

Saving Water in

Washington

Water is arguably Washington's most valuable resource, supporting a multi-billion-dollar agricultural industry, sustaining one of the nation's most prominent commercial fishing industries, and generating one-third of the nation's hydroelectric power. However, the state's water supply—and its economy—are threatened by stress from excessive water withdrawals, increasingly frequent and intense droughts, a growing population, and the potential effects of a changing climate.

SOURCES OF WATER

- Similar to other western states, Washington relies on surface water for about three-quarters of total freshwater withdrawals—the majority of which is sustained in warm seasons by melting snowpack. Ground water accounts for the remaining one-quarter of Washington's water supply.
- Washington is split by the Cascade Mountains into two distinct climates. The region west of the mountains receives about 50 inches of precipitation on average annually—about four times higher than the drier eastern region.
- The eastern and southwestern regions of Washington are situated in the Columbia River drainage basin. The Columbia River is important for irrigation, aquatic habitat, and hydropower generation in Washington.

SUPPLY ISSUES

- Melting snowpack is important to maintaining water supplies in much of the state. Due to warmer temperatures and drought conditions, snowpack accumulations in 2015 were at record lows. In the Upper Yakima Basins, Central Puget Sound, and the Olympic Peninsula, accumulations were not measurable.
- With decreased snowmelt in 2015, more than 80 percent of Washington's rivers showed below-normal streamflow readings.
- Washington's 2014 population was estimated at nearly 7.1 million people and is expected to reach 8.8 million by 2040.



Drought conditions have caused snowpack in Washington's Olympic Mountains to decline over the years, as the photographs highlight above between June 2014 and June 2015. (Source: Washington Department of Ecology)

WATER USE CONCERNS

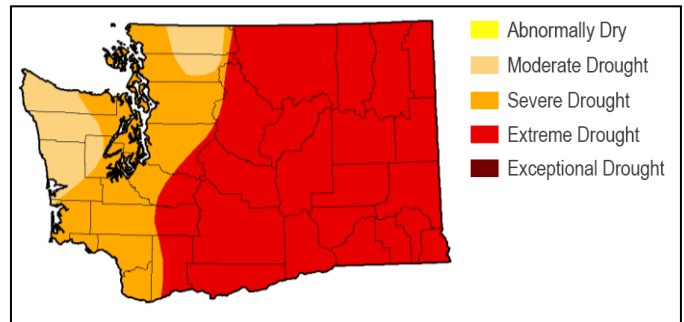
- In May 2015, the governor declared a statewide drought emergency, at which point an estimated 6.6 million people were affected in 48 of the state's 62 river basins.
- Water shortages impacted the state's agricultural crops and the state's energy supply. With drought conditions and warmer temperatures reducing surface water levels, hydropower production is forecasted to decrease by 9 to 11 percent by 2020—all while population growth will result in higher energy demands.

- Salmon, steelhead, and trout populations are impacted by decreased summer flows and higher streamflow temperatures.
- In an effort to preserve streams in Kittitas and Yakima counties for residential water supply and fish populations during the most recent drought, the Washington Department of Ecology compensated farmers for leased water rights, encouraging them to cease summertime irrigation.

WHAT ARE WASHINGTONIANS DOING TO SAVE WATER?

Many municipalities, utilities, and businesses in Washington are partners with WaterSense®, the U.S. Environmental Protection Agency program that offers people a simple way to identify products and homes that use less water and perform well. Some notable water conservation efforts by partners include the following:

- Seattle's Saving Water Partnership is a group of 19 water utilities in Seattle and King County. The partnership offers rebates for WaterSense labeled toilets and other products. In 2014, this effort resulted in more than 1,600 toilet upgrades in more than 550 buildings and homes in Seattle.
- Seattle Public Utilities partnered with the Seattle Mariners baseball team in 2015 to produce a public service announcement with the Mariner Moose to promote WaterSense and water conservation to fans.
- Since 2013, Puget Sound Energy provided more than 7,000 free energy efficiency kits equipped with a WaterSense labeled showerhead, among other water- and energy-saving items. The utility was the first energy utility to be recognized as a WaterSense Excellence Award winner.
- The Cascade Water Alliance, a group of seven municipalities in the Puget Sound region, works



As of October 2015, about 68 percent of Washington was experiencing extreme drought. (Source: U.S. Drought Monitor)

collaboratively on water efficiency programs. One of its programs provides rebates for homes built to meet the WaterSense homes specification and achieve a minimum of a Built Green 3-star certification. In 2015 alone, more than 30 new WaterSense labeled homes have been constructed by the six builders enrolled in the program.

- Kalaloch Lodge, a sustainable resort in Olympic National Park, took the WaterSense H₂Otel Challenge in 2014. The resort reduced its water consumption by more than 46 percent between 2011 and 2014 by: engaging guests and employees in water savings competitions; implementing a towel and linen reuse program; serving water only upon request; and replacing restroom and kitchen fixtures with high-efficiency models, such as WaterSense labeled showerheads.

For more information on water use and saving in Washington, visit www.ecy.wa.gov/drought/ and ecologywa.blogspot.com/.

References available by request. Contact watersense@epa.gov for additional information.