Bones Creek

a tributary of Balch Creek; across Cornell Road from Audubon House in the portion of Portland Audubon's Sanctuary outside the city of Portland

BEFORE
Non-native invasive plants

AFTER
Native wetland plants act as buffer between creek and parking lot

Bones Creek drains a substantial watershed and flows into Balch Creek after crossing under Cornell Road. The wetlands was created in 1987 in order to protect Balch Creek from the effects of a landslide above the project site. Much of the watershed is extremely steep and a developed area upslope became liquid and flowed down the water course. Logs, brush, rocks, soil and silt finally stopped about 1,000 feet upstream from the wetlands. Large volumes of water and silt flowed into the wetlands area where the culvert under Cornell Road was blocked. The impounded water allowed the suspended soil to settle, sparing Balch Creek many cubic yards of sediment. The channel was widened and deepened. Although the wetlands had an artificial beginning, it served an important role. It required enhancement to make it more effective as a wildlife habitat, educational resource and a water quality feature.

The site needed five types of improvement:

- removal of invasive, non-native species such as Himalayan blackberry, English ivy and wild clematis
- boulders to slow stream fall to Balch Creek from the Cornell culvert
- a grassy swale built for water quality protection from the parking area
- a small wetland bench for plantings to provide food cover and nutrient uptake
- a buffer of native plants between the wetland and parking area

The site was to demonstrate how native plants can be used to stabilize slopes, improve water quality, provide wildlife habitat and screen habitat from human disruption and be aesthetically attractive. Environmental education materials, such as signs and wildlife houses, were to be posted. Many visitors to the Sanctuary park next to the site.

Development in the upper watershed has negatively impacted water quality. Inappropriate clearing, grading and building have led to slope instability and landslides have occurred. This project would have used a watershed perspective to stabilize the old slide, provide ongoing sediment removal and rehabilitate the pond. A small perennial spring about 500 feet upstream from the

Proposed timeline and tasks

Sept. 30, 1992 -

Aug. 1, 1993 ..... Remove invasive, non-native species; regrade and improve parking area; suggest a grassy swale for water quality protection; plant a buffer of native plants between the wetlands and parking areas

wetland assured the hydrology for successful vegetation. The vegetative swale and other associated plantings would have filtered any particles washed from the parking area as well as reducing nutrients to the main stem.

Benefits

The project would have enhanced a degraded tributary to Balch Creek in a very visible spot that would have received much publicity and many visitors. The project would have tested some techniques for landslide and streambank stabilization. It would have improved water quality in Balch Creek by decreasing siltation and increasing nutrient uptake and improved wildlife habitat by controlling the spread of non-native, invasive plants and planting desirable, native species. The location could be appreciated by visitors without adverse impact on wildlife. The viewpoints next to the parking lot would have created access to water's edge and lessened impact on wildlife habitat. The work will be carried out by volunteers and student groups. There would have been hands-on educational opportunities identifying, collecting, propagating and monitoring native plants. Workers and visitors would have observed wildlife and water quality effects.

Note

Parts of this project were done without Metro money. Himalayan blackberries were removed from portions of the site, but not to the extent of the original proposal. At the time Audubon applied for the grant, it did not have the personnel or funding to complete the grant requirements.

Budget

Proposed – $18,400
Actual – withdrawn
Metro/US Fish and Wildlife grant award – $7,650

Reason for withdrawal

The project was incompatible with the overflow parking construction planned by Audubon. Himalayan blackberries were removed as part of the enhancement efforts.

Helpful hints – what worked, what didn't

- Be prepared to deal with administrative paper work that goes along with grants.
- Make arrangements for the reimbursement schedule that grants often have.
- Pick your partners so they can support you in areas where your organization may face challenges such as funding, technical expertise and administrative back up.

Partners

PGE

Eagle Scouts

Audubon

Contact

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