

PART 1

Summary

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Some pages in this document have been purposefully skipped so that this document will copy correctly when duplexed.

Purpose and Need for Proposed Action

The proposed action that is the subject of this programmatic environmental impact statement (EIS) is the adoption of a revised master plan for the Washington Park Arboretum. The project proponent, the Arboretum and Botanical Garden Committee (ABGC), with representation from the City of Seattle, the University of Washington, the Arboretum Foundation, and the community, has developed the master plan proposed in this EIS as its preferred alternative.

Project Purpose and Need

The Washington Park Arboretum encompasses approximately 230 acres south of Union Bay and north of East Madison Street on both sides of Lake Washington Boulevard East in Seattle, Washington. The arboretum, a woody plant museum, contains a large, diverse collection of plants from around the world, including more than 10,000 individual plants representing over 4,400 species and cultivated varieties. The varied plant collections require continual maintenance and protection. Many of the trees and shrubs are dying of old age, storm damage, and disease. Limitations in staffing and funding have led to inadequate care and maintenance, leading in turn to overcrowding and shading by fast-growing self-sown natives that threaten the continued survival of the collections. Also, the existing taxonomic arrangement of the plant collections is obscure to most visitors.

In addition to these issues, the Seattle region has experienced substantial growth over the past several decades. This growth has resulted in increased visitation to the Washington Park Arboretum and significant interest in horticulture and environmental education. The current deteriorated condition of the plant collections, and conditions that have changed since preparation of the last master plan update in 1978 (described in the EIS description of alternatives), have led the project proponent to initiate the current master planning process.

Proponent's Objectives

The objectives of the Arboretum and Botanical Garden Committee recognize the distinctive characteristics of the Washington Park Arboretum, including its unique and valuable plant collections; its urban location adjacent to the Montlake, Madison Park, and Broadmoor communities; and its funding and support from city, state, and private institutions and individuals. The committee's goals for the future of the Washington Park Arboretum proposed master plan are included in Appendix A and summarized below:

Educational Goals

- An educational program fulfilling the Washington Park Arboretum's potential to serve K-12 students, higher education, 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 Washington Park Arboretum's diverse audiences

Conservation Goals

- Plant 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 Washington Park Arboretum
- A sanctuary for diverse urban wildlife

Goals for Visitor Services and Recreation

- Recreational use of Washington Park consistent with the arboretum's mission of education, display, and conservation
- Safety of all visitors to Washington Park including vulnerable populations, and security for their belongings
- Decreased disruption of park and arboretum use 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 Washington Park
- Enhancement of the ambience and visitor experience at the Japanese garden
- Amenities for all visitors as befitting a large public garden and recreational park

- Educational, conservation, and visitor facilities that are consistent with growing recreational enjoyment of the Washington Park Arboretum by citizens of the city, region, and beyond
- The naturalistic visitor experience that has evolved in the Washington Park Arboretum's recent history.

General Goals

- Efficient and effective administration that excels at 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 improvement.

Project Alternatives

This EIS considers the Arboretum and Botanical Garden Committee's preferred alternative (referred to as the proposed master plan), alternatives to key elements of the proposed plan, and a no-action alternative. The proposed master plan has been modified since publication of the draft EIS, as reflected in the analysis presented in this final EIS. These alternatives are summarized below.

A central element of the proposed master plan is the intensified management and rearrangement of the existing plant collections, along with development of new plant collections. Full implementation of the proposed plan would require at least two to three decades and would also involve construction of new facilities including buildings, pedestrian and bicycle pathways and facilities, and modification of existing roadways and parking lots. The number of full time equivalent employees (FTE) would increase from the existing 23½ FTE to about 72 FTE after full implementation of the proposed master plan, of which approximately 32 FTE would be devoted to administrative, curation, and educational program staff and 40 FTE would be devoted to maintenance.

Throughout the EIS, discussions of specific measures to be implemented as part of the proposed master plan are organized within the following seven components:

- Roadways
- Pedestrian and bicycle circulation
- Parking facilities
- Buildings
- Outdoor shelters
- Landscape features
- Safety features.

Also evaluated in this EIS are a series of specific alternatives to various elements of the proposed master plan. Many of these elements are independent of other aspects of the plan and could be implemented by individually substituting one or more of them for specific measures included in the proposed plan. Thus, many of the elements of the proposed plan and the alternatives can be evaluated on their individual merits.

Under the no-action alternative, the Washington Park Arboretum would continue to operate much as it does today under the general guidance of the 1978 master plan update. Several measures described in the 1978 master plan have been implemented, such as the construction of the Graham Visitors Center. Other elements of the 1978 plan have since been deemed infeasible. Still other measures, which are feasible to implement, are included in the no-action alternative evaluated in this EIS.

The elements of the proposed master plan, the alternatives to elements of the proposed plan, and the no-action alternative are summarized in Table 1 and described in detail in Part 2 of this EIS.

Table 1. Comparison of alternatives for Washington Park Arboretum master plan elements.

Proposed Master Plan	Alternative Master Plan Elements	No Action
<p>Roadways</p> <ul style="list-style-type: none"> ▪ <i>Relocate intersection at north entry to Washington Park Arboretum</i>—Redesign Lake Washington Boulevard, approach to SR 520 ramps, extending the ramps southward and narrowing to two lanes. ▪ <i>Lake Washington Boulevard improvements</i>—Continue existing two-way arterial with access to SR 520 ramps. Install pedestrian-activated signals on Lake Washington Boulevard at Arboretum Drive and Boyer Avenue. Redesign four-way intersection on the boulevard at Arboretum Drive and Japanese garden/Washington Park playfield parking lot. ▪ <i>Arboretum Drive realignment and parking lot consolidation</i>—Relocate northern third of Arboretum Drive eastward. Eliminate trucks, and use the route for low-speed tour vehicles. 	<ul style="list-style-type: none"> ▪ <i>Lake Washington Boulevard improvements with at-grade crossings</i>—In place of overpasses, install at-grade pedestrian crossings with stop signs at Arboretum Drive, Boyer Avenue, and Foster Island Road intersections with Lake Washington Boulevard. ▪ <i>Arboretum Drive parking lot consolidation with restricted access</i>—Close Arboretum Drive to traffic except for service and low-speed tour vehicles. Remove all small parking lots, and consolidate parking in north and south areas only. 	<ul style="list-style-type: none"> ▪ Make no significant changes to roadways. (Several proposals were included in the 1978 plan, but most have been deemed infeasible.)
<p>Pedestrian & Bicycle Circulation</p> <ul style="list-style-type: none"> ▪ <i>Dual-use trail system along Lake Washington Boulevard</i>—Install pedestrian/bicycle trail along east side of boulevard, with links to Madison Street and Harrison Valley. Add pedestrian/bicycle overpass on boulevard south of Japanese garden. Install sidewalks along boulevard south of Arboretum Drive. Modify unused freeway ramp for pedestrian/bicycle link to Museum of History & Industry. Renovate and enhance pedestrian trail along west side of boulevard with links to adjacent neighborhood. ▪ <i>Trail system along Arboretum Drive</i>—Provide pedestrian path along full length of Arboretum Drive. Create open-space trail hub west of Graham Visitors Center. ▪ <i>Trails for access to plant collections</i>—Reorient pedestrian trails for viewing displays, creating three major north/south routes and keeping many informal trails. Improve barrier-free access, including wheelchair-accessible overpass over Foster Island Drive. Complete Foster Island loop trail. Install elevated canopy walk for treetop access between Honeysuckle Hill and Yew Hill. 	<ul style="list-style-type: none"> ▪ <i>Separated bicycle and pedestrian trails</i>—Develop commuting bicycle trail along east side of Lake Washington Boulevard with separate pedestrian trail on west side. ▪ <i>Pedestrian/Bicycle overpass at Interlaken Boulevard</i>—Locate pedestrian/bicycle overpass north of Japanese garden rather than south of Japanese garden. 	<ul style="list-style-type: none"> ▪ Make no significant changes to trail system (but provide barrier-free access in places). Complete Marsh Island trail around Duck Bay with link to Museum of History & Industry area.

Table 1. Comparison of alternatives for Washington Park Arboretum master plan elements (continued).

Proposed Master Plan	Alternative Master Plan Elements	No Action
<p>Parking Facilities</p> <ul style="list-style-type: none"> ▪ <i>Removal of parking lots</i>—Eliminate six existing lots and consolidate lots at north end of park as part of expanded parking at Graham Visitors Center (109 spaces). Put in 10 spaces on Foster Island Drive for including some barrier-free parking. Reduce Arboretum Drive lots from existing ten lots for 89 cars to three lots for 30 cars. Eliminate parking adjacent to Wilcox footbridge at north end of park, and near the pinetum. ▪ <i>Expansion of existing lots</i>—Expand Graham Visitors Center lot (now 47 cars) southward for 109 cars and four buses. Reconfigure lot at Interlaken Boulevard, expanding from 26 to 28 cars. Expand 84-car lot between Japanese garden and Washington Park playfield for 128 cars and four buses. ▪ <i>Addition of new lots</i>—Add 18-car lot northeast of woodland meadow. Add 30-car lot at Madrona Terrace. 	<ul style="list-style-type: none"> ▪ <i>Expansion of parking lots at dispersed locations</i>—Expand 84-car parking lot between Japanese garden and Washington Park playfield for 158 cars and four buses. Retain scattered small parking lots along Arboretum Drive to provide some capacity in Madrona Terrace area. 	<ul style="list-style-type: none"> ▪ Remove parking lots adjacent to Wilcox footbridge and near reflecting pool at Interlaken Boulevard intersection. Remove shore-side parking along Foster Island Road, but improve 25-car parking lot on north side, and expand roadside parking near Broadmoor entrance. Alter Japanese garden/Washington Park playfield parking lot to include a turnaround and eliminate southern access to boulevard. Provide 20-car parking lot off Boyer Avenue intersection. Reconfigure 60-car parking lot as part of the park service core.
<p>Buildings & Outdoor Shelters</p> <ul style="list-style-type: none"> ▪ <i>Building renovations</i>—Renovate arboretum maintenance headquarters building. Renovate Graham Visitors Center without expansion; replace and reorient greenhouses and lath houses. ▪ <i>New buildings</i>—Construct 3,000-square-foot curation building and 3,000-square-foot education facility adjacent to Graham Visitors Center. Construct 2,500-square-foot visitor and education facility near playfield parking lot. Build new Japanese garden entrance facility for multiple functions. Add 1,000-square-foot pavilion north of pond in Japanese garden. ▪ <i>Outdoor shelters</i>—Add new 300-square-foot shelters at Foster Island, at Yew Hill with canopy walk, at the rise adjacent to alpine plant display, and at Madrona Terrace. ▪ <i>Maintenance and Operations Yard</i>—Replace open storage structure. Add two new storage and operations buildings, increasing the total maintenance and operations structures to 10,000 square feet. ▪ Locate administration space offsite, possibly at Museum of History & Industry. 	<ul style="list-style-type: none"> ▪ <i>Building renovations without expansion, and south-end structure at Madrona Terrace</i>—Locate half of needed multi-use space (5,000 square feet) offsite rather than near Graham Visitors Center. Reduce visitor facility at south end (Madrona Terrace site) to 2,500 square feet, with reduced parking. ▪ <i>Limited educational space offerings</i>—Provide new space for only two or three classrooms. ▪ <i>No building expansion, with operations moved offsite</i>—Locate all new administrative, curatorial, maintenance, educational, and visitor space offsite. Emphasize outreach programs rather than onsite programs. 	<ul style="list-style-type: none"> ▪ Renovate existing maintenance and storage buildings. Retain greenhouses, and rebuild lath houses. Add public restrooms near Japanese garden teahouse. Add several drinking fountains throughout park. ▪ Build new vine pergolas near Duck Bay, reflecting pool, and sunken meadow.

Table 1. Comparison of alternatives for Washington Park Arboretum master plan elements (continued).

Proposed Master Plan	Alternative Master Plan Elements	No Action
<p>Landscape Features</p> <ul style="list-style-type: none"> ▪ <i>Boulevard improvements and new plant exhibits</i>—Plant boulevard trees along north end of Lake Washington Boulevard and Foster Island Road. Construct viewing platform on south shore of Marsh Island. Install new display and demonstration gardens south of Graham Visitors Center with arbors, terraces, and water features. ▪ <i>Improvements to plant collections and habitat</i>—Renovate 30 plant exhibits and add 21 new ones, emphasizing ecological and horticultural themes, and including many threatened species. Expand rhododendron pool. Increase flow in Arboretum Creek, restoring surface channel between Interlaken Boulevard intersection and Union Bay. Restore Duck Bay shoreline. Improve wildlife habitat value throughout park. Retain and possibly relocate compost area. 		<ul style="list-style-type: none"> ▪ Maintain Olmsted Brothers landscape and design concepts, continuing current level of maintenance. Develop Lake Washington Boulevard with a continuous tree canopy. Array informal plant displays along Arboretum Drive. Protect major views and vistas. Develop new collections in selected locations, and develop ecological or geographical display areas. Eliminate parking lot adjacent to Wilcox footbridge at north end of park. Enhance Azalea Way plantings. Thin out mature collections, and improve established taxonomic groupings and special-purpose areas.
<p>Safety Features</p> <ul style="list-style-type: none"> ▪ <i>Lighting, telephone, parking, and signage improvements</i>—Improve lighting and install telephones at strategic locations. Minimize parking in isolated areas. Spread programmatic activities and facilities evenly throughout park. Improve signage with marked trail routes. 	<ul style="list-style-type: none"> ▪ <i>Limited lighting and telephone improvements</i>—Install call boxes at a few sites, and equip docents and personnel with cell phones. Add security lighting only in evening high-use areas. Retain existing dispersed parking lots. 	<ul style="list-style-type: none"> ▪ Make no significant changes.

Summary of Environmental Impacts

This section summarizes the impacts, mitigation measures, and significant unavoidable adverse impacts expected under the alternatives considered in this EIS. This summary is organized by the elements of the environment.

Earth

Steep slopes and perched ground water may be encountered during construction of some features of all of the alternatives. Exposure of soils could pose erosion or landslide hazards. Liquefaction-prone areas associated with increased risk of foundation failure have been identified within the park. Sanitary landfill material underlies areas at the southern and northern peripheries of the park.

None of these conditions and potential effects are likely to lead to significant adverse impacts. Structures can be sited to avoid areas of steep slopes and unstable landfill material. Steep slopes, perched ground water, and liquefaction-prone areas are encountered in many locations in the Seattle vicinity, and engineering methods for safe construction in these conditions are well-understood and can be applied to any structures proposed in these areas. With implementation of these measures, no significant unavoidable adverse impacts would occur under any of the alternatives.

Air Quality

During periods of construction, localized increases in pollutant emissions and odors from construction activities and equipment would occur temporarily.

Over the long term, some localized degradation of air quality would result from increased vehicle delays at pedestrian-activated signals at intersections on Lake Washington Boulevard at Boyer Avenue East and at Arboretum Drive East under the proposed plan. Slightly greater air quality impacts would occur under alternatives that include stop signs at these intersections (and for that reason these features are not included in the proposed master plan).

Impacts resulting from construction activity could be mitigated by providing adequate maintenance of construction equipment and trucks, avoiding prolonged periods of vehicle idling, complying with Puget Sound Clean Air Agency regulations addressing odor and dust, and scheduling trucking of materials to avoid peak-hour travel times. With implementation of these measures, no significant unavoidable adverse impacts during construction would occur under any of the alternatives.

Both the roundabout and the four-way stop alternatives at the State Route (SR) 520/Lake Washington Boulevard East intersection, which were evaluated at the draft EIS stage, have

potentially significant adverse impacts and are therefore no longer being considered for this plan. The preferred alternative would maintain the same stop and turn restrictions as currently exist.

Water Resources

An increase in erosion and sedimentation in Arboretum Creek could occur during construction. However, implementation of best management practices during construction (e.g., sediment traps, minimizing exposed soil surfaces, and revegetation) would provide mitigation for those potential impacts.

Implementation of either the proposed master plan or various alternatives to the proposed master plan would result in a slight increase in impervious surface area and may require the installation of stormwater treatment or detention facilities to provide mitigation. No significant unavoidable adverse impacts would occur.

Plants and Animals

Some loss of habitat would occur as a result of implementing the proposed master plan or various alternatives to the proposed plan. A minor amount of wetland area may be affected by dock construction, which could require wetland creation or enhancement as compensation. Some native vegetation would be removed in the process of maintaining and expanding the scientific plant collections.

Implementation of either the proposed master plan or alternatives to the proposed master plan would require several decades or more, so that the limited habitat changes would be gradual. Due to the long period of master plan implementation, the limited overall habitat loss, and habitat enhancement and mitigation that are part of the proposal, none of the alternatives would result in significant adverse impacts on biological resources.

Energy and Natural Resources

Implementation of the proposed master plan or any of the alternatives to the proposed plan would not result in a significant consumption of energy resources.

Noise

Construction of new facilities would temporarily increase local noise levels in the park. Over the long term, an increase in numbers of visitors would tend to increase overall noise levels slightly. Golfers at the Broadmoor Golf Club could experience some increased noise levels as a result of expansion of the Graham Visitors Center complex and the relocation of Arboretum Drive in this area, although these impacts are not expected to be significant. Other areas outside the park are unlikely to experience significant increases in long-term noise.

Park users would experience additional noise from school age children attending classes in the arboretum. Some users may find noise in relatively tranquil areas to be significant at certain times.

Mitigation for impacts from construction noise could include confining construction activities to daylight hours; properly maintaining construction equipment; using portable noise barriers if construction equipment must operate near sensitive noise receiving locations; using hydraulic or electric impact tools; requiring equipment operators to drive forward rather than backward, where feasible, to reduce reverse-gear alarm noise; and requiring operators to lift rather than drag materials.

No significant unavoidable adverse noise impacts are anticipated.

Land and Shoreline Use

In general, the proposed master plan and alternatives to the proposed plan are compatible with the residential and commercial uses in the vicinity. The proposed plan and alternatives comply with the goals and policies of Seattle's comprehensive plan and its park and recreation plan. These proposed improvements also generally comply with Seattle land use regulations, although whether the improvements proposed at the north end of the park comply with Seattle shoreline regulations would depend on final design.

Shoreline permits would be required for proposed facilities along the south shore of Duck Bay and on Foster Island. Conditions attached to shoreline permits would ensure that any approved facilities comply with city shoreline regulations and provide protection to the affected shoreline environment.

No significant unavoidable adverse impacts related to land and shoreline use would occur under any of the alternatives.

Recreation

In general, recreational opportunities in the Washington Park Arboretum would increase as a result of implementing the proposed master plan or alternatives to the proposed master plan. The intent of the plan is to focus new program activities in the southern portion of the park in order to avoid overuse of the northern portion, as well as to make the park generally more accessible. Recreational activities may be temporarily affected during construction of new facilities and development of new exhibits, and some areas that are currently enjoyed for passive recreation in a relatively tranquil and naturalistic setting could be affected over the long term by the introduction of new activities and structures.

Mitigation for construction and development impacts could include coordination among arboretum staff and Seattle Transportation and other city departments to plan site access and

staging areas that would minimize impacts on visitors. New construction areas would be clearly marked for public safety. Construction activities could be timed to reduce disruption of scheduled educational and recreational events. With implementation of these measures, some disruption of recreational activities by construction and development would still occur, but the impacts would not be significant.

Because recreational use of the park is to a large degree influenced by aesthetics, long-term impacts would be similar to those discussed in greater detail in the aesthetics section of the EIS, and would depend on the point of view of the individual user as to whether they would be perceived as significant.

Historic and Cultural Resources

The Washington Park Arboretum in general is a historic area and contains one designated historic landmark, the arboretum aqueduct structure, known as the Wilcox footbridge. The park as a whole and several areas and structures within the park, including but not limited to Lake Washington Boulevard, Azalea Way, and the stone cottage, are considered historically or culturally significant but are not designated historic landmarks. The proposed master plan and alternatives to the proposed plan would not significantly affect the historic character of the Wilcox footbridge. Elements of the proposed plan and alternatives could adversely affect other historically significant areas and structures in the park, but the plan is intended to maintain and rehabilitate the historic character of the park. Additional assessment of historic resources will be needed to address the specific impacts of individual projects under the proposed master plan, and measures would be employed to avoid, minimize, or mitigate impacts on historic and cultural resources.

Adherence to the objectives specified in the proposed master plan and several policies in *Seattle's Parks & Recreation Plan 2000 Update* would help to avoid or mitigate impacts on historic and cultural resources. Projects developed under the proposed master plan would be designed to minimize impacts on the overall naturalistic design of the Washington Park Arboretum, to reinforce the sequence of spaces and views incorporated in both the 1904 Lake Washington Boulevard plan and the 1936 general plan, and to rehabilitate the historic character of Azalea Way and some of the other existing exhibits and collection areas. In addition, new elements would be introduced in an effort to meet evolving needs and goals. Parking areas and Arboretum Drive East would be reconfigured, and new structures for use in education, visitor services, and curation, as well as pedestrian overpasses, would be sited and designed with thought for compatibility with the historic character of the park.

In the event that historic or cultural artifacts are encountered during construction or operation, activities in the area of the found artifacts would cease, and appropriate consultation with city and state agencies would occur. If additional assessment and efforts to minimize impacts are thorough, no significant unavoidable adverse impacts related to historic and cultural resources would occur.

Aesthetics

In general, proposed facilities are intended to be similar in scale and compatible in design with existing facilities, which would limit the degree of impacts from the proposal. Depending on how a person uses and views the Washington Park Arboretum, the adverse impacts of additional structures and fewer but larger parking areas may be perceived as significant. Alternatively, these facilities may be viewed as useful additions that complement the park's appearance.

For example, the four new outdoor shelters would create nodes of activity in some areas that are currently quiet and have a relatively natural character. Although the proponent intends that these facilities be harmonious with their surroundings, the change from existing conditions would likely be perceived as a significant adverse aesthetic impact by visitors who value the relative tranquility of a particular location. For those who use the proposed facilities, the impact may be perceived as beneficial.

This dichotomy of perspectives on the Washington Park Arboretum and appropriate uses within it precludes a single conclusion regarding the significance of the aesthetic impacts of the proposal. Both perspectives should be considered in making decisions regarding improvements in the park. In general, adverse impacts are more likely to be perceived if development occurs in areas that have a naturalistic appearance today. Mitigation such as careful siting and design of facilities to blend in rather than stand out from the naturalistic setting would reduce the perception of these impacts. Some users prefer that the park remain as it is, and for this group of users, the adverse impacts of new structures or parking in relatively naturalistic areas may be viewed as significant, regardless of the level of mitigation provided.

Construction activity also would result in temporary adverse aesthetic impacts for some visitors, who would experience the park in transition. Because of their short duration and limited scope, construction impacts are not expected to be significant.

Transportation

Traffic impacts would result primarily from roadway modifications that are likely to adversely affect traffic flow on Lake Washington Boulevard East. These modifications include installing pedestrian-activated signals at the Boyer Avenue and Arboretum Drive intersections with Lake Washington Boulevard, and reconfiguring the park entry road at the junction of Lake Washington Boulevard and the SR 520 ramps. These controls would cause minor delays but would also increase pedestrian safety.

Studies conducted for the draft EIS found that either a roundabout or a four-way stop-controlled intersection at the junction of Lake Washington Boulevard, Foster Island Road, and the SR 520 ramps would ease turning movements onto the ramps from Lake Washington Boulevard, tending to attract SR 520-bound traffic from Montlake Boulevard to this location. In the absence of an effective means of preventing left turn or U-turn movement from southbound Lake Washington Boulevard onto the eastbound SR 520 on-ramp, diversion of traffic from Montlake Boulevard

onto Lake Washington Boulevard would be likely to result in increased traffic congestion and a significant unavoidable adverse impact.

Because of this potential impact, alternatives that would allow left turns from southbound Lake Washington Boulevard onto SR 520 have been dropped from further consideration in the proposed master plan. Instead, an alternative that improves the appearance of this intersection but does not allow such left turns is proposed. The currently proposed configuration is not expected to significantly impact existing traffic conditions.

Any increases in numbers of park visitors are unlikely to substantially increase morning or evening peak-hour traffic. For this reason, level-of-service impacts are not expected to be significant under any of the alternatives.

Public Services and Utilities

In general, impacts on services and utilities are not expected to be significant. Adequate utility capacity exists to support proposed facilities and activities under any of the alternatives. The proposal would expand educational services provided at the Washington Park Arboretum. Locating some of the proposed additional maintenance, educational, and custodial staff at an offsite location could result in inefficiencies and increased operating costs. The degree of impact would depend on the offsite location and the staff involved. The proposed improvements under any of the alternatives would have a beneficial effect on safety and security. Most impacts would be avoided through the following standard mitigation measures:

- Providing police and fire services with advance notice of construction activities
- Incorporating principles of crime prevention through environmental design into new and expanded facilities
- Coordinating utility relocations and extensions with service providers.

No significant unavoidable adverse service and utility impacts are anticipated under any of the alternatives.

Major Conclusions, Areas of Controversy, and Issues to Be Resolved

Because the Washington Park Arboretum is cherished by the people of this region and is well-known around the country and the world, a new master plan holds both the promise of a secure future and the potential for irreversible change. The Seattle Department of Parks and Recreation recognizes that the Washington Park Arboretum is valued not only as a world-renowned collection of valuable trees and shrubs, but as a part of Seattle's natural environment and its history as well. There is little controversy about the need for improved maintenance of the plant collection and park as a whole, while controversy continues to surround expansion of educational and interpretive programs and other features of the plan designed to accommodate and attract additional visitors to the park.

The EIS concludes that there is potential for substantial impact, and in some cases significant impact, associated with implementation of the proposed plan. Potential impacts such as habitat loss, water or air pollution, soil contamination or destabilization, and land use incompatibility can be adequately and reasonably mitigated for any of the alternatives under consideration. For impacts on aesthetics, recreation, and historic and cultural resources, the EIS concludes that many people would judge these to be significant adverse impacts on these elements of the environment, regardless of the level of mitigation, while others may judge that the same plan elements would have a positive impact on the park if properly designed.

This controversy stems ultimately from a broad range of differing visions for the Washington Park Arboretum. At one end of the spectrum, the Arboretum and Botanical Garden Committee has emphasized the citywide and regional value of the educational and scientific functions of the arboretum and its potential as a prominent public garden. This management objective is based on the various resolutions and mission statements that have been adopted for the Washington Park Arboretum through the years by both the city and the university. At the other end of the spectrum, some everyday users of the park emphasize its longstanding function as a neighborhood, city, and regional open space resource. This view stems from the way these park users value its aesthetic and recreational qualities, apart from its value as a plant collection, and their view is reinforced by a city ordinance instigated by a citizen initiative that limits the ways in which the arboretum may be developed. The Department of Parks and Recreation does not regard these differing views as mutually exclusive, however, and the proposed master plan is intended to provide a balance among these differing visions.

The EIS highlights two critical areas where a balance must be struck between improving the park as an arboretum and preserving the experience valued by many of today's recreational visitors:

- Because of relatively high usage in the northern end of the Washington Park Arboretum, new programs and exhibits are proposed for the less intensively used southern end. However, these proposed additional structures or activities could result in impacts that some users, who

currently enjoy the relative tranquility and naturalistic character of those areas, would consider significant. While a tranquil landscape setting may be preferred for a new facility, it may be more appropriate to focus the majority of new development in areas of the southern end of the park that are already relatively active.

- Washington Park Arboretum contains many features that have historic and cultural significance, including its overall naturalistic design; the varied sequence of spaces and views to be experienced while traveling along Lake Washington Boulevard and the other roads and paths of the park; and features such as the Japanese garden, Azalea Way, and the rhododendron glen. Decisions must be made regarding the introduction of new buildings and landscape features; renovation of plant collections; and redesign of roads, paths, and parking areas to meet present-day needs, while balancing the importance of preserving the heritage of the site. Restraint in making changes to the park and a commitment to consulting historic documents in final siting and design decisions are important to ensure that implementation of the master plan reasonably provides for historical continuity. This also means that, to allow the flexibility needed during final siting and design in order to achieve the desired result, the master plan must be considered a concept only, not imposing precise and literal prescriptions for locations of the proposed improvements.

The EIS also concludes that traffic congestion and conflicts in the Washington Park Arboretum are likely to continue as long as motorists perceive Lake Washington Boulevard to be a fast and convenient through route, particularly as a connection to SR 520.

There is general agreement on the extent of these projected traffic impacts. However, solutions that are good for the Washington Park Arboretum may simply push the problem elsewhere. For that reason, this plan does not recommend major changes to arterial traffic controls other than the addition of pedestrian-activated crosswalk signals at two locations. The Department of Parks and Recreation will continue to work with the Seattle Transportation Department and the Washington State Department of Transportation to seek solutions that would improve the experience of visitors and the functional integrity of the park. The Arboretum and Botanical Garden Committee urges implementation of controls on road configurations that would improve the safety and accessibility of the park for park users, including measures to slow through-traffic and allow safer turns onto Lake Washington Boulevard from Arboretum Drive and Foster Island Road.

The alternatives considered in this EIS have been developed at a programmatic level of detail. This EIS analyzes potential impacts based on that level of detail and the design intent expressed by the project proponent, the Arboretum and Botanical Garden Committee. The intent of the lead agency is that this EIS provide the necessary State Environmental Policy Act (SEPA) documentation for construction of individual facilities. However, as final design is completed for individual facilities within the approved master plan, the Seattle Department of Parks and

Recreation would determine the need, if any, for additional environmental documentation. Several of the actions listed in the plan would require master use permits, which entail project-level review with substantive SEPA decisions and possibly other approvals by the director of the Department of Design, Construction, and Land Use. For more information on which aspects of the plan would require additional review, see the section on subsequent environmental review in the fact sheet at the front of this final EIS.