



# Fact Sheet

May 2013

## BPA's Fish and Wildlife Program: the Northwest working together

**BPA ratepayers fund the largest mitigation program for threatened and endangered species in the nation. Learn how the Northwest supports iconic salmon and steelhead runs through habitat, hatchery, harvest and hydropower improvements.**

The Bonneville Power Administration funds and manages the largest fish and wildlife mitigation program in the nation, and perhaps in the world. In 2012, BPA directly invested more than \$450 million — across a river basin roughly the size of France — to address the impacts of federal dams. The agency's activities include supporting better fish passage, protecting and restoring land and water habitat, and implementing other projects across the Columbia River Basin. Beyond BPA's direct funding, operations at dams that protect fish but reduce hydroelectric generation also affect the agency revenues and rates.

BPA takes pride in its work to conserve and enhance fish and wildlife, including species that are listed as threatened or endangered under the Endangered Species Act. BPA's fish and wildlife program supports the federal government's treaty and trust obligations to Northwest tribes, including fishing rights and cultural traditions. Since 2008, the landmark Columbia Basin Fish Accords among BPA, the U.S. Army Corps of Engineers, the Bureau of Reclamation, three states

and six tribes have strengthened these commitments and partnerships.

Working with federal agencies, Northwest tribes, states, local governments, land conservancies and other partners, BPA has helped to:

- Greatly improve the survival of juvenile fish through the eight federal dams on the Columbia and Lower Snake rivers with dam modifications and more effective use of spill to achieve or exceed dam survival targets;
- Implement hundreds of projects to protect habitat, update hatchery practices and control predators;
- Increase the knowledge of fish behavior and the effectiveness of mitigation while applying the latest science through adaptive management.

BPA's fish and wildlife work is fully funded by its electric ratepayers and guided by the four-state Northwest Power and Conservation Council's Fish and Wildlife Program. In establishing the Council and the program in 1980, the Pacific Northwest Electric Power Planning and Conservation Act called for BPA to "protect, mitigate and enhance" fish and wildlife affected by the dams while providing an "adequate, efficient, economical and reliable power supply."

Protection of the Northwest's iconic salmon and steelhead populations — including those listed as threatened or endangered under federal law — is the most visible feature of BPA's fish and wildlife program.



# Fish protected under the Endangered Species Act



There are 13 Columbia Basin salmon and steelhead stocks listed under the Endangered Species Act. Two resident species, bull trout and Kootenai River white sturgeon, are also protected

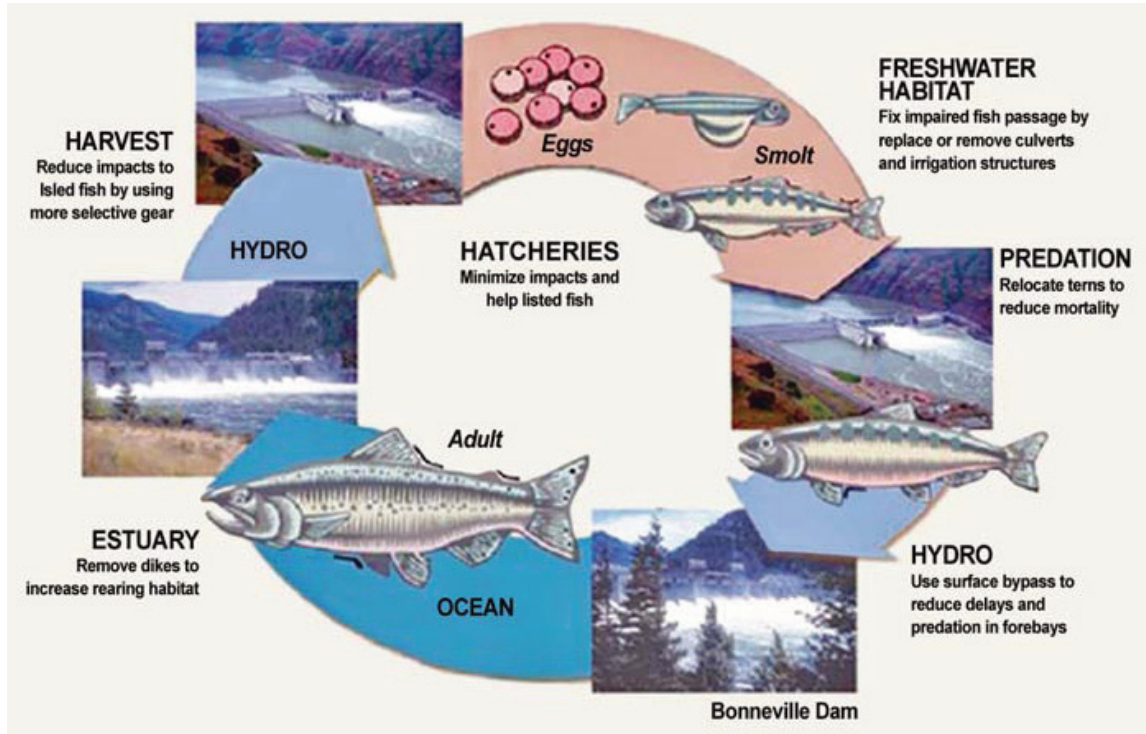
In 1991, NOAA Fisheries listed Snake River sockeye as endangered under the Endangered Species Act. Today, 13 Columbia Basin salmon and steelhead species are listed under the act. BPA and the operators of the federal dams — the U.S. Army Corps of Engineers and the Bureau of Reclamation — have additional responsibilities to manage the federal hydroelectric system to protect ESA-listed species. Two resident species, bull trout and Kootenai River white sturgeon, are also listed as threatened and endangered, respectively. Unlike salmon and steelhead, which migrate to the sea as juveniles, resident fish stay in fresh water their whole lives. Since the 1990s, program managers have made much progress and gained crucial

knowledge to help mitigate the effect of the dams on these protected fish.

Under the fish and wildlife program and agreements such as the Fish Accords with the tribes, BPA also works to protect and support a broad range of aquatic and terrestrial species, including resident fish and wildlife, salmon and steelhead:

1. The Hanford Reach Fall Chinook Protection Program is a multi-agency agreement to aid non-listed chinook salmon in the Vernita Bar area of Washington's Hanford Reach, the strongest naturally spawning run in the Columbia Basin. The program participants provide the water depth necessary to protect incubating redds (nests of

# The salmon life cycle and All-H approach



salmon eggs) until the young fish emerge from the gravel river bed.

2. Projects to enhance Pacific lamprey survival are moving forward under the Fish Accords. Lampreys are among the oldest fish species in the Columbia Basin and are culturally important to some Northwest tribes.
3. Wildlife mitigation is typically accomplished through land acquisitions to protect and enhance wildlife habitat. Diverse species such as pygmy rabbits, Western pond turtles, Canada geese, great blue herons, mule deer and sage grouse have benefited from this work.

## The program

BPA uses a performance-based approach, meaning that actions and results are based on biological or ecological objectives. For example, the targets for dam improvements and spill operations are for 96 percent of juvenile spring-migrating fish and 93 percent of juvenile summer-migrating fish to survive

their passage through each dam. Fish and wildlife investments proposed for BPA funding are reviewed by the Northwest Power and Conservation Council's Independent Science Review Panel to ensure that projects address the factors that affect fish health and that their results are scientifically valid. Evaluation results are used to continually improve the program as part of an adaptive management approach.

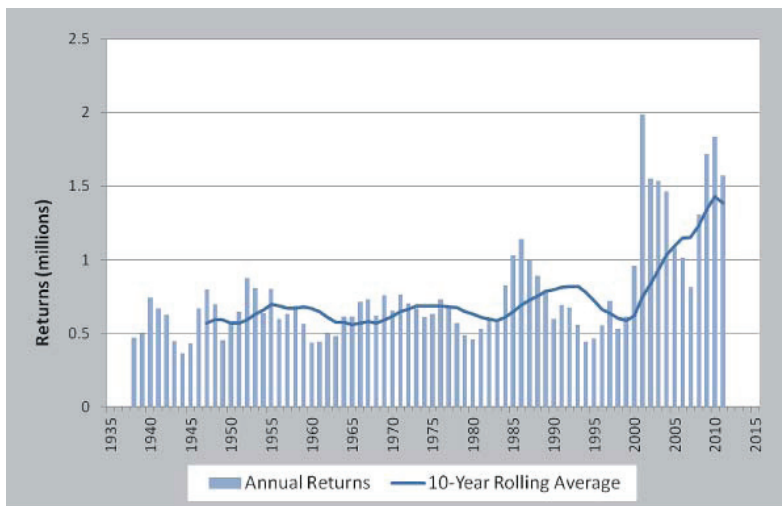
## A comprehensive, life-cycle approach

BPA's work on behalf of salmon and steelhead listed under the Endangered Species Act addresses factors that limit their recovery at all stages of the life cycle. Known as the "All-H" approach, the program strives to make improvements in four key areas: habitat, hatchery, harvest and hydro (the dams and reservoirs).

## The results

So, is all of this work paying off? Yes. There is still work to be done to meet the measures of success

## Adult and Jack Salmon/Steelhead Returns at Bonneville Dam (1938 to 2011)



Since the late 1990s salmon and steelhead returns at Bonneville Dam have been on an upward trend. Over the last 10 years the dam has seen some of the highest return rates since its construction in the late 1930s. (Source: U.S. Army Corps of Engineers)

established for the fish and wildlife program, but BPA is proud of the accomplishments it has made in collaboration with its partners.

A summary of noteworthy achievements demonstrates the scale of these programs.

- Thanks to spill, structural improvements at the dams and predator management, juvenile fish survival through all eight dams is as good or better than in the 1960s, when there were only four federal dams on the Columbia and Snake rivers.
- Northern pikeminnow predation on juvenile salmon has been reduced by about 40 percent since 1990.
- Since the late 1990s, the overall number of adult salmon and steelhead returning over Bonneville Dam has been on an upward trend, with some of the highest returns since 1938 occurring in the past decade.
- Available data indicate increases in abundance since the early 1990s of ESA-listed populations that spawn above Bonneville Dam for 47 of 58 populations.

- Between 2005 and 2011, BPA and its partners improved access to nearly 1,600 miles of tributary spawning habitat.
- BPA has supported over 340 stream-water transactions securing more than 900 cubic feet per second and 6.1 million acre-feet of water to improve tributary flows and habitat conditions in the Columbia Basin.
- Ratepayer funding through BPA1 has protected and helped restore more than 500,000 acres of habitat throughout the Columbia Basin.

Annual Progress Reports provide a detailed update on federal efforts to protect salmon and steelhead listed under the Endangered Species Act: [www.salmonrecovery.gov/BiologicalOpinions/FCRPSBiOp/ProgressReports.aspx](http://www.salmonrecovery.gov/BiologicalOpinions/FCRPSBiOp/ProgressReports.aspx).

### For additional information

For more information, general questions or inquiries about BPA's fish and wildlife programs, please visit [www.efw.bpa.gov/IntegratedFWP](http://www.efw.bpa.gov/IntegratedFWP) or contact BPA by e-mail [efwweb@bpa.gov](mailto:efwweb@bpa.gov), or phone 503-230-5136, toll free at 800-282-3713.

The U.S. Army Corps of Engineers and Bureau of Reclamation own and operate the federal dams on the Columbia and Snake rivers, while BPA markets the electricity they generate and owns the transmission infrastructure needed to transport that energy to customer utilities.