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Raleighw./Sheil's Final Report

number of pages

5

date & time

9/18/98 10:35 AM

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Wilson Lynn

note

Lynn,

I'll send the photo points as soon as I receive them. Joe Blowers

RALEIGHWOOD/SHEIL'S PROPERTY RESTORATION YEARLY REPORT

September 20, 1998

Joe Blowers, West Sylvan Middle School

Summary

The Sheil's property (previously mistakenly called the Sheild's property) is a 2.5 acre upland property next to Sylvan Creek just upstream from its confluence with Fanno Creek. It is contiguous with Tualatin Hills Park and Recreation District's (THPRD) Raleighwood Park. In 1996, it was purchased with Greenspaces funds and added to Raleighwood Park. At that time, approximately half of the property was overgrown by blackberries. The remainder was split between a deciduous forest (degraded by English ivy), meadow, and a small riparian zone. The project is a collaborative effort between West Sylvan Middle School (Joe Blowers and students), Fans of Fanno Creek, THPRD, and neighbors of the park. The overall goals are to restore the Sheil's property to a healthy upland forest/riparian forest/meadow complex and to provide recreation, water quality, and wildlife values to the community. Planning began in October, 1996 and implementation of the plan began in September, 1997.

Project Goals and Timeline

Goal 1. Provide students with the opportunity to map and survey the newly acquired "Shields" property adjacent to Raleighwood Park.

October, 1996	Student volunteers selected, go on Salmonwatch field trip. They will later do the mapping as a community service component of the Salmonwatch Program.
February, 1997	Met with THPRD naturalist staff, mapping plan developed, student volunteers trained.
March, 1997	Student and parent volunteers map site and do vegetation survey. Others do community survey to ascertain neighbor's wishes and attitudes.
Late March-April, 1997	Select committee of students finalize map.

Goal 2. Using the site map students will work in their classroom groups and with THPRD staff to develop a draft plan for the site.

April, 1997	Six classes visit site, discusses issues, develops draft plan.
May, 1997	Select committee compiles results of survey and student recommendations. They prepares a draft plan, and present it to classes and THPRD staff.
August, 1997	Student volunteers present plan to THPRD board of directors.
September, 1997	Plan revised slightly. Final map of plan shown to new classes.

Goal 3. Students will implement the plan.

April, 1997	Some non-native vegetation is removed by students on field trips. Six western red cedars planted by students.
September, 1997	INTEL volunteers clear blackberries and plant donated shrubs and trees as part of Washington County Clean and Green project.
September-October, 1997	Neighbors water donated plants not yet planted.
November, 1997	Parents and students volunteer to remove a large area of English ivy and plant the area with the remaining plants donated by INTEL.
Early February, 1998	New select committee of four students formed to oversee implementation. Committee lays out first 100 feet of new trail.
February, 1998	Approximately 2/3 acre of Himalayan blackberries removed by THPRD. Erosion fencing installed downhill from removal site. Beaverton High School Honor Society installs first portion of trail. Three older students familiarize this year's sixth grade classes with the site and the plan.
February, 1998	Fans of Fanno Creek orders native plants requested. Select committee publicizes upcoming tree planting.
March, 1998	Student, parent, and neighbor volunteers plant native plants in conjunction with Fans of Fanno Creek annual tree planting.
April-May, 1998	Five classes take field trips to site and do follow-up mulching and weed control.
May, 1998	Select committee meets with owner (and potential developer) of neighboring property. Students and parents volunteer for a Saturday work party to do mulching and weed control.
June-September, 1998	Neighbors chop blackberries around plantings twice during the summer. Neighbors coordinate a watering program for the new plantings.

Goal 4. Students will monitor turbidity and other water quality measurements, reporting problems to the appropriate government or "friends" group.

April-May, 1996	Students report water quality violations to ODOT and Multnomah County. ODOT lays down erosion fencing and other erosion control devices to deal with the problem.
October, 1997-April, 1998	Students monitor and graph turbidity in various neighborhood creeks.

Evaluation and comments

In all aspects but one, this project has been a "smashing" success! The first three goals were met and exceeded. With each, students played an integral role. All students participated in brainstorming ideas for the restoration of the property and in implementing the final plan. Many students and parents volunteered outside of class time to continue this work. Approximately 16 students were deeply involved in designing the restoration plan, presenting the plan to the THPRD board, and/or guiding the plan's implementation. In addition to 11 classes of 6th graders and some of their parents, many other groups participated at differing levels. Fans of Fanno Creek advised and provided materials. The THPRD Board of Directors approved the final plan. THPRD naturalists advised and provided logistical support. Neighbors assisted with the plantings, weeding, and watering. Beaverton High School students worked on trails and

nestboxes. INTEL provided materials and volunteers through SOLV (Stop Oregon Litter and Vandalism). Friends of Trees provided technical expertise, more plants, and volunteers. And, of course, METRO Greenspaces and the Oregon Community Foundation provided grant funding. The cooperative nature of this work is one of the most gratifying things about the project. Guiding students to become active participants in real-life science and community projects is equally gratifying.

The fourth goal, to monitor turbidity in Sylvan Creek, was not successful. Students did monitor turbidity in some other creeks, including upstream Fanno, and graphed the results, but nothing was done with this information. The monitoring was treated as a voluntary, extra-credit part of the curriculum. As a result, sometimes it happened and sometimes it didn't. Because the data was so spotty, little could be done with it. Greater emphasis will need to be given to collecting regular data and on training students to be "detectives" to locate the source of the turbidity. Class time will need to be provided to train students, discuss findings, and to communicate with government officials.

Students collected creekwater turbidity samples only in creeks very near their homes, and often only in good weather and when they happened to think of it. In hindsight, it seems that greater emphasis needs to be put on accurate and timely collection of samples if useful data is to be collected. Parents need to be educated as to the nature of the project, so that they can cooperate in data collection. Sylvan Creek at Raleighwood Park is a few blocks out of the school attendance district, thus no students live nearby. A very motivated student or students with parents who support the project will need to be found if samples are to be taken from that location.

The site currently looks very good. The area cleared of ivy remains ivy-free and the plants are doing well. The areas cleared of blackberries also remain cleared, but only because of repeated "brushings" by neighbors in the summer of 1998. One problem in this area is that some of the cleared blackberries were piled in three piles. These piles have quickly become overgrown with sprouting blackberries. In all areas, survival of plantings seems to be about 80%. One exception to this is with the very small trees planted by Friends of Trees. Of those trees, few have survived. The weeds are very effective at shading out trees less than a foot tall. A second exception is near the beaver pond, where our furry friends have eaten many of the willows and alders. This area will need to be replanted. At least 2/3 of an acre remains to be cleared of Himalayan blackberries. Approximately 1/3 of an acre needs to be cleared of English ivy.

This fall and winter (1998), THPRD plans on having crews remove another large area of ivy and an even larger area of blackberries. West Sylvan Middle School students, parents, and neighbors will be enlisted to plant those areas with plants donated by Fans of Fanno Creek in March of 1999. Neighbors will be asked to continue to assist with weeding and watering in the summer of 1999. Tentatively, 6 classes of West Sylvan Middle School students will be taking field trips to the park in April or May, 1999 to assist with plan implementation.

Planting List and Survival Data (As of 9-17-98)

PLANT SPECIES	NUMBER	STATUS	SURVIVAL	NOTES
Douglas Fir (2')	79	74 alive	94%	Planted in full sun
Douglas fir (5")	11	2 alive	18%	Misplanted in shade
Grand fir (1')	9	8 alive	89%	Full sun to partial shade
Grand fir (5")	12	7 alive	58%	
Western hemlock (1')	5	3 alive	60%	Partial to full shade

Planting List and Survival Data (continued)

PLANT SPECIES	NUMBER	STATUS	SURVIVAL	NOTES
Big leaf maple (2-3')	16	7 alive	44%	All bare root saplings died. Full sun to shade.
Oceanspray (2')	32	24 alive	75%	Full sun/partial shade
Snowberry (2')	38	36 alive	95%	Tolerates varying cond.
Red elderberry 1-2')	53	37 alive	70%	Partial/full shade
Western red cedar (2-4')	6	6 alive	100%	Partial/full shade
Western red cedar (5-8")	49	34 alive	69%	Tolerates wet areas
Red alder (3-4')	42	12 alive	29%	Most eaten by beavers.
Willow sp. (2-3')	24	20 alive	83%	Full sun/wetlands
Vine maple (2-3')	28	28 alive	100%	Full sun/wetlands
Cascara (2-3')	15	15 alive	100%	Partial/full shade
Indian plum (2-3')	25	21 alive	84%	Full sun/partial shade
Mock orange (1-2')	6	5 alive	83%	Partial/full shade
Tall Oregon grape (2-3')	38	32 alive	84%	Full sun/partial shade
Red flowering currant 1-2')	2	1 alive	50%	Full sun/partial shade
Serviceberry (1-2')	7	5 alive	71%	Full sun/partial shade
Wood fern (1 gal.)	7	2 alive	29%	Plant in decaying wood
Sword fern (1 gal.)	15	14 alive	93%	Water well first year.
Nootka rose	3	1 alive	33%	Full shade
Salal	7	4 alive	57%	Full sun/partial shade
				Partial/full shade

TOTAL PLANTED: 529
(5-97, 9-97, 3-98, & 4-98)

TOTAL ALIVE 9-17-98: 398

OVERALL SURVIVAL PERCENTAGE: 75%

The small (5-6") bare-root plants did not survive well. They were shaded by weeds and were hard to see when clearing blackberries from around them. The larger container-grown plants did much better. Their survival rate was close to 80%, and would have been even higher if the beavers hadn't taken out so many of the red alders. It's important to cut back weeds around the seedlings a couple of times during the first couple of growing seasons, especially if the blackberries are trying to resprout. It's also important to water the seedlings during the summer drought for a couple of years. It's also important that each species of plant is placed in an appropriate microhabitat. For instance, within the same site there may be places perfect for shade-loving western hemlocks, and other places where they'll be dead before July.