

Chelan PUD Sustainability Report 2016

Compliance Management

Our goal is to closely monitor regulations regionally and nationally to ensure our sustainability principles are consistent with those regulations. We maintain programs and procedures to ensure compliance. In 2016 we:

- Monitored regulations for requirements applicable to the District
- Conducted ongoing compliance activities including, but not limited to energy conservation, renewable resources, the environment, system reliability, protection of cyber assets and physical infrastructure
- Worked with external auditors and regulators on a regular basis to ensure good communication and understanding of requirements

Material Use and Disposal

We encourage effective and efficient use of materials and the disposal of waste products.

2016 Accomplishments

- Scrap materials disposal/recycling efforts, including scrap metals, used vehicles, used electrical equipment and oils, used battery recycling, and sales of used/obsolete personal property sold to the public resulted in recycling and reuse of materials and netted over \$500,000.00 return to the District.

Vehicles and Fuels

Reduce the District's use of fossil fuels and reduce vehicle air pollution considering current regulations and requirements.

2016 Accomplishments

- Continued ordering factory installed idle reduction technology on all new diesel trucks to reduce fuel usage and emission
- Continued to research and monitor technology development, costs and availability of new alternative fuels such as propane auto gas and liquid natural gas.
- Continued use of Biodiesel and Ethanol in District Fleet vehicles and equipment. Completed a controlled test of renewable diesel (R99) in District trucks, using over 40,000 gallons of the product, produced from animal fats and vegetable oils to ensure it caused no operational impacts. A transition to full use of R99 is anticipated in early 2018 which will reduce District diesel truck GHG emissions by up to 67%.
- Purchased and put into service two all-electric industrial mowers to replace diesel powered mowers for use in District parks.
- Installed the first 2 of several electric vehicle charging stations at District facilities available to employees and the public.

Energy Efficiency

2016 Accomplishments

By offering incentives and no- and low-cost measures to customers, Chelan PUD saved enough energy to power 800 homes in 2016.

The PUD invested \$3.2 million in conservation incentives through the operation of its Energy Development and Conservation Department. The department provides energy efficiency services to all customer classes. In the

residential sector, efficiency services totaled \$765,424 and included programs to buy down the cost of LED and CFL lamps and efficient shower heads; for weatherization incentives for updating homes with energy efficient windows, doors and insulation; and for the purchase of energy-efficient heating and cooling equipment.

Low-income weatherization

A portion of the total the District invested in low-income conservation measures, \$90,000, was in the form of a grant. These services are funded through electric rates charged by the District.

Northwest Energy Efficiency Alliance

The PUD invested \$245,025 in the Northwest Energy Efficiency Alliance, which resulted in additional 613,200 kilowatt hours or 0.07 average megawatts of savings through small scale saving initiatives and product development. Residential savings totaled .27 average megawatts.

In the industrial and commercial sectors, the District funded incentives for lighting retrofits and variable frequency drives, industrial machinery, air-source heat pumps, evaporator coil fans, and strategic energy management. The total spent incentive in these programs was \$1,573,587 for commercial projects and \$685,459 for industrial projects. Resulting energy savings totaled 1.18 average megawatts in the commercial sector and .51 average megawatts in the industrial category.

Wenatchee Headquarters Building

Operational changes and equipment upgrades resulted in a 55 percent drop in electricity used at the PUD's Headquarters Building on Wenatchee Avenue over the last 10 years.

Alternative energy

In promoting alternative renewable power programs, the District provided \$145,947 to customers who owned renewable energy generating systems. These funds were actually a portion of the District's state utility tax passed through to customers in the state-sponsored Renewable Energy Cost Recovery program. The District's SNAP program channeled \$20,804 to alternative energy producers from customer contributions in the 12-month period ending March 31, 2016.

Electric vehicles

In 2016, Chelan PUD installed five charging stations at its facilities for public use.

Environmental Stewardship

Natural Resources Department

2016 Accomplishments

Restoring normal operations at Rock Island – Dam denil fish passage removal

The three denils were installed to aid fish passage in 2014 in response to the Wanapum Dam situation. They were intended to be a temporary measure until the Wanapum reservoir levels returned to normal. The removal of the denils was optimal in early 2016 since fish passage and irrigation was not an issue and was planned for after the reservoir situation stabilized in early 2015.

Lamprey Propagation Study

Chelan PUD is contracting with three partners, United States Fish & Wildlife Services, the Yakama Nation and

National Marine Fisheries to study if Pacific Lamprey can be propagated to enhance lamprey populations in the Columbia River and its tributaries.

Chelan River Maintenance

The Chelan River habitat channel was completed in 2009 as part of the Lake Chelan License. Since that time, the Habitat Channel has been successfully functioning as designed, i.e., a natural river. Chinook salmon and steelhead are spawning in the protected channel. In 2016, high spill levels deposited gravel in the channel. The gravel was removed and preserved to enhance habitat channel spawning habitat. Maintenance in 2016 included gravel removal near the log structure and tailrace in addition to sediment basin cleanout to keep the channel functioning as designed.

Day Use Pass at Confluence, Lincoln Rock and Daroga State Parks

The Day Use Pass pilot conducted in 2016, successfully concluded December 31, 2016 with over 2,400 passes issued to customers owners/residents of Chelan County. The Day Use Pass program will continue with new passes issued in 2017.

Chelan Riverwalk Park

Chelan PUD contracted to build two panting areas to deal with erosion and non-native plant species, both sites have temporary irrigation. The south shore site has mostly subterranean irrigation to limit evaporation. Plants used in the re-vegetation are both native and drought tolerant.

Old Mill Park

The District removed and replaced one half of a disintegrating parking lot and fixed planter curbs that were damaged by tree roots. In the project, the District removed a gutter drain that focused runoff water to a small discharge area in a bio swale and re-graded the surface allowing water to sheet off and disperse in a larger area, attempting to improve water treatment.

Wenatchee Riverfront Park

This project replaced broken flagpoles. The newly installed poles allow flag raising and lowering without the need for a boom truck making the task more efficient and less dependent on equipment.

Lincoln Rock and Daroga State Parks

The projects addressed shoreline erosion, movement of swim beach gravel, as well as building a wheelchair ramp to the swim beach. The District installed new moorage docks and pylons that incorporated fish friendly technology (surface grating on ramps and docks that allow 60% light passage and light colored pylons that reduce shadows where predator fish may hide). This project included a large mitigation planting area that addressed erosion issues at Lincoln Rock Park.