

WHATCOM

FEATURE ACCOMPLISHMENT

Campbell Creek - Stream and Wetland Habitat Enhancement

Resource Challenge

Campbell Creek is a tributary to California Creek, located in the Drayton Harbor watershed, a watershed prioritized for restoration due to its proximity to threatened shellfish beds. Portions of California Creek are listed on Washington's 303(d) list as impaired (Category 5) for fecal coliform and as waters of concern (Category 2) for dissolved oxygen, pH, and temperature. The California Creek basin has documented lack of shade, loss of wetlands, and channel changes that are probable causes for warm water temperatures and high peak flows.

Project Summary

Whatcom Conservation District (WCD) staff worked with four adjoining landowners along Campbell Creek who were interested in improving fish habitat and water quality/quantity conditions. WCD staff worked with the landowners to create a new stream channel and wetland complex, along with establishment of native riparian vegetation. The project included excavation, placement of large woody debris, and creation of mounds for planting. Following instream work, WCD staff managed a spring 2007 Conservation Reserve Enhancement Program (CREP) planting of native shrubs and trees, averaging 125' wide buffers, along new and existing waterways. As the vegetation matures, the habitat enhancement project will improve water quality, including reduction of water temperatures and nutrient runoff to improve fish habitat for coho salmon and cutthroat trout. Additionally, the wetland complex will supplement summer instream flow.

Project Results

- Wetland channel creation – Approximately 2,360 feet of new stream/wetland channel created connecting 25 newly excavated wetlands.
- Large Woody Debris – 43 pieces of wood were placed in the channels and wetlands.
- Site preparation – 9 acres prepared for streamside and wetland planting: mowing, herbicide, creation of elevated planting sites with excavated soil.
- Streamside and wetland plantings – 1,500 willows were planted along newly excavated channel; 4,091 native tree and shrub seedlings planted through CREP, creating 9 acres of new buffer.



Newly constructed channel and wetland complex along Campbell Creek, with 9 acres of native streamside plantings – Spring 2007

More Information

Contact

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Key Partners Involved

Shared Strategy for Puget Sound
National Fish & Wildlife Foundation
Drainage Improvement District #17
Conservation Reserve Enhancement Program
Private landowners (4)
Private contractor

Whatcom CD Board of Supervisors

Jerry Van Dellen, Chair
Richard Yoder, Vice Chair
Sabina Gouran, Secretary/Treasurer
Joyce Jimerson, member
Ed Stone, member

Funding for Featured Project

Local	\$ 281.14
State	\$ 9,038.92
State Cost-share	\$ 4,577.20
Federal	\$ 35,325.14
Private	\$ 3,500.00
Total	\$ 52,722.40

OTHER DISTRICT INFORMATION

Background Information

Since 1946, Whatcom Conservation District (WCD) has fostered a healthy, sustainable relationship between Whatcom County residents and the area's abundant natural resources. Whatcom County (population 186,000) includes areas of Puget Sound seashore to the west, forested mountains to the east, and fertile agricultural lowlands in between. Watersheds include the Nooksack River Basin, the Drayton Harbor watershed, several smaller coastal drainages, and trans-boundary systems that drain north to Canada. The county's largest city is Bellingham, with the populations of the smaller towns of Ferndale, Lynden, Blaine, Sumas, Birch Bay, Everson, and Nooksack increasing rapidly. Whatcom County has a thriving agricultural industry dominated by dairies, beef, berries, silage crops, and seed potato production. A strong recreation and tourism industry exists, taking advantage of opportunities to enjoy the varied local landscapes.

Mission Statement

To serve present and future generations of Whatcom County through a natural resource conservation program of leadership, partnership, and technical, educational, and financial assistance to foster a healthy, sustainable relationship, between people and the environment.

Natural Resource Priorities and Goals

Water (quality, quantity, drainage, storage, use):

- Water Quality: Surface waters of the lower Nooksack basin will meet standards of bacteria clean up plan; public water supply will meet health standard of less than 10mg/liter of nitrate.
- Water Quantity: Adequate drainage provided to prime farmland; strategic re-establishment of wetlands will be encouraged.
- Water Use: Landowners to document water use to protect established water rights; encourage efficient use of irrigation water.

Farmland:

- Increase and protect farmland base at 100,000 acres; encourage "market-based conservation".

Riparian Corridor:

- Restore riparian areas next to fish-bearing waterways.
- Develop program to permanently protect fish & wildlife benefits of Conservation Reserve Enhancement Program (CREP) enrolled lands.
- Encourage greater residential and farmstead use of native trees and shrubs.

Air Quality:

- Reduce on-farm emissions of particulate matter and ammonia to help improve biodiversity, visibility, and health of airshed residents

Information – Education Priorities and Goals

- Educate residents of Whatcom County about conservation-wise stewardship practices; encourage and support conservation-wise behavior.

Critical Geographic Areas

Drayton Harbor Watershed:

California Creek and Dakota Creek sub-basins drain to important shellfish beds in Drayton Harbor and have experienced water quality degradation from poor farming and rural land use practices. The changing demographics in the relatively small watershed, with increased residential and hobby farm development, present resource degradation challenges and opportunities to implement riparian rehabilitation actions and education programs to facilitate behavioral changes to meet water quality/habitat goals.

Lower Nooksack River Basin:

The Nooksack River watershed encompasses approximately 806 square miles and drains to tribal shellfish beds in Portage Bay. In 2000 the WA Department of Ecology (DOE) established fecal coliform pollution limits for the watershed through adoption of its "total maximum daily load" (TMDL) analysis. Several sub-basins (Kamm, Fishtrap, Bertrand, and Tenmile) where agriculture is the predominant land use continue to have geometric means higher than the established target and the greatest exceedences of the 90th percentile criteria.

Natural Resources Status: More Work to Do

Commercial Agriculture:

- 85,000 acres zoned agriculture; desired is 100,000 ac.
- Dairy farmers require continued technical assistance (TA); over 90 farmers on list to receive TA.

Rural Residential/hobby farms:

- Population and hobby farm numbers growing; estimated 2000+ hobby farms in need of resource protection and conservation planning assistance

Urban & Other:

- Over 29,000 acres incorporated in cities – no conservation programs

Water Resources:

- Areas in the lower Nooksack basin and the Drayton Harbor watershed have documented water quality violations for parameters such as fecal coliform, ammonia, temperatures and dissolved oxygen. Education and technical assistance are needed to provide landowners with tools to implement livestock best management practices to improve conditions.

Funding:

- Secure continuous funding source(s) not dependent upon grants.

