Urban Forest Restoration in North Creek Forest Bothell, WA

University of Washington Restoration Ecology Network

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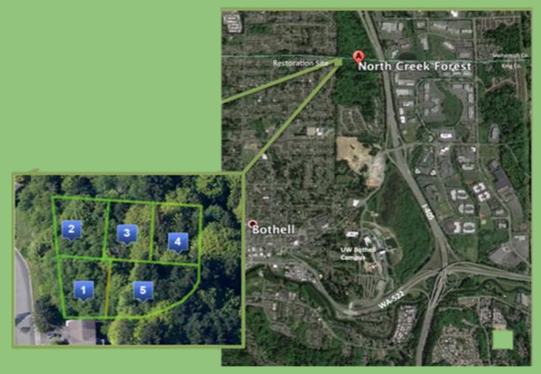
In partnership with Friends of the North Creek Forest.

Location and Conditions



The North Creek Forest is a 64-acre mixed-conifer urban forest. Friends of North Creek Forest began work to preserve this forest in 2011. We partnered with FNCF on their fourth consecutive restoration project. This site was 1/3-acre in size and is currently a second-growth forest composed primarily of mixed deciduous/conifer overstory. Invasive species were a main issue at this site. It was heavily overgrown with English ivy and Himalayan blackberry on the steep slopes. Another problem was a long standing waste pile located on a hillside.

English ivy overtaking red alder trees, some had already fallen down.

Project Goals

- Protect and enhance the establishment of the low-elevation western hemlock forest community within the site.
- Enhance forest ecosystem function and species diversity.
- Encourage both short and long-term community involvement.

Approach and Accomplishments

- Remove invasive species: English ivy (*H. helix),* Himalayan blackberry (*R. bifrons*), Hedge bindweed (*C. sepium*).
- Removal of yard waste pile and trash-16 cubic yards of waste.

Live stake bundle of Pacific willow and red twig dogwood.

Invasive species waste pile and tools of the trade.

Fascine installation.

- Reduce slope erosion by removing invasive species, then utilizing bioengineering by installing living fascines, wattles and livestakes.
- Increase diversity by installing 38 plant species for structural integrity, wildlife habitat and ethnobotanical attributes.

Salamander found on site.

Student planting tree at volunteer event. Photo Credit Friends of the North Creek Forest.

Fibrous roots of the sword fern which aid in slope stabilization.

- Create an aesthetically appropriate trail entrance.
- Provide educational opportunities
- Engage the local community in the restoration process with volunteer events.

The most successful volunteer event was with Whale Scouts totaling 117 volunteers.

Completed Work

Panoramic view of slope stabilized with living fascines as well as sword fern plantings.

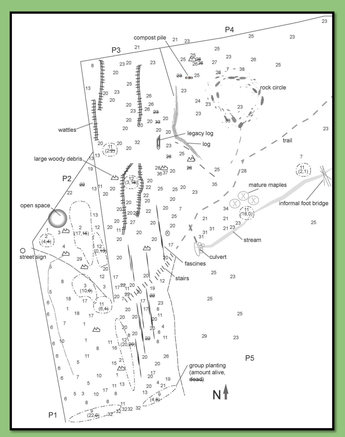
Left:Installed stairs and facines, removed ivy and stabilized hillside. Right: Installed wattles and red-osier dogwood live stakes.

Before

After

Long Term Prospects

- Fostering stewardship to build community involvement and volunteer opportunities.
- This restoration enhances habitat for wildlife including pollinators.
- This site will be used for research and education purposes.



As Built Map

Plant Legend

1. Black twinberry – *L. involucrata*
2. Oceanspray – *H. discolor*
3. Nootka rose – *R. nutkana*
4. Big leaf maple- *A.macrophyllum*
5. Baldhip rose – *R. gymnocarpa*
6. Woodland Strawberry – *F. vesca*
7. Red flowering currant – *R. sanguineum*
8. Grand fir – *A. grandis*
9. Pacific willow – *S. lucida* ssp. *lasiandra*
10. Orange honeysuckle – *L. ciliosa*
11. Ninebark - *P. capitatus*
12. Red-osier dogwood – *C. sericea*
13. Red elderberry – *S. racemosa*
14. Blue elderberry – *S. nigra*
15. Bracken fern – *P. aquilinum*
16. Serviceberry – *A. alnifolia*
17. Mock orange – *P. lewisii*
18. Blackcap raspberry – *R. leucodermis*
19. Indian plum – *O. cerasiformis*
20. Sword fern – *P. munitum*
21. Fringecup – *T. grandiflora*
22. Vine maple – *A. circinatum*
23. Western redcedar – *T. plicata*
24. Pacific bleeding heart – *D. formosa*
25. Western hemlock –*T. heterophylla*
26. Deer fern – *B. spicant*
27. Low Oregon grape – *M. nervosa*
28. Red huckleberry – *V.parvifolium*
29. Douglas fir – *P.menziesii*
30. Devil club – *O. horridus*
31. Maidenhair fern – *A. pedatum*
32. Salmonberry – *R. spectabilis*
33. Beaked hazelnut – *C. cornuta*
34. Inside-out flower –*V. hexandra*
35. Foam flower –*T. cordifolia*
36. Redwood sorrel – *O. oregana*
37. Violet – *V. adunca*
38. Spiny wood fern – *D. expansa*

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