

# Main City Park: Phase I

by Shelley Matthews

in Gresham, at the corner of Main St. and Powell Blvd.



## BEFORE

Bank failure with exposed irrigation line, stabilized with Emergency Management funding before prior to Greenspaces riparian restoration work



## DURING

*Water quality pond constructed and ready to plant*

## BEFORE

*Water quality wetland treatment pond area before construction*



Main City Park is one of Gresham's oldest parks. Much of the park was created in the late 1960s when a large oxbow meander of Johnson Creek was filled in. As such, much of the 1/3 mile of creek that flows through Main City Park is an altered channel. This fact, combined with the formalized park landscaping that existed down to the stream channel, contributed to a number of negative impacts on the stream including the lack of a native vegetation riparian zone along the streambank, a massive bank failure which was worsened by the 1996 flood, and two large storm drains that emptied pollutants directly into the creek. The storm drains and bank failure were addressed in Phase I of this project. The reestablishment of native wetland and riparian vegetation along the streambank were addressed later in Phase II.

The City of Gresham obtained emergency flood funds to create a boulder-terraced bank consisting of over 200 boulders ranging in size from 4 ½ to 6 ft. in diameter to stabilize the 130 feet long by 12 ft. high eroded bank. The boulder toe was placed several feet beneath the streambed, and four large root wads were incorporated into the toe to provide underwater fish habitat. With Greenspaces grant support for a complementary project, the remainder of the bank was converted from turf to a natural riparian zone. An erosion control seed mix was planted and trees and shrubs were planted in Phase II of this project.

A wetland water quality pond was created to intercept and filter the runoff from the two stormwater outfalls before it enters the creek. The two outfalls were diverted into the pond to capture oil and sediment; filtered flow then empties into the creek at a spillway point. The banks around the pond were planted with riparian trees and shrubs in Phase II of this project.

## **Benefits**

- Improved water quality by establishing a wetland treatment pond to intercept stormwater runoff, thereby reducing the discharge of sediments and pollutants into Johnson Creek.
- Stabilized a major bank failure, preventing further soil loss and sediment discharge into the creek.
- Restored connectivity and natural conditions along the creek, creating additional wildlife and fish habitat.
- Provided highly visible and accessible wildlife and plant viewing opportunities.
- Encouraged environmental awareness, and promoted stewardship and sense of community.
- Provided educational opportunities for both students and neighbors.

## **Budget**

Total proposed – \$39,750

Total actual – \$93,392

Metro/U.S. Fish and Wildlife Service grant awarded – \$15,000

Grant dollars spent - \$15,000

## Helpful Hints – what worked, what didn't

- Allow plenty of lead-time to track down and transport construction materials, such as large river boulders and root wads, to the project site. Consider special logistical needs like equipment and access; work out any special arrangements necessary to minimize time, distance, and damage that might be encountered in transporting heavy loads.
- Look for opportunities to recycle materials to reduce waste and project costs.
- For projects that are not self-explanatory from a drawing, have the contractor spend time with the consultant to ensure the contractor's ideas are executed as envisioned.
- Consider using coir or jute matting over a layer of straw to hold soil in place in a flood prone zone. Ordinary measures such as tilling soil or applying mulch do not work in flood prone areas – they wash downstream.
- The consultant team developed a holistic plan that considered habitat, aesthetic and recreational values as well as basic ecological functions.

## Partners

Brant Construction, Inc.  
City of Gresham  
Fishman Environmental Consultants  
Friends of Trees  
Gresham Rotary Club  
Multnomah Education Service District: Multnomah Youth Corps  
Natural Resource Conservation Service  
Northwest Service Academy: Envirocorp  
Water Resources Management  
Watershed Applications

## Contact

Lora Price, Parks and Recreation Division, City of Gresham, (503) 618-2659

### Timeline and tasks

August 1995	Analyzed stream reach; prepared concept plan
March 1996	Prepared site survey and base map
April-June 1996	Developed design for bank stabilization and water quality pond
June –August 1996	Secured and delivered boulders to site; prepared environmental reports; obtained DSL and City development permits; prepared, advertised, and awarded construction contract
September-October 1996	Stabilized bank and created water quality pond
September – December 1996	Seeded bank, installed erosion controls, planted with partners