

# Heron Glen Wetland Buffer Enhancement Project

## Progress Report

November 15, 2005

### Summary of Activity Since Last Report (August 2004)

#### Weed Control

There were few Scots broom (*Cytisus scoparius*) plants that emerged this year, and most of those were found in the drier northwest corner where tree establishment has been slower. Removal of these individuals took less than one hour over the course of the year. The adjacent property has now been completely developed, so there will no longer be a continual seed source for this species. Himalayan blackberry (*Rubus discolor*) continues to be the greatest problem on site, especially in the area around monitoring sites 1 and 3. This problem has been exacerbated by the removal of the large Oregon oak on the developed property directly north of the buffer at the end of last year. The increased light and decreased competition created perfect conditions for blackberry invasion.

The strategy adopted last year of cutting the canes and spraying the cut end with glyphosate has proved relatively effective in killing the root crown of these plants. Large plants have been easily eliminated. The most difficult aspect of blackberry removal is finding the small plants, which are generally hidden by vegetation throughout the spring and summer. Our removal strategy has shifted to a fall/winter regime, when grasses and other herbaceous plants have died back to expose the blackberry. Areas we had presumed to be blackberry-free were, in fact, partially recolonized by these small volunteers.

#### Tree Survival

There has been no further tree mortality since the 2003 survey. Individual *Alnus rubra* and *Populus trichocarpa* trees reach 25 feet or more in height: a remarkable growth rate for trees that were installed 4 and 3 years ago, respectively. The Oregon ash (*Fraxinus latifolia*) trees are also growing well but are not nearly as tall (they are a slower growing species compared to poplar and alder). Most of the site immediately adjacent to the wetland now has a closed canopy; the only exceptions are the northwest (monitoring site #2) and northeast corners furthest away from the wetland. Within this closed canopy are a number of native tree and shrub species, some of which were planted but most are volunteers. This year we tallied the following species:

Oregon ash (*Fraxinus latifolia*): 17  
Oregon oak (Garry oak, *Quercus garryana*): 46  
Black cottonwood (*Populus nigra*): 9  
Douglas fir (*Pseudotsuga menziesii*): 5  
Vine maple (*Acer circinatum*): large clonal population to the south of monitoring site #1)

Additionally, there are a number of volunteer shrub species starting to appear. We have found several clonal populations of both snowberry (*Symphoricarpos alba*), totaling over 200 individual ramets, and rose (*Rosa nutkana*), totaling over 150 individual ramets. There are also several native honeysuckle (*Lonicera involucrata*), elderberry (*Sambucus* sp.), and Indian plum (*Oemleria cerasiformis*) – all species on our desirable native plant list. The northwest corner of the site and some of the other drier areas have been colonized by bracken fern (*Pteridium aquilinum*), which has effectively shaded out noxious weed species.

An issue of concern is the apparent usage of the wetland buffer as a refuse disposal site by residents of the development to the north. We have found tree branches, asphalt chunks, and fruit (photos below) discarded at various times. Since we are not on site continuously and cannot determine who is dumping material (though we have a pretty good idea), it might be most effective for the county to send a letter to the five households explaining the nature of the buffer and the legalities of using it as a refuse pile.



## Proposed Activities for the Coming Year

1. Continued removal of weedy species. We will remove any Scots broom seedlings we find well before flowering and seed set. A final check for missed individuals will be made in the winter after leaf fall and grass dieback. Blackberry will continue to be cut and the root crown hand-sprayed with glyphosate to keep these weeds below grass level. Weed materials will continue to be composted on site away from the wetland proper.
2. Partial to complete census of woody trees and shrubs on site. This task may take two years given the extensive number of trees and shrubs on site. We will tag and record materials during this time for a 5 year analysis.
3. Continued seeding of oak trees. We will continue to spread locally grown acorns into the closed canopy area of the site.
4. Installation of Douglas fir (*Pseudotsuga menziesii*). In the late fall or winter of 2006 we will install approximately 50 drought-tolerant Douglas fir into the dry northwest and northeast corners of the site.

Photographs of the project area from the 2005 site visit are included as attachment 2.

Respectfully submitted,

Dr. Linda Chalker-Scott  
Associate Professor and Extension Horticulturist  
WSU Puyallup Research and Extension Center  
7612 Pioneer Way E  
Puyallup, WA 98371

Phone: (253) 445-4542  
Toll free: (877) WSU-MG4U (978-6448)  
FAX: (253) 445-4569  
URL: <http://www.puyallup.wsu.edu/~Linda%20Chalker-Scott/>



## Attachment 2



Monitoring Site 1. Facing North into subdivision area.



Monitoring Site 1. Facing East.



Monitoring Site 1. Facing South into wetland area.



Monitoring Site 1. Facing West.





Monitoring Site 2. Facing North into subdivision area.



Monitoring Site 2. Facing East into subdivision area.



Monitoring Site 2. Facing South toward wetland.



Monitoring Site 2. Facing west into neighboring property.





Monitoring Site 3. Facing North (toward Monitoring Site 2).



Monitoring Site 3. Facing East.



Monitoring Site 3. Facing South into wetland.



Monitoring Site 3. Facing West into adjacent property.





Monitoring Site 4. Facing North toward subdivision area.



Monitoring Site 4. Facing East.



Monitoring Site 4. Facing South into wetland area.



Monitoring Site 4. Facing West.





Monitoring Site 5. Facing North toward the subdivision area. Blue tags indicate planted oak trees.



Monitoring Site 5. Facing East. Note the size of the 3-year-old *Populus* trees in center of photo.



Monitoring Site 5. Facing West.



