

Arboretum Mitigation Plan | **Appendix G: Washington Park Arboretum
Master Plan Priorities**

August 20, 2010

Washington Park Arboretum Master Plan

Implementation Plan Project Priorities

2010

Background

Project Information Sheets were provided in the initial 2003 WPA Master Plan Implementation Plan. The projects were listed as high, medium and future priority. On August 18, 2010 the Arboretum and Botanical Garden Committee approved the 2010 update to the Master Plan project list recommended by the Master Plan Implementation Group. The estimated costs of the projects have not been updated, nor have the projects' stated scope been revisited.

SR 520 mitigation will be addressed by ABGC and WSDOT representatives as well as the agencies of record – the City of Seattle and the University of Washington.

Original Criteria for Prioritizing Projects for Implementation

- High Visibility
- Creates Momentum
- Reflects the Mission of the Arboretum
 - Education
 - Conservation
 - Recreation
- Matches Funding Possibilities for Capital Costs and maintenance and Operations Costs
- Increases Maintenance and Operations Capabilities

High Priority Projects – (2003 Description of Project Follows):

- **South Entry – Madrona Terrace (Pacific Connections Gardens)**
- **Multi-use Trail**
- **Ridge Top Trail**
- **North Entry**
- **Azalea Way Pond**
- **Azalea Way Renovation**
- **Wayfinding and Interpretation**
- **Foster Is. Improvements**
- **Woodland meadow**
- **Graham visitor Center Remodel**
- **Foster Island Pedestrian Overpass-rescope project**

- Arboretum Creek
 - South Parking and Access
 - Off-site Admin. Function MOHAI
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Medium Priority Projects

- Arboretum Drive Relocation, Parking and Greenhouse
 - Graham Visitor Center Gardens
 - New Education Building
 - Curatorial Building
 - Additional Greenhouse- On hold due to lack of maintenance & operations funds
 - Maintenance and Operations Building and Yard-On hold due to lack of maintenance & operations funds.
 - Hillside Trail
 - Canopy Walk
 - Children's Arboretum
 - Alpine Slope Garden
 - South Pedestrian Overpass
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Future Projects

- South End Educational and Visitor Services Building
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Completed Projects

- Pinetum
- Irrigation Mainlines
- Japanese Garden Entry Structure/Pavilion on hold due to site constraints
- Westside Trail

*Washington Park Arboretum
Implementation Plan
Project Descriptions*

HIGH PRIORITY PROJECTS

- ***South Entry - Madrona Terrace (Pacific Connections Gardens)***
 - a. *Renovate existing rockery
Renovation of the existing historic rockery above Lake Washington
Boulevard (LWB) will announce the south entry and expose the sunny*

slopes of the terrace. The redesigned rockery will include clearing of overgrown vegetation and new plantings, showcasing plants for warm sunny locations. The restoration will be the first step in creating a strong sense of entry to the Washington Park Arboretum (WPA).

b. Eco-geographic

The eco-geographic exhibits, will offer both educational and recreational experiences for visitors and students to immerse themselves in accurate, naturalistic recreations of forest communities of the world. The collections provide opportunities for active conservation of endangered species from those selected forest communities.

i. Southern Oregon/Northern California

Forests related to our Pacific Northwest plant communities, but with additional trees and shrubs that are northern elements of Californian flora, incorporating existing Madrone and other native trees.

ii. Cool Mediterranean

Forests of a winter-rain region inland from the coast of the Mediterranean Sea.

iii. Chile

Plant communities emphasizing the forests of the Lakes District in south central Chile

iv. S. African/Australian/ Tasmanian

A small exhibit of plants from regions that are typically considerably warmer than Puget Sound country.

v. New Zealand

Plant display representing a high altitude forest community with winter-cold temperatures similar to the Seattle region.

vi. China

An eco-geographic collection representing the forests of Mount Omei, located across LWB and northeast of the Japanese Garden.

c. Education shelter

Shelter and displays to interpret plant communities of cool winter-rain region of the world, with climates similar to the Pacific Northwest west of the Cascades.

d. Parking lot

A 3D-car parking lot at the Madrona Terrace near the south end of Arboretum Drive, to support the new education shelter.

e. Demonstration/Exhibits

Exhibits which will compare plants in our native environment to similar forest communities of the world.

f. Irrigation

g. Interpretation/signage

- **Multi-Use Trail**

The southern length of the trail will begin at the intersection of East Madison Street and LWB and will connect bicyclists in the Harrison Valley to the Montlake and University neighborhoods to the north. The path will traverse the side slope

just north of Madison Street, reaching Arboretum Drive by passing above and behind the Stone Cottage. From there it will follow existing road cuts to Arboretum Drive. Construction of the multi-use trail will include the following projects:

- a. Retaining walls at cottage*
- b. Four bridges over Arboretum Creek*
- c. Grading and paving*
- d. Four roadway crossings: Madison Street, Arboretum Drive, Foster Island Drive and SR 520*
- e. Lighting at roadway crossings*
- f. Native forest restoration*
- g. Way-finding signage*
- h. Miscellaneous site restoration*

- **Ridge Top Trail**

This primary trail will originate above the Woodland Garden and follow the ridge top. The trail will pass through the conifer collection surrounding Sequoia Summit. At the trail's southernmost length, visitors will traverse the upper reaches of Rhododendron Glen and be introduced to the Ericaceae/heath family collections. Construction of the Ridge Trail will require the following projects:

- a. Two small pedestrian bridges over creeks*
- b. Grading and surfacing*
- c. Renovation of the Ericaceous/Rhododendron and heather*
- d. Renovation of the Ilex/hollies*
- e. Renovation of the Magnolia/magnolia*
- f. Renovation of the Acer/maples*
- g. Renovation of the Woodland Garden*
- h. Native forest restoration*
- i. Signing and interpretation*
- j. Irrigation*

- **North Entry**

The north entrance to the WPA will be clearly announced through the relocation of LWB and the re-establishment of the park space obliterated by the construction of SR 520 and the attempted construction of the R.H. Thompson freeway in the 1960s. Leaving behind the traffic of the adjacent highway, the boulevard will swing eastward, separating itself from nearby residences.

Construction of the north entry will include the following projects:

- a. Construct segment of new boulevard*
- b. Demolish segment of existing boulevard*
- c. Boulevard plantings*
- d. Establish a sense of entry much like the southern tree-shaded entry.*
- e. Synoptic Garden /I*

This combination native/ethno-botanical garden will present the stories of WPA's landforms and vegetation within local, regional and global contexts. This exhibit will include several small, designed gardens on ridge, valley and marsh micro sites that present natives, which also make good garden plants. This garden will introduce basic plant conservation

issues to visitors, using examples from the lowland Puget Sound flora.

- **Azalea Way Pond**

Continue the renovation process around the existing pond at the southern end of Azalea Way. Make it a focal point at the southern end of Azalea Way. Improve stabilization of the shoreline and drainage, including the creek. Renovate and improve the collections in the surrounding "bowl". Restore historic rocks

- **Azalea Way Renovation**

Renovation of the historic Azalea Way promenade will include improved drainage and the replanting of improved, disease-resistant plant selections according to traditional Azalea Way themes of cherries, rhododendrons, and dogwoods.

Restoration will include the following projects:

- a. One stream crossing - pedestrian bridge*
- b. Drainage system*
- c. LaWn/crushed surfacing*
- d. Planting*
- e. Signing and interpretation*
- f. Irrigation*
- g. Native forest restoration*

- **Arboretum-Wide Interpretive and Wayfinding Plan**

The interpretive plan will communicate to the visitor the mission and vision of the Arboretum. It is an overlay on the Master Plan identifying the major themes and educational messages as they relate to the site and plant collections. It will identify methods of interpretive media appropriate for the weather conditions of the Northwest, and a materials palette along with a wayfinding sign system suitable for an Olmsted park. The plan will serve as a guide to the implementation of all projects.

- **Foster Island Improvements**

Restoration of Foster Island and the surrounding environs will include the following projects:

- a. Foster Island Loop Trail*

The Foster Island Loop Trail will immerse the visitor within WPA's largest native plant collection. It will incorporate the existing Foster Island and Marsh Island trails and tied to renovation of SR 520 will complete the missing link between MOHAI and Duck Bay. The trail will follow the shoreline and provide several opportunities for access to the water.

- b. Shoreline Restoration*

By relocating parking, the unsightly and debilitating erosion along Duck Bay will be allowed to recover as a riparian edge. Green living plants and a view of the shores will be celebrated as part of the entry drive up to the GVC.

- c. Viewing Platform*

Small viewing deck over the water and shore of Duck Bay

- d. Horticulture Exhibits*

- i. Landscape for Wildlife*

Displaying plants and landscape design techniques to encourage native wildlife, in a naturalistic setting.

ii. Reclamation Point

A horticultural/ecological exhibit of trees, shrubs, and wildflowers restoring the ecological and wildlife function of a former garbage dump in the area surrounding the SR Route 520 ramps, consistent with environmental regulations

e. Renovation of Salix/willow collection

f. Eco-geographic

i. Enhance existing PNW Marsh community

ii. Develop PNW Lowland Forest Community

g. Foster's Island Environmental Education Shelter

A key feature of the interpretive and education programs associated with Foster Island will occur at Foster's Camp Environmental Education Shelter, located at the island's south end atop high ground. It will orient toward the marshland to the southeast. As the WPA reasserts its historical use of land and embayments surrounding Foster Island for collections, the role of this facility will become more integral to interpreting the value of native marshes in the greater Seattle ecosystem.

• **Woodland Meadow**

The walk up and through the display gardens will end above the Woodland Meadow, a 200-foot wide-open space for special events and community celebrations. Its western orientation will strongly link it to the Woodland Garden and collections. The relocated Arboretum Drive will lie behind a screen of evergreen vegetation, adjacent to the eastern property line. Water runoff that is currently collected in storm drains will now flow out of Broadmoor and off the park's eastern slopes into a re-established stream along the south edge of the meadow. It will continue through the Woodland Garden, connecting to Arboretum Creek at the valley bottom. The following projects will be included in the development of the woodland meadow:

a. Parking

A small 18-car parking lot, with access directly off Arboretum Drive, will provide space for special event deliveries and pick-ups.

b. Grading/subdrainage

c. Creek restoration

d. Acer / maple collection expansion

e. Planting - (tall evergreen hedges)

f. Irrigation

g. Signage and interpretation

• **Graham Visitors Center Remodel**

Renovate the Graham Visitors Center keeping its current size (5,690 sq. ft. footprint, 6,700 sq. ft. floor area), for visitor services. The renovated GVC will continue as the primary destination for visitors as an interpretive center. Its lobby will be entirely devoted to greeting visitors. At one corner will be an expanded gift shop. Opposite, an existing meeting room will become exhibit space that introduces the key messages of the education and interpretive programs. This

space will also include a small food service area served by the existing commercial kitchen.

- **Foster Island Pedestrian Overpass-project needs to be rescoped.**

A wheelchair accessible overpass over Foster Island Drive, including adding earthen fill on the north side to provide a ramping path down to existing grade.

Construction of the overpass will require the following projects:

- a. Bridge & fill
- b. Trail
- c. Quercus/oak renovation
- d. Native forest restoration
- e. Irrigation
- f. Signage/interpretation

- **Arboretum Creek**

Increase water flow at the source of Arboretum Creek, by allowing more water into the channel but keeping it in underground culverts via the playfield, emerging above ground west of Lake Washington Boulevard near the Interlaken Blvd. intersection; and enhance the creek bed's natural appearance and ecological function including a possible salmon run.

Restoration of Arboretum Creek will require:

- a. Tunnel under Madison Street fill
- b. Modify SPU storm water system south of Madison St.
- c. Two new ponds at south; new pond in north
- d. Rebuild creek bed and plant
- e. Daylight side creek below woodland garden
- f. Remove parking north of the Lynn Street pedestrian bridge
- g. Structure (bridge or box culvert) at Lake Washington Blvd.
- h. Establish PNW mixed forest collection
- i. Establish PNW riparian forest collection
- j. Renovation of Betula / birch collection
- k. Establish Populus / poplar, Alnus / alder and Fraxinus / ash collections
- l. Native forest restoration
- m. Irrigation
- n. Signage and interpretation

- **South Parking and Access**

Improve the parking lot between the Japanese Garden and playfield to accommodate more cars (present 84 increased to 128), 4 buses and to improve landscaping. The construction of the project will require:

- a. Intersection realignment

The downhill sweep beneath the cathedral-like oak and sycamore street tree alley of Lake Washington Boulevard will be maintained as the southern entry into WPA. The boulevard's intersection with Arboretum Drive will be reconfigured to create a T-intersection out of the existing oblique one and to align the entry into a reconfigured parking lot for the Madison Playfield and the Japanese Garden. The direct sight lines up and down the boulevard will allow WPA visitors access to and from the

- parking lot.*
- b. Parking expansion*
- c. Parking lot - shrub and groundcover trials*
- d. Wayfinding signage*
- e. Pedestrian activated signal*

- **Off-Site Administration at MOHAI**

The amount of General Services and Administration Facilities needed to eventually accommodate the full scope of program activity will require additional administration office space of approximately 4,000 square feet. This could be accommodated in the MOHAI building once the Museum moves to its new location. This building is located just north of SR 520 on the west end of Foster Island.

MEDIUM PRIORITY PROJECTS

- **Arboretum Drive Relocation, Parking and Greenhouse**

Relocate the northern third of Arboretum Drive eastward, from the Graham Visitors Center (GVC) to just north of the Magnolia display. Leave Drive open to through traffic; add measures to eliminate trucks and other inappropriate vehicles; utilize Drive for tram tours and other special-purpose access. The road relocation will allow uninterrupted pedestrian access from the GVC to the core collections and grounds. Relocation of Drive will require the following projects:

- a. Demo existing greenhouse*
- b. Replacement greenhouse*
- c. New parking @ GVC*

Remove most of the small parking lots at the north end of the park (6 lots, 108 cars) and expand the present GVC lot southward from the present 49 cars to 109 cars and 4 buses. Approximately, ten parking spaces would be retained on Foster Island Road and would include some spaces dedicated for barrier-free parking.

- d. New road (Drive, Intersection to Foster Island Drive)
Foster Island Drive*

The 14-foot travel lanes will accommodate bicycles going to and from the GVC and onto Arboretum Drive. Access to Broadmoor Golf Clubhouse will become a T-intersection and secondary route.

Parking along Foster Island Drive, is reduced from approximately 50 to approximately 10 spaces, on the side down slope from WPA maintenance yard. The proposed Arboretum Shoreline and Trail Improvements Plan completed in July, 2000 recommended 4 additional stalls (2 of them ADA) near the trailhead at the northern end of Foster Island Drive. Foster Island Drive's planted center median will create a line of green leading to the renovated Graham Visitors Center (GVC).

- e. Demo old road and restore landscape at Foster Island parking,*
- f. Foster Island Drive, Boulevard and Parkway trees*
- g. Signage*
- h. Irrigation*

- **Graham Visitors Center Gardens**

- a. *Synoptic Garden*

- Transform the spaces around the GVC into an overview, or synoptic garden of WPA's best. Allocate a large area around the GVC to the full expression of this idea: a year-round display of WPA's most beautiful and functional flowering trees, shrubs, vines and groundcovers. Prominent displays could include WPA's most famous plant introductions.*

- b. *Demonstration*

- c. *Display*

- d. *Trailhead-lawn*

- e. *Irrigation*

- f. *Renovate native forest*

- g. *Wayfinding and interpretive signage*

- **New Education Building**

- New facilities northwest of the GVC to support education, to include a building for education programs for all ages, plus storage for education equipment, to supplement the outdoor education experience.*

- **Curatorial Building**

- Design and construction of a curatorial building to provide staffing and facilities for curation and collections management: record-keeping, mapping, and labeling, and interpretation, housed in facilities at the north end near the Graham Visitors Center.*

- **Additional Greenhouse- On hold due to lack of Maintenance & Operations funds**

- A replacement greenhouse and other growing structures will be located south of the GVC and used for propagation of Arboretum plants. It will also include facilities for teaching purposes and propagation classes, "and new places for plant sales, such as Pat Calvert and Donations.*

- **Maintenance and Operations Buildings and Yard**

- Expand the Maintenance and Operations headquarters and maintenance buildings, including expanding open structures for equipment storage contained within the present location of the existing Maintenance Yard:*

- a. *Renovate existing building (2800 s.f.)*

- b. *New maintenance facility (7,200 s.f)*

- **Hillside Trail**

- Reorient the hillside trail midway between Azalea Way and Arboretum Drive for improved viewing of displays and public access. Construction of the Trail will require the following projects:*

- a. *Two small pedestrian bridges over creeks*

- b. *Grading and surfacing*

- c. *Native forest restoration*

- d. Signing and interpretation*
- e. Renovate Acer / maple collection*
- f. Renovate arboretum rackery and lookout*
- g. Renovate Loderi Valley*
- h. Irrigation*

- **Canopy Walk**

An elevated "canopy walk" will be constructed between the summits of Yew and Honeysuckle Hills for access to treetops and extended views within the WPA.

This project will include interpretive and explanatory signage, and will require the following construction:

- a. Shelter*
- b. Bridge/canopy walk*
- c. Plant Ancestry and Diversity exhibit*

An exhibit at Yew and Honeysuckle Hills, reflecting the original Dawson plan by which primitive and advanced plants were displayed to demonstrate major aspects of the course of flowering plant evolution.

- **Children's Arboretum**

A child-oriented arboretum in miniature-incorporating some of the interactive learning techniques found in children's gardens throughout the country-is proposed for a portion of the conifer meadow area north of the existing miniplayground at Lynn Street. Programs at this hands-on exhibit can involve classes for school groups. Additional projects included in this design and installation are:

- a. Lynn Street entry*
- b. New playground*
- c. Demo old playground*

- **Alpine Slope Garden**

Located among the switchbacks of the A.D.A. accessible Hillside trail, the Alpine Gardens of the World will display recreations of selected alpine plant communities including a collection of open alpine meadow shrubs and groundcovers. Some additional projects include:

- a. Switchback trails*
- b. Alpine Garden*
- c. Irrigation*
- d. Interpretive shelter*

Near the summit of the trail, an interpretive shelter will be sited on the edge of a forest meadow.

- e. Native forest restoration*
- f. Signage and interpretation*

- **South Pedestrian Overpass**

An overhead pedestrian crossing will create a gateway over Lake Washington Boulevard, and link the interpretive trails of the southeastern portion of the Arboretum to the Japanese Garden entry. Construction of the overpass will include:

- a. Bridge*

b. Restoration of native vegetation and planting

FUTURE PRIORITY PROJECTS

- **South End Educational and Visitor Services Building**

Visitors entering the southern portion of the Arboretum will arrive at a satellite education center located just south of the Japanese Garden. The education and visitor services building (approximately 2,500 sq. ft. floor area) will provide for education and visitor services, including class/meeting room and rest rooms.

- **Japanese Garden Pavilion and Entry Structure – Entry Structure Completed; Pavilion-Not Completed**

*b. Pavilion-Not Completed; needs further study due to site constraints
The 1959 Japanese Garden Plan will be completed through construction of the pavilion. It will be sited along the western boundary of the Garden above the northern pool. Its windows and elevated perimeter deck will look east over the pools and to the adjacent hillside. Within the pavilion a Japanese tea service area, exhibit space, library, offices and restrooms are proposed. Service access to the pavilion will be along a combined West Side Trail and a 12-foot wide service drive that will begin at the southwest corner of the existing fenced garden. A turnaround for emergency and service vehicles will be sited on the backside of the pavilion.*

c. Asian Hillside

d. Native forest restoration

e. Irrigation

Completed Projects

- **Pinetum**

Renovate the existing Pinetum collection, which includes collection of all conifers. Arrange in a teaching and park-like setting. Improve access with an ADA trail and other paths. Remove weedy vegetation. Also establish boundary and new boundary plantings with neighbors.

- **Irrigation Mainlines**

Three north / south oriented 8" diameter mainlines along the east, west and hill top paths, and associated valves, will serve individual gardens and gathering areas within the Arboretum. Includes connection to existing water main in the vicinity of 31st Ave. E. and Washington Place, or to an existing east / west line through the center of the Arboretum.

- **Japanese Garden Pavilion and Entry Structure**

The constituents of the Japanese Garden have prepared a master plan for the Garden that calls for more extensive improvements than are described below. The following projects are proposed for implementation as part of the Arboretum Master Plan:

- a. *Entry structure*
- b. *Ticketing and restroom.*

- **West Side Trail**

The West Side Trail along the forested valley side slope, west of Lake Washington Boulevard, will be the primary link to the adjacent Montlake and Stevens neighborhoods. Numerous pedestrian links will occur along this western boundary to WPA. From this greenbelt, pedestrians will have an opportunity to go over or across Lake Washington Boulevard into WPA at the existing Wilcox Footbridge, the proposed overhead crossings at the south end of the Japanese Garden, and on grade at Boyer Street. The West Side Trail construction will require the following projects:

- a. *Potential tunnel under Madison Street fill*
- b. *Three road crossings: Interlaken Blvd, Boyer and LWB*
- c. *1 pedestrian-activated signal @ Boyer/LWB*
- d. *Grading and surfacing*
- e. *Native forest restoration*
- f. *Signing and interpretation*
- g. *Irrigation*