

Project Information Sheet

Applicant: Thurston County Department of Resource Stewardship

Strategic Initiative: (1) Prevent Pollution from Urban Stormwater Runoff
(2) Protect and Restore Habitat

Priority Near-Term Action: Develop a Riparian Restoration Program in Thurston County

Ecosystem Threat Summary

Riparian vegetation is critical to maintaining healthy streams. A mature forested buffer provides shade, filters water entering the stream, stabilizes the shoreline, and provides shelter and habitat for aquatic species, including salmon. Unfortunately, along many streams in Thurston County, riparian vegetation has been altered or cleared through adjacent land uses, including urban and suburban development, agriculture, and forest management.

The lack of protective vegetation along Thurston County's streams contributes to increased stream temperatures, increased erosion of banks and sediment, increased nutrient loads to local waterbodies and Puget Sound. According to Ecology's *Puget Sound Dissolved Oxygen Model Nutrient Load Summary, 1990-2008* (2011), the Deschutes watershed is among the top 20 contributors of dissolved inorganic nitrogen (DIN) to Puget Sound, and one of the single highest contributors relative to its size. It is also one of only two Puget Sound rivers in Ecology's ambient monitoring program where nitrogen loads are increasing over time. A lack of riparian vegetation and associated lack of large woody debris is also noted as a limiting factor for the survival of salmon populations in the Deschutes River and McLane Creek watersheds.

The recently completed draft Water Quality Improvement Report/Implementation Plan for the Deschutes Watershed freshwater TMDL identifies establishing forested riparian buffers and conserving existing buffers on the Deschutes and other tributaries as the most important implementation action that needs to be completed to meet state water quality standards. In addition, recent modeling of the McLane Creek, Black Lake, and Woodard Creek basins indicate that restoration of riparian areas could substantially reduce the number of annual temperature violations as well as reduce nutrient loads.

A large portion of riparian areas in Thurston County is on private land. Although local regulations limit new impacts that can occur in riparian areas, there are limited opportunities available currently to restore areas that are already degraded.

Project Description

Thurston County proposes to work with regional partners to:

- Identify riparian restoration project candidates
- Prioritize riparian restoration project candidates
- Conduct outreach to landowners
- Determine funding mechanisms (including long-term sustainable mechanisms)
- Conduct feasibility analyses for candidate projects, and
- Develop design plans and post-restoration maintenance and stewardship plans for feasible riparian restoration project sites.

This is the first phase of a multi-year, multi-phase effort. The project will help to improve water quality and mitigate impacts from stormwater and nonpoint sources of pollution, protect and restore habitat for native aquatic and terrestrial species, provide mitigation and protection from increased flood and

drought durations and intensities, and support recreational and other beneficial uses of streams for residents throughout the Puget Sound Area.

By developing and implementing this program, Thurston County will help to achieve the Puget Sound Partnership's Strategic Initiatives to 1) prevent pollution from urban stormwater runoff and 2) protect and restore habitat, as well as address water quality and habitat priorities that have been identified by projects partners and through parallel planning efforts. In addition, the project aligns with the following Action Agenda Sub-Strategies:

- A1.1 Identify and prioritize areas for protection, restoration, and best suitable for development
- A2.2 Implement and maintain priority freshwater and terrestrial restoration projects
- A5.4 Implement and maintain priority floodplain restoration projects
- C2.4 Control sources of pollutants
- C3.1 Target voluntary and incentive-based programs that help working farms contribute to Puget Sound recovery

Major Tasks

1. Identify Riparian Restoration Project Candidates

- Evaluate existing plans and other planning efforts to identify potential riparian restoration projects throughout Thurston County. This includes evaluating planning efforts conducted by project partners such as the lead entities, the conservation district, local land trusts, and the tribal communities.

2. Prioritize Project Candidates

- Identify projects that would address multiple priority objectives identified by project partners. Aligned priority objectives include projects that would have a positive benefit on water quality, aquatic species, habitat, public health, and climate resiliency through mitigation of flood and drought impacts.
- Use the results of landowner outreach in Task 3 to help identify projects with willing landowners. This task would involve identifying restoration projects on land that is already owned by the County or already have willing landowners.

3. Landowner Outreach

- Develop a targeted outreach strategy for landowners that own land where a priority riparian restoration project has been identified. Include targeted outreach to landowners for projects that are expected to have the greatest positive impact to water quality, aquatic species, habitat, public health, and climate resiliency.
- Develop an outreach information packet to be mailed out to landowners on lands where riparian restoration opportunities have been identified.
- Work with landowners and local partners to identify barriers to implementation and strategies to overcome them.

4. Feasibility Analysis

- Conduct an initial feasibility analysis for the inventory of identified riparian restoration project candidates. This analysis will include a cursory review of constraints including ownership; constraining utilities such as sewer, electrical, and power; and area available for riparian restoration (built environment site constraints).
- This analysis will also consider additional restoration features that would likely be needed for successful restoration such as bank stabilization and the installation of large woody debris in tandem with riparian reforestation.

- Determine the protection mechanisms most feasible or necessary for implementation including acquisition of property, conservation easements, and long-term stewardship.

5. Develop Design Plans and Post-Restoration Maintenance and Stewardship Plans for Feasible Riparian Restoration Project Sites and Determine Funding Mechanisms

- This task is oriented to implementation of riparian restoration opportunities. In this task, we will contract a consultant to design conceptual restoration plans for five projects that have been vetted through the other tasks detailed in this proposal.

Budget and Project Schedule

	Activity	Cost	Explanation of Costs
Q1	– Inventory projects; update database as new project-specific information acquired	\$15,000	-staff time to do research, convene partners, and develop database
Q2	– Convene project partners; begin candidate project prioritization	\$15,000	-staff time to convene project partners and do prioritization
Q3	– Develop outreach materials and execute initial outreach sweep	\$35,000	-staff time to design/develop materials; meet and coordinate with landowners; - develop outreach materials; conduct GIS analysis for mailings; and mail products
Q4	– Conduct candidate project feasibility analyses based on GIS analysis and feedback from initial outreach; update database (on-going)	\$15,000	-staff time to conduct GIS feasibility analysis and coordinate with landowners; work with partners, and update database
Q5	– Convene project partners to identify highest priority candidate projects; begin identifying project parameters and funding mechanisms	\$15,000	-staff time to convene project partners and do second tier prioritization; work with partners on funding
Q6	– With partners, targeted outreach for priority candidate projects; continue identifying project parameters and funding mechanisms; determine acquisition or easement conditions	\$20,000	-staff time to conduct targeted outreach; more one on one time required; work with partners on funding and acquisition/easement coordination
Q7	– Develop design plans; work with willing landowners; revise as needed	\$175,000	-staff time; consultant costs to develop conceptual and design plans
Q 8	– Begin funding and implementation strategy identified in previous steps; implement where possible through existing funding sources (e.g., Capital Facilities Plan or Lead Entity)	\$15,000	-staff time to coordinate and implement program; start implementing projects; develop long-term funding strategy for implementation
TOTAL COST		\$305,000	

Project Partnerships and Roles

Project Partner	Role (All)
Tribal Entities – Squaxin – Nisqually	<ul style="list-style-type: none"> – Project partner – Member of advisory team – Provide information on projects – Help prioritize and develop landowner agreements – Review conceptual designs – Help determine acquisition and easement arrangements – Review outreach materials – Assist in outreach effort
Land Trusts and NGOs – Capital Land Trust – South Sound Community Land Trust – Nisqually Land Trust – South Sound Salmon Enhancement Group	
Thurston County Conservation District	
WRIA 13 Lead Entity	