Trillium Creek Restoration Project Final Report
Funding Year: 2001-2002
Recipient: Clackamas County Service District #1

PROJECT DESCRIPTION

Water Environment Services (WES) is restoring an urban stream in north Clackamas County. In summer, 2001, WES staff removed invasive species from the riparian zone of Trillium Creek. WES and Metro/USFWS have a grant contract for replanting the site with native trees and shrubs. WES hosted a volunteer planting event with the Friends of Trees on January 26, 2002. Attendance at the volunteer event was relatively good, and we planted 800 trees and shrubs of different native species (see attached planting list).

WES also worked with the Soils for Salmon program to place mulch over the site as a soil amendment. The site was broken into four test plots: plot #1 has 4" compost covering the entire site, and the trees have been mulched in addition to that; Plot #2 has 4" of compost covering the entire plot, with no additional mulch around the trees; Plot #3 has only mulch placed around the trees, and Plot #4 has no compost or mulch on the plot. Soil testing was done prior to the placement of the mulch in each test plot, and samples will be taken annually to monitor the changes in the soil chemistry over time.

Maintenance of the trees has started, and volunteers are working in June to water and clip any blackberry or other invasive plant species that have grown since the planting event in January.

GOALS AND BENEFITS

Goals for the Trillium Creek project site include removing invasive plant species, and re-establishing a healthy, native riparian corridor along the stream. A healthy riparian area functions to provide shading to Trillium Creek, which will lower water temperatures and benefit aquatic and fish species utlizing the creek as habitat. Another goal of the project site is to involve Clackamas County citizens in stream restoration and salmon recovery efforts in their neighborhoods, and provide public education for long term environmental stewardship.

WORK TASKS AND TIMELINES

October: Work Crews on site to remove invasive species
November: Work Crews on-site to remove invasive species, Friends of Trees and WES preparing planting events, ordering plants, mulch, and planting materials
December: Work crews on site to remove invasive species, trash; Mycorrhizal fungi and Soil Moist ordered and delivered.
January: Preparation for January 26th planting event; on January 26th, 40 volunteers planted 800 trees and shrubs.
February: Correction crews follow up with mulching and tubing plants, ensuring that all have been installed correctly.
May: Friends of Trees conducts initial monitoring plot counts, Metro contract closed out.

PROJECT BUDGET

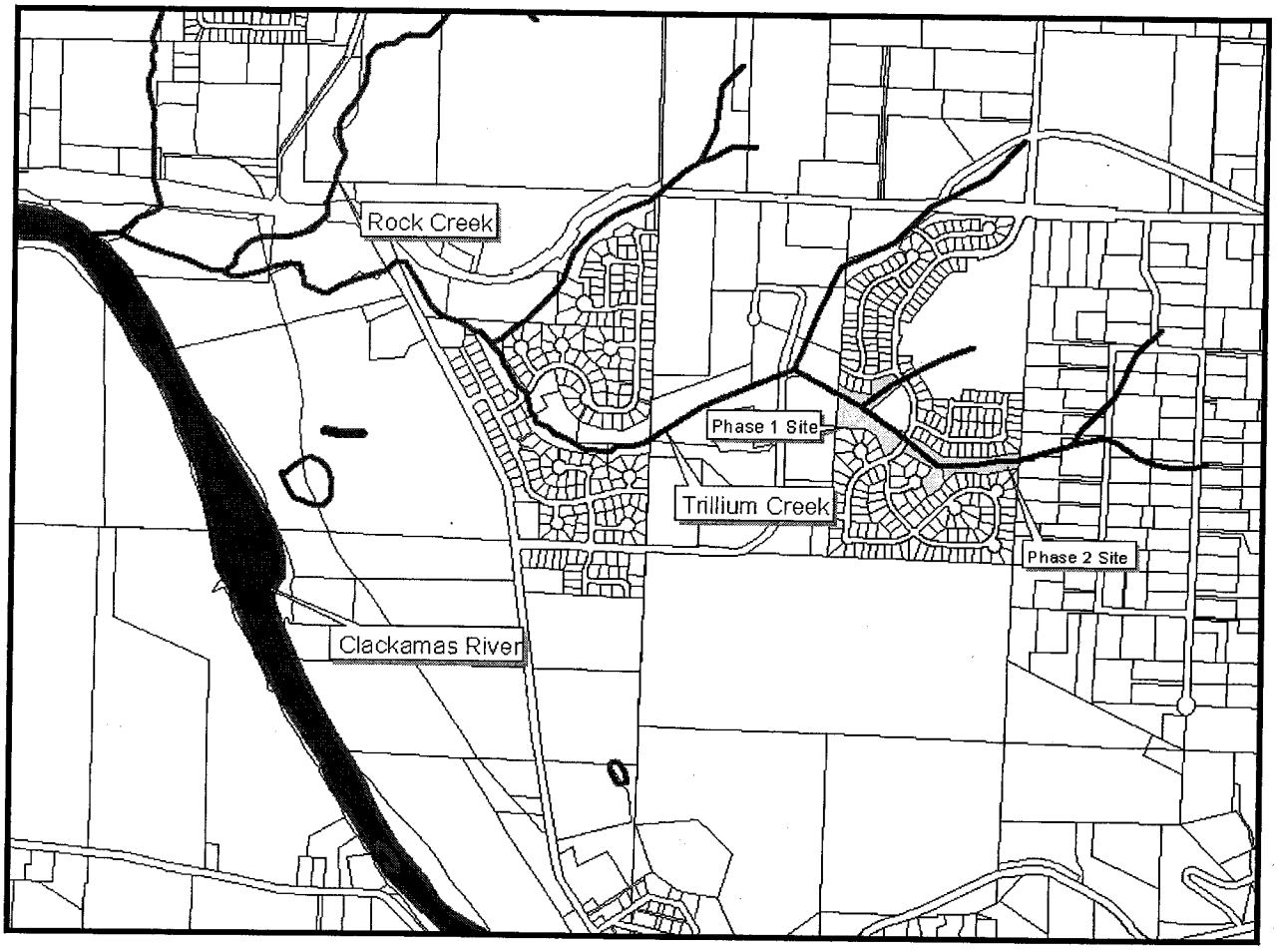
Please see attached

PROJECT STAFF/VOLUNTEERS

WES staff: Karen Streeter, Jim Burch, Matt House, Carol Drudis
Friends of Trees Staff: Ryan Derocher, Anil Devnani
Volunteers: Cub Scouts, citizens of Clackamas County; Clackamas River Basin Council

PROJECT RELATIONSHIP TO GREENSPACES PROGRAM

The Trillium Creek project site is located within Metro's Urban Growth Boundary, and as a result, geographically is within the range of the Greenspaces Program. The goal of the greenspaces program is to provide funding for urban projects that emphasize environmental education, habitat enhancement and watershed health. The Trillium Creek project directly supports that goal because it is an open space owned by Clackamas County, located in the heart of urban Clackamas County, and is restoring the environment for future generations.



WHAT WORKED, WHAT DIDN'T, HELPFUL HINTS

What Worked: Using the Friends of Trees to help with planning planting projects and plan volunteer events worked great. Using Corrections Crews to remove invasive species is a source of low cost labor, and helps keep projects under budget. Mulching the site to amend the soil will help plant growth and retard the reinvasion of invasive species.

What Didn't Work: It snowed on our planting day, and we didn't get as many volunteers as we had hoped for because of the cold weather. Additionally, outreach through our community mailings didn't work as well this time as it had in the past (we don't know why this was).

Helpful Hints: Citizens seem to really be looking for volunteer opportunities such as these. Parents like to teach their kids about the value of the environment, and many schools are requiring attendance at planting events to get credits in school. Mulching the site holds water, which will be invaluable over this year's drought summer, and mixing in the Soil Moist Fines, which also store and release water over time, should also prove invaluable. Keep the planting period less than 4 hours, as younger children get

distracted fast. Our site is steep and was slick on the planting day-- some people fell down; we were lucky that no one got hurt because of the site conditions.

ADVICE FOR OTHER PROJECT MANAGERS

1. Ask for assistance from resouce agencies who have hosted successful planting projects in the past, such as the Unified Sewerage Agency, Water Envirionment Services, the Friends of Trees, and the Oregon Department of Fish and Wildlife.
2. Look to your County Correction's Department for work crews. These folks are very cost effective, bring their own equipment, and provide a hard day's work for very little money. Correction's Crews can only work on publicly owned land, however.

MONITORING AND MAINTENANCE PLAN

Month, Annually	Activity
May	Mow dead aboveground biomass if applicable. Water vegetation depending on weather conditions
June	Water vegetation, Clipping/Mulch if needed (FOT)
July	Water vegetation
August	Water vegetation, Cut back/Mow exotic vegetation, Mulch if needed (FOT), Monitoring (FOT)
September	Water vegetation, Spot spray nonnative vegetation as described above
October	Water vegetation depending on weather conditions

ACCURATE COUNT OF NUMBERS AND SPECIES OF TREES AND SHRUBS PLANTED

Please see attached planting list for Trillium Creek.

Trillium Creek Planting List

Species	**Quantity**
Abies grandis	40
Acer circinatum	55
Acer macrophllum	105
Alnus rubra	95
Crataegus douglasii	20
Fraxinus latifolia	34
Mahonia aquifolium	34
Malus fusca	13
Populus trichocarpa	10
Pseudotsuga menziesii	162
Quercus garryana	20
Rhamnus purshiana	40
Rosa pisocarpa	34
Rubus parviflorus	34
Sambucus racemosa	34
Symphoricarpus albus	20
Thuja Plicata	50
TOTAL	800

Trillium Creek Restoration Project Grant Application Budget

Work Order Number W150113 **Grant Number** USFWS 922541

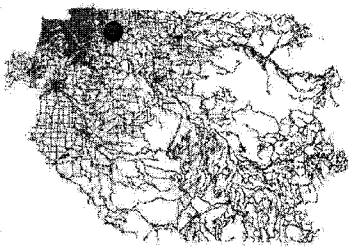
USFWS/Metro Request

Item/Task	Cost/ Unit		Units Needed	Extended cost
Site Preparation Cut	$250.00	day	4	$ 1,000
Bareroot Plants	$ 0.66	plant	850	$ 560
Bamboo Stakes- Small		each	2088	$ 202
Blue Tubes	$ 0.55	each	644	$ 354
Wooden Staples (6")	$ 0.10	each	1600	$ 144
Flagging	$ 1.00	each	4	$ 7
Compost	$ 11.00	Unit	72	$ 621
Porta Potty (for planting event)	$ 100.00	day	1	$ 100
Site Maintenance Cut (year -2)	$250.00	day	4	$ 1,000
Total Request Amount				**$ 3,988**
Amount of Grant Funds Remaining				**$ 70**

WES Match	Rate	Unit	Units	
50 Volunteers for 8 hrs each	$ 6.50	vol. Hour	140	$ 910
Site Preparation Cut	$ 250.00	per crew	2	$ 500
Native Seed (wetland)	$ 75.00	ac	3	$ 225
Soil Analysis Sampling	$ 91.20	each	9	$ 739
Native Seed (upland)	$ 42.00	ac	2	$ 84
Straw	$6	bale	20	$ 120
WES Staff for 40 hours	$30.00	surface water tech	80	$ 2,400
Total Match Amount				**$ 4,978**

Total Project Cost: **$ 8,966**

Trillium Creek Restoration Project, Phase 1



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WATER ENVIRONMENT SERVICES
A Department of Clackamas County

Water Environment Services
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(503) 353-4567

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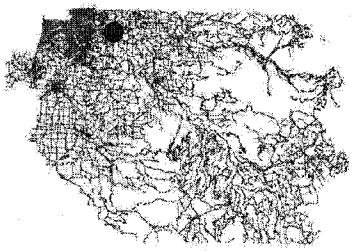
Trillium Creek, Phase 1 Aerial Photo



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