

Ball Creek

in northwest Lake Oswego, north of Kruse Way and east of I-5,
within a developed subdivision



BEFORE

Lack of vegetation for habitat

Ball Creek is in a part of Lake Oswego that was farmed prior to platting and construction of the subdivision in the 1980s. Land use during the time that the property was farmed caused severe erosion and degradation of vegetation along stream bank. The creek was relocated during construction of the subdivision due to poor stream health, and banks were stabilized and revegetated. Irrigation was not installed during the first year.

The goal of the project, was to improve the fish and wildlife habitat and water quality of Ball Creek, this was accomplished by removing blackberries and tall non-native grass species and revegetating the area with native riparian trees and shrubs.



AFTER

Plantings doing well after the first year

Benefits

Stream health and fish and wildlife habitat quality greatly increased by planting native tree and shrub species along the bank. The shade and increased diversity of vegetation provided wildlife food and habitat and also assisted in controlling bank erosion.

Planting events offered neighbors a chance to meet one another and to begin developing a management plan for the creek. The project also inspired other neighborhood groups to contact the city about initiating future projects along other creeks within Lake Oswego.

Budget

Proposed – \$27,000

Actual – \$13,288.43

Metro/US Fish and Wildlife grant award – \$7,500

Helpful hints – what worked, what didn't

- If planting is being done in mid-summer, be sure to have a good irrigation system in place prior. The combination of a drip irrigation system with compost added to the planting holes and as a top dressing helped retain moisture and suppress weed growth.
- Allow several months of planning time prior to beginning the project. This allows time to include the public in the design process.
- Allow plenty of time to obtain local, state and federal permits. Rock check dams components of the original project scope were dropped from the design because of permit delays.
- Use slide film. It's more expensive to recreate slides from print negatives.
- Temporary drip irrigation with wide compost circles for each plant is highly recommended even if you don't plant in the dry season. If planting during summer, make sure people bring pick axes, post hole diggers and buckets for softening the ground with water if ground is hard or rocky.

Timeline and tasks

March 1992	In-house planning work to kick off project
June 1992	Plant bid lists sent out
June 13	First volunteer planting event
June 27	Second volunteer planting event

Partners

Lake Oswego Planning Department

Lake Oswego Surface Water Utility

Lake Oswego Maintenance Services

Lake Oswego Land Trust

Natural Resources Commission

Neighbors from the immediate neighborhood

Contact

Andy Harris, city of Lake Oswego

635-0284



Ball Creek

in Lake Oswego, northeast of the Mormon Temple; access to the site is from the west end of Suncreek Drive



AFTER

Enhancement by planting native species

The project lies in a stream corridor within a residential subdivision. The stream corridor is in city-owned open space. Objectives included stabilizing and restoring a natural stream channel, improving wildlife habitat, enhancing stream corridor and wetland native vegetation, improving surface water quality, and developing model construction plans and specifications for future stream enhancement projects.

Heavy development adjacent to the stream during the past several years had degraded the riparian corridor. Half of the stream had been channelized by a concrete liner. The liner and a culvert were removed to restore the natural stream channel. Erosion control was accomplished



BEFORE

Invasive Himalayan blackberry is the dominant vegetation

through stabilization using rock check dams and bioengineering techniques. Check dams were constructed using boulders in areas where erosion had occurred due to steep stream gradients and stream flow velocity. Natural stream bed gravels were installed.

Disturbed areas had been invaded with Himalayan blackberry. Wildlife habitat was improved by removing blackberries and planting and maintaining indigenous species along the corridor. These species included serviceberry, alder, willow, native hawthorne, red elderberry, fern, vine maple, hazelnut and Pacific dogwood. Vegetation was planted to restore the structural and native habitat diversity of the stream corridor. Large woody debris and fallen logs were retained for habitat. Trash, discarded wood products and old fencing was removed.

Benefits

The project has provided habitat for breeding, nesting, feeding and escape areas for wildlife. Once established, the riparian vegetation should lower water temperature, reduce stream velocity and stream bank erosion.

In addition, the city now has designs and specifications for enhancement treatment that can be applied to other stream restoration projects.

Timeline and tasks

September 1992	Surveyed project area.
April 1993	Produced conceptual construction plans; conferred with Metro review panel on design
May 1, 1993	Stream corridor cleanup day
June 1993	Produced final construction plans
June 18, 1993	Received city of Lake Oswego permit
Aug. 19, 1993	Received Division of State Lands permit
Sept. 20, 1993	Received Corps of Engineers permit
Oct. 5, 1993	Constructed of stream improvements
Oct. 16, 1993	Landscape installed by volunteers
April 15, 1994	Installed of dogwood and willow cuttings
March 1995	Final report
Ongoing	Maintenance and monitoring will be done the city and neighbors

Budget

Proposed – \$34,000

Actual – \$65,000

Metro/US Fish and Wildlife grant award – \$10,000

Helpful hints – what worked, what didn't

- The permit process can take a long time. Project managers need to plan ahead and consider the narrow window of time in the fall allowed for working in stream corridors.
- The earthwork for the project was done under the supervision of the consultant. This is critical to the success of any channel restoration work because it tends to be more art than engineering.
- Channel improvements endured several unusually large storm events over the past winter and are adapting very well.
- Plants came from two native plant nurseries, which delivered them the morning of the planting day to minimize vandalism.

- The planting day was advertised in The Lake Oswego Review and by direct mail to a volunteer mailing list. Two people from a nursery were hired to help with the planting and placement of plants in suitable habitats and locations for volunteers. The Lake Oswego Land Trust provided refreshments and helped coordinate the volunteer cleanup day. The Lake Oswego Maintenance Department provided a portable toilet and disposed of all cleanup materials.

Partners

Lake Oswego Surface Water Utility

Lake Oswego Parks Maintenance Services

Lake Oswego Land Trust

Girl Scouts

Neighbors from the immediate neighborhood

Lake Oswego High School Environmental Club

Contact

Andy Harris, city of Lake Oswego, 635-0284