



Water Environment Services
WES

9101 SE Sunnybrook Blvd. #441, Clackamas, Oregon 97015

[Bids / RFP's](#)

[Community Outreach](#)

[Directions / Hours](#)

[Documents & Forms](#)

[Frequent Questions](#)

[GIS](#)

[New Customer Info](#)

[Online Pay](#)

[Permits & Manuals](#)

[Salmon Recovery](#)

[Services](#)

[Water Quality Resources](#)

[Clackamas County Home](#)

[WES-Home](#)

[Contact ESA Coordinator](#)

Clackamas County Salmon Conservation and Recovery



Three Creeks Restoration Project

The Three Creeks Restoration Project site is the "poster-child" for urban stream restoration in the Portland Metropolitan Area. This award winning project began in 1998 by Water Environment Services, and continues today. In 1999, the North Clackamas Chamber of Commerce awarded the Beautification Award of Merit to WES for "outstanding efforts toward community restoration" on this site. In 2000, the Oregon Department of Forestry awarded the Government Project Award to WES project manager Karen Streeter for "outstanding achievements and contributions to urban forestry through the Three Creeks project".

Project Location and Goals

This project is located near the Clackamas Town Center, in a 70 acre open space owned by Clackamas County (see map, below). Three creeks flow through the property-- Mt. Scott Creek, Phillips Creek, and Deer Creek, hence the name of the project area. The creeks all provide habitat for coho salmon, steelhead, cutthroat trout, and other native fish species. Spawning salmon have been observed several times in the creeks, and a coyote roams the open grasslands around the project location.

The restoration project has three focuses:

- Remove invasive species and plant native trees to keep the water in the stream cool
- provide better instream habitat for
- lessen the effects of urban development on the stream channels

Tree Planting Success

Before the project started, invasive Himalayan Blackberry covered the entire streamside riparian zone for a width of up to 250 feet. The blackberry was 12-15 feet tall, and heavy equipment was used to remove the blackberry and its root structure from the ground. The site was immediately seeded with native grass seed, and an intensive tree planting effort began. To date, over 10,000 trees have been planted by 400 community volunteers.



Volunteers clearing blackberry from the Three Creeks Site

Volunteer Tree Planting Events

As you can imagine, maintaining so many "baby" trees is an intensive labor of love. WES is extremely lucky that a volunteer crew of the Friends of Trees (called the Tsunami Crew) has adopted the site. This crew of 15-20 people works tirelessly several days per month to take care of the young trees, and clip blackberry as it grows back. The crew does not believe in using herbicides to control the invasive species, and so they are successfully eradicating the blackberry manually. Chris Runyard, the Tsunami Crew leader, was presented with the Silver Spade Award in 2002 by WES for his outstanding efforts toward community restoration and enhancement. Chris is constantly looking for new crew members to help him, and if you are interested, please contact him through the Friends of Trees (www.friendsoftrees.org).



Volunteer Tree Planting Event - Phillips Creek

Salmon Habitat

The Oregon Department of Fish and Wildlife conducted a study of the habitat quality of the streams in CCSD#1 in 1997-1999. In the Three Creeks Project area, ODFW indicated that many opportunities existed for enhancement of

the stream channel to provide better habitat for salmon and steelhead. Additionally, symptoms of urban development were evident in the stream channel, most obviously through a phenomena called "scour". Streambed scour happens when water flows through the stream channel faster than it used to because of the network of pipes that brings the water off of the streets into the stream channel. This high velocity water erodes the streambanks, and over time, the streambed falls lower and lower into the ground.



An excellent photo of stream "scour"-- notice how far down the water is from the grass; the water used to be at the same level as the grass, but higher flows from stormwater has eroded Mt. Scott Creek.

One way to provide better salmon habitat, and to begin the reversal of the streambed scour is to place woody debris materials into the stream channel. In 1999, the Oregon Department of Fish and Wildlife, Metro, the U.S. Fish and Wildlife Service, and the American Sportsfishing Association's FishAmerica Foundation provided grant funding for the placement of woody debris in the stream channel.



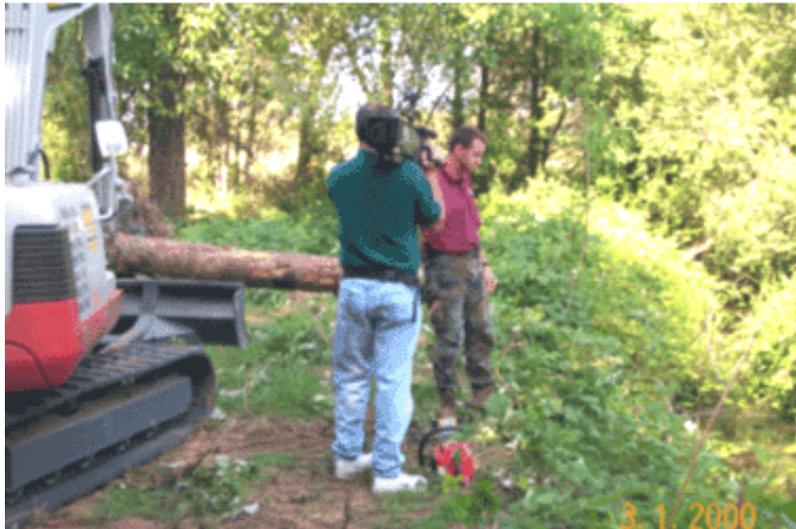
Photo of woody debris material used for stream restoration

Multnomah County provided the woody debris (which is trees with the root wad attached) from a roadway project they were constructing, Clackamas County Department of Transportation and Development provided dump trucks and river rock for the placement of gravel in the stream channel. The

placement was completed by WES staff over the course of three days. The woody debris was placed in the channel carefully, in the same configurations that would happen naturally. Local news crews were interested in this project, and WES was on the evening news on KATU Channel 2, KGW Channel 8, and KPTV Channel 12. The Oregonian and the Clackamas Review has highlighted the project in their papers.



KATU's Bob Heye and Project Manager Karen Streeter preparing for a televised spot on the news about the restoration projects



KATU's film crew interviewing WES' Jim Burch about the woody debris installation

The woody debris has been in the streams since 1999 and 2000, and we are pleased in the changes that we have seen in the stream channel. Gravel bars are developing upstream of the structures, pools are being created downstream. Observations of fish darting in and out of the logs has given encouragement to urban restoration biologists that we really can make a difference. In 2002, ODFW will be performing monitoring surveys around the restoration projects to determine the level to which fish are using this new habitat.

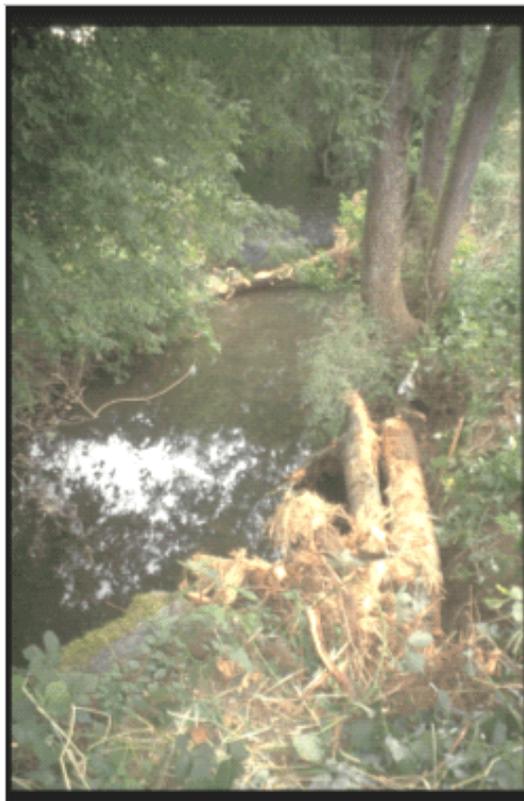


Photo of the scoured stream channel immediately after restoration grading and prior to tree planting

Site visits to the Three Creeks Restoration Project are easy to set up-- just call WES (503-353-4567) to arrange for a tour, or call the Friends of Trees to help out on a work day.

Partners in the Three Creeks Restoration Project

- o [Friends of Trees](#)
- o Friends of Kellogg/Mt. Scott Creeks Watershed
- o [U.S. Fish and Wildlife Service](#)
- o [Metro Greenspaces](#)
- o [Oregon Department of Fish and Wildlife](#)
- o [National Oceanic and Atmospheric Administration](#)
- o [American Sportsfishing Association - FishAmerica Foundation](#)
- o [Multnomah County Transportation Department](#)
- o [North Clackamas Parks and Recreation District](#)



The finished product!

[Back](#)

[Home](#)

[Contact Us](#)
[County Home](#)

[Clackamas](#)

For more [Information](#) or to contact the [Web Master](#) or to read our [Liability Statement](#)

©copyright 1996-2005 Clackamas County Information Services all rights reserved.

Updated: