Journal

June 2014

Partners celebrate win-win at hatchery

Fewer kilowatt-hours in, more fish out, both numbering in the millions. That's the equation for success at Dworshak National Fish Hatchery near Orofino, Idaho. Nearly 100 people gathered April 18 at one of the most remote and spectacular locations in the Federal Columbia River Power System to celebrate the win-win-win-win-win of an unusual five-way partnership.

Among the crowd were leaders and staff of a tribe, a state and three federal agencies that together leveraged their diverse know-how and resources in an effort to save valuable energy and invaluable fish runs, both originating in North-Central Idaho and fanning out across the region and beyond.

Chairman Silas Whitman of the Nez Perce Tribe, which co-manages the hatchery, said the unique collaboration was an example of "the cycle of life … and an effort I hope continues to build and build and build."

Administrator Elliot Mainzer of BPA, which funded about $600,000 in hatchery improvements, agreed that the cooperation behind the innovative project became "a positive feedback mechanism in which one good act spurs another good act, and creates a cycle of virtue."

Other partners included the state of Idaho; the U.S. Army Corps of Engineers, which owns and operates the dam; and the U.S. Fish and Wildlife Service, which manages the hatchery with the tribe.

Dworshak Dam and National Fish Hatchery sit at the confluence of the mainstem Clearwater River and its North Fork, a place so propitious, people have gathered there to fish since time immemorial. On one riverbank lies the heritage site where the Nez Perce helped hungry members of the Lewis and Clark expedition build five dugout canoes for their journey down the Clearwater, Snake and Columbia rivers to the Pacific in the fall of 1805.

Two centuries later, the synergistic setting has continued to provide a rich confluence of intergovernmental cooperation and opportunity.

Thanks to energy efficiency and related refurbishments, paid for by BPA ratepayers across the Northwest since 2011, the hatchery has roughly doubled the number of fish it raises while using about half the water and energy.

The efficiency measures resulted in $431,000 in direct cost avoidance to BPA in both 2011 and 2012, meaning the project paid for itself in less than 17 months while helping the hatchery meet its production targets.

The improvements fit into the larger effort by BPA and its federal partners to rebuild threatened and endangered fish runs and to mitigate for effects of the 31 federal dams in the Columbia River Basin. This year's forecasts for fish returns to the mouth of the Columbia River are generally on the rise. They include an estimate of 227,000 spring chinook — exceeding the 10-year average — as well as 1.5 million fall chinook, 638,000 coho, 281,000 steelhead and 347,000 sockeye salmon.

The Dworshak hatchery was built in 1969 to offset the impact on North Fork steelhead from construction of the third-tallest dam in the U.S. At 717 feet, it is far too tall for fish passage. The facility shoulders a hefty roster of responsibilities every year: to rear and release 3.6 million young fish, including 2.1 million summer steelhead and 1.5 million spring chinook, fulfilling targets under the Lower Snake River Compensation Plan and various objectives of the Federal Columbia River Power System. The hatchery produces another 300,000 coho through a tribal program.

Partnering with the nearby Clearwater Hatchery, operated by the Idaho Department of Fish and Game, the hatchery was able to access a superior water supply from the reservoir behind Dworshak Dam, saving energy and reducing disease. The reservoir water is not only cleaner, but less chilly, flowing down at a temperature closer to ideal for rearing fish than supplemental water pumped up from the river.

"The biological gains and energy savings we made by being able to stay on reservoir water are fantastic," said Scott Bettin of BPA's Environment, Fish and Wildlife group.

The entire project reflects a more nuanced and integrated way of operating.

"The level of cooperation achieved among the partners would have been almost unimaginable only a few years ago," said aquatic engineer Jack Christiansen of the USFWS. "And it has created a new model that is directly applicable to other fish hatcheries nationwide."

BPA employees restore stream habitat

BPA employee volunteers spent Earth Day, May 1, improving fish habitat along Beaver Creek near the confluence with the Sandy River in Troutdale, Ore.

BPA employees put muscle behind their passion for the environment at an Earth Day event to restore a neglected watershed at Beaver Creek in Troutdale, Ore. The employee volunteers joined representatives from SOLVE (Stop Oregon Litter and Vandalism — Everyone) to remove invasive plants and restore native vegetation along the banks of the small creek near its confluence with the Sandy River. The work is part of an eight-year effort by SOLVE to restore this small urban stream.

The volunteers pulled invasive ivy and mustard garlic, and applied weed barriers and stakes to encourage native willow and dogwood to take root along the creek banks. As a final hurrah, they hurled old Christmas trees off a bridge and into the creek. The trees will lodge along the streamside, providing habitat and hiding spots for salmon fry and other critters.

The event was organized by the BPA Sustainability Team and the BPA Volunteer Program.

To see our team in action, go to *youtu.be/qCF8_tW9f3U*.

Northwest teams shine in National Science Bowl

A pair of winning teams from BPA's Regional Science Bowl delivered stellar performances at the Department of Energy's National Science Bowl, April 24–28 in Washington, D.C. A team of students from Westview High School in Beaverton, Ore., placed second in the nationwide high school competition. The Science Infinity Club of Bellevue, Wash., finished fourth in the middle school competition. Both teams advanced to the national competition after winning the BPA Regional Science Bowl in Portland, Ore., earlier this year.

"This is great news for these students, their schools and our region," says BPA Administrator Elliot Mainzer. "Westview and the Science Infinity Club exemplify a commitment to science and learning that everyone in the Northwest should be extremely proud of."

The National Science Bowl brings together thousands of middle and high school students from across the country in a fast-paced competition over four days. Each team is composed of four students, an alternate and a coach. In the quiz-show-style contest, students answer multiple-choice and short-answer questions that test their knowledge in many scientific disciplines, including astronomy, biology, chemistry, energy, mathematics, physics, earth science, computer and general science.

More than 9,300 high school students and 5,200 middle school students throughout the nation competed in regionals. Teams that won their regional competition qualified for nationals.

The team of students from Westview — Abhijit Mudigonda, Eddie Wang, Vincent Zhuang, Chris Younkins and David Wang – beat 67 other teams to make it to the finals in the National Building Museum, where it narrowly lost to three-time champion Mira Loma High School of Sacramento, Calif. The Science Infinity Club team — Rahul Chaliparambil, Veena Kollipara, Neha Nagvekar, Dhruvik Parikh and Sagarika Samavedi — finished fourth out of 48 middle school teams.

Renuka Vallarapu, coach of the Science Infinity Club, says competing with some of the smartest young minds from every corner of the nation was a tremendous experience. "The kids and I will cherish the memories for the rest of our lives," she said.

For its second-place finish, Westview will receive a five-day guided tour of Great Salt Lake Park, Yellowstone National Park and Grand Teton National Park. Both Westview and Science Infinity Club won $1,000 for their school's science departments.

Both teams earned an all-expenses-paid trip to nationals after winning the BPA-sponsored regional science bowls in late January and early February. The top three teams in the region's high school division — Westview and two teams from Interlake High School in Bellevue, Wash. — were also offered up to $85,000 in scholarships to Northwest colleges and universities.

BPA has hosted its Regional Science Bowl for 23 years as part of its commitment to encourage young minds to engage in science, technology, engineering and mathematics, as well as consider careers in these fields and the energy industry. It has become the largest regional science bowl in country, with more than 600 students from public and private schools in western Washington

and western and central Oregon competing for a spot in DOE's National Science Bowl. The BPA Regional Science Bowl is sponsored by the University of Portland, Google, Drexel University Online and Schweitzer Engineering Laboratories Inc.

Utilities connect at Efficiency Exchange

Energy-saving programs, technologies and current trends were some of the topics discussed among the nearly 500 attendees at the Efficiency Exchange, May 6–8, in Kennewick, Wash.

Co-hosted by BPA and Northwest Energy Efficiency Alliance, the annual conference provides a forum for staff from electric utilities throughout the Northwest, as well as implementers, consultants, researchers, vendors and industry partners, to exchange energy efficiency experiences and learn about the latest energy-saving innovations and programs. The Northwest Power and Conservation Council sponsored this year's event.

Now in its second year, the Efficiency Exchange has quickly become the biggest energy efficiency event in the region.

"This is the preeminent EE event in the Northwest, if not the nation," said Ross Holter, energy services supervisor at Flathead Electric Cooperative, based in Kalispell, Mont. "The content is spot on. It's really a no-brainer for us to attend."

Richard Génecé, BPA's vice president of Energy Efficiency, said the conference exemplifies the spirit that the Northwest's legacy of energy efficiency is built on. "Collaboration is a cornerstone of our rich ecosystem of energy efficiency," he observed. "And the Efficiency Exchange is a great venue for us in the industry to learn from one another and continue to embrace that spirit of partnership."

Session topics included the future of energy efficiency acquisition, industrial energy management, demand response, smart grid, smart thermostats and new technologies in the agricultural sector.

Rob Currier, energy analyst at Emerald People's Utility District of Eugene, Ore., said the PUD improved its incentives after hearing first-hand success stories from other utilities. "We picked up heat pump water heaters and tweaked and improved our offerings after last year's conference," Currier said.

One of the highlights was the keynote speaker, Dr. Greg LaBlanc of the University of California at Berkeley, who discussed how utility customers weigh costs versus rewards, and the implications those behaviors have on developing incentive programs. LaBlanc pointed out that the social influence of doing the right thing often outweighs financial incentives such as rebates. "We see a lot of conspicuous consumption, where people want to be seen doing something," he said. "And if everyone's doing it, we don't want to be left behind."

After hydropower, energy efficiency is the Northwest's next-largest power resource. Since 1980, more than half of the region's demand for electricity has been met with energy efficiency. In that time, BPA, NEEA and Northwest electric utilities have collaboratively saved more than 5 average gigawatts of energy in all sectors of the economy, including nearly 60 average megawatts in fiscal year 2013. That is enough energy to power the city of Seattle more than four times over for an entire year, or about $3.2 billion in reduced electric bills for the people of the Northwest. The region's energy conservation goals are set by the Northwest Power and Conservation Council, which includes two Council members from each of the four Northwest states — Idaho, Oregon, Montana and Washington — who serve by appointment from their governors.

Public Involvement [Updates & Notices]

AGENCY PROJECTS

Integrated Program Review [Regionwide]

BPA will hold workshops on June 18 and 19. The IPR, which occurs every two years, gives participants an opportunity to review and comment on spending-level estimates for BPA's programs before they are set for inclusion in the rate case. For information, go to *www.bpa.gov/goto/IPR.*

Spring Operations and Oversupply [Regionwide]

BPA will monitor hydropower and transmission system conditions through the spring. As conditions warrant, BPA will host conference calls to provide updates on system conditions and the potential for oversupply. Current operations information is available *at www.bpa.gov/goto/oversupply.*

BP-16 Rate Case Workshops [Regionwide]

BPA will hold a series of workshops through August in preparation for the BP-16 rate proceeding to set power, transmission and ancillary service rates for fiscal years 2016–2017. For information, go to *www.bpa.gov/goto/BP16.*

Environment Fish and Wildlife

Crystal Springs Hatchery [Bingham County, Idaho]

BPA will prepare an environmental impact statement to analyze the effects of the Crystal Springs Hatchery, proposed by the Shoshone-Bannock Tribes of the Fort Hall Reservation. The U.S. Forest Service

is a cooperating agency in the EIS. A notice of intent was published in the federal register in late May. BPA and the Forest Service will hold scoping meetings in June and accept comments through July 7. For information, go to *www.bpa.gov/goto/CrystalSprings.*

Walla Walla Basin Spring Chinook Hatchery Program [Umatilla County, Ore., and Walla Walla County, Wash.]

BPA is seeking additional public input on the proposal by the Confederated Tribes of the Umatilla Indian Reservation to construct and operate a hatchery for spring chinook salmon. BPA and the tribes have adjusted the hatchery design by replacing rectangular concrete raceways with circular tanks and are adding an alternative to the environmental impact statement that would include transferring some fish production from another facility to the Walla Walla hatchery. BPA is accepting comments on the changes through July 1. For information, go to *www.bpa.gov/goto/WallaWallaHatchery.*

POWER

Energy Efficiency Post-2011 Policy Review [Regionwide]

The next regional meeting will be June 20 in Portland, Ore. BPA is conducting this public process to review and consider improvements to its energy efficiency policy framework and associated implementation elements that were put in place Oct. 1, 2011. The Post-2011 Review will be conducted by five work groups that will discuss issues and report out at regional meetings. For information, go to *www.bpa.gov/Energy/N/post-2011/.*

TRANSMISSION

Hooper Springs Transmission Line Project [Caribou County, Idaho]

BPA released a supplemental draft environmental impact statement that includes a preferred alternative for the proposed transmission line. BPA will accept comments on the supplemental draft through Aug. 7. For information, go to *www.bpa.gov/goto/hoopersprings.*

Transmission System Segmentation Policy Review [Regionwide]

BPA is conducting a public review of its segmentation policy. This process is a result of the BP-14 rate case, in which a number of parties weighed in on a variety of segmentation concerns and offered recommendations for alternative methodologies. Segmentation is a part of the cost-allocation process in determining transmission rates. For information, go to *www.bpa.gov/goto/BP16.*

Pacific Direct Current Intertie Upgrade Project [Lake, Jefferson, Crook, Deschutes and Wasco counties, Ore.]

BPA expects to issue the final environmental assessment in June. The project includes proposed upgrades on the DC transmission line from Celilo Substation south to the Nevada-Oregon border. For information, go to *www.bpa.gov/goto/PDCIUpgrade.*

CLOSE OF COMMENT

Submit comments to *www.bpa.gov/comment.*

July 1 – Walla Walla Basin Spring Chinook Hatchery Program
July 7 – Crystal Springs Hatchery
Aug. 7 – Hooper Springs Transmission Line Project

CALENDAR OF EVENTS

Crystal Springs Hatchery Program scoping meetings

- **June 10,** 6 to 8 p.m., Shoshone-Bannock Hotel and Events Center, I-15 Exit 80, Simplot Road, Fort Hall, Idaho
- **June 11,** 6 to 8 p.m., U.S. Forest Service Office, 1206 S. Challis St., Salmon, Idaho
- **June 12,** 6 to 8 p.m., U.S. Forest Service Office, 311 North U.S. Highway 93, Challis, Idaho

Integrated Program Review workshops:

- **June 18,** 9 a.m. to 3 p.m., BPA Rates Hearing Room, 1201 Lloyd Blvd., Suite 200, Portland, Ore.
- **June 19,** 9 a.m. to 4 p.m., BPA Rates Hearing Room, 1201 Lloyd Blvd., Suite 200, Portland, Ore.

EE Post-2011 Review regional public meeting

- **June 20,** 9 a.m. to 3 p.m., BPA Rates Hearing Room, 1201 Lloyd Blvd., Suite 200, Portland, Ore.

Spring Operations Conference Calls

Meetings are tentatively scheduled for Thursdays at 1 p.m., but will only be held as conditions warrant. Check the BPA calendar for meeting notices and phone bridge information.

To view BPA's public involvement calendar, go to *www.bpa.gov/goto/calendar.* For Americans with Disabilities Act accommodations, call toll free 800-622-4519.

FOR MORE INFORMATION

Information on other projects under environmental review is available at *www.bpa.gov/goto/NEPA.*

For information about the National Environmental Policy Act in general, go to *www.bpa.gov/goto/environmentalplanning.*

The Journal is a monthly publication of the Bonneville Power Administration. If you have questions or comments, or you want to be added to the mailing list for any project, call toll free 800-622-4519.

To order copies of documents, call: 800-622-4520 or 503-230-7334. Written comments may be sent to: BPA, P.O. Box 14428, Portland, OR 97293-4428. Email address: ***comment@bpa.gov.*** BPA home page: ***www.bpa.gov.*** For details on BPA environmental reviews listed above, including site maps and documents issued to date, see ***www.efw.bpa.gov/environmental_services/nepadocs.aspx.*** Process Abbreviations: EA-Environmental Assessment, EIS-Environmental Impact Statement, ESA-Endangered Species Act, FONSI-Finding of No Significant Impact, NOI-Notice of Intent, ROD-Record of Decision.