

FINANCIAL IMPACT STATEMENT **For Council Action Items**

(Use this form for Ordinances and Resolutions)
(Deliver original to Financial Planning Division. Retain copy.)

1. Name of Initiator Jennifer Goodridge	2. Telephone Number (503) 823-4899	3. Bureau/Office/Dept. Bureau of Environmental Services
4a. To be filed (date) July 27, 2009	4b. Calendar (Check One) Regular Consent 4/5ths [X] [] []	5. Date Submitted to FPD Budget Analyst: N/A

1) Legislation Title:

This item is not legislation, rather a presentation to Council about a successfully implemented project.

2) Purpose of the Proposed Legislation:

The Stephens Creek confluence habitat enhancement project combines infrastructure removal and habitat enhancement. This project involved coordination amongst several partners including BES, Parks, PBOT, ODOT, and Parks volunteer stewards. Project planning and implementation was also funded by several sources including grants, CIP, and watershed investment funds. We hope that this is one of many upcoming collaborative projects to enhance watershed health within the City.

3) Revenue:

Will this legislation generate or reduce current or future revenue coming to the City? No If so, by how much? If new revenue is generated identify the source.

4) Expense:

What are the costs to the City as a result of this legislation? N/A

5) Staffing Requirements:

a) Will any positions be created, eliminated or re-classified in the current year as a result of this legislation? No

b) Will positions be created or eliminated in *future years* as a result of this legislation?
No

6) **Change in Appropriations:** Budget changes for the current year must go through the BMP Process. This section may only be use with prior permission of your OMF analyst for exceptions.
N/A

Fund	Center Code	Account	Amount	Project Fund	Project No.

OFFICE ONLY

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Dean Marriott, Director, Bureau of Environmental Services

APPROPRIATION UNIT HEAD (Typed name and signature)

Dean Marriott

Stephens Creek Confluence Habitat Enhancement Project

2009

working for
clean rivers,
healthy
watersheds,
and a livable,
sustainable
community

The confluence of Stephens Creek and the Willamette River is in Willamette Moorage Park in southwest Portland. Portland Parks & Recreation (PP&R) owns the 3.5-acre project site, which is part of a 35-acre complex of publicly owned natural areas known as the South Portland Riverbank.

The Stephens Creek confluence provides critical rearing and refuge habitat for native, ESA-listed Chinook and coho salmon and steelhead trout, and for rainbow and cutthroat trout, and Pacific and brook lamprey. This project improved in-stream, stream bank, and floodplain wetland habitat for native fish and wildlife.

Restoration Approach

The project:

- Removed artificial structures, such as the combined sewer overflow (CSO) pipe that limited natural floodplain connectivity
- Re-sloped the stream banks to increase stability and facilitate revegetation
- Installed large wood to increase stream bank habitat complexity and improve cover, foraging and refuge potential
- Formed scour pools near large wood complexes to provide deep, shady, cool refuge areas
- Created off-channel habitat to provide low-velocity refuge for fish during high flows
- Revegetated to increase habitat complexity and provide shade and over-hanging vegetation cover to Stephens Creek and the Willamette River
- Installed brush piles and snags to improve wildlife habitat



Stephens Creek confluence before pipe removal



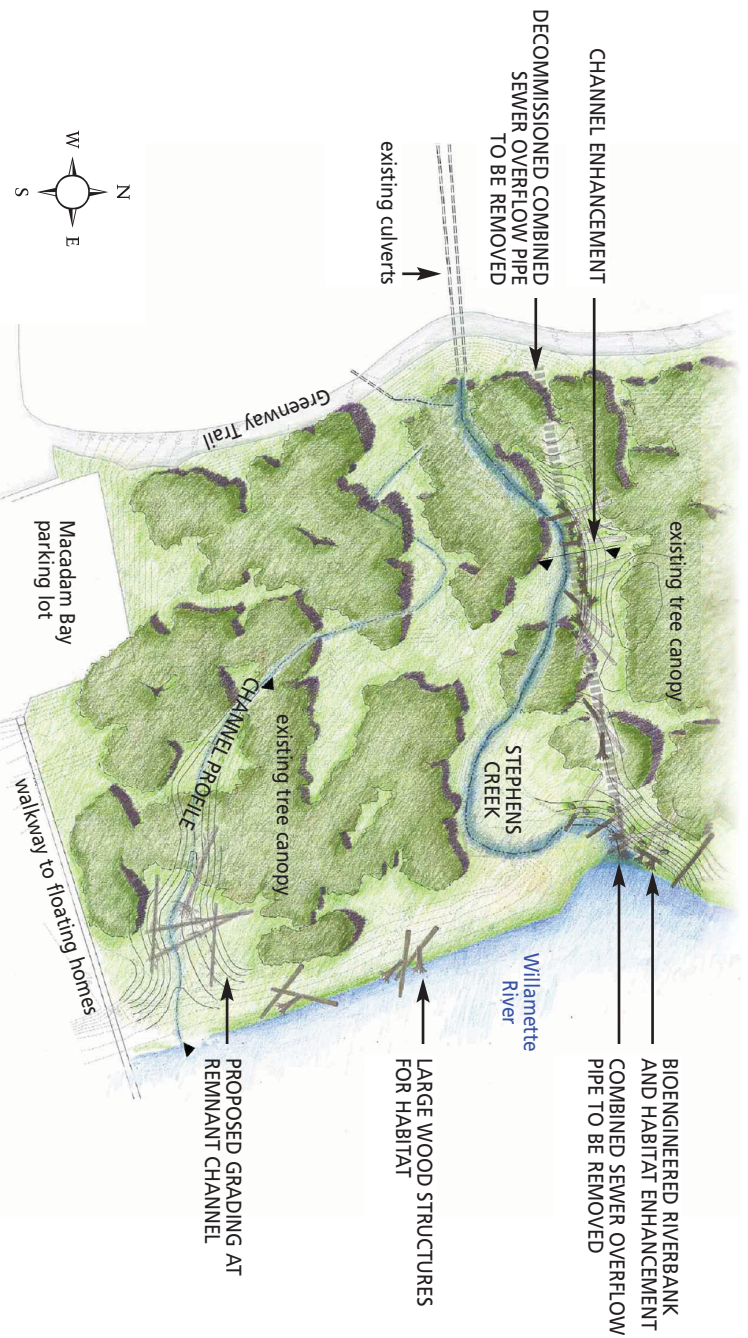
**PORTLAND
PARKS & RECREATION**



**ENVIRONMENTAL SERVICES
CITY OF PORTLAND**
working for clean rivers

Dan Salzman, Commissioner
Dean Mariotti, Director

Project Plan



Funding

This project is funded by the Bureau of Environmental Services Watershed Investment Fund and Capital Improvement Program, Port of Portland, The Nature Conservancy through Portland General Electric, the Lower Columbia River Estuary Partnership through the Bonneville Power Administration, Oregon Watershed Enhancement Board, FishAmerica Foundation, American Sportfishing Association, and NOAA Restoration Center.

Partners

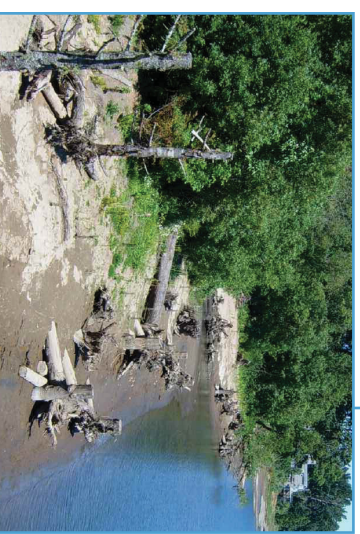
Environmental Services
Portland Parks & Recreation
Friends of Trees
Macadam Bay Homeowners Association
Oregon Department of Environmental Quality - Volunteers In Action
South Portland Neighborhood Association
Willamette Riverkeeper

Timeline

Project predesign began in January 2007. Construction was completed in December 2008. Revegetation, maintenance and monitoring is ongoing between February 2009 and October 2013.

For More Information

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General Information, Anne Nelson, 503-823-2584, anne.nelson@bes.ci.portland.or.us
Effectiveness Monitoring, Marc Peters, 503-823-9389, marc.peters@bes.ci.portland.or.us



Infrastructure and large wood structures complete. Revegetation began in 2009.

Together, these projects control invasive vegetation, restore native plants, and improve fish and wildlife habitat on 35 acres and more than 7,000 feet of riverbank.

Many public, non-governmental, and private organizations work together with citizen volunteers on the South Portland Riverbank Projects.

The partners

Portland Bureau of Environmental Services

Portland Parks & Recreation, City Nature Division

Lower Columbia River Estuary Partnership through Bonneville Power Administration

National Oceanic and Atmospheric Administration Community Based Restoration Program

Oregon Department of Environmental Quality - Volunteers in Action

Macadam Bay Club Homeowners Association

South Portland Neighborhood Association

Willamette Riverkeeper

Friends of Trees

Community Watershed Stewardship Program

Portland Audubon Society

Urban Greenspace Institute

Northwest Service Academy (AmeriCorps)

Port of Portland

The Nature Conservancy through Portland General Electric

Oregon Watershed Enhancement Board

FishAmerica Foundation

American Sportfishing Association



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WS 09143 revised August 2009

South Portland Riverbank Projects

AUGUST 2009

Before development

along the Willamette River in Portland, numerous side channels connected the Willamette floodplain with the main river channel. The historic floodplain stored floodwaters and sediment, recharged groundwater and wetlands, and provided nutrients for fish and wildlife.

Despite the area's urbanization, the South Portland Riverbank on the west side of the Willamette River is one of only four remaining natural areas along the river in Portland. Restoration projects here enhance wildlife habitat and improve rearing and refuge habitat for Chinook and coho salmon, steelhead trout and Pacific lamprey. These projects demonstrate sustainable landscape design and maintenance practices. Project activities include:

- Removing invasive plants
- Restoring native vegetation
- Placing large wood complexes
- Enhancing existing stream connections
- Providing opportunities for environmental interpretation and education



1108



South Portland Riverbank Projects seven separate projects for a cleaner river:



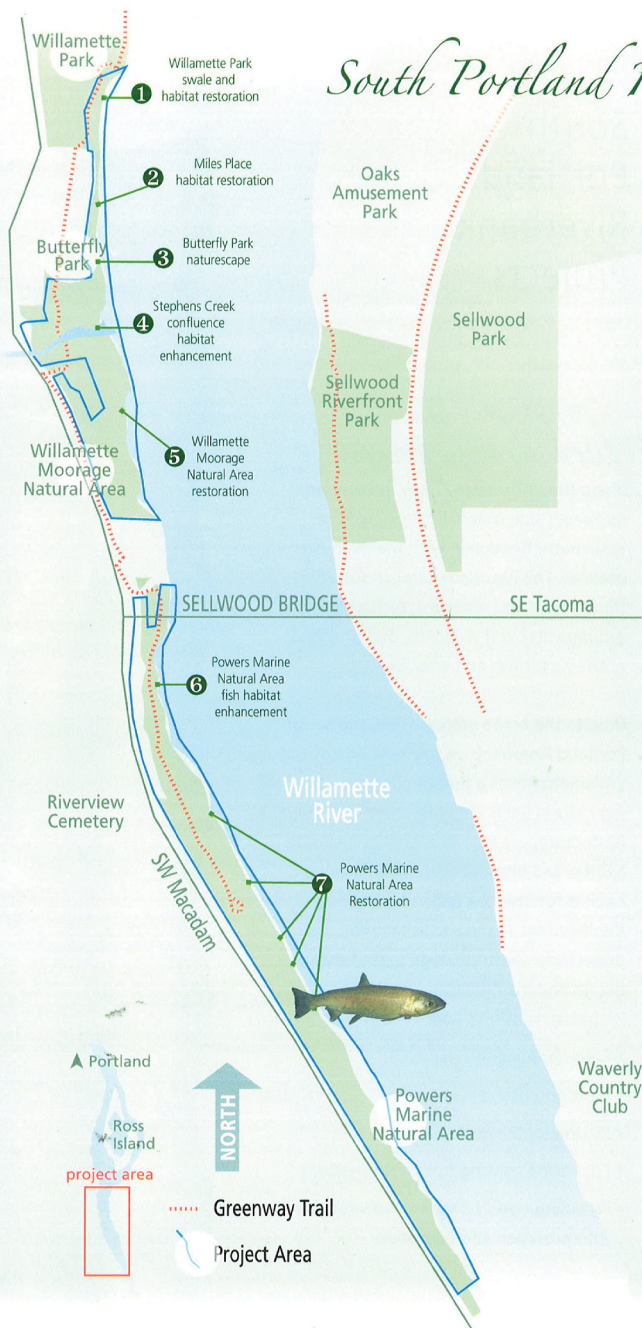
Powers Marine Natural Area riverbank



Volunteers restoring natural habitat



Stephens Creek confluence in Willamette Moorage Natural Area



1 Willamette Park Natural Areas - Swale/Garden and Riparian Restoration

Construction of a swale and native plant garden has enhanced the wildlife-rich willow mudflats of Willamette Park. Portland Parks & Recreation (PPR) and the Portland Bureau of Environmental Services (BES) began working together on the projects in 2002. In 2006, Friends of Trees (FOT) and community volunteers began removing English ivy and Himalayan blackberry from the riparian woodland at the south end of the park beneath the cottonwood trees. Plantings of native shrubs and wildflowers will continue into the future. PPR City Nature Division manages this park's natural areas with the assistance of the volunteer South Portland Riverbank Partners (River Partners) and the BES Watershed Revegetation Program.

2 Miles Place Riverbank Habitat Restoration

A thin floodplain corridor of public and private lands connects Willamette Park with Butterfly Park and other natural areas to the south. Since 2007, PPR City Nature staff and contract work crews supervised by the BES Watershed Revegetation Program have controlled invasive species on this site. FOT and Riverbank Partners planted the area with Columbia River willow, Douglas Spirea and perennial wildflowers to control beach erosion and add habitat function. Additional plantings and long-term maintenance is carried out by all site partners.



3 Butterfly Park and Neighborhood Nature Park - Native Plants Garden

Prairie grasses and wildflowers attract many beneficial insects, butterflies and birds to Butterfly Park. PPR designed and community volunteers planted Butterfly Park in the early 1990s as a neighborhood pocket park. The Riverbank Partners designed and planted the adjacent Neighborhood Nature Park in 2008. The Riverbank Partners manage both sites with help from PPR. Each garden demonstrates native plant design principles and sustainable landscape maintenance practices.

4 Stephens Creek Confluence Habitat Enhancement Project

The Stephens Creek confluence with the Willamette River is an important off-channel refuge area for juvenile salmon in the Willamette River. It provides critical rearing and resting habitat for native, ESA-listed Chinook and coho salmon and steelhead trout, rainbow and cutthroat trout, and Pacific and brook lamprey. This recent habitat project:

- Removed an abandoned concrete sewer pipe
- Stabilized the streambank
- Installed large wood complexes
- Removed invasive species
- Revegetated wetland and riparian areas
- Installed interpretive signage

Construction was completed December 2008. Revegetation, maintenance and monitoring is ongoing through 2013. South Portland Riverbank Partners continue to help maintain native plantings.

5 Willamette Moorage Natural Area Restoration

Stephens Creek passes through this natural area that surrounds the Macadam Bay Club and moorage. BES Watershed Revegetation Program contract crews removed Himalayan blackberries and other invasive species growing beneath cottonwood and willow trees. FOT and the Riverbank Partners plant trees, shrubs and wildflowers on the riverfront.

6 Powers Marine Natural Area Large Wood Installation Project

Placing large wood along the riverbank in Powers Marine Park improved the amount and quality of rearing and refuge habitat for native salmon, steelhead and lamprey. Each of the three large wood complexes has a different design and is placed at a different elevation along the river's edge.

7 Powers Marine Natural Area Restoration

Powers Marine Park is a narrow 14-acre area of black cottonwood floodplain forest that extends south for almost a mile from the Sellwood Bridge to the Portland city limits. BES contract work crews removed laurel, holly, ivy, clematis, Himalayan blackberry, and reed canarygrass. The Riverbank Partners planted native trees, shrubs and forbs. Restoration of the floodplain forest improves terrestrial and shallow water salmon habitat.