

COLLEGE OF FOREST RESOURCES
WASHINGTON PARK ARBORETUM MASTER PLAN UPDATE

SEPTEMBER 18, 2008

BACKGROUND:¹

Roles in Ownership and Management of the Washington Park Arboretum (WPA)

The City of Seattle owns WPA's land with the exception of the land along Foster Island submerged prior to lowering of Lake Washington which is owned by the University. The Arboretum Foundation also owns a small plot of land. The City is responsible for routine maintenance. The City has total responsibility for the Japanese Garden within WPA.

The University owns the plant collections, maintains them, documents them (which is important for research), propagates them and seeks new acquisitions. The program is administered by the University of Washington Botanic Gardens which resides within the College of Forest Resources. The University of Washington Botanic Gardens also runs educational programs within WPA and manages a volunteer guide program.

The Arboretum Foundation, founded in 1935, is an open membership group and serves as the major fund-raising organization for WPA. They also organize and educate volunteers. The Arboretum Foundation provided funding and joint leadership for the Master Plan.

Oversight of WPA Master Plan Implementation

The Arboretum and Botanical Garden Committee (ABGC) was established in the 1930's to assist the City and University in the development, use, and maintenance of WPA. The Arboretum Foundation was added to the group in 1992 by Seattle ordinance 116337. ABGC provides the primary forum for discussion and issue resolution related to WPA, including implementation of the Washington Park Arboretum Master Plan. The Master Plan can be found on the WPA web site at:
<http://depts.washington.edu/wpa/masterplan.htm>.

Washington Park Arboretum Master Plan Approved

In May 2001, the Master Plan, "Renewing the Washington Park Arboretum," was unanimously approved by the City Council and the University of Washington Board of Regents after presentation by all partners.

¹ Excerpt of Briefing Update to City Council by Seattle Parks and Recreation on April 8, 2008

Master Plan Seeks to Balance the Following Goals:

Educational

- An educational program fulfilling the WPA's potential to serve K through 12 students, University of Washington's higher education population, families, landscape professionals, natural history and ecology enthusiasts, gardeners, special needs populations, and general visitors.
- Plant exhibits organized, designed, and interpreted to be as interesting and self-explanatory as possible to the WPA's diverse audiences.

Conservation

- Plan exhibits that demonstrate to all visitors the ecological attributes and values of natural plant communities throughout the temperate world (emphasizing forests of the Pacific Northwest), regions with similar climates, and selected Pacific Rim regions.
- Active conservation of species of trees and shrubs (and their genetic diversity) that are threatened with extinction in temperate regions of the world.
- Healthy, thriving plant collections and exhibits throughout the WPA.
- A sanctuary for diverse urban wildlife.

Recreation

- Recreational use of WPA consistent with the Arboretum's mission of education, display, and conservation.
- Safety of all visitors to WPA including vulnerable populations.
- Decreased disruption by arterial traffic on Lake Washington Boulevard East and State Route 520 exit and entry ramps.
- Pedestrian and bicycle access and clear, easy circulation within WPA.
- Enhancement of the ambience and visitor experience at the Japanese Garden.
- Amenities for all visitors as befitting a large public garden and recreational park.
- Elimination of most of the small parking areas on Arboretum Drive East, and construction of new larger lots at each end.
- Construction of a new pavilion and an entrance facility at the Japanese Garden (underway).
- Renovation of 30 existing plant exhibits and creation of 21 new plant exhibits.
- Reorientation of pedestrian trails
- Construction of a pedestrian/bicycle trail along Lake Washington Boulevard East.
- Construction of two pedestrian overpasses, one over Lake Washington Boulevard East at the south end of the WPA and one over Foster Island Road East at the north end of the park.
- Relocation of the northern one-third of Arboretum Drive eastward.
- Realignment of the north entry and intersections of Lake Washington Boulevard East with Foster Island Road East, and with the on/off ramps of State Route 520.

College of Forest Resources Washington park Arboretum Master Plan Update cont.

- Creation of a four-way intersection between Lake Washington Boulevard East, Arboretum Drive East, and a new entrance to the Parking area south of the Japanese Garden.
- Construction of four outdoor educational shelters.

General Goals

- Efficient and effective administration that excels in fund-raising, resource allocation, advocacy, and personnel management.
- A thriving arboretum foundation, with membership, active volunteerism, and fiscal support at levels appropriate for the flagship public garden in the Pacific Northwest.
- Long-term fiscal sustainability for ongoing operations and capital improvements.

Projects Implemented Thus Far

- The Duck Bay Shoreline – \$1.23M from the Seattle Shoreline Park Improvement fund.
- Development of an interpretive and wayfinding plan – \$135k from the University of Washington.
- Irrigation Mainline project – \$1M funded from the ProParks Levy.
- Phase I of Pacific Connections Gardens – cost \$2.7M of which \$500K is from Pro Parks Levy. Arboretum Foundation has contributed \$2.2M. The University of Washington has contributed \$50K.
- \$1.8M for the Japanese Garden entry - Arboretum Foundation donated \$1M and \$800K was funded from Parks.

Other Issues

- Insufficient maintenance and operations funding for base level maintenance for the gardens and landscapes that are in place today.
- Need to identify funding for the maintenance and care of new gardens as they are constructed.
- Additional space and facilities need to be identified or constructed as we add services, staff, and gardens.
- Unknown impacts on WPA of SR 520 expansion.
- Curatorial work is being done by a committee today, but in the future we will need a curator.

Attachments:

Arboretum Fact Sheet

Arboretum Pacific Connections

University of Washington Botanic Gardens

The University of Washington Botanic Gardens is one of the College of Forest Resources' most widely recognized education and research units and one of the Pacific Northwest's key horticultural features. UW Botanic Gardens comprises the Center for Urban Horticulture, the Washington Park Arboretum, the Elisabeth C. Miller Library, the Otis Douglas Hyde Herbarium, the Union Bay Natural Area, Union Bay Gardens, and the University of Washington shorelines. The organization's mission is to sustain managed to natural ecosystems and the human spirit through plant research, display, and education. The living plant collection contains 10,013 specimens representing 4,190 distinct taxa. The UW Botanic Gardens serves students, faculty, and staff, as well as the general public interested in horticulture, restoration ecology, and conservation. Over 300,000 people visit annually; 250,000 of them visit the Washington Park Arboretum, which has one of the most important tree collections in North America. Volunteers play an important role and contribute many hours of service through the Miller Library, Saplings School Programs, Rare Plant Care and Conservation, and other programs.

Facilities include:

- The 230-acre **Washington Park Arboretum** is jointly managed by UW Botanic Gardens and the City of Seattle's Department of Parks and Recreation, with support from the Arboretum Foundation. It is free to the public. The Arboretum participates in an international seed exchange program, distributing documented, wild-source seed of species native to the Pacific Northwest; its seed list is distributed to 457 institutions in 59 countries.
- The **Center for Urban Horticulture** serves as the meeting place for over 100 organizations, including 60 horticultural groups. The Center's Merrill Hall is the first sustainable building to be built on the UW Seattle campus; it houses administrative offices and research labs, the Elisabeth C. Miller Library, and the Otis Douglas Hyde Herbarium. It also provides classroom, office, and plant clinic spaces to Washington State University King County Extension and the Master Gardener Foundation of King County.
- The **Union Bay Gardens** consists of five specialized gardens housing 463 herbaceous perennials and cultivars and supporting a nursery undergoing plant production of 340 accessions, 85 percent of which are from wild-collected sources.
- The 74-acre **Union Bay Natural Area** and four miles of shoreline serves as an outdoor laboratory for UW research and as a publicly accessible wildlife habitat where more than 200 bird species have been sighted.



Volunteer Guide training at the Washington Park Arboretum.

- The **Elisabeth C. Miller Library** is the most important horticultural library in the Pacific Northwest. It houses 15,000 books, 200 magazine subscriptions, 1,000 nursery catalogs, and video and electronic resources. It offers a range of free services to the gardening public as well as to the academic community. The Library receives over 15,000 visitors annually.
- The **Otis Douglas Hyde Herbarium** houses over 17,000 plant specimens. The Hyde Herbarium is probably the nation's largest collection of preserved cultivated plants. It serves as the official herbarium for the Washington State Noxious Weed Board and provides free plant identification help to the public.



Restoration work in the Union Bay Natural Area.

Research programs include:

- Biology of invasive species, including assessment of invasive potential of introduced plants and impacts of current invaders.
- Biology of rare plants and their propagation for reintroduction into the wild.
- Restoration ecology, including prairie restoration; Oregon white oak (*Quercus garryana*) stand dynamics and restoration; site conditioning by live willow staking; long-term response of Roemer's fescue to initial site conditions; and work in the Union Bay Natural Area, which serves as an outdoor laboratory.
- Plant physiology and the impacts of global climate change on plants, including the effect of elevated CO₂ on physiology and invasiveness of reed canary grass (*Phalaris arundinacea*).
- Collaboration on affiliated projects, including: the human dimensions of forestry and urban greening; human responses to land use changes along the urban to wildland gradient; the relationship between forests lands and the built environment; assessment of eelgrass (*Zostera marina*) in Westcott Bay, San Juan County; forest soil microbiology and forest pathology; tissue-to-whole-tree responses to environmental stresses; and growth of trees from diverse ecosystems.

Public education programs:

UW Botanic Garden educational programs involve more than 10,000 individuals annually. They reach both professional and general audiences. Youth programs reach 8,000 students in grades K-12 each year through the Youth Saplings School Programs, the Youth Explorer Day Camp, and the Youth Explorer Pack Program.

Partnerships create results:

- The **Rare Plant Care and Conservation** program partners with over 20 federal and state landholding agencies to monitor 350 rare plant populations. In 2003, the only state-of-the-art climate controlled storage and lab facility for seeds of Washington's rare plants, the **Miller Seed Vault**, was built at UW Botanic Gardens; it currently stores seeds of 50 rare Washington species and has received 2,107 accessions.
- **UW's Restoration Ecology Network (UW-REN)**, involves undergraduate students in research through a restoration capstone course; since its inception, the program has completed 41 collaborative restorations.
- **UW Botanic Garden's Volunteer Programs** make many projects possible. In 2007, more than 250 volunteers contributed over 10,000 hours.



Youth Saplings Program, Washington Park Arboretum.

For More Information: Visit the University of Washington Botanic Gardens website, www.uwbotanicgardens.org

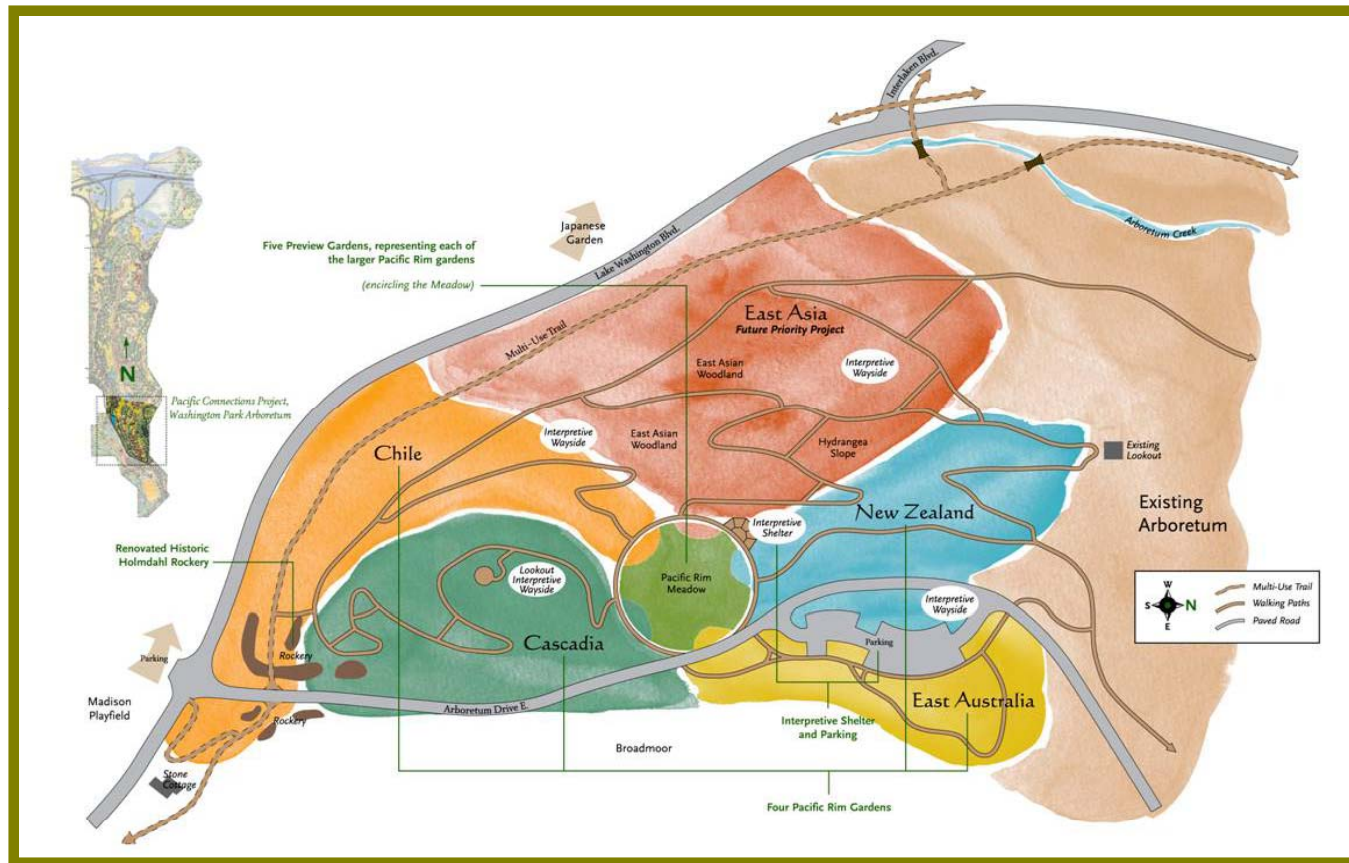
Contact: (206) 543-8616



Renewing the Washington Park Arboretum

Creating the Pacific
Connections Garden

The New Exhibit—Focusing on the Pacific Rim



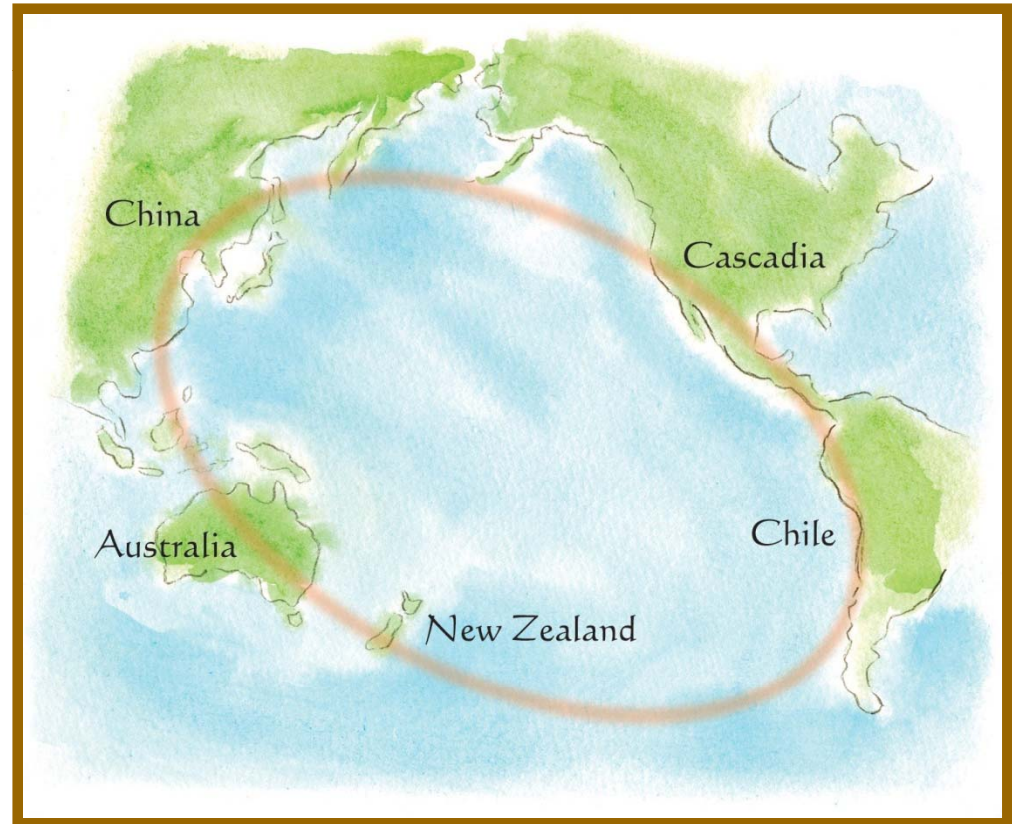
A 14 Acre Site Featuring:

- A Central Gathering Meadow
- An Interpretive Shelter
- Five Preview Gardens
- Five Temperate Eco-geographic Forests

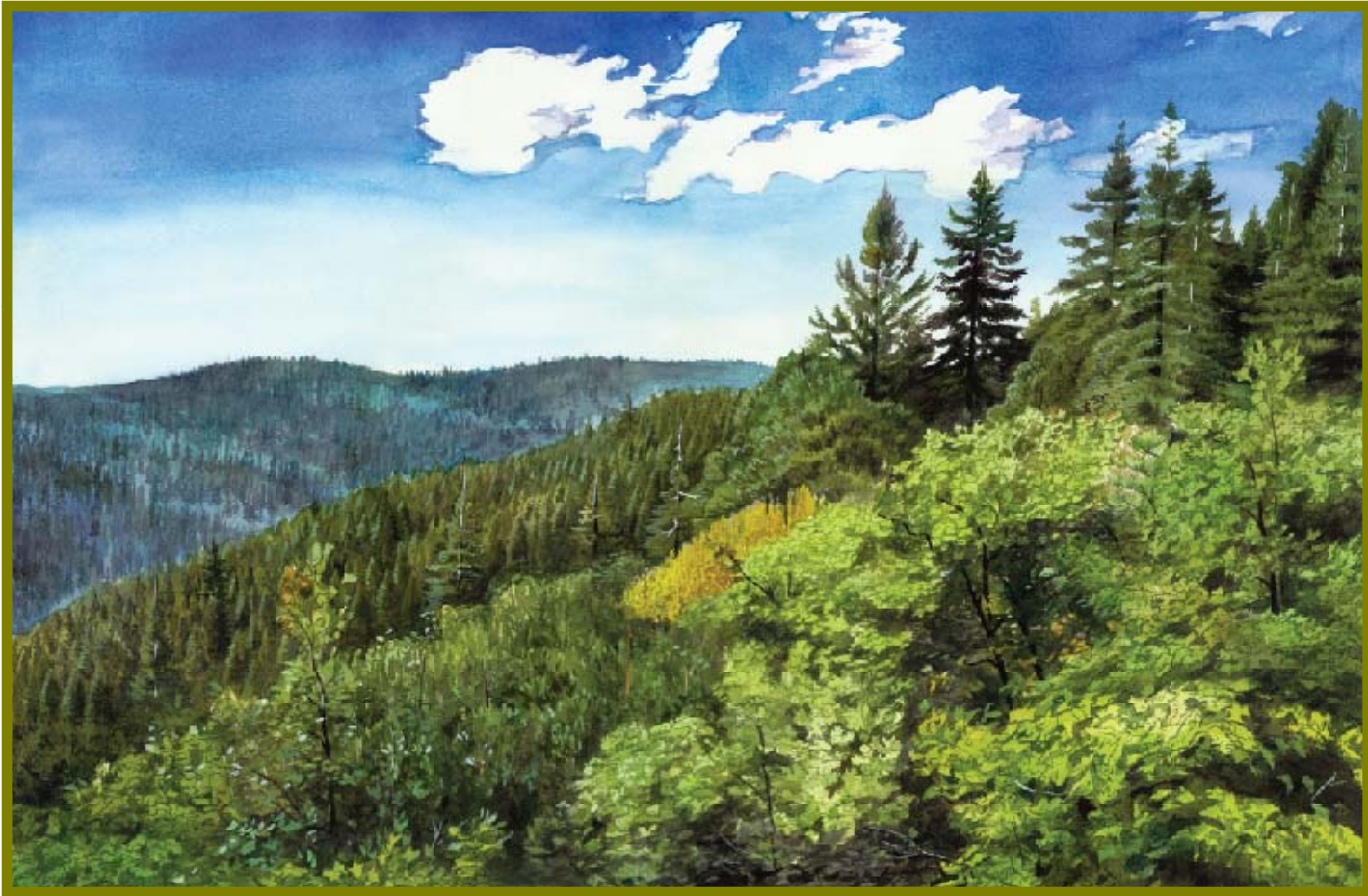
The Pacific Connections Garden

Five Pacific Rim Forests:

- Southeast Australia
- New Zealand
- Central Chile
- Cascadia
- East Asia/China



The First Focal Forest



Cascadia—Our Native Forest

The Next Forest



New Zealand—An Otago Bush Land

Immersed in the Forest



New Zealand—Strolling the New Path

The Future Forests



Central Chile—A Monkey Puzzle Forest

The Future Forests

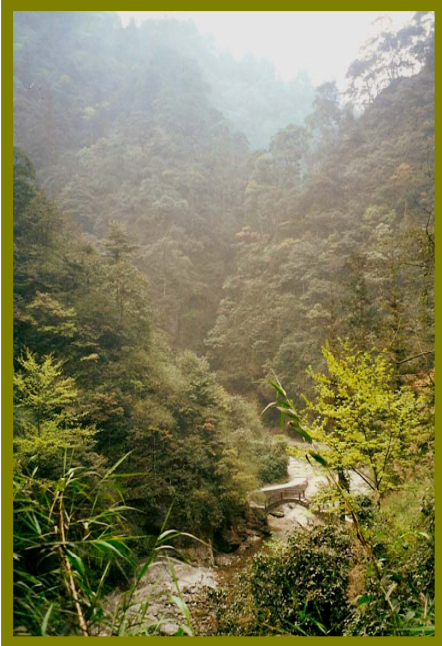


Southeast Australia—a Eucalyptus Forest

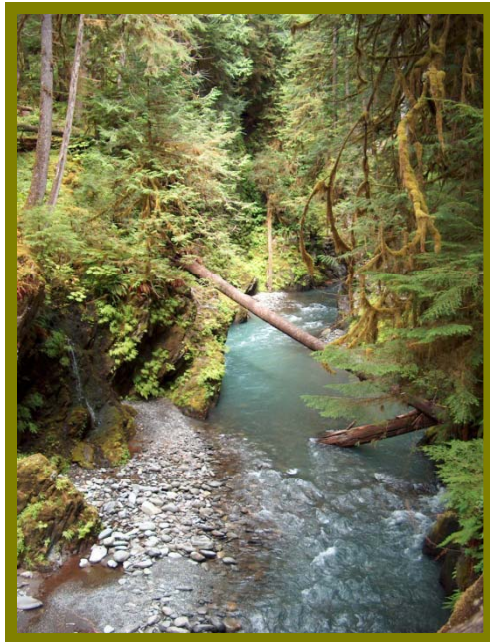
The Future Forests



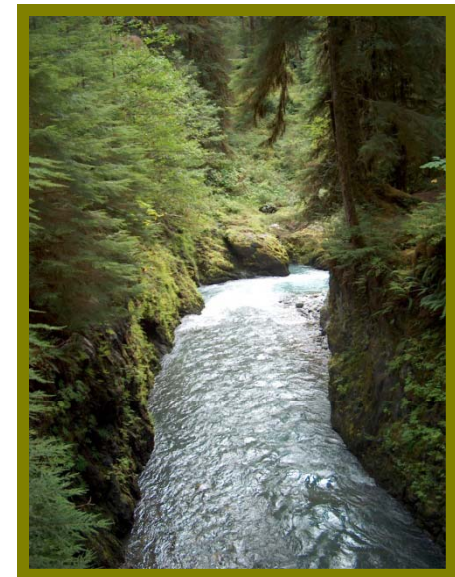
China—A Landscape from Mount Emei



The new forests will let us compare and contrast the growth patterns of the 5 forests, whose landscapes can seem quite familiar.



On the Olympic Peninsula? Or on Mount Emei in China?



Making the New Forests

Recreating Complete Plant Communities—
from forest floor below to tree canopy
above



Wild-collected seed from the
UWBG Siskiyou expedition in
2007



Propagation: Sprouted seeds of the
tanbark oak collected in the Siskiyou at
the Center for Urban Horticulture
greenhouse



In a Year or Two: Planting out the new
trees

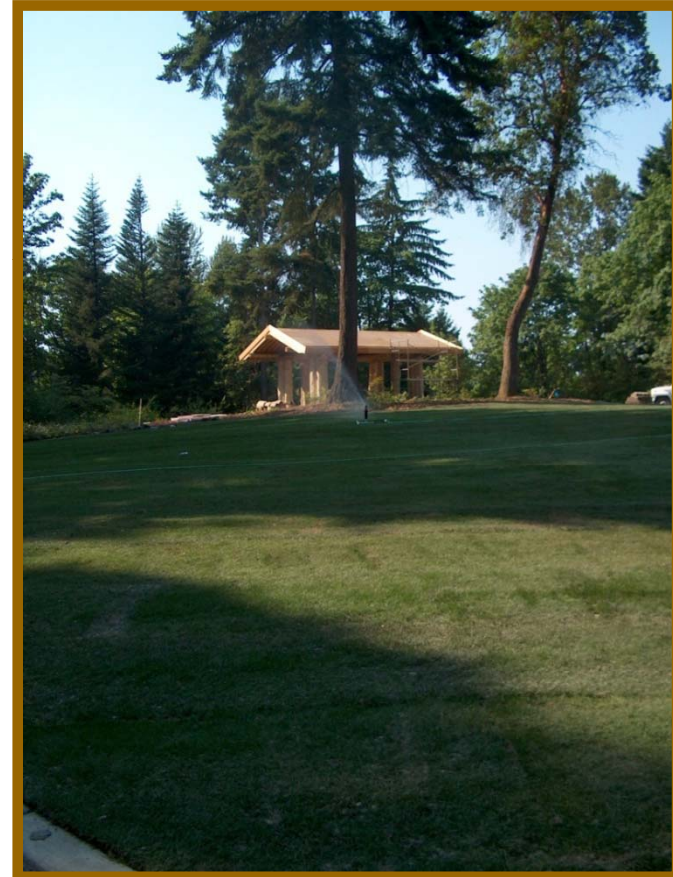
The Meadow and Preview Gardens Under Construction



Moving the Monkey
Puzzle Tree for the Chile
Garden



Cascadia: rock wall and path



The interpretive shelter and
the newly-sodded
meadow

Education and Interpretation

- Interpretive Materials Will Be Displayed in the Shelter and at Key Viewpoints in the Future Forests



Graphic of Ginkgo Leaves and Fruit for Our Interpretive Signage

Acknowledgments

- Photos courtesy of Randall Hitchin, Paige Miller, and Joy Spurr
- Interpretive graphics and watercolors provided by the Pacific Studio
- Presentation by Paige Miller



Western Red Cedar
Thuja plicata