

# BPA

**SUSTAINABILITY**  
REPORT

FISCAL YEAR  
2016





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*Cover image: Kids in the Creek at Icicle Creek, Washington*

# LETTER FROM THE CHIEF ADMINISTRATIVE OFFICER

Sustainability is everyone's job at the Bonneville Power Administration, and we do our best to integrate this ethos into all of our operations and programs. Why? Apart from the fact that it's the right thing to do, sustainability is what keeps BPA running: economic sustainability ensures we can continue to provide the public service benefits on which the region relies; environmental sustainability preserves the ecosystems on which our operations depend; and social sustainability supports a safe, diverse and stable workforce that is critical for our business. By focusing on these three pillars of sustainability — economic, environmental and social — we aim to meet our present needs without compromising future generations' ability to succeed.

BPA's sustainability effort is growing stronger and more sophisticated every day. Our new Diversity and Inclusion Office works hard to create a positive work environment and increase opportunities for our workforce. Our Safety team, too, has implemented a number of new initiatives to make sure that the health and wellbeing of our most precious resource — our workforce — is safeguarded to the maximum degree.

The 2016 sustainability report has been expanded to reflect this work and includes a larger cross-section of activities from around BPA, compared to reports from previous years. These activities include the work of BPA's Safety, Diversity and Inclusion, and Sustainability programs, as well as the Environment, Fish and Wildlife program, which oversees habitat restoration and integrates pollinator protection into project planning; the Public and Community Engagement group, which sponsors educational events and activities throughout the year; our Energy Efficiency and Distributed Energy Resources groups, which work with customers across the region on projects; and Tribal Affairs, which partners with tribes in the Columbia River Basin to ensure we meet our tribal trust responsibility.

This report highlights the work of people who care deeply for the communities and environment of the Pacific Northwest. I'm proud of what we've achieved together and look forward to further embedding sustainability into everything we do here at BPA. In a time where managing costs and ecological impacts are imperative, I am confident that we will continue to serve as an example for the region and an asset to our ratepayers.



John L. Hairston  
Chief Administrative Officer



“We will continue to serve as an example for the region and an asset to our ratepayers.”

# 2016 Sustainability Scorecard

Category	Units	Baseline Year	Baseline	FY 2014	FY 2015	FY 2016	% Change from Baseline	Cumulative Savings from Baseline
<b>FUGITIVE EMISSIONS (SCOPE 1)</b>								
Sulfur Hexafluoride (SF6)	Pounds	2010	6,473	4,645	1,547	3,535*	-45.4%	5,998
<b>PETROLEUM FUEL USE (SCOPE 1)</b>								
Aviation Fuel Consumption	Gallons	2010	124,902	139,058	128,019	141,015	+12.9%	-79,848
Gasoline Consumption	Gallons	2009	749,206	651,219	608,079	593,131	-27.3%	832,324
Diesel Consumption	Gallons	2009	264,754	314,920	326,644	316,111	+3.1%	-62,130
<b>ALTERNATIVE FUEL USE (SCOPE 1)</b>								
E85 Consumption	Gallons	2009	33,292	41,619	31,532	30,392	+6.4%	-14,860
B20 Consumption	Gallons	2009	27,893	91,849	70,543	65,513	+159.4%	-298,578
Propane Consumption	Gallons	2009	680	702	938	687	-21.5%	1,146
<b>HEATING (SCOPE 1)</b>								
Natural Gas Consumption	Therms	2010	138,999	124,765	101,909	137,776	-0.9%	33,520
<b>ELECTRICITY (SCOPE 2)</b>								
Electricity Consumption	kWh	2010	109,390,554	108,678,966	110,759,546	112,054,863	+2.4%	-6,043,859
<b>WASTE (SCOPE 3)</b>								
Waste to Landfill	Short tons	2010	635	519	561	237	-62.6%	692
Waste Diverted	Short tons	2010	1,475	1,849	3,121	2,122	+43.9%	-4,296
<b>WATER (SCOPE 3)</b>								
Water	Gallons	2008	38,611,901	30,694,411	40,248,088	31,500,000	-15.7%	27,432,832
<b>PAPER CONSUMPTION (SCOPE 3)</b>								
Paper Consumption	Reams	2008	45,597	65,595	25,845	26,828	-35.9%	18,993
<b>BUSINESS RELATED TRAVEL (SCOPE 3)</b>								
Business Air Travel	Miles	2009	4,975,620	4,720,614	6,188,089	6,086,738	+5.2%	-25,232,533

\* Tracked on a calendar year

# WHAT DOES SUSTAINABILITY MEAN AT BPA?

As with so many organizations, BPA's approach to sustainability has been a journey. When the federal government first started requiring agencies to track their environmental impacts and meet sustainability performance targets, BPA did so with an eye toward compliance.

However, as our internal Sustainability Program expanded, so did our understanding of its rewards. Managing our resource consumption not only provided environmental benefits, it inspired our workforce and uncovered efficiencies that have saved our ratepayers millions of dollars. In the past eight years, BPA has transitioned from a compliance mindset to one that continually seeks to raise the bar.

In 2016, our buildings consumed less energy and water per square foot than ever before. We won multiple awards for our industry-leading waste recovery systems, and implemented a number of innovative pilot projects that we expect will reduce our footprint even further.

Now BPA is going through yet another evolution. We recognize that we must maintain both the natural and the human systems that support our operations. Social sustainability features prominently in this report, and we are working hard to ensure that our workforce and our communities are as safe, healthy, inclusive and skilled as possible.



# OUR OPERATIONS

## Resource efficiency at headquarters

Built in 1987, BPA headquarters totals over 700,000 square feet and provides office space for more than 1,600 BPA employees and contractors. The facility accounts for a full 30 percent of BPA's total water use and 10 percent of energy consumption. Any water or energy savings at headquarters has a significant impact on the agency's overall footprint.

In 2016, the BPA Facilities team set out to reduce this resource consumption with two major projects.

### Energy efficient LED bulbs

At the start of the LED retrofit project, nearly 9,000 T8 fluorescent 32-watt lamps illuminated the building's interior spaces. While these fluorescent bulbs were cutting edge when the lighting was last upgraded in 1995, the past 20 years have seen rapid advances in lighting technology — including energy-efficient LEDs.

As the team explored its options for upgrading the lighting system, they reached out to the Energy Trust of Oregon, a local nonprofit that provides incentives for energy efficiency projects in commercial buildings. ETO ultimately provided \$116,000 in incentive funding for the project — nearly half of its total cost.

The project was completed ahead of schedule, with nearly 7,000 LED lamps installed between June and July of 2016. After the initial setup, the project team worked with employees to ensure that the new lighting met the diverse needs of the building's occupants.

Results were immediate: Within the first six months of installation, the new lighting saved the agency nearly 1 million kilowatt-hours of electricity and roughly \$65,000 in energy costs compared to the same period the previous year.

## Water efficient restroom fixtures

Headquarters' plumbing was installed with the original building nearly three decades ago, and the restroom fixtures reflected the times: urinals used three gallons of water per flush and toilets a whopping four gallons. In August, the Facilities team set out to improve these numbers by replacing the fixtures with new, water-efficient toilets, urinals, faucets and showers.

Complicating matters was the need to maintain normal bathroom operations over the entire life of the project, which included installing new pipes and new tile, and replacing the old fixtures with new ones without any service disruption. This required diligent coordination on the part of the Facilities team.

"Orchestrating an efficient construction schedule between the various trades to complete all work before 5 a.m. each day was critical for the project's success," says project manager Thornton Smith.

But it was well worth it in the end.

"Water consumption in October 2016 was the lowest recorded use for the building," reports building manager Jesse Hausmann. BPA expects the renovation will reduce water use by 62 percent compared to the previous year — that's over 4 million gallons in savings, or enough to fill six Olympic-sized swimming pools. The renovation also included installation of touch-free, low-voltage soap and paper towel dispensers, improving both hygiene and convenience for building



**“Water consumption in October 2016 was the lowest recorded use for the building.”**

## BPA's sustainability awards

### 2011

- EPA Federal Electronics Challenge, Silver
- DOE Achievement Award, Fugitive Emissions Working Group

### 2012

- EPA Federal Electronics Challenge, Platinum

### 2013

- DOE Sustainability Awards, Sustainable Communications

### 2014

- EPA Federal Green Challenge, Transportation
- NEEA Kilowatt Crackdown, Highest Performing Building (Inaugural Year), Portland headquarters

### 2015

- Federal Green Challenge, Waste, Seattle Federal Office Building Green Team

### 2016

- Federal Green Challenge, Purchasing
- Federal Green Challenge, Waste
- Association of Oregon Recyclers, Recycler of the Year (Government), Kevin Kertzman, property disposal officer



occupants. These new appliances are all solar-powered, eliminating the use of batteries and their end-of-life waste.

The LED lighting retrofit and bathroom renovation projects save BPA between \$11,000 and \$17,000 in utility costs each month and go a long way toward meeting the agency's 2025 energy and water-use efficiency targets.

"We're proud to have pulled off two projects of this scope, with minimal employee disruption, in an occupied building," says Jennifer Williams, Workplace Services energy management engineer. "The team really pulled together to execute the project seamlessly. A sustainably-run, cost-effective building is a great way to make both our staff and our ratepayers happy."

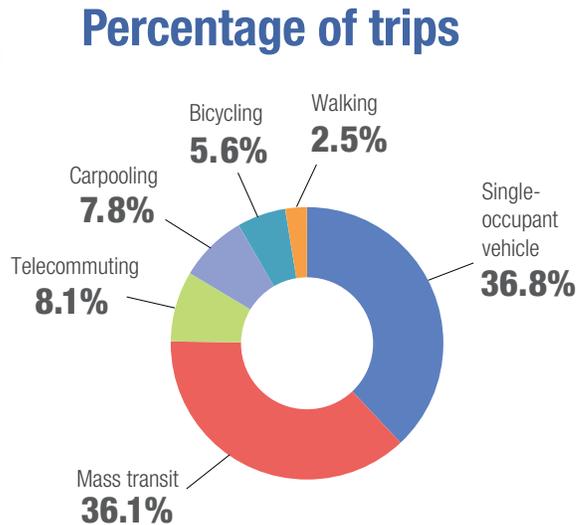
**LED UPGRADES SAVED  
942,000 KWH  
ELECTRICITY IN THE FIRST  
6 MONTHS**

**EQUIVALENT TO  
THE ANNUAL CONSUMPTION  
OF  
52  
AVERAGE  
U.S. HOMES**

## Improving commuting habits

BPA's Transportation Services group works hard to promote alternative forms of commuting — mass transit, cycling, carpooling and vanpooling. While BPA has many incentives for alternative transportation, encouraging the workforce to try new things and change habits is always a challenge.

But the Transportation team is up to the task. In August 2016, the annual Transportation and Sustainability Fair took place at BPA's Portland headquarters and at the Ross Complex in Vancouver, Washington. Over 20 exhibitors showcased creative, sustainable ways for BPA workers to reduce their commuting footprint.



## ALTERNATIVE TRANSIT INCENTIVES

- Subsidized transit programs
- Bicycle commute expense reimbursement program
- Bicycle commuter locker, gear room, shower access and maintenance stations (site specific)
- Covered bike parking (site specific)
- Bicycle loaner program (Portland headquarters)
- Bicycle buddy program
- Commuter carpool preferred parking (Van Mall/Portland headquarters)
- Qualified vanpool commute expense reimbursement program

**“We love helping employees understand all our programs, commute options and incentives. It’s great to know that we contribute to reducing BPA’s carbon footprint, as well as traffic congestion on our roadways.”**

**— Frank Dunn,  
Operations and Planning Specialist,  
Transportation Services**





Participants in the  
**BPA e-Cycle Day**  
recycled  
**10,970 pounds**  
of personal electronic equipment



The Transportation group encouraged attendance through shuttles, free food and trivia games.

In addition, the group recently completed its transition to a completely paperless enrollment program, allowing employees to register for incentives online — another effort to lower barriers to participation.

While there is still work to do, a 2016 survey on the commuting habits of employees in Portland showed alternative transportation accounted for over 60 percent of their trips.

## Encouraging employees to do their part

Earth Day has long been a chance for BPA employees to step out of their normal routines to take additional steps to help the environment. In 2016, more people than ever took advantage of this opportunity through two events organized by the Sustainability Program: the Personal Electronics Recycling Day and the Forest Park service event.

### Personal Electronics Recycling Day

BPA's Personal Electronics Recycling Day (e-Cycle Day) gives its workforce the opportunity to recycle their unwanted electronic equipment at zero cost. The Sustainability Program invited IMS Electronics Recycling, a regional e-waste recycler, to set up two drop-off sites at BPA's main offices in Portland, Oregon, and Vancouver, Washington.

As in previous years, the event was a success: employees and contractors dropped off nearly 11,000 pounds of personal electronics over the course of the day.

"I was hugely impressed by the turnout for the event," says Steve Sander, environmental physical scientist and the driving force behind e-Cycle Day in Portland. "We topped our 2015 total by over 1,000 pounds. Staff continue to appreciate the opportunity to dispose of their electronics in a responsible way."

## Forest Park service event

Nothing says “I ♥ nature” like time spent in the woods. Over 75 BPA employees, including 26 executives, spent the afternoon of April 21 replacing culverts, installing drains, building walls and laying gravel to repair a damaged pathway along Portland’s popular Wildwood Trail. To do this, BPA partnered with the local nonprofit Forest Park Conservancy.

“With the help of BPA volunteers, we repaired and leveled 1,320 linear feet of damaged trail, and cleared back encroaching vegetation to open up 2.3 miles of trail,” reports Guy Maguire, volunteer and outreach coordinator at Forest Park Conservancy. “It was a pleasure working with the BPA team. They came with a great attitude and we had fun. We also got a lot of work done!”



Forest Park  
service event volunteers  
repaired  
1,320 feet of trails  
and cleared  
**2.3 miles**  
of vegetation.



## KEVIN KERTZMAN, PROPERTY DISPOSAL OFFICER

Kevin Kertzman ensures that the assets received at BPA's Investment Recovery Center are disposed of in the most efficient, economical and environmentally sound manner possible. Sometimes this means developing relationships with other government and community partners — relationships like the ones with Oregon Department of Corrections and Providence Health and Services (see story page 12). In 2016, Kevin won the Recycler of the Year Award in the government category from the Association of Oregon Recyclers.

### *WHAT DO YOU FIND MOST REWARDING ABOUT YOUR WORK?*

I would say the knowledge that the hard work being done at the Supply Chain's IRC is not only a substantial benefit to BPA, but also our local community. By repurposing items that would normally be considered scrap, we are helping others meet their sustainability responsibilities.

### *WHAT ADVICE WOULD YOU GIVE TO OTHERS WHO WANT TO MAKE A POSITIVE DIFFERENCE?*

Don't be afraid to ask questions. I have noticed that sometimes assets that have been sitting in plain sight for years become part of the background, and the value of these assets is sometimes forgotten. If you see something that looks like it can be reused, ask the question!

## Reducing, reusing, recovering investments

In 1986, BPA outfitted its headquarters with metal cubicle workstations. Almost 30 years later — as offices were refurbished and storage reached capacity — BPA's Investment Recovery Center had to find a new home for more than 40 tons of equipment. Sending the still-useable cubicle systems to the landfill did not align with BPA's vision for environmental stewardship.

The IRC seeks to recycle or repurpose unwanted or excess material. Its first choice would have been to sell the office systems, but their age and condition led to few takers. And in the meantime, storage costs for the excess furniture totaled nearly a thousand dollars a month. After investigating options for about a year, the IRC's efforts bore fruit. Providence Health and Services — a regional nonprofit health system — used the same workstations in their offices throughout Washington and Oregon, and needed the exact panels, desks and filing cabinets that BPA could provide.

Later in 2016, the IRC connected with the Oregon Department of Corrections, which manages the Reuse Center, a skill-building program for adults in custody that teaches furniture repair and restoration. The center enables participants to learn a useful trade while giving unwanted office systems new life. The partnership between BPA and ODOC provides the program with a steady supply of retired workstations.



BPA's waste reduction partnerships have saved the agency **\$35,000** in storage fees over the past two years.

An estimated **40 to 50 tons** of waste have been diverted from the landfill and scrap market.





## Improving stormwater systems

BPA's Pollution Prevention and Abatement Program provides environmental compliance and pollution prevention oversight for the operation and maintenance of BPA's transmission system. PP&A's approach is to reduce BPA's risk in polluting the environment by staying ahead of the laws — to keep an eye on what the regulatory arena is doing, and implement measures before they become mandatory. This is good for the environment and it also tends to save ratepayers' funds. BPA's work in environmental protection is so effective that Duke Energy, Portland General Electric, Northwest Public Power Association and others have come to the agency to get ideas for their own environmental protection programs.

Between June and September 2016, the PP&A team completed drainage inspections at more than 30 BPA facilities and upgraded drainage systems at the Burnt Woods, Marion, Covington, Big Eddy, SnoKing and Snohomish substations. These projects reaped immediate benefits. When Marion Substation experienced a reactor failure in August, no oil was released into the environment. This is entirely thanks to the newly upgraded containment system that had been completed five months prior.

New infrastructure at Covington Substation — two catch basins designed to collect and provide natural filtration for stormwater — provides protection for a nearby fish-bearing stream. The sensitive ecosystem now has an additional buffer from potentially hazardous runoff. This is an excellent example of PP&A's proactive approach to environmental protection. The new system removes potential contaminants from stormwater before the runoff discharges from the site into the Jenkins Creek streambed. By installing the stormwater protection system, BPA is prepared to comply with upcoming stormwater regulations and better protects the stream.

Covington Substation infrastructure upgrade

“Federal laws — including the Clean Water Act, Safe Drinking Water Act and Endangered Species Act — as well as state and local laws require that all stormwater systems be properly inspected, operated and maintained to prevent illicit discharges from entering the environment,” reports Steve Sander, environmental physical scientist. “Along with keeping the site from flooding, properly maintained stormwater systems can help reduce surface water and groundwater pollution. Storm system maintenance is necessary to protect streams, lakes, wetlands and groundwater.”

### **Ross Complex drainage pipe replacement**

In January 2016, the PP&A program responded to a drainage system failure at the BPA Ross Complex in Vancouver, Washington. The combination of heavy rainfall and an aging drainage pipe system had resulted in slope failure, erosion and degradation to the surface water receiving this flow. The outfall pipe needed to be secured, the flow controlled and the bank stabilized to remediate the discharge, protect water quality in the creek and avoid a compliance violation.

The team completed an emergency project and ensured that the discharge did not end up in a sensitive stream. Restoration efforts involved close work with the City of Vancouver and Washington Department of Transportation.



# OUR NATURAL ENVIRONMENT

BPA manages the largest fish and wildlife protection program in the nation. We are adding fish to the rivers and so much more.

The Northwest Electric Power Planning and Conservation Act directs BPA to protect, mitigate and enhance fish and wildlife in the Columbia River Basin in a manner consistent with the Act, and also consistent with the fish and wildlife program developed by the Northwest Power and Conservation Council. The Act also requires equitable treatment of fish and wildlife with other purposes of the federal hydroelectric facilities. In addition to the Northwest Power Act, BPA's actions are governed by a number of other laws and policies, including the Endangered Species Act.

The electric ratepayers of the Northwest fund BPA's Environment, Fish and Wildlife program, which provides the required mitigation for the effect of the dams. A primary focus of our work occurs at the dams themselves, with enhanced fish passage. At the dams, performance standards are 96 percent passage for spring-migrating fish, and 93 percent passage for summer-migrating fish. We are on track to meet or exceed these objectives by improving the ability of fish to travel through the dams at the surface of the water (like in a natural river), and by tailoring spill at each dam.

Because the federal dams still have effects, even after improved passage, BPA and other federal agencies implement habitat and hatchery enhancements. We are restoring fish habitat in tributaries of the mainstem river and the estuary. Habitat restoration projects include such things as adding water to streams, opening up side channels to provide refuge and rearing habitat, opening up floodplains, and protecting land through conservation easements and purchases.



*Measuring fish growth in reconnected habitats is one of several tools used to evaluate the success of restoration actions.*

## Protecting and restoring the Columbia River estuary and tributaries

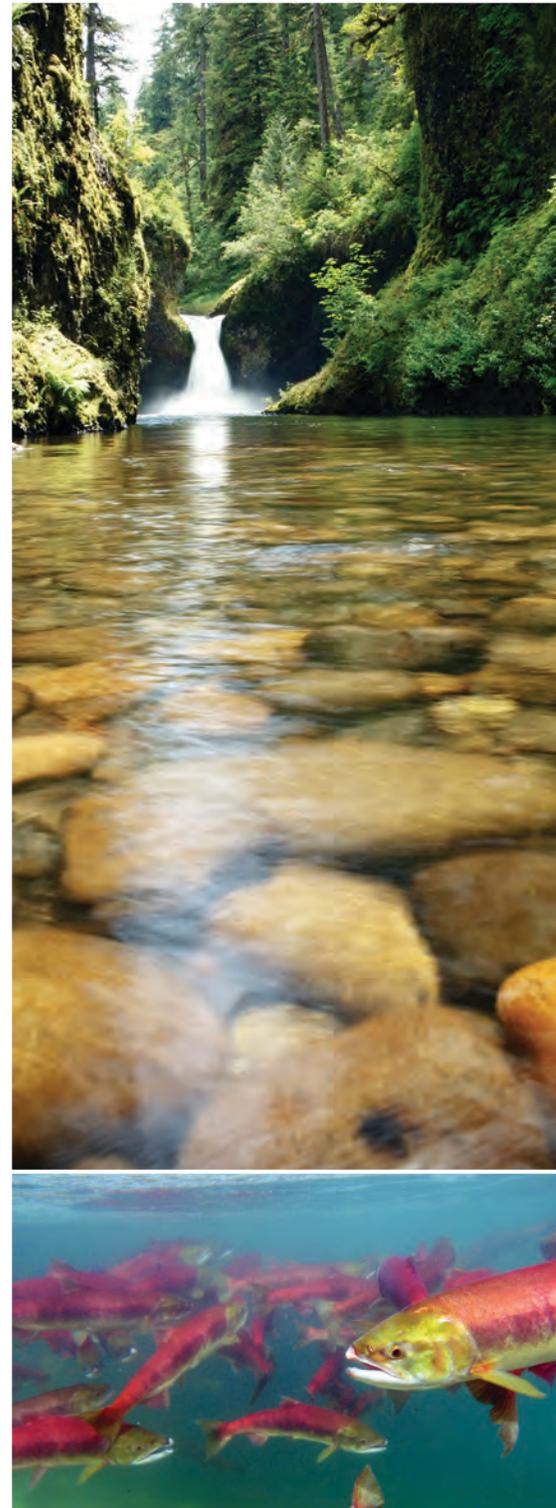
Productive habitat in the Columbia River tributaries and the estuary are critical to the life cycle of salmon and steelhead. BPA has funded thousands of projects across the Columbia River Basin to restore natural stream channels, improve habitat conditions, enhance flow volume and timing, expand cold water refuges and open access to habitat.

Through a strong network of conservation partnerships, BPA is able to deliver many diverse projects that fulfill mitigation responsibilities and will shape the region for generations to come. We are proud of our partners, which include tribal, state, local and federal entities. With these partners, BPA breaches levees and removes dams to increase the volume of water in streams, removes fish passage barriers, and protects and enhances riparian areas along tributary streams.

These actions provide both near-term and long-term benefits, including addressing the effects of climate change. Actions that improve connectivity and stream flows will provide a buffer against the effects of climate change on peak flows, low flows and stream temperatures. Through intensive monitoring, we gain a better understanding of how our projects guard against the effects of climate change. This information also allows the agency to prioritize habitat



*Kandoll Farms Estuary Restoration, Wahkiakum County, Washington*



## HABITAT ACCOMPLISHMENTS

- From 2007 to 2016, the tributary habitat program has protected more than 394,231 acre-feet of water, reopened more than 3,764 miles of fish habitat, and restored 443 miles of stream habitat complexity.
- In 2016, BPA completed 47 water acquisitions, which will restore up to 230 cubic feet of water per second and approximately 38,000 acre-feet of water per year to help enhance habitat in critical tributaries.
- The estuary habitat program continues work on both small and large projects throughout the lower 146 miles of the Columbia River. In FY 2016, project sponsors completed another seven projects in the estuary, restoring access to an additional 1,000 acres of floodplain habitat.

Habitat miles opened up equivalent to nearly **3** times the length of the **Columbia River**.

projects that will support the resiliency of threatened and endangered species over time and in a changing landscape.

### Lochsa River Basin

An excellent example of partnership and successful restoration work can be seen in the Lochsa River Basin. For 21 years, BPA has worked collaboratively with the Nez Perce Tribe and the Nez Perce-Clearwater National Forest to restore anadromous and resident fish habitat in the Clearwater and Salmon river subbasins of Idaho. BPA provides strategic habitat restoration planning, prioritization and funding; the Nez Perce Tribe is the prime contractor for project implementation; and the Forest Service provides environmental compliance services, subcontract administration and cost-share funds. In 2016, this partnership replaced a passage barrier culvert in Powell Creek, a tributary of the Lochsa River that restored access to three miles of important spawning and rearing habitat for steelhead, chinook salmon, bull trout and lamprey.



Tributary and estuary habitat projects in the region

In 2016, these partners also installed four beaver dam analogues — essentially man-made beaver dams — along two miles of Pete King Creek, another tributary of the Lochsa River. Pete King Creek now has:

- Deeper, low flow pools for juvenile salmonid winter rearing;
- Enhanced complexity and improved summer rearing conditions;
- Enhanced predation protection for juvenile salmonids;
- Restored floodplain connectivity; and
- Improved water temperatures and greater flow retention, which can help lessen the effects of climate change.

### Grande Ronde River Subbasin

BPA worked with the Confederated Tribes of the Umatilla Indian Reservation to purchase Lookingglass Ranch in 2016. This 666-acre purchase of private land above the Lookingglass Spring Chinook Hatchery in northeastern Oregon protects spring chinook salmon, steelhead and bull trout habitat on 2 miles of Lookingglass Creek, as well as upland habitat for deer, elk, bears, cougars and other wildlife.

The ranch is near a major tributary of the Grande Ronde River, and the creek is the main water source for Lookingglass Hatchery. The creek is also an important fishing area, both below and above the hatchery. This strategic land acquisition protects and leverages earlier conservation investments providing greater cumulative benefits for species conservation.

### Westport Slough Project

The Columbia River Estuary Study Taskforce, a community organization specializing in environmental planning and habitat restoration, is partnering with the U.S. Fish and Wildlife Service to improve the Julia Butler Hansen Refuge. This project has already reconnected the Westport Slough, a 50-acre site within the refuge, with the larger Westport Slough complex.



*Top and middle: Powell Creek Culvert, a tributary to Lochsa River, before and after restoration*

*Bottom: One of seven breach sites on the Westport Slough site*

In 2016, with funding from BPA, the project partners were able to remove over 1,560 feet of a levee and recreated four historical channels to give fish access to the rich and complex scrub-shrub and forested marsh habitat that once dominated the lower Columbia estuarine floodplains.

## Protecting pollinators for the future

In response to the nationwide decline in pollinators, the federal government created the National Strategy to Promote the Health of Honey Bees and Other Pollinators. As part of this strategy, the U.S. Department of Energy developed a Pollinator Protection Plan. Within BPA, the Environmental Compliance Group is developing operating procedures to integrate pollinator protection into project planning workflows.

On about two-thirds of BPA rights-of-way — over 175,000 acres — the agency manages vegetation to promote a low-growing plant community. This keeps vegetation at an early ecological stage that encourages low-growing herbaceous and shrubby species that provide food sources, shelter and habitat for pollinators.

When BPA cuts the woody vegetation in transmission rights-of-way, it is left on the ground and the resulting scatter of bark and branches creates debris that provides habitat for ground-nesting bees. Periodic treatment of noxious weeds within the rights-of-way further promotes the establishment of desirable flowering plant species.

“BPA’s best management practices are developed based on an ongoing utility vegetation management study that has been active since 1952,” reports Steve Narolski, Vegetation Program manager. “One demonstrated by-product of maintaining low-growing vegetation under energized power lines is the promotion of more flowering plants, along with improved elk and deer habitat.”

BPA is also working to incorporate pollinator habitat into other major agency projects, such as transmission line rebuilds and new construction. Where possible, existing pollinator habitat is protected,



and noxious weed species such as knapweed are treated. Areas disturbed by construction activities that are appropriate for native species are revegetated with native species that benefit pollinators.

At the Hanford Site in Richland, Washington, wood pole transmission lines that were built in the 1940s must be replaced to ensure safe and reliable operation. BPA is working to revegetate roughly 50 acres of the public land disturbed by construction activities with native species that promote pollinators.



Increasing pollinator habitat promotes the growth of native plants like salmonberries, a traditional tribal food.



Hanford National Monument native plant habitat

## WHAT ARE POLLINATORS?

Animals, mainly insects, serve as pollinators for many plant species. They carry pollen from plant to plant, fertilizing them in the process. Pollinators are a fundamental component of our ecosystems. According to the U.S. Forest Service, they enable over 75 percent of our food crops to bear fruit and reproduce and pollinate about 80 percent of our flowering plant species overall.

Yet despite the crucial part they play in plant reproduction, many pollinators are under threat due to habitat loss, pesticides and diseases. This has potentially devastating effects on our food systems and the plant communities that support our fish and wildlife.





EMPLOYEE SPOTLIGHT

## KIMBERLY ST.HILAIRE, ENVIRONMENTAL PROTECTION SPECIALIST

Kimberly St.Hilaire is an environmental protection specialist in BPA's Environmental Planning and Analysis group. She and her team conduct environmental reviews for transmission projects — this includes transmission lines, substations, and fiber and radio sites, among others. Kimberly promotes practices that support BPA's goal of environmental stewardship and promotes pollinators and the plant communities they rely on.

### *WHAT DO YOU FIND MOST REWARDING ABOUT YOUR WORK?*

Finding creative ways to meet BPA's natural resource stewardship objective, with a focus on best management practices that encourage healthy plant communities in BPA transmission line corridors and facilities.

### *WHAT ADVICE WOULD YOU GIVE TO OTHERS WHO WANT TO MAKE A POSITIVE DIFFERENCE?*

Encourage and participate in open, honest dialogue; don't hesitate to offer your perspective and contribute your skills!

# OUR PEOPLE

## Expanding and exploring diversity and inclusion

BPA's senior management team has a vision of creating an innovative organization with an environment where talents and differences of all employees are respected and valued. The Diversity and Inclusion Office was launched in April 2016 in response to a comprehensive assessment of inclusion efforts across the agency. The office encourages self-awareness and safe dialogue to foster a sustainable culture of inclusion where people feel valued and accepted, and where diverse teams are created and supported.

Over the past year, BPA has expanded the diversity trainings offered to employees, recognizing the limitations of the standard one-size-fits-all information sessions. The following courses were added in 2016:

- Cultural Competence and White Privilege
- Cross Cultural Communication Skills
- Tribal Governance, History, Culture and Communications at BPA
- Working with People with Disabilities
- Building and Maintaining an Inclusive Workforce
- Exploring Values Differences
- Understanding How our Perceptions Affect Workplace Interactions
- Mindfulness: Making Minds Work Better
- Empowerment: Responsibility and Accountability in Achieving Outstanding Results
- Understanding Gender Differences



*Top: Employees participate in a workshop focusing on BPA diversity and inclusion efforts.*

*Middle: Holocaust survivor and author Alter Wiener, who presented at BPA on Holocaust Remembrance Day*

*Bottom: Employees learn to make arrowheads from Confederated Tribes of the Grand Ronde.*



## MARIA MONDRAGON-ALMY, DIVERSITY AND INCLUSION PROGRAM MANAGER

Maria Mondragon-Almy is the Diversity and Inclusion program manager at BPA. Her main role and responsibilities are to provide strategic guidance and collaborative development of D&I strategies and programs that are aligned with BPA's business goals, and to lead and influence the implementation of initiatives that support the building and maintenance of a culture of inclusion across Bonneville. A big part of that work is to bring people together through different arenas of dialogue when there are high stakes, opposing views or high emotions.

### *WHAT DO YOU FIND MOST REWARDING ABOUT YOUR WORK?*

Diversity allows us the ability to solve problems that we are facing as an organization in a more inclusive way. When we are able to bring everyone's voice into the room and share our stories it allows individuals to find strength in vulnerability, and that is what I find most rewarding.

### *WHAT ADVICE WOULD YOU GIVE TO OTHERS WHO WANT TO MAKE A POSITIVE DIFFERENCE?*

Remember that it starts with you: Having empathy should be at the core of everything that we do. When we are feeling uneasy with something, ask those clarifying questions and, most importantly, don't shy away from crucial conversations. It can make a world of difference when you are able to communicate with someone and clarify the story you are telling yourself.

## Tribal training

Each year, BPA coordinates trainings on federal Indian policy, history, culture and how to effectively work with the more than 50 federally recognized tribes in BPA's service territory. Multiple BPA organizations work together to deliver education programs for staff across the agency. In total, BPA offered 33 trainings across 17 locations, reaching over 1,800 managers and staff in fiscal year 2016. The courses offered include:

- Working effectively with tribes
- Let's Talk Culture: Tribal Identity
- Tribal culture and consultation (provided by the Confederated Tribes of the Grand Ronde)
- Tribes and the Supreme Court
- Indian Nations' Relationship with U.S.

"There has been great feedback from training participants," Tribal Affairs Manager Ken Johnston explains. "Many participants shared that much of the information is new to them and relevant to their work — this is not stuff you learn in high school or even college."

Many of the courses were offered in collaboration with local tribal government representatives. BPA partners with the Confederated Tribes of the Grand Ronde to offer the Tribal Culture and Consultation training for 30 BPA employees each year. This two-day training dives deep into tribal perspectives about cultural and natural resources, and

## EMPLOYEE RESOURCE GROUPS

The BPA Pluralism Council is a volunteer employee-driven organization that functions with the support of the Diversity and Inclusion Office. The pluralism council serves as an umbrella for employee resource groups and channels issues to the Diversity and Inclusion Office and senior leadership.

Employee resource groups:

- African American Resource Group
- American Indian/Alaskan Native Council
- Christian Values Resource Group
- Disability Awareness Resource Group
- Gay, Lesbian, Bisexual and Transgender Employees Resource Group
- Military Veteran's Resource Group
- Women's Resource Group

*Tribal culture and consultation training*



government-to-government consultation. The training also provides insights into tribal traditions and history, and facilitates meaningful dialogue with tribal representatives. Each year, several participants share that the training is relevant, enlightening and one of the best trainings they have taken during their career at BPA.

## Leadership training for a safer workplace

In 2016, BPA rolled out Safety Leadership Training for Field Personnel, a new program for Transmission field managers and supervisors. The course has since been modified for managers and supervisors from every department at BPA. “It’s a one-BPA safety leadership course,” explains Jeff Bartlett, BPA’s safety training manager, “that benefits all managers and supervisors, regardless of working environment.”

Critical learnings include:

- Managing safety change;
- Understanding and promoting safety culture;
- How to effectively practice ‘see something, say something and do something’; and
- How to effectively spot workplace hazards and develop plans to mitigate them.



Many students consider the course to be extremely valuable. “This has been some of the most effective and impactful training I have taken in my 30-plus years at Bonneville Power,” says Mike McCracken, district manager from Kalispell.

The multi-day course brings in subject matter experts from outside of the agency. Six cohorts with a total of 115 managers and supervisors have graduated from the program, and next year BPA expects many more.

## Stand Up for Safety

BPA’s annual safety week, Stand Up for Safety, is an opportunity for an agencywide discussion of safety and the proactive measures we can take to reduce incidents and injuries. The five-day event is a significant commitment by the agency to create a safer work environment through engaging the workforce, managers and executives in authentic conversations about safety.

In 2016, the theme was “personal preparedness and resilience.” Activities and speakers highlighted the importance of safety at home, work and on-the-go, while demonstrating the actions the workforce can take to keep themselves and their families safe.

Stand Up for Safety took place during the same week as the Cascadia Rising Exercise, an event sponsored by the Federal Emergency Management Agency designed to test the region’s response to the long-predicted 9.0 magnitude earthquake along the Cascadia Subduction Zone. While just over 100 BPA staffers had designated roles in the exercise, the overlap with safety week gave all of BPA the opportunity to take part in related preparedness activities.

The event kicked off June 6 with a BPA-wide event that brought Alice Busch, Operations Division Chief from the Multnomah County Office of Emergency Management, to speak to the workforce about personal preparedness, including the importance of social connection in disaster situations.





## BUILD-A-KIT PREPAREDNESS CHALLENGE

As part of the lead-up to safety week, the Build-a-Kit Preparedness Challenge encouraged individuals and work groups across the agency to send in pictures of their emergency kits at work, at home and in their vehicles. The response was overwhelming — 1,700 people took part in the challenge, and several groups clocked in with a 100 percent participation rate.

“We used to say, ‘make a kit, make a kit, make a kit.’ That’s what you’d hear from disaster preparedness professionals,” Busch said during her remarks. “Nowadays what you’ll hear us say is, ‘make some friends, make some friends, make some friends,’ because making friends is a much stronger disaster resilience trait. We are a herd species. We are not independent. We need one another.”

In addition, BPA held safety fairs at its two Vancouver campuses and Portland headquarters. Speakers and exhibitors showcased the tools and know-how that can make all the difference in a disaster situation. Multiple full-day safety events were held in BPA’s more remote locations across the Northwest to ensure participation from all areas of the region.

“Our people had multiple opportunities to learn more about preparedness and resilience, and they showed creativity and individual accountability by building their own emergency kits,” says Yvonne Johnson, Stand Up for Safety project manager. “This preparation helps us work toward a ‘safety first’ mentality, so safety is a forethought to reduce and prevent incidents.”





# OUR COMMUNITY

## Connecting with STEM college students

Since 2006, BPA has partnered with the American Indian Science and Engineering Society to offer engineering and fish and wildlife internships to Native American students in STEM fields — science, technology, engineering and math. BPA implements the fish and wildlife internship through a partnership with the Yakama Nation to provide an eight-week field experience at the Cle Elum Fish Hatchery in Washington. These internships build relevant, valuable and highly applicable skills for the participants. Over the lifetime of the partnership, several AISES interns have participated in BPA's Career Pathways Program, designed to develop talent and foster federal service, and are now BPA employees.

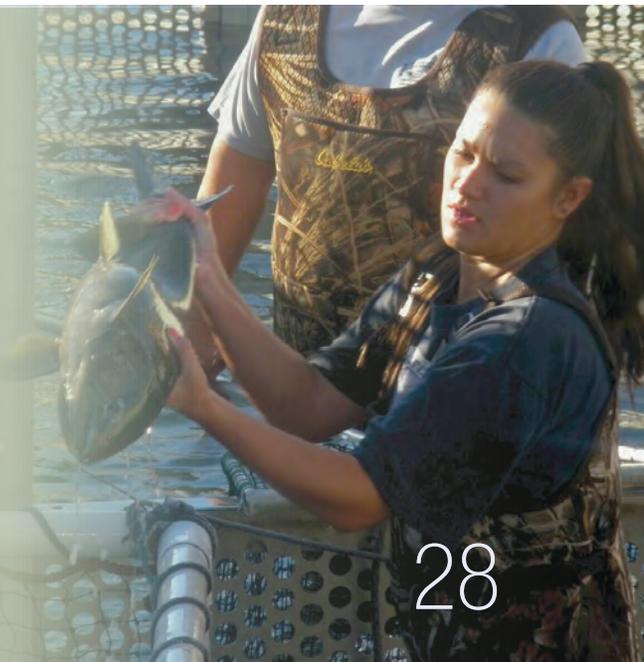
In 2016, two interns were placed at BPA. Sage Wagner of the Laguna Pueblo Tribe, who is an engineering student at the University of New Mexico, worked with an engineering workgroup in Transmission Services. Kimberly Stewart of the Yakama Nation, who studies biology



*Kimberly Stewart, 2016 AISES intern at BPA*

**“In 10 weeks, the AISES internship provides benefits and experiences that would otherwise take years. The internship is unique in providing opportunities that lead to positive accomplishments and educational and career advancements.”**

**— Siena Lopez-Johnston,**  
Fish and Wildlife Administrator at BPA  
and a former AISES intern





Right: Marcy and other American Indian/Alaskan Native Council members Corrina Ikakoula and Bryan Mercier, at AEA award ceremony.

EMPLOYEE SPOTLIGHT

## MARCHELLE (MARCY) FOSTER, TRIBAL ACCOUNT EXECUTIVE

Marcy Foster is a tribal account executive who coordinates with BPA’s Environment, Fish and Wildlife program and serves as a point of contact for the upper Snake River tribes. Marcy is one of the key organizers of Tribal Affairs’ “Working Effectively with Tribes” and “Let’s Talk Culture” trainings during Native American Heritage Month. In 2016, she was one of the American Indian/Alaskan Native Council recipients of an Administrator’s Excellence Award for Extraordinary Team Accomplishment for their efforts to advance BPA’s diversity and inclusion culture.

### *WHAT DO YOU FIND MOST REWARDING ABOUT YOUR WORK?*

It is rewarding to work with tribes in the Columbia River Basin on fish and wildlife issues, and helping our agency meet its tribal trust responsibility and mission. I believe BPA is a good example of how federal agencies can work effectively with tribes. I also really like sharing my academic and personal knowledge on Native American history, and also sharing my experiences being Laguna Pueblo through our trainings. I am proud that we receive positive feedback from our trainings, and that I am adding value to BPA.

### *WHAT ADVICE WOULD YOU GIVE TO OTHERS TO MAKE A POSITIVE DIFFERENCE?*

Keeping your mind open to different perspectives and having safe, open dialogue is not only a great way to learn from others, but is also a great way to problem-solve for a good outcome.

at Heritage University, was placed in the BPA Environment, Fish and Wildlife organization. She helped manage the Cle Elum Fish Hatchery, learning about hatchery operations and assisting with monthly juvenile fish sampling. During her internship she attended the Yakima Basin Science Conference and developed a formal presentation showcasing her field learning experience.

## Kids in the Creek

Is there anything more exciting than mud? Not to the grade-school kids who have participated in BPA's Kids in the Creek program for the last 20 years. Through Kids in the Creek, thousands of central Washington's third and fourth graders have pulled on heavy-duty rubber boots to learn about the complex ecosystem of Icicle Creek in Leavenworth, Washington.

This year, Kids in the Creek took place mid-September and reached over 500 students. The program takes place during the Wenatchee River Salmon Festival and is an integral part of BPA's efforts to promote environmental education in the local community. It's also a meaningful experience for the dedicated volunteers who make the program happen.





## The 25th annual BPA Science Bowl

In 2016, BPA celebrated the 25th anniversary of its biggest and most public STEM outreach event: the BPA Regional Science Bowl. More than 700 middle and high school students in 130 teams participated at the University of Portland campus over two action-packed Saturdays in January and February.

“We are extremely proud to sponsor such a vibrant regional science bowl, and we’ve been committed to its success every year for a quarter of a century,” said BPA Administrator Elliot Mainzer. “This exciting event not only celebrates academic skill and endeavor, but it also helps seed the development of the next generation of scientists, engineers, mathematicians and technologists for the Northwest and the nation.”



High schoolers  
vie for more than  
**\$300,000**  
worth of scholarships  
offered by **17** regional  
colleges and universities.

Over **190** BPA employees  
and contractors volunteered over  
**1,200 hours**  
to make the event a success.

## Working with states and tribes on low-income energy efficiency

For the past several decades, BPA's Low-Income Energy Efficiency Grant Program has helped qualified low-income families fund energy-saving improvements in their homes. In FY 2016, the program distributed approximately \$5.4 million toward these projects. BPA partners with the states of Washington, Oregon, Idaho and Montana, as well as federally recognized tribes within the region to implement the program — mostly through community action agencies, tribal housing authorities and various social services departments.

The program promotes low-cost efficiency measures such as:

- Switching out inefficient appliances with new high-efficient models;
- Upgrading to more efficient lighting;
- Installing ductless heat pumps; and
- Providing whole home weatherization through detailed energy audits from Department of Energy certified energy auditors.

The program serves between 700 and 900 households each year and involves a strong education component. DOE certified specialists help residents save money through energy conservation measures that also improve safety and indoor air quality. Cumulatively, the program is estimated to have saved 9 average megawatts in its three decades of existence, and saves low-income families an average of \$250 to \$450 a year on their utility bills. One participant reported, “We are so cozy now, summer and winter.”

BPA also provides technical training for individuals employed by the tribes to become DOE certified weatherization providers. BPA program manager Carrie Nelson explains, “Over the years, together we have developed strong collaborative partnerships. DOE certified trainers and BPA work together to improve the program and training curriculum. Tribes work with each other to share resources and technically trained staff. DOE certified trainers have started to collaborate with tribes to



Top: Participants in weatherization training

Middle: Thermal image of participants, a technology used in weatherization projects

Bottom: Ductless heat pump



Mike Vraneza at MGTV Photography

co-host trainings. Recently, we all worked together to provide an on-site training that resulted in a retrofit of a low-income tribal member’s home. I feel proud of the work BPA and its partners do each year to assist families and save energy across the northwest.”

## BPA partners with neighbors

BPA’s headquarters building is located in the heart of the Lloyd District in Portland, Oregon. This provides the Sustainability Program a unique opportunity to participate in the Lloyd EcoDistrict, a community organization that works to make the area — including its 24,000 workers and 11 million square-feet of development — “the most sustainable business district in North America” by focusing on energy efficiency, waste management, water use and transportation.

BPA has been a partner in this effort since 2012, participating in both the energy efficiency and waste reduction working groups.

“BPA has been a dedicated and exemplary stakeholder in Lloyd EcoDistrict activities,” comments Courtney Cross, program manager at Lloyd EcoDistrict. “Their expertise has added significant value to our efforts to reduce energy use as a district. We also look to BPA as innovators in waste management and hope to model our district-wide waste reduction efforts on their example.”



Lloyd EcoDistrict Waste Reduction Action Plan working group

# VISION

BPA's approach to sustainability is — and always has been — built on the agency's core values of safety, trustworthy stewardship, collaborative relationships and operational excellence. These core values lead us to practices and outcomes that nurture our workforce, support our business, and maintain the natural ecosystems on which we and our communities rely.

The 2016 Sustainability Report showcases just a fraction of the good work we've done over the past year. These accomplishments are only the beginning. We will deepen its exploration of how environmental, economic and social sustainability intersect at BPA. We will maintain the momentum that has brought us this far and continue to adopt and define best practices. BPA has been a driving force for economic prosperity and environmental sustainability in the Northwest for nearly 80 years. It is our honor to continue this legacy for generations to come.

