

Tualatin River Wetlands

by Shelley Matthews

YEAR
5

in West Linn, west of I-205, between Johnson Road and the Tualatin River, at river mile 2.25

BEFORE

Exotic vegetation dominated the wetland habitat and adjacent uplands



AFTER

Native plants were installed to enhance habitat diversity, stabilize the streambank, and restore a functioning wetland ecosystem

This project area is situated on a historic flood plateau along a quarter mile of the eastern edge of the Tualatin River. Two wetland areas exist in the center of the site, which is bound by the Tualatin River to the west, dense trees and steep hillsides to the east and south, and houses to the north. The site was acquired by the City of West Linn via their Planned Unit Development process and the Tualatin River Protection Program, which requires the dedication of open space in sensitive resource areas. They intended the site to satisfy passive recreation needs of the community and to preserve the character and aesthetic beauty of the Tualatin River.

The Tualatin River Wetlands Restoration Project restored an area previously used as pasture land to an integrated upland, riverine and wetland ecosystem. Exotic vegetation was removed and trees, shrubs, and ground covers were planted around the wetlands to enhance habitat value and attract waterfowl and other wildlife. Additional vegetation was planted at the river's edge to stabilize the riverbank and prevent the deposit of sediment downstream. The area was graded lightly to establish a systematic drainage pattern to direct water through several ponding areas, and then down to the Tualatin River. Nesting boxes and rearing logs were installed for wildlife use. Benches, trails, a fishing platform, and a trailhead sign were added to enhance the site for recreational purposes.

"Low maintenance" plants were selected to keep the site relatively maintenance free and self sustainable. During the first two years following restoration, City staff and volunteers routinely monitored the project. Plants that failed or created hazardous conditions were removed and replaced. Following this two-year period, periodic reviews were conducted to identify any damage to the site and to make corrections.

Benefits

- Restored a functioning wetland ecosystem; created safe, healthy, diverse habitats for wildlife; provided residential stormwater pollution control; and transformed a site of marginal use to one with great educational and recreational potential for citizens.
- Stabilized the riverbank and prevented sedimentation by restoring native riparian vegetation.
- Involved school children in the design and installation phases of the project, and educated them on the complexities and issues of wetland restoration and rehabilitation.
- Resulted in a study curriculum for the wetland area, which can be used in future by people of all ages to learn about this sensitive wetland habitat.

Budget

Total Proposed – \$31,050

Total Actual – \$22,000 (estimate)

Metro/U.S. Fish and Wildlife Service grant award – \$12,000

Grant Dollars Spent - \$7,939

Helpful Hints – what worked, what didn't

- Have enough adults on hand to supervise groups of elementary school students. Students and Eagle Scouts, as a whole, were enthusiastic hard workers who completed each of their projects in a satisfactory manner.
- The volunteers from Friends of Trees exceeded the expectations of project managers. They did a superb job of educating students on native vegetation and the proper way to plant shrubs and trees.
- To minimize costs, use proper equipment for the job to remove blackberries or other invasive plant species, and double the removal time you originally anticipate.
- Have a good maintenance plan in place to prevent new plantings from being overtaken by reed canary grass, blackberry bushes, and other invasive species.
- Try using bareroot rather than container plants when planting within riparian corridors. This may reduce the number of plants washed away by floods.
- Be aware that unexpected environmental activities can have a significant negative impact on restoration activities. For instance, flooding subsequent to our planting wiped out new vegetation and protective fencing installed at the site. We also did not anticipate that a portion of the trail to the site would slump, making it difficult to reach the area with heavy equipment (i.e. bobcat and tractor).
- Consultants can be very costly – minimize their role in the project.

Partners

City of West Linn
Clackamas County HEEL group
Envirocorps
Environmental Learning Center
Willamette Primary School

Contact

Steve Mills, City of West Linn, Parks and Recreation, (503) 557-4700

Timeline and Tasks

Fall 1996	Removed a portion of the blackberries on the hillside; planted new vegetation in the riparian area, floodplain, and wetland; placed protective fencing around new plantings within the riparian area
Spring – Fall 1997	Constructed and installed three benches, a fishing platform, nesting boxes, trails, and a bioswale on the site; three western red cedar trees were removed adjacent to the site for use as rearing logs in the emergent wetland and rearing area along the Tualatin River; removed additional blackberries from the hillside
Fall 1997	Installed plantings within the uplands
Winter 1997	Installed the trailhead sign