United States Environmental Protection Agency

This document is one of the project summaries from the EPA's Targeted Watershed Grants 2005 Annual Report published in December 2005. The reference number is EPA 840-R-06-001. You can find the entire document at **http://www.epa.gov/twg**.

EPA'S TARGETED WATERSHED GRANTS 2005 ANNUAL REPORT

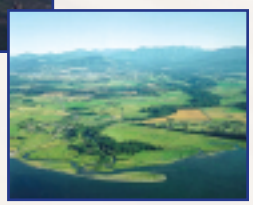
December 2005

Dungeness River

WA

WHY IS THIS WATERSHED SPECIAL?

The Dungeness River of Washington State, located on the Olympic Peninsula of northern Puget Sound, originates in the steep Olympic Mountains and flows 32 miles through wilderness, forest, and valley before reaching its bay. The 200-square-mile watershed is home to more than 200 fish and wildlife species and an important stop for migratory waterfowl. The river supports seven salmonid species, and the bay is noted for bountiful crab and other shellfish. Over the years, the area has been steadily converted from forest to agricultural and residential land uses. An extensive irrigation system, diverting water for lawns, crops, and hobby farms, adds to the pastoral setting of the valley. The Jamestown S'Klallam Tribe, which has historically depended on the watershed's cultural and natural resources, retains treaty rights to fish, hunt, and gather shellfish here.



Aerial photos of the Dungeness watershed.

ENVIRONMENTAL CHALLENGES

Human-induced impacts have impaired the natural river and bay processes of the Dungeness. The combination of watershed health problems has resulted in human risk, three threatened salmonid species under the Endangered Species Act, and closure of Dungeness Bay to tribal and nontribal shellfish harvests, inhibiting economic and recreational use of the river and bay. The river has also been placed on the state's §303(d) water quality list for fecal coliform and low instream flows.

- Land use changes and physical alterations – such as floodplain development, riparian vegetation removal, and construction of an extensive irrigation system – are factors in flooding, stormwater pollution, and overall degraded aquatic habitat.
- Failing septic systems, poor animal keeping practices, and inadequate management of stormwater runoff have increased nutrient and bacterial levels in the river, bay, and irrigation ditches.

RESTORATION ACTIVITIES

The Jamestown S'Klallam Tribe will use its Targeted Watersheds grant in two areas. The first is to apply microbial source tracking technologies to at least six sites to more precisely define bacterial pollutant sources. The second is to institute four pollution prevention techniques.

- A bio-remediation project will use native fungi to control excess nutrients and bacteria.
- A homeowner sewage management program will provide education and cost-sharing incentives in septic maintenance and repair.
- A stormwater management project will focus on best management practices for homes, roadsides, and parking lots.
- An irrigation ditch piping project will prevent pollutants from entering the irrigation system (by joining ditches and enclosing them in pipe) and improve in-streams flows (by eliminating leakage and reducing the amount of flow diverted from the river for irrigation).

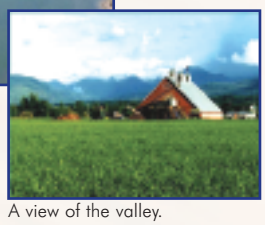
A STRONG PARTNERSHIP FOR CHANGE

The Jamestown S'Klallam Tribe is leading an interjurisdictional partnership consisting of:

- Jamestown S'Klallam Tribe
- Clallam County
- Clallam Conservation District
- Cline Irrigation District, Clallam Ditch Company and Dungeness Irrigation Group
- The Dungeness River Audubon Center
- Battelle Marine Science Laboratory

Scenic image of the river from the south.

Aerial view of the Bay.



A view of the valley.

"The cooperative efforts of the tribe and our project partners have been key to understanding the water quality problems in the Dungeness watershed. Integrating our water quality improvement projects will help to restore our watershed's health."

– W. Ron Allen, Tribal Chairman/Executive Director, Jamestown S'Klallam Tribe