

2004 Streamside Revegetation Final Report

Summary: Planting of streamside areas was conducted in Seattle and Goat Subbasins during the fall of 2004 in order to accelerate the recovery of streambanks and associated riparian zones disturbed by road decommissioning work. Restoration efforts associated with streamside revegetation were tied to stream crossings on decommissioned roads since these restored stream crossings tend to have extensive bare soils directly adjacent to streams as well as adequate access necessary for the transport of numerous potted plants. Stream crossings along the 610.a, 617 ½ and 641 roads were planted with 143 shrubs and 66 trees during the fall of 2004.

Goal: Restore natural riparian and streambank processes within the Cedar River Watershed and implement the HCP Streamside Revegetation commitment. By planting a combination of trees and shrubs along several recently disturbed or restored stream crossings, the intent was to promote bank stability, prevent chronic erosion and delivery of fine sediment into flowing water, and to help encourage the establishment of natural riparian vegetation.

Objectives:

- 1) Prevent chronic erosion and delivery of fine sediment into flowing water
- 2) Plant vegetation appropriate for site conditions and intended riparian functions. Strive for 95% survival after first year.
- 3) Plant conifers within 30 feet of streambank to accelerate recovery of shade and natural LWD recruitment processes from riparian zone.
- 4) Use volunteers where feasible as a tool for public outreach and education. Volunteers also greatly increase the amount of work we can accomplish within our existing budget.

Site Selection: Based on the assumption that recently decommissioned roads which are within or 200 feet of a stream or which have reconstructed stream crossings are likely to have stream-adjacent erosional features which are delivering fine sediment to flowing water, a GIS exercise was conducted to identify all potential road segments. In addition to the sites planted during 2004 (listed below), the following roads were evaluated: 610.1A1, 610.1A3, 610B, 610.1C, 611, 612, 613, 615 and 615.1. Potential restoration sites were then prioritized based on the following criteria:

- Close proximity of sites to streams with a high resource sensitivity to fine sediment inputs
- Area with chronic erosion which is delivering to flowing water.
- Access. Carrying potted plants onto site is logistically feasible.
- Areas with high potential for mass wasting and surface erosion which would deliver to the aquatic system.

Table 1: Complete list of roads evaluated in 2004 for opportunities for streamside revegetation

Road	Issues	Priority	Status
610.4a	Road parallel to stream for 500 feet.	High	Completed in 2004
617 ½	Numerous stream crossings in deep silt and clay soils with high potential for chronic erosion.	High	Completed in 2004
641	A few areas with stability and chronic erosion. Access is difficult.	Moderate	Completed in 2004

Table 2: Summary of site locations, characteristics, and plant information for 2004 streambank revegetation work. All shrubs and trees planted in 2004 were purchased in 2003 (to be planted along streams crossing the 73 and 73.1 roads).

Road	Site No.	Site Characteristics	Area	Species	No. of plants
610.4 A	1 Station 11+00 to 12+50	Headwater stream crossing. Wet site. Mostly on pulled . Very gently slopes. (30x100 area)	3000	Cedar	1
				Douglas Fir	11
				W. Hemlock	7
				Pacific Willow	29
				Red Current	13
				Salmonberry	24
				Snowberry	1
				Ocean spray	2
617 1/2	2 (Station 0 to 1+00)	Recontoured slope immediately above Viola Creek. Moist soils. Moderately steep site.	2500	W. Hemlock	22
				Douglas Fir	12
				Cedar	6
				Red Currant	22
				Thimbleberry	1
				Salmonberry	6
				Snowberry	1
				Pisocarpa rose	2
Ocean spray	10				
641	3 (Culvert 641-5: Station 50+40 to 51+00)	Restored low gradient headwater stream. Wet site (perched on consolidated alpine till).	900	Douglas Fir	4
				Cedar	3
				Snowberry	4
				Ocean spray	11
				Red Currant	13

Table 3: Summary (by road) of area planted with shrubs and trees during the 20004 streambank revegetation work.

Road	Planted in 2004		
	Area planted	Shrubs	Trees
610.4A	3000	73	19
617 1/2	2500	42	40
641	900	28	7
	6,400	143	66

Table 4: Itemized list of project costs and sources of cost savings for 2004 streambank revegetation work:

<i>Actual Project Costs:</i>				
Item	Source			Cost (\$)
Materials:				
Shrubs and trees	Wabash Farms and Mountains to Sound Greenway Native Nursery			- (purchased in 2003)
Personnel	People	Hours/person	Hourly Rate	
Ecosystem staff	1	30	56.25	1,687.50
Earthcorp	2	8	31.25	500
Total Implementation Cost:				2,187.50
<i>Cost Savings</i>				
Item	Source			Cost
Volunteers:	People	Hours/person	Hourly rate	
October 23, 2004	5	4.5	43.75	984.00
Total Cost Savings				984.00