

DUNGENESS STREAMFLOW RESTORATION OFF-CHANNEL RESERVOIR

PROVIDING DROUGHT RESILIENCY AND RIVER RESTORATION
IN THE DUNGENESS RIVER BASIN



PROJECT SPONSOR: CLALLAM COUNTY



PARTNERS:

- CITY OF SEQUIM
- CLALLAM CONSERVATION DISTRICT
- DUNGENESS WATER USERS ASSOCIATION
- JAMESTOWN S'KLALLAM TRIBE
- WASHINGTON DEPT. OF ECOLOGY
- WASHINGTON DEPT. OF FISH & WILDLIFE
- WASHINGTON WATER TRUST

PROJECT DESCRIPTION

The Dungeness River basin, located in the rain shadow of the Olympic Mountains on the northeast corner of Washington's Olympic Peninsula, is the driest and most climate vulnerable area in western Washington. The Dungeness River is important to local communities for water supply, and is also ecologically and culturally important as it is home to four ESA-listed native fish species, Puget Sound Chinook, Hood Canal Summer Chum, Puget Sound Steelhead, and bull trout, whose numbers have decreased significantly over the past 150 years.

Fed by rain and the Olympic Mountains snowpack, flows in the Dungeness River decline over the spring and summer often reaching critically low levels in late summer when communities and fish need water the most. Water right holders can withdraw as much as 50% of river flows during this time reducing the amount of habitat available to fish and contributing to dangerously high water temperatures and fish passage challenges. In addition, the Dungeness watershed is increasingly susceptible to drought. Eight of the last twenty years – including four of the past eight years – in the Dungeness have been drought or dry years, and it is projected that by the 2080s the average snowpack in Washington will decline by 56% to 70%, and summer stream flows will decrease by 34% to 44% on average across the state putting freshwater supplies and the communities and fish that depend upon them at risk.

The solution to the freshwater supply challenges facing communities, farms and fish is the Dungeness Streamflow Restoration Off-Channel Reservoir. Water will be collected and stored in an off-stream reservoir during winter and spring when flows are plentiful. This stored water will be used later in the year in place of water withdrawn directly from the river when flows are at their lowest. The result will be increased groundwater levels in the heavily tapped shallow aquifer, a stable, drought-resistant and climate-resilient water supply for the local food system and communities, and 15 - 26 cfs of streamflow restored to the Dungeness River resulting in weighted usable habitat area increases of up to 35% for ESA-listed fish species.

COMMUNITY BENEFITS



Aquifer Recharge - Stored water from the reservoir can be used for aquifer recharge to increase groundwater levels in the heavily tapped shallow aquifer as well as augment flows in local streams, and generate additional mitigation credits for the Dungeness Water Exchange (a local water bank).



Drought-Resilient & Climate-Resilient Water Supply - Decreasing water supplies for both people and the environment is the biggest climate concern for eastern Clallam County. Drought conditions have been present in the area in four of the past eight years. This project will use water storage to provide a reliable climate-resilient water supply for drinking water supply/aquifer stability and the local food system over time.



Streamflow Restoration - The project will restore between 15 - 26 cfs of flow in the Dungeness River alleviating low streamflows and fish passage issues, restoring habitat, and reducing water temperature for ESA-listed salmon, steelhead and bull trout.



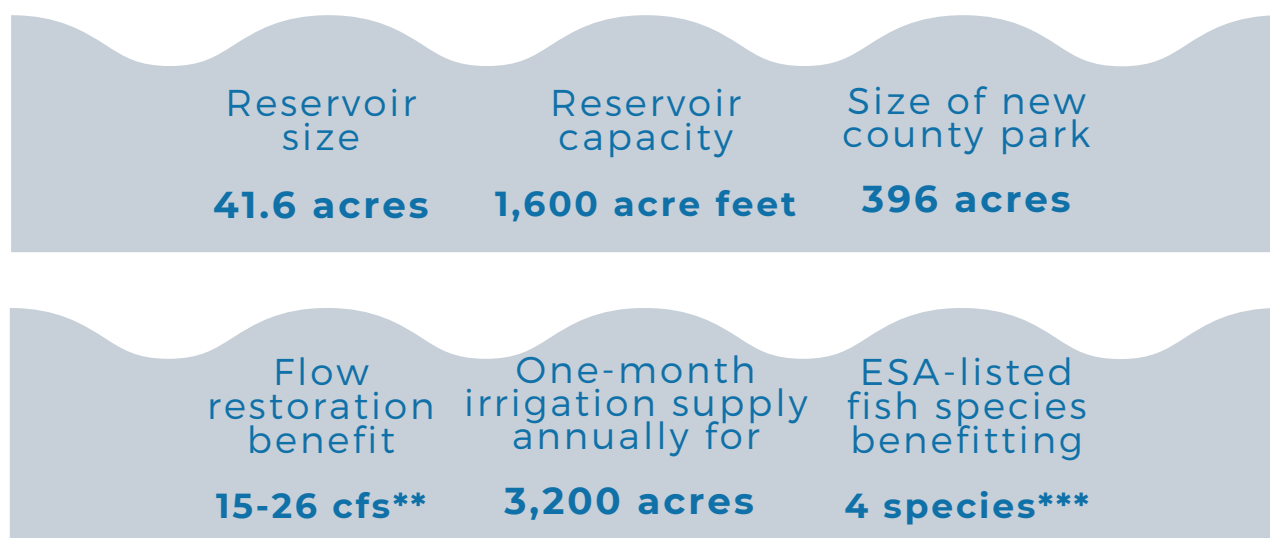
Recreation - The project site is currently owned by the WA Department of Natural Resources and will be owned and managed by Clallam County as a new public park with hiking, biking, wildlife viewing, and river access opportunities. The park will provide aesthetic benefits for improved mental health and physical well-being.

RECOVERY & MANAGEMENT PLANS:

The following recovery and management plans support Dungeness streamflow restoration:

- Puget Sound Partnership Action Agenda: Highest Priority Near-Term Action (#2018-0169)
- Elwha-Dungeness Watershed Plan
- Climate Change Preparedness Plan for the North Olympic Peninsula
- 2016 State of our Watersheds: A Report by the Treaty Tribes in Western Washington
- Puget Sound Salmon Recovery Plan
- Hood Canal and Eastern Strait of Juan de Fuca Summer Chum Recovery Plan
- ESA Recovery Plan for the Puget Sound Steelhead DPS
- Recovery Plan for the Coterminous United States Population of Bull Trout

BY THE NUMBERS



**Represents up to a 47% increase in flow which dropped to 56 cfs in 2015. Restored flow will be protected by Trust Water/MOA agreement from other diverters.

***Puget Sound Chinook, Hood Canal Summer Chum, Puget Sound Steelhead & Bull Trout

PROJECT TIMELINE

PHASE	DATE
PHASE 01 LAND TRANSFER & ASSESSMENTS	JAN 2020 - JUN 2023
PHASE 02 DESIGN, RELATED OUTREACH & PERMITTING	JUN 2021 - SEPT 2023
PHASE 03 CONSTRUCTION & RELATED OUTREACH	OCT 2023 - DEC 2025

PROJECT BUDGET OF \$30 MILLION