinook run was eaten by sea lions. Scientists determined that over the last several years, sea lion predation of adult spring chinook has ranged from 11 percent of the run to 43 percent of the run.<sup>viii</sup>

## Status and Implementation of the Biological Opinion

- **Current Biological Opinion:** In 2016 the Oregon District Court ruled the most recent Federal Columbia River Power System Biological Opinion (BiOp) violated the ESA as well as the requirements of the National Environmental Policy Act (NEPA). As a result, federal agencies are creating a new environmental impact statement (EIS) due by the end of 2021. ESA compliance is ongoing with a new BiOp required by the end of 2018, which would then presumably be updated concurrent with the EIS.
- **Implementation of the BiOp** is ongoing until the new BiOp is issued by the end 2018. The BiOp includes state and tribal projects that are positively impacting fish runs. Juvenile fish passage at federal hydro projects are at or near BiOp targets, many habitat projects have been successfully completed. As noted above, predator management (also in the BiOp) has had mixed success.

## Power Rates and the Cost of Fish & Wildlife Actions

- **Total cost of BPA Fish & Wildlife actions since inception (1978-2017):** over **\$16 billion**.<sup>ix</sup>
- **Annual BPA Fish & Wildlife costs:** BPA’s fish and wildlife costs vary year to year due to factors including water conditions, program requirements, and the cost of power in the energy markets.
  - For **2016**, fish and wildlife costs were **\$621.5 million** (**\$126.9 million** in foregone revenue and power purchases and **\$494.6 million** in program expenses) with an **additional \$51.4 million** in capital investment.<sup>x</sup> Numbers for 2017 will be available soon. A “spill surcharge” may be issued in 2018 due to court-ordered spring spill. Early cost estimates of the surcharge are **\$40 million** annually.
  - **Impact on the BPA power rate:** In recent years, fish and wildlife costs have **ranged from one-quarter to approximately one-third** of total costs for BPA power.<sup>xi</sup>

For the foreseeable future, salmon and steelhead mitigation in the Northwest will continue to be one of the largest wildlife recovery efforts in history. PPC remains committed to cost-effective, science-based approaches to ensure ratepayers funds committed to this important endeavor produce measurable results.

##

**About the Public Power Council-**The Public Power Council (PPC), established in 1966, is an association that represents consumer-owned electric utility customers of the Bonneville Power Administration in the Pacific Northwest. PPC’s goal is to preserve and enhance the benefits of the Federal Columbia River Power System for consumer-owned utilities. For more information, please visit us at [www.ppcpx.org](http://www.ppcpx.org)

<sup>i</sup> 2010 Status Update for Pacific Northwest Salmon & Steelhead Listed under the Endangered Species Act. [http://www.westcoast.fisheries.noaa.gov/publications/status\\_reviews/salmon\\_steelhead/multiple\\_species/sr-2010-all-species.pdf](http://www.westcoast.fisheries.noaa.gov/publications/status_reviews/salmon_steelhead/multiple_species/sr-2010-all-species.pdf)  
<sup>ii</sup> 2010 Status Update for Pacific Northwest Salmon & Steelhead Listed under the Endangered Species Act. [http://www.westcoast.fisheries.noaa.gov/publications/status\\_reviews/salmon\\_steelhead/multiple\\_species/sr-2010-all-species.pdf](http://www.westcoast.fisheries.noaa.gov/publications/status_reviews/salmon_steelhead/multiple_species/sr-2010-all-species.pdf)  
ailable from [http://www.cbr.washington.edu/dart/query/adult\\_annual\\_sum](http://www.cbr.washington.edu/dart/query/adult_annual_sum)

<sup>iv</sup> Id.

<sup>v</sup> Id.

<sup>vi</sup> Id.

<sup>vii</sup> Id. ODFW and WDFW 2017 Adult Returns and 2018 Expectations Columbia River Updated Draft – January 11, 2018

<sup>viii</sup> Survival of adult spring/summer Chinook salmon (*Oncorhynchus tshawytscha*) through the estuary and lower Columbia River amid a rapidly changing predator population. NOAA-F NWFSC presentation to Independent Scientific Advisory Board, December 8, 2017

<sup>ix</sup> Bonneville Power Administration (information provided to customers).

<sup>x</sup> Id.

<sup>xi</sup> NW Power and Conservation Council’s 16<sup>th</sup> Annual Report to the Northwest Governors, May 2017.