

Gabriel Park

on the south side of Southwest Vermont Street between Southwest 37th Avenue and Southwest 45th Avenue



Gabriel Park is surrounded by residential neighborhoods that use surface storm drainage. The majority of roof drains flowed into the streets, where they collected in storm drains. The east side of the park has approximately 50 acres of drainage that culminated in a 24-inch outfall just inside the park at Southwest 37th, north of Southwest Nevada Court.

The drainage flows westerly for approximately 1,500 feet, where it joins Vermont Creek. A strip, ranging from 100 to 250 feet wide on each side, of this drainage was saturated most of the year. This drainage area was of primary concern to this project. The drainage channel had become deeply incised and contributed sediment into Vermont Creek. The project eliminated the existing erosive conditions and further reduced total suspended solids and other pollutants of concern in the storm water from entering Vermont Creek. The project provided educational opportunities for schools and residents of the area.

The project goals have been carried out through lining the incised channel with medium (8-inch diameter) to large (4-foot diameter) boulders over a crushed gravel base. The low flows were diverted to a wet meadow area via a buried pipe with a



AFTER

Ditch is transformed into a biofiltration swale, providing water quality and wildlife habitat (above)

BEFORE

Deep drainage ditch sheds sediment into Vermont Creek (left)

distribution manifold discharge. Higher flows bypassed to the newly lined channel. The meadow and adjacent areas have been planted with native grasses, flowers, shrubs, and trees. There were three types of plant communities: woodland edge, consisting of shrubs and trees; swale community, consisting of shrubs and grasses; and meadow, consisting of grasses and forbs.

To guarantee the survival of the planted materials, an irrigation (sprinkler) system was installed around the perimeter of the project. Funding was provided to the Parks Bureau to irrigate the site, remove nuisance plants, and replace failed plant materials for a two-year establishment period. Sediments are periodically removed from the inlet and clean outs will be flushed as needed to maintain an even flow to the wet meadow. After the establishment period, BES will turn the project maintenance over to the Parks Bureau. Photo visits are taken annually for a period of five years. After that time, a final report will be submitted outlining the project.

Benefits

- Improved storm water quality.
- Slower storm water flows, and little to no erosion from storm water drainage channel.
- Improved lawn-to-forest transition zone.
- Education opportunities for both students and neighbors of the park through classroom activities and information signs to be installed at the project location.
- Improved wildlife habitat.
- Reduce hazards for park users by raising the bottom of the storm water channel (as deep as 8 feet in places).
- Planted about 17,000 trees, shrubs, grasses, forbs, and flowers (not including seeded plants).

Budget

Proposed – \$223,160

Actual – \$197,044

Metro/US Fish and Wildlife grant award – \$17,430

Timeline and tasks

Fall 1992 -

spring 1994 Design and public comment

Summer 1994 -

fall 1994 Construction; landscape installation; ongoing maintenance and monitoring

Helpful hints – what worked, what didn't

Partnering with the Parks Bureau worked well to get neighbors and student groups together for planting. Having the Parks Bureau grow the plant materials saved money because the plants could be purchased at cost. Planting the landscape by neighbors, students and others created a feeling of ownership for those who participated.

Partners

City of Portland Bureau of Environmental Services

Portland Parks and Recreation

Landscape design - Mike Faha & Associates

Horticulture specialist - Mark Wilson

Contact Person

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