



Small Habitat Restoration Program

Building effective projects that enhance aquatic ecosystems

Annual Report



Summary of Accomplishments

In the Small Habitat Restoration Program (SHRP) performed work on projects to restore streams wetlands and their buffers to protect water quality and enhance habitat for native fish and wildlife (see map on following page)

Program highlights include:

- new construction projects
 - projects continuing from previous years
 - projects in planning and permitting stages and preparing for construction
 - projects being maintained and monitored
 - miles of streambank restored*
 - acres of stream and wetland buffer restored
- *Projects that enhanced both banks of a given reach of stream are counted as enhancing twice the reach length in streambanks (i.e. linear feet of stream has feet of streambank that could be enhanced)

Mission

The mission of SHRP is to build small low cost habitat restoration projects to enhance and restore streams and wetlands. Projects include stabilizing eroding streambanks, restoring fish access to upstream habitat, installing livestock fences, controlling invasive weeds, planting native vegetation and providing technical assistance to landowners and agencies. Individual project costs typically range from to . Projects are constructed on private or public property as long as they provide benefits to the public at large. Since SHRP has performed well over projects in the White Green Puget Sound Cedar Sammamish Lake Washington and Snoqualmie River basins

SHRP staff work with local property owners to design permit and construct projects. Washington Conservation Corps (WCC) crews as well as volunteers provide essential construction labor and skills to build fences bridges control invasive weeds rebuild eroding streambanks install native plants and water and maintain projects

The SHRP Program works closely with the Water and Land Resource Division's Basin Steward Program to identify projects and restoration priorities within King County's watersheds. This ensures that SHRP projects fit into the broader plans for watershed restoration and build on the successes of other restoration and stewardship efforts.

SHRP leverages public funds with grants community volunteer planting events and partnerships between landowners local state and federal agencies. The SHRP website (http://www.kingcounty.gov/environment/animalsAndPlants/restoration_projects/small_habitat_restoration_program.aspx) includes an on line project application archived annual reports and technical assistance with guidelines for designing planting and maintaining habitat restoration projects

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Active SHRP Projects

The project synopses below are organized by WRIA (major drainage basins) and by the stage of the project in (new ongoing monitoring/maintenance planning/permitting or technical assistance)





SHRP Project Summary Table

WRIA	Project Design, Permitting and Planning	New Start Construction Projects	Riparian Buffer Restoration Lineal Feet/Miles	Riparian Buffer Restoration Square Feet	Continuing From Previous Year Projects	Monitoring & Maintenance
WRIA 7: Snoqualmie-Skykomish						
		Changing Seasons	600	24,00	Riverbend Ranch	
						Tuck Creek/Andrews Harris
						Herbco
Total WRIA 7		1			1	3
WRIA 8: Lake Washington-Cedar River						
		Cottage Lake Crk Buffer/Bassetti	1,250	30,000	Cemetery Ponds	Issaquah Crk (Tributary 0203)
		Middle Issaquah Creek/Ellis	1,600	121,968	Cottage Lake Crk Enhancements	Schnittker Property (Tributary 00178)
					Middle Issaquah Creek Buffer Enhancement Phase 2	Cottage Lake Crk Enhancements
						Mary Cash Farm
						Middle Issaquah Creek Natural Area
						Middle Issaquah Creek, Phase 2
						Middle Issaquah Creek at Tolt Pipeline
						Folsam/Bear Creek
Total WRIA 8		2			3	8
WRIA 9: Green River						
	Fitzpatrick Riparian Buffer Enhancement	O'Dell Natural Area Enhancement	500	5,000	Whitney Park Revegetation	
	Hussein Riparian Buffer Enhancement	Lopez Habitat Enhancement	220	3,500	Rosatto Newaukum Creek Enhancement	
			2,000	10,000		
	Litowitz Conifer Underplanting	Fallen Buffer Enhancement	2,000	1,000	Westby Newaukum Creek Enhancement	
	KL Browne Riparian Buffer Enhancement	Brewer Buffer Enhancement				
Total WRIA 9	4	4			3	
WRIA 10: White River						
					VanWieringen Boise Creek Enhancement	
Total WRIA 10					1	
WRIA 15: Vashon-Muay Island						
		Needle Creek Conifer Underplanting			Shinglemill Creek Bridge Removal	Fisher Pond Planting
					Singer Riparian Fencing and Buffer Planting	Fern Cove Planting
					Paradise Valley Planting	
Total WRIA 15		1	9590 LF	195,468 SF	3	2
TOTALS	4	8	1.8 miles	4.5 acres	11	13





WRIA : Snoqualmie Skykomish Watershed

In 2009, SHRP staff worked with a private property owner on one new habitat restoration project and continued work on one ongoing project within WRIA Monitoring and maintenance was provided to three projects previously constructed

WRIA : New Projects in Changing Seasons Riparian Restoration (Private Ownership):

WCC crews cut and covered with weed fabric approximately square feet of blackberry in the buffer of the Snoqualmie River. This area will be planted along with more clearing in When the work is finished the planting will extend for feet along the river for a width of feet (square feet) Changing Seasons is an organic farm near Fall City

WRIA : Ongoing/ Continuing Projects

Riverbend Ranch/Mauk Riparian Restoration (Private Ownership):

WCC crews removed weed fabric on an oxbow tributary and replaced beaver damaged plants on the banks of the Snoqualmie River Crews also planted over red alder cottonwood and spruce to enhance an area of approximately square feet along feet (SF) of the Snoqualmie River Wire beaver excluding cages were installed around the plants to prevent further damage



Looking upstream at willow and weed fabric at Tuck Creek Andrews riparian restoration.

WRIA : Monitoring and Maintenance

- **Herbco Riparian Restoration (Private Ownership)**
- **Tuck Creek Andrews Riparian Restoration (Private Ownership)**
- **Harris Creek and O’Hanley Riparian Restoration (Private Ownership)**

WRIA : Lake Washington Cedar River Watershed

In 2009, the SHRP staff worked with public and private property owners on two new habitat restoration projects and continued work on three ongoing projects within WRIA Monitoring and maintenance was provided for seven previously constructed projects

WRIA : New Projects in

Cottage Lake Creek Buffer Enhancement-- Bassetti Property (Private Property) (SHRP and KCD funding)

Working with the property owners of Bassetti Crooked Arbor Nursery SHRP designed and installed a buffer planting that enhances both the functional and aesthetic value of the stream buffer. The project enhanced square feet (acres) of stream buffer along 1,250 linear feet of Cottage Lake Creek The WCC harvested stakes from the adjacent Cold Creek Natural Area and planted live stakes shrubs and trees Crews also installed cubic yards of mulch and square feet of cardboard sheet mulch



Bassetti Property--after buffer enhancement





Ellis Buffer Restoration, post staking, summer 2009

Middle Issaquah Creek/Ellis Buffer Restoration (Public Property)

This acre newly acquired King County property was enhanced by removing non native species and replacing them with natives About live stakes and trees were

planted along linear feet of stream banks enhancing 2.8 acres of stream buffer. Fencing was installed to protect the plants from deer and elk that also use this site Additional plantings will be installed in February

WRIA : Ongoing/ Continuing Projects



Cemetery Pond—before wetland enhancement

Cemetery Ponds Wetland Enhancement (Public Ownership)

Working with members of three community groups Community Alliance to Reach out and Engage Stewardship of Wetland Areas by Neighbors and the Four Creeks Unincorporated Area Council SHRP expanded the wetland buffer planting started in The WCC and volunteers installed live stakes trees and shrubs to enhance square feet of



Beaver at Cemetery Pond.

additional with container plants installed in were watered by Northwest Center for the Disabled and mulched by the WCC

Cottage Lake Creek Enhancements, Amendment Planting (Private Property)

The “common owned property “ one of a suite of six properties previously planted in was planted with an additional trees and shrubs after a summer of thorough blackberry removal One hundred linear feet of streambank and acres of stream buffer were enhanced. In addition, six wood duck boxes were installed on five of the properties by Washington Waterfowl volunteers in

Middle Issaquah Creek Natural Area Buffer Enhancement, Phase III (Public Ownership)

WCC crews removed previously installed weed control fabric and planted square feet of buffer along linear feet of Issaquah Creek



Middle Issaquah Creek Natural Area buffer enhancement

The project will be maintained through

WRIA : Monitoring and Maintenance

- **Issaquah Creek Tributary 0203 Enhancement (Public Ownership)**
- **Issaquah Creek Tributary 0178 Buffer Enhancement- Schnittker Property (King County and Private Ownership)**
- **Cottage Lake Creek Enhancements SHRP (Private Properties)**
- **Mary Cash Farm Invasive Control and Planting, Phases I and II (Public Ownership)**
- **Middle Issaquah Creek Natural Area Buffer Enhancement, Phases I and II (Public Ownership)**
- **Middle Bear Creek/Tolt Pipeline Buffer Enhancement (Public Ownership)**
- **Folsam/Bear Creek Enhancement (Private Property)**

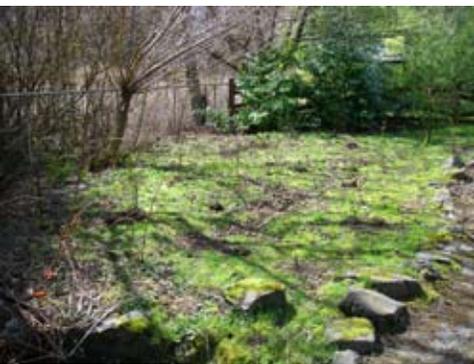




WRIA : Green/Duwamish River Watershed

In 2009, SHRP staff worked with private property owners on four new habitat restoration projects and continued work on three ongoing projects within WRIA. Design, permitting and planning is in progress for four additional projects to be constructed during

WRIA : New Projects in



O'Dell pond buffer



O'Dell bioswale

O'Dell Natural Area Enhancement (Private Property)

WCC crews planted trees, shrubs and emergent wetland plants to enhance portions of a pasture, a pond buffer and a bioswale. This provides shade to linear feet of Little Soos Creek and improves square feet of its buffer. The property owners run the Institute for Community Leadership on their property and use the grounds as an outdoor classroom. Little Soos Creek is used by fall

Chinook, coho and winter steelhead and this area is recognized as a priority area by the WRIA Watershed Assessment.

Lopez Habitat Enhancement (Private Property)

WCC crews installed two phases of planting in along feet of Newaukum Creek that was void of native vegetation. A total of native trees and shrubs were planted over square feet to help stabilize the banks of the creek and establish a native buffer.

Fallen Buffer Enhancement (Private Property)

Native trees, shrubs and willow stakes were installed on both sides of both the north and south forks of Newaukum Creek at their confluence, enhancing linear feet of stream



Fallen buffer completed enhancement

bank. A total of native trees and shrubs were planted to help stabilize the banks of the creek and enhance about square feet of native buffer. Fencing was installed to keep local goats out of the buffer.

Brewer Buffer Enhancement (Private Property)

linear feet of Newaukum Creek stream bank were enhanced by removing reed, canarygrass and planting native species. A total of



Brewer buffer enhancement

native trees and shrubs were planted in two phases in to help stabilize the banks of the creek and enhance 1000 square feet of native buffer.

WRIA : Ongoing/ Continuing Projects

Whitney Park Revegetation (King County Parks Property)

This project is part of an ongoing effort to revegetate a portion of the Green River floodplain at Whitney Bridge Park. In December trees and shrubs were planted to enhance acres of buffer. Bark rings



Whitney Park revegetation completed





were added to help with survival at a site where mortality has typically been high due to porous soils and lack of shade



*Rosatto Newaukum Creek Enhancement
December 2009*

trees and willow stakes Plots were fenced in to protect them from beaver damage and many of the trees received vole protection



*Westby Newaukum Creek Enhancement
willow stakes, spring 2009*

WRIA : Project Design Permitting and Planning

- Fitzpatrick Riparian Buffer Enhancement (Private Property)
- Hussein Riparian Buffer Enhancement (Private Property)
- Litowitz Conifer Underplanting (Private Property)
- KL Browne Riparian Buffer Enhancement (Private Property)

Rosatto Newaukum Creek Enhancement (Private Property)

The third phase of this invasive species control and planting project was installed in December of This phase enhanced an additional linear feet of streambank and square feet of buffer by installing

Westby Newaukum Creek Enhancement (Private Property)

The third phase of planting at this site added trees and willow poles to the extensive plantings of previous phases

WRIA : White River Watershed

In 2009, SHRP staff worked with a private property owner on one ongoing habitat restoration project within WRIA

WRIA : Ongoing/ Continuing Projects

VanWieringen Boise Creek Enhancement Phase II (Private Property)

WCC crews removed Himalayan blackberries from LF feet of Boise Creek stream bank and planting trees shrubs and livestakes to enhance acres of stream buffer. The left bank was also fenced to exclude livestock Additional blackberry removal will be performed during the summer of and additional planting of lower banks during the following planting season to reduce erosion and provide cover and refuge for salmon



*VanWieringen Boise Creek left bank,
Summer 2008*



*VanWieringen Boise Creek left bank,
Summer 2009*

WRIA : Monitoring and Maintenance

VanWieringen Boise Creek Enhancement Phase II (Private Property)





WRIA : Vashon/Maury Island

In 2009, SHRP staff worked with the Vashon/Maury Island Land Trust on one new habitat restoration project and continued work on three ongoing projects within WRIA. SHRP also provided technical assistance to the Vashon Island School District and continued monitoring and maintenance on two past projects.

WRIA : New Projects in

Needle Creek Conifer Underplanting (Vashon/Maury Island Land Trust)

Conifer underplanting enhanced acres of riparian buffer along Needle Creek, a tributary of Shinglemill Creek. Conifers were planted in an area of primarily deciduous forest with a lack of mature conifers and significant sediment and erosion issues. Crews also installed Christmas tree and coir log placements to control erosion.

WRIA : Ongoing/Continuing Projects



Shinglemill Creek bridge after removal

Shinglemill Creek Bridge Removal (Vashon/Maury Island Land Trust – Shinglemill Creek)

In November, an additional trees and shrubs were added to the existing plantings, enhancing an additional

square feet of riparian buffer along Shinglemill Creek. Previous phases of this project have removed a derelict bridge, added LWD to the channel to enhance its complexity, and installed trees and shrubs to improve riparian areas.

Singer Riparian Fencing and Buffer Planting (Private Property)

Phase 3 of this buffer enhancement project occurred in November and added trees and shrubs to improve square feet of

buffer. 3.5 acres that were previously being grazed by horses and cattle are now protected by fencing.

Paradise Valley Planting (Vashon/Maury Island Land Trust)

This project aims to reforest acres in the Paradise Valley Natural Area that borders Judd Creek. In Phase I, ivy, Scotts broom, and blackberry were removed from acres of the natural area, and trees and shrubs were planted. Phase II occurred in November and consisted of planting conifers and shrubs, enhancing a further acres of the natural area. Maintenance of invasive species is also ongoing.

WRIA : Monitoring and Maintenance

- Fisher Pond Planting (Vashon/Maury Island Land Trust)
- Fern Cove Planting (Vashon/Maury Island Land Trust)



Fisher Pond mulching

WRIA : Technical Assistance

Wilke Technical Assistance (Vashon Island School District)

Provided technical support and planning for the Vashon School District as they plan to enhance a retention/detention pond and convert it into an outdoor native classroom.



Wilke Pond, before project

To Submit a project application contact Mason Bowles at or mason.bowles@kingcounty.gov. Or check out our Web site at <http://dnr.kingcounty.gov/wlr/cposa/shrp/>

