

Thornton Creek Headwaters Project at Northgate, Seattle, WA 2007

Prime consultant for urban creek headwaters restoration and urban runoff water quality treatment and detention project for Seattle Public Utilities. Creative, 'out of the box' design for new 2.7 acre open space combines 'Natural Drainage System' stormwater treatment functions with daylighted creek channel south of Northgate Mall in North Seattle. This 'Hybrid' design broke legal and political logjams and brokered support from community activists, a private developer and City of Seattle. Conceptual 'Hybrid' design completed in Spring 2004. Estimated \$3 million project scheduled for construction in 2007.

Growing Vine Street, Seattle, WA 1998 - 2004

Landscape architect/artist design team member, with artist Buster Simpson, architect Don Carlson and planner Greg Waddell, for innovative 'green street' master plan design, sponsored by Belltown/Denny Regrade community members. Concepts integrate nature and natural processes, reveal historic layers of pavement (urban archeology), blur traditional streetscape edges, allow for interaction and dynamism, and completely transform feeling of the street into a sculptural habitat and pedestrian-friendly place. Unifying earth/water features include the 'Runnel,' 'Cistern Steps,' and community p-patch garden plots.

Master plan completed in 1998. First phase '81 Vine Street' construction, including native habitat and wetland plantings and 'Beckoning Cistern' artwork by Buster Simpson, completed in Spring 2003. Second phase 'Cistern Steps' construction in Fall/Winter 2004.

Project wins Certificate of Merit from 1999 Ahwahnee Awards.

Carkeek Cascade, Natural Drainage System, N.W. 110th Street, Seattle, WA 2002

Prime consultant to Seattle Public Utilities for prototypical Natural Drainage System design. Work includes conceptual through final design documentation and construction observation for creative storm water treatment project along 4 blocks of residential street in Piper's Creek Basin of Northwest Seattle. Asphalt-lined ditches are transformed into aesthetic 8 - 10 foot wide, stepped channels or swales incorporating sedimentation structures, natural stream-like contouring and pools, 'green' structural earth walls, native vegetation and emergents for water quality treatment of approximately 23 acres of urban runoff. Cells also provide stormwater detention and infiltration.

Project includes sidewalk and other pedestrian improvements and ongoing flow and water quality monitoring. \$425,000 construction, completed in 2003.

Project and Natural Drainage System Program win 2004 American Government Award from Harvard University, Kennedy School of Government, and 2020 Vision Award from Puget Sound Regional Council in 2003.

Viewlands Cascade, Natural Drainage System, N.W. 105th Street, Seattle, WA 2000

Pro bono consultant to Seattle Public Utilities for first experimental cascade-style Natural Drainage System, built next to Viewlands Elementary School along a residential street, in Piper's Creek Basin of Northwest Seattle. Instead of piping as much as 75 acres of urban runoff directly to Piper's Creek, GAYNOR, Inc. proposed an alternative design that includes (16) stepped pools, 8 - 12 feet wide, with log weirs and initial sedimentation cell, for water quality treatment, detention and infiltration. UW civil engineering graduate students, through a program directed by Dr. Rich Horner, have been recording and analyzing flow data since 2000.

Project also includes new sidewalk leading to Carkeek Park and seating wall used by classes for outdoor learning. For hands-on environmental education, elementary school children, assisted by Peggy Gaynor, SPU staff and teachers, planted native vegetation on site. Major construction completed in 2000 for approximately \$225,000.

Project and Natural Drainage System Program win 2004 American Government Award from Harvard University, Kennedy School of Government, and 2020 Vision Award from Puget Sound Regional Council in 2003.



'Reflective Refuge' at Meadowbrook Pond, Seattle, WA 1998

Art team member creating large-scale ecological sculpture and mixed-media installations integrating earth, structure, and created-wetland detention and flood control pond, on 9.5 acre site near Nathan Hale High School in Northeast Seattle. 'Reflective Refuge' artwork provides sensory and experiential passage from the noisy urban environment to a place of quiet and reflection at confluence of Thornton Creek and pond. Artworks and installations include Sound Mirror, Sound Reflector Wall, Flood Pool, Tufa Cliff Wall, Wetland Mosaic and Earth Sculpture, which enhance subtle sight, sound, smell and touch sensations of site's natural environment and provide opportunities for human interaction, response and renewal. Approximately \$210,000 total Office of Arts & Culture (Seattle Arts Commission) funding and \$16,000 Starflower Foundation grant, in conjunction with \$2.5 million Seattle Public Utilities Meadowbrook Detention Pond project. Open to public in 1998.

Project wins 1998 Artistic Merit Award for Excellence in Concrete Construction, Special Applications.

Wetland Mitigation and Stormwater Treatment, S.E. 208th Street Improvements,

116th Avenue S.E. to 132nd Avenue S.E., Kent, WA 1998

Subconsultant for 1 mile of road widening impacts to wetlands and landscape for King County Public Works. Work involves wetland delineation, wetland mitigation, stormwater detention and water quality improvement concepts, landscape and pedestrian improvements, and public involvement. Five stormwater facilities are sensitively designed to fit small sites within residential neighborhoods, and incorporate wetland and stream restoration and enhancement. Project is among first to test implementation of King County's newly adopted Sensitive Areas Ordinance. \$2 million total construction, with approximately \$200,000 for landscape & wetland mitigation. Completed in 1998.

Norfolk Street Pond & Wetland Channel Restoration/Wetland Mitigation and Stormwater Treatment, I-5 High Occupancy Vehicle Lanes, South Tukwila Interchange to Lucile Street, Seattle, WA 1997

Subconsultant for wetland mitigation and stormwater facilities for 6 mile, 3-stage I-5 HOV Lanes project for Washington State Department of Transportation. First phase construction creates sensitively designed 3-cell wetpond at Norfolk Street for water quality and quantity improvement of highway runoff, and associated new meandering wetland channel that restores historic Duwamish River valley wetland, improves link to wetland east of I-5, and relieves flooding. Work includes other wetland mitigation sites and stormwater facilities, public involvement, permitting, environmental documentation and reports. Stages constructed from 1994 through 1997. \$60 million total project construction, with \$140,000 for Stage 1 Norfolk Street Pond and wetland. Completed in 1997.

'Waterworks Garden,' METRO Regional Treatment Facility, Renton, WA 1996

Landscape architect/artist, on art team with artist Lorna Jordan, for Conceptual Design of wetponds and wetlands on 7 acres of METRO's expansion of Renton Treatment Facility. Naturalistic leaf-like ponds and delta channel forms provide large-scale earth/water sculpture enhanced with creative native plantings, pedestrian access trail, and smaller-scale integrated and/or interpretive art pieces that celebrate and reveal metaphysical qualities of natural elements, particularly water.

Waterworks Garden creates artistic aesthetic for unique ecological art park that provides stormwater treatment, public education, passive recreation and wildlife habitat. \$1.2 million conceptual design construction budget funded in part by King County 4Culture (Arts Commission) Percent for Arts Program. Conceptual design completed in 1993. Final design constructed in 1996.



6th Avenue Wetponds, 164th Street S.W./S.E. Improvements, I-5 to Mill Creek city limits, Snohomish County, WA 1995

Subconsultant for design of innovative, multi-functional created wetland/wetponds for stormwater detention and treatment for Snohomish County Public Works. Three acre wetpond site detains and treats runoff from 90 acre basin along 164th Street S.W./S.E. near Mill Creek. Naturalistic organically-shaped ponds and channels preserve mature native evergreens and are revegetated with multiple-layered, diverse native plants. Ponds are circumnavigated by an access road/trail open to the public for passive recreation and education. In addition to stormwater functions, wetponds provide a variety of wildlife habitats. Constructed in 1994/1995 for approximately \$150,000.

'Incentives Analysis of Five Case Studies,' Storm and Surface Water Design Manual Update, King County, WA 1993

Subconsultant for design and incentives study addressing creative alternatives to common surface water facility design practices and agency requirements. Tasks include review of five built projects, redesign of each project's stormwater features and sites with various goals, and analysis of changes required in existing practices and regulations to encourage implementation of positive features from alternative concepts.

Alternative concepts explore: 1) multiple use of facilities as open space, recreation and aesthetics as well as drainage; 2) conservation and/or enhancement of existing natural features and resources, including use of natural swales and closed depressions as drainage features; 3) integration of drainage features into site grading and landscape themes; 4) consolidation of square footage requirements for open space, setbacks, landscape, etc. in order to allow greater flexibility in design solutions; and 5) separation of roof drainage from site runoff to reduce size of at-grade facilities. Update completed in 1993.

Fones Road Ditch Stormwater Treatment Demonstration Project, Lacey, WA 1992

Subconsultant for water quality improvements of urban runoff in existing ditch system. Project is a joint venture between City of Olympia, City of Lacey, and Thurston County. Work involves site analysis, wetland delineation, pollutant source inventory, hydrologic modeling, and design of stormwater treatment facilities (sidewall filters, stream sections, wetland enhancements, and other concepts) that serve water quality improvement, monitoring, research, and public education purposes. Master Plan also includes several interpretive stations and signs. \$450,000 design and construction estimate. Filter pond and pretreatment facilities completed in 1992.

