



SEWARD PARK COMPREHENSIVE TRAIL PLAN
MAY | 2009

THE FRIENDS OF
SEWARD PARK

JOHNSON
SOUTHERLAND

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Friends of Seward Park (FoSP) are volunteers working in cooperation with park visitors and Seattle Parks & Recreation to preserve and enhance solitary pursuits and active recreation, environmental education and park stewardship, forest and lake habitats for wildlife diversity and human enjoyment. FoSP obtained a Small and Simple award from the City of Seattle Department of Neighborhoods and hired Johnson|Southernland, architects, landscape architects and planners, to facilitate a public process and develop the comprehensive trail plan for Seward Park.

In addition to working directly with the public at meetings and the FoSP steering committee, Johnson|Southernland consulted with individuals representing interested organizations including:

Seward Park Audubon Center - Taylor Felt, Gail Gatton
Parks Department Maintenance – Greg Bucasas
Parks Department Trails – Jacobo Jimenez, Chukundi Salisbury
Seward Park Reforestation Project –Jillian Weed
Parks Department Proview committee

Friends of Seward Park Steering Committee:

Paul Talbert, President
Tom Blechov
Pat Killam
Joyce Moty
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Consultant Team:

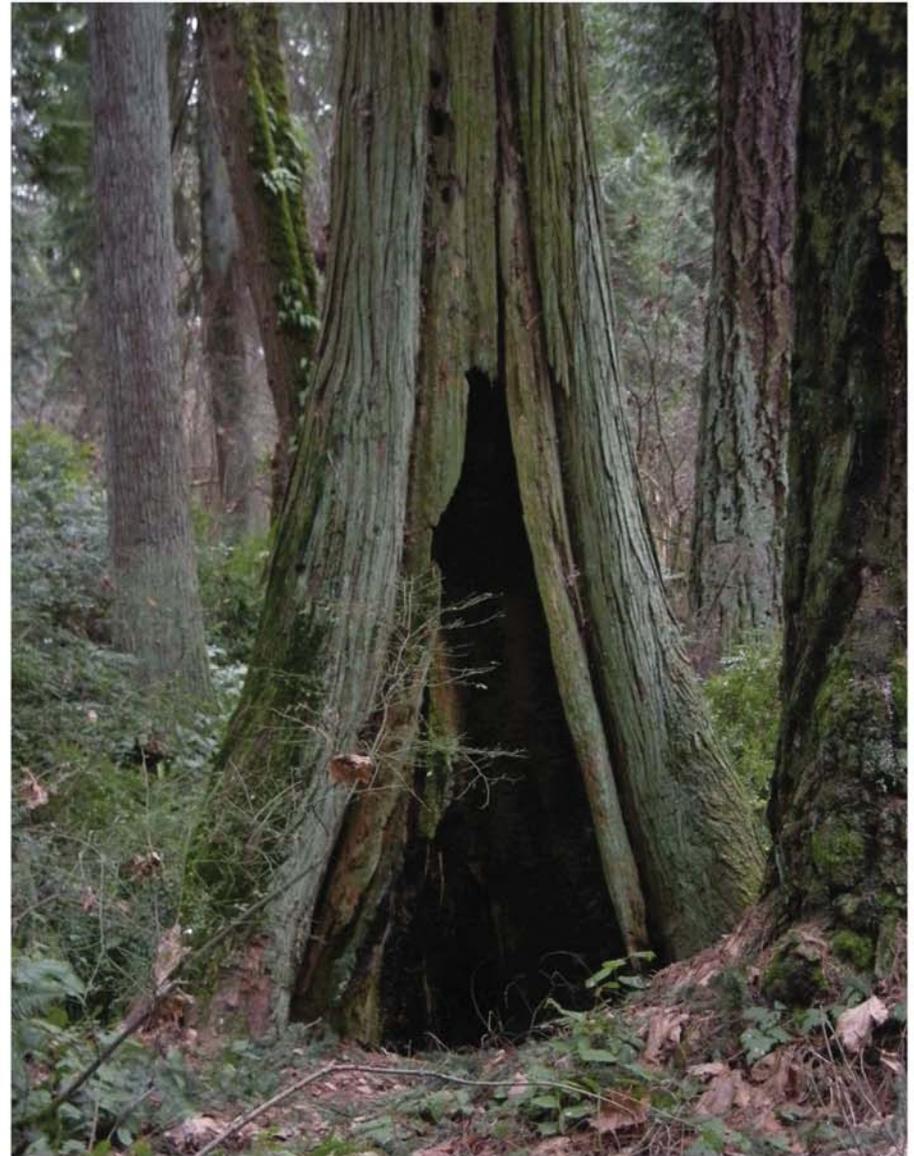
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Introduction

Intent of Plan

This plan is intended to be a guideline for trail-related stewardship, maintenance and capital improvement activities in Seward Park, to be carried out as community-based volunteer efforts and by Seattle Department of Parks and Recreation (Parks) district staff. One of Seattle's largest parks, Seward Park is notable for its 3 miles of Lake Washington shoreline, developed park areas and undeveloped native forest. In addition to the popular 2.4 mile Shoreline Loop Road, Seward Park offers nearly 3 miles of walking trails in its old-growth forest. Some of these trails echo the original layout for "pleasure drives" in the 1912 Olmsted Brothers plan, or have been put into place by later plans, while others have probably been worn into place by habitual usage, some of them formalized and improved, others left as primitive tracks through the forest. Until now, there has been no document stating goals for and guiding decision-making regarding Seward Park's trail system. In 2006, Friends of Seward Park (FoSP) carried out an informal trail survey (see appendix) and report in conjunction with experiments for creating a quieter trail surface to enhance wildlife-watching opportunities. As a result of the survey, FoSP received diverse requests by park users addressing a range of trail-related issues. FoSP commissioned this Comprehensive Trail Plan for Seward Park in order to prioritize community goals for trails and create a plan to address them. The scope of the project is trails and the immediate trail environment, including furnishings, signage and other methods of wayfinding. The specifically plan addresses only the area that is inland of the shore loop road.

Site Description

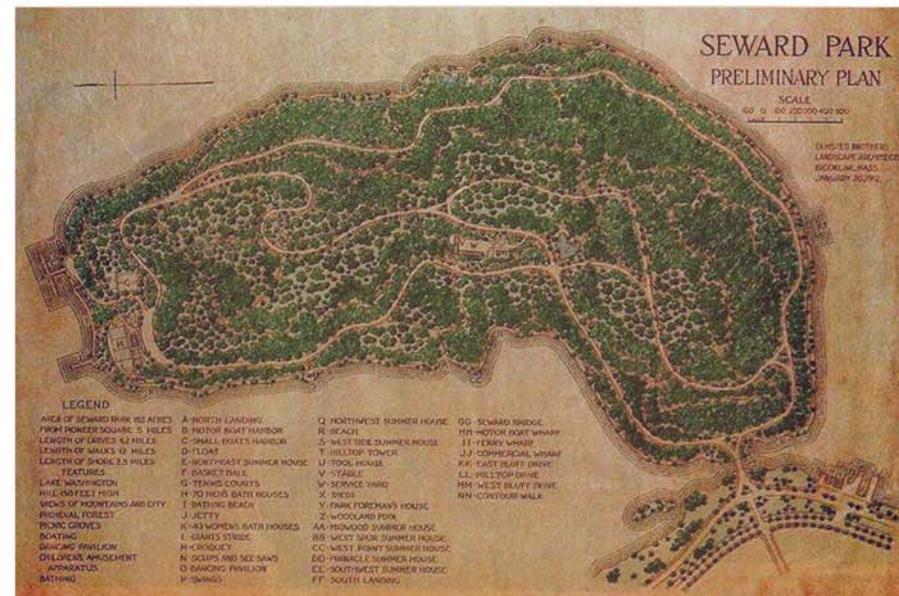
The following site description is borrowed from the 2005 Seward Park Vegetation Management Plan:

Seward Park includes a largely undeveloped native forest in the northern portion as well as a more developed, heavily used area at its southern end. The park provides a broad range of landscape types and recreational opportunities. Seward Park comprises the largest park in Southeast Seattle, and at 300 acres is one of the largest forested parklands in the city. The site encompasses an entire peninsula that projects into Lake Washington, plus its isthmus and some mainland acreage paralleling the shore. The city's twenty-odd mile, scenic boulevard system originates at Seward Park and runs north for several miles along the lake. Both park and boulevard are key elements of Seattle's 1903 Olmsted Brothers plan. Seward Park's character is defined above all by its unique geography. The park also is distinguished by its location within one of the United States' most ethnically- and socio-economically diverse neighborhoods, from which it draws an array of users. The park attracts region-wide visitors as well, especially for special events and in summer when the three-mile shoreline proves particularly inviting.

Planning Context

The Vegetation Management Plan explains that no adopted master plan dictates overall goals for Seward Park:

Landscape architects created park plans in 1912 (Olmsted Brothers), in 1926 (Glenn Hall), in 1950 and in 1970 (Jones & Jones). Not all are well documented today, nor were most substantially (or for the Olmsted plan, even partially) realized. These plans represent contrasting visions, colored by the eras in which they were made. The many improvements and alterations Seward Park has undergone over the near-century it has belonged to the City consist mostly of specific projects, incrementally undertaken. Private interests, shifting uses and obsolete forest management practices have threatened Seward Park's landscape integrity at times, but the over-riding reasons for the park's existence have rarely been questioned.



1912 Plan by the Olmsted Brothers, Landscape Architects



Historic view of the Bailey Peninsula (Seward Park)

As a planning context for the Comprehensive Trail Plan, FoSP endorses the conclusions of the Vegetation Management Plan:

Clear themes, articulated since before park acquisition, provide the unofficial vision for which vegetation [trails and the trail environment] should be managed, consistent with above policies. These can be summarized as follows:

- To fully preserve for all time the park's exceptional native forest.
- To offer visitors a restorative, inspiring experience of nature.
- To provide diverse recreational opportunities focused near the lakeshore [and in the Parkland defined by this plan in the south end of the park].

LAKE WASHINGTON

LEGEND

TRAIL NAMES

#2 TRAIL NUMBERS AND PROPOSED TRAIL NAMES

EXISTING TRAIL TYPES

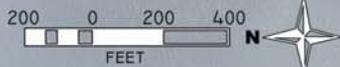
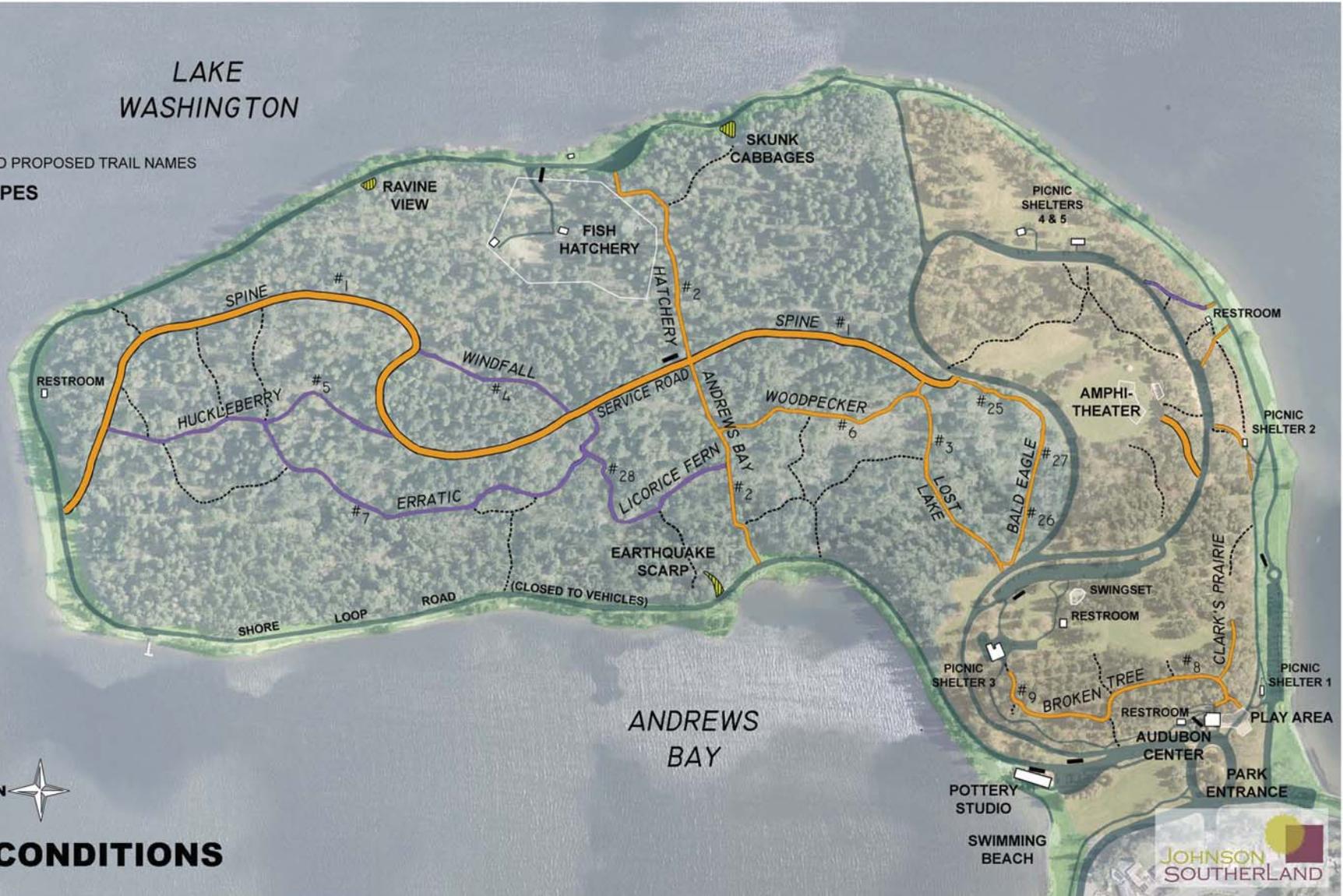
-  SERVICE ROADS
-  TRAILS CLOSE TO STANDARD
-  ESTABLISHED PRIMITIVE TRAILS
-  SOCIAL TRAILS

ZONES

-  MAGNIFICENT FOREST
-  PARKLAND
-  SHORELINE

BUILDINGS

-  RESTROOMS
-  PICNIC SHELTER
-  SERVICE BUILDING
-  KIOSK



EXISTING CONDITIONS
MAY 1 2009



Existing Trail Conditions and Issues

Park-wide Issues

Seward Park comprises three landscape type zones: the Shoreline, Parkland and the Magnificent Forest. Below is a discussion of trail issues affecting the entire park followed by a more detailed discussion of conditions and issues in each zone and priorities identified during the public process.

Existing roads, trails and walkways. The Spine Trail was laid out in the 1912 Olmsted Brothers' plan as well as the idea of a shoreline loop road and an upper loop road, originally intended for pleasure driving. Vehicles are now limited to the area near the park entrance, with three parking areas, and the Upper Loop Road with four parking areas for access to picnic shelters, the amphitheater and trails. The Shoreline Loop Road (asphalt-paved) and the Spine Trail (crushed rock surface) are closed to traffic except for service and emergency vehicles. A number of paved sidewalks parallel the roadways and link recreational facilities in the southern part of the Park.

In addition to the Spine Trail and the 2.4 mile Shore Loop Road, the Park's walking trails fall into the categories of Standard, Primitive, and Social Trails (see discussion below and p.4) An inventory of existing walking trails (not including paved sidewalks or roadways) within the Shoreline Loop Road and their approximate lengths is as follows:

Trail (n.i.c. paved roads and side walk)	Length in Feet	Length in Miles
Spine Trail/Service Road	4560	0.9
Standard/Improved Trails – Total	6750	1.3
Licorice Fern	1000	
Woodpecker	800	
Lost Lake	850	
Bald Eagle	950	
Hatchery	900	
Andrews Bay	850	
Broken Tree	1400	
Primitive Trails – Total	3280	0.6
Huckleberry	1200	
Erratic	1450	
Fallen Tree	630	
Miscellaneous Trail Connectors	1200	0.2
Total "Authorized" Trails	12000	3.0
Mapped Social Trails	6100	1.2

Trail names. Currently, trails are identified by number. We are proposing a system of trail names that are related to natural features of the trails and that are easier for the public to remember.

Social trails. Social trails are unmaintained and often ill-defined paths created by people taking shortcuts through the woods. They fragment habitat, create confusion for people trying to figure out where they are going and sometimes lead people into rough terrain or dead-ends.

Wayfinding. There are no trail signs at all in the park except the "rules" signs prohibiting bicycles and dogs off-leash. Trail maps can sometimes be found posted in the 6 kiosks in the park, however none of the kiosks are located conveniently for trail users at trail heads.

Shoreline

The Shoreline includes the Shoreline Loop Road, the area between the road and the lakeshore, and developed or landscaped areas immediately inland of the road. On a daily basis, the majority of trail users in Seward Park are walking on the Shoreline Loop Road.

Trail issues in the Shoreline zone:



Parkland

Wayfinding. The primary problem in the Shoreline zone is that people using the Shoreline Loop Road have no information about other parts of the park and experience confusion about how to get into the forested area of the park, where the trails are, where they go and whether or not they are even available for public use.

Trail opportunities. The ravine view, skunk cabbage patch and the earthquake scarp are attractive natural features adjacent to the Shoreline Loop Road. People trying to get a better look at these features cause damage by walking in wet areas and creating social trails. A social trail to the earthquake scarp has recently been revegetated. These features represent opportunities for new trails that provide good views while confining where people walk to protect the features.

Parkland

Parkland is the south part of the park including developed areas such as the amphitheatre, picnic shelters, play areas, open meadows, ornamental planting and remnant forest.

Trail issues in the Parkland Zone:

Social trails. A number of social trails have developed in the Parkland, mostly as shortcuts between facilities such as picnic shelters and the amphitheater or a restroom.

Needed trail linkages. There are no trails between some facilities in the park that seem to have an obvious need for a linkage. Picnic shelters 4

and 5 are particularly isolated. There is no maintained pedestrian route to a restroom or to the amphitheater or to the shoreline from these shelters. As a result, social trails have developed to these destinations.

Wayfinding. Even when there is an established path or route between facilities in the Parkland area, people often can't find it or are not sure where it goes due to a lack of signs or other directional cues.

Paved trails. Some of the existing paved trails are in poor condition and could serve the public better if maintained or improved. The sidewalk leading from Picnic Shelter 3 down the hill toward the Audubon Center is mossy and slippery. The sidewalk which is the main connection between the amphitheatre and the Upper Loop south parking lot is narrow, uneven and hard to find. There are no crosswalks across the Upper Loop Road from parking areas to the amphitheater or trailheads.

Accessibility. While there are accessible parking spaces in the Upper Loop Road parking areas convenient to Picnic Shelters 3 and 4, there is no accessible connection to the trail system.

Broken Tree Trail. The Broken Tree trail links activities in the lower entry area of the Park (Audubon Center, Play Area) and the upper area (Picnic Shelter 3, swing set). It offers an introductory taste of the forest for those who who are going no farther. This trail has not been regraded in recent years and has some muddy and slippery spots. It ends in grass near Picnic Shelter 3, about 25 feet short of the pavement.



Shoreline



Magnificent Forest

“Magnificent Forest” is a designation that appeared in historic plans of the peninsula. It now applies to the north part of the park within the shoreline--the largest remaining conifer forest in Seattle, remarkable for its extent, diversity and quality. Beloved by birdwatchers and other Seattleites seeking immersion in nature, the Magnificent Forest provides a home for many species of animals ranging from woodpeckers and owls to mountain beavers and coyotes.

Trail issues in the Forest area:

Trail standards. The primary trail issue in the Forest is how to protect the forest in its natural state and keep the trail experience as inspiring and uncluttered by human touch as possible, while keeping the trails safe and keeping their maintenance costs affordable.

Spine trail/Service Road. The Spine Trail is part of the trail system but is also a service road and must be maintained to width and surfacing standards for emergency and maintenance vehicles. Parks department staff would like the public to be better informed that this is a service road, so trail users are not upset when they see a vehicle on it. The Spine Trail provides a surprisingly immersive forest experience on a relatively flat, broad surface.

Primitive trails. A number of primitive trails penetrate the heart of the forest. Some of these trails are probably well established social trails and have never had tread improvements (improvements to the surface of the trail). Others may have once been “official” trails, but haven’t been regraded in decades. These are the least-used trails in the park (with the exception of some social trails) although we have always found a few users on every trail even on cold, rainy days and 60% of Survey #1 respondents (see Appendix, p. 22) said that they use these trails. The Primitive Trails hug very close to existing logs, trees and boulders, and in at least one place, squeeze between features that are as close as two feet apart. The Licorice Fern trail has a couple of 4”-6” logs crossing it that must be stepped over and a one muddy spot. The Erratic Trail has half a dozen logs of various sizes crossing the trail. Most can be stepped over by a healthy adult. Alternate routes have developed around the ends of two of the larger logs (about 3’ diameter), to return directly to the trail. The Fallen Tree trail has an area of rough tread with 2”-3” roots exposed. Most of the primitive trails have surprisingly sturdy treads and have not become slippery or erosive even throughout the very wet winter during which this study was conducted. We speculate that the tread stability of the primitive trails may be due to the context of a healthy forest acting like a sponge and protecting the trails from rain.

The public who use these trails are happy with their condition—in fact during the 3 public meetings and in the 280 surveys collected, there was only one complaint about primitive trail conditions.

Standard trails. Standard trails are those in the south half of the Forest that were regraded and widened a few years ago to bring them closer to Parks Department trail standards (see p.10). These trails pass through some of the same primeval forest environments as the primitive trails and in many places hug close to existing trees and stumps. These trails have steps in steep places and features such as boardwalks, turnpikes (a log or timber retaining curb to make a flatter cross-slope) and erosion-control steps. When the improvements took place many trail users felt that these trails were overdeveloped and prefer the rougher, narrower conditions of the primitive trails, especially in the primeval forest setting. The gravel was found objectionable for how it looked and particularly for how it sounds. Compared to the quiet forest trails, new gravel is crunchy underfoot and bothered many trail users seeking a forest immersion experience, including birdwatchers who find the noise disruptive to their activity. FoSP experimented with spreading a layer of infield soil over sample plots of gravel. The infield soil (the sand/soil mixture used in baseball infields) was

successful in making the trail plots darker and quieter, but it erodes over time. Now that the new gravel has been in place for two winters, the gravel has become more compact and enough leaves and needles have accumulated on the surface so that it is much quieter and darker, making it virtually indistinguishable from the infield soil plots. The Parks Department opposes the use of any organic material in the trail tread as being too labor-intensive and permanent.

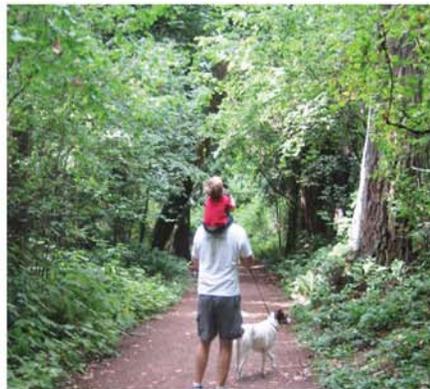
Aesthetics. The Forest environment is remarkably free of human artifacts. A few that are considered, to varying degrees, to sully the primeval forest experience include the fish hatchery fence along the Hatchery trail and the view of buildings beyond it, concrete blocks and debris along the Bald Eagle trail left over from the “yard”, the concrete-framed bench along the Spine Trail and especially the concrete base it sits on, some of the steps in some of the trails, exposed concrete boardwalk supports, the curb-rails along some of the boardwalks and the kiosk at the main trail intersection in the Forest.



Douglas Fir

Opportunities for accessible trails. There are no accommodations for handicapped accessibility to any of the trails in the Forest. In addition to the public's expressed priority of welcoming a diversity of users, Seattle Parks' policy requires us to provide access for people of all abilities to a variety of experiences. In Seward Park, this translates to going beyond just providing access to a picnic shelter from an accessible parking space to creating opportunities for people with limited mobility to experience a variety of trail environments and immersion in nature. The Spine Trail/Service Road currently meets proposed federal standards for outdoor accessibility in terms of width, surface and gradient for most of its length, but it is missing accessible parking and descriptive signage meeting the standards. The Bald Eagle trail could meet the standards with fairly minor modifications. The only other existing trail that could possibly meet the standards is the Fallen Tree Trail, but it would require more substantial modifications to width, surface and gradient than are acceptable per public feedback, (see map p.14).

Wayfinding. Wayfinding in the Forest is a controversial issue. There are no trail identification signs at all and the existing kiosks that could have posted maps are not at the trailheads.



Spine Trail

Many people get disoriented on the trails and find the prospect of heading out on them without knowing where they will end up to be intimidating. Some trail users treasure the fact that there is no signage, that it is possible to get lost, and that it is up to the user to figure out how to navigate through the Forest. By far, most people surveyed and in the public meetings felt that better wayfinding is needed and that the method should be limited, well-placed signage that is discreet and fits in with the forest setting. A passionate minority feel that there should be no signage in the forest at all, with maps and even GPS wayfinding as an alternative.

Unauthorized uses. Dogs are not allowed to be off-leash on the trails, however violation of this rule is so common that it is unusual to take a walk any day of the week without encountering at least one dog off-trail in the forest. Dogs off-trail can be detrimental to the ecosystem and the ability of other trail users to see wildlife and enjoy their experience (and has been detrimental to dogs who find coyotes). Likewise, riding bicycles is not allowed on the trails, a rule which is occasionally broken.

Park-wide Trail Priorities

FoSP held three public meetings in early 2009 for community members to review the Park's existing conditions, voice their ideas, concerns and priorities, to express preferences for alternative solutions, and to review a draft of this document. FoSP gathered additional public input in the form of two surveys that were handed out to trail users at the park and made available by neighborhood list serves on the internet. See the appendix for detailed results of the public meetings and surveys.

Public opinion expressed in the public meetings and in the surveys resulted in the following priorities:

- Preserve the primitive feeling and sense of remoteness on the inner trails.
- Wayfinding signage that is subtle and fits into the Park.
- New trails to the skunk cabbage patch, the ravine view and the earthquake scarp.
- Avoid over-development of trails to the existing Park District standards.
- Welcome/preserve a diversity of users.
- Prioritize trail improvement projects whose goal is forest restoration and protection.

Parks department staff included as part of the Comprehensive Plan process expressed the following additional priority items:

- Safe passage for people to enjoy the forest.
- Trails that can be maintained with a minimum of manual labor.
- Accessibility to a variety of trail experiences for people of differing physical abilities.

Parks department staff stressed their obligation in providing for all citizens of the City, including those who may not be represented in our public process.



LEGEND

PROPOSED TRAIL TYPES

- PAVED ROADS AND PATHS
- SERVICE ROAD
- ACCESSIBLE TRAIL
- STANDARD TRAIL
- NEW STANDARD TRAIL
- PRIMITIVE TRAIL
- SOCIAL TRAIL TO BE REMOVED

WAYFINDING

- INFO POST
- SMALL TRAIL POST
- FACILITY SIGN
- EXISTING KIOSK
- PROPOSED KIOSK

FURNISHINGS

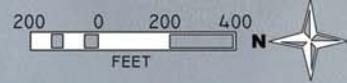
- HALF LOG BENCH
- LOG BENCH
- DOG BAG STATION

ZONES

- MAGNIFICENT FOREST
- PARKLAND
- SHORELINE

EXISTING BUILDINGS

- BUILDINGS



COMPREHENSIVE TRAIL PLAN
MAY 1 2009



Trail Plan Summary

For details, see subsequent pages, for prioritization, see project matrix., page 20.

Trails

Trail types. The Comprehensive Trail plan proposes identifying all trails (not including roads and paved sidewalks) as one of the following three types:



- **Seward Park Standard Trail.** This standard is similar to the Seattle Parks Department Trail Standard, with minor modifications to make it more appropriate to the unique environment of Seward Park. These include specifying a smaller dimension of compacted crushed rock for the trail tread in order to provide a trail that is more compacted and quieter; specifically allowing existing features in close proximity to trails; allows variable widths to allow for existing conditions; and reducing the overhead clearance to 7'. The Standard Trail is different from the Accessible trail most obviously in that it can have steps and steeper gradients.
- **Accessible Trail.** This plan proposes improving and designating the Bald Eagle Trail and most of the Spine Trail/Service Road as accessible trails meeting proposed United States Access Board standards for outdoor accessibility. This project must include providing accessible parking and signage detailing trail conditions, per the standards. The Spine Trail/Service Road currently meets the standards for surface, gradient and dimensions for most of its length while the Bald Eagle Trail requires some grading and alignment work, especially at the trailhead (see p.14). This plan does not propose making the Fallen Tree trail accessible per the standards, but to keep it free of major obstacles so that very able wheelchair users may choose to tackle it.
- **Primitive Trail.** Primitive trails will remain primitive, with unimproved tread and existing natural features. Brushy vegetation may be pruned back from the trails periodically. Specific trail problems may be addressed, for instance repairing a muddy spot, without improving the entire trail. Signage at the major trailheads will warn trail users that these are challenging, unmaintained trails. The warning will be repeated by a symbol appearing on trail posts at trail junctions along the Spine Trail.

Service Roads. The Spine Trail/Service Road and the service road to the Amphitheater will continue to be maintained to existing standards.

Existing asphalt walks. We recommend a separate evaluation of asphalt walk conditions by the Parks Department. At a minimum, the walk between picnic shelter 3 and Lower Loop Road needs to be pressure-washed. The walkway between Upper Loop Road west parking area and the amphitheatre should be upgraded as it is the primary route between the main parking lot and the amphitheatre.

Social trails. To protect the environment and to reduce confusion among trail users, we recommend removing most of the social trails in the park, primarily by means of habitat restoration. There are several social trails in the Parkland zone which create desirable connections and should be upgraded to Standard Trails.

Restoration projects. In addition to using native plant restoration to close social trails, native plants are to be used in the following projects: 1) help define trails and trail intersections where they have widened, such as at the Huckleberry/Spine Trail intersection, 2) Replace lawn between the Bald Eagle trail and the Upper Loop Road across from the amphitheater, to provide a more immersive forest experience, and 3) Replace lawn between the Bald Eagle trail head and road to improve the trailhead environment.

New trails - Shoreline/Forest. Build new trails from the Shore Loop Road to the earthquake scarp, the ravine view, and the skunk cabbage patch to provide park visitors with good view of these features and to protect their associated environments. The Proposed earthquake scarp trail is an opportunity for an accessible trail. The skunk cabbage patch is the most attractive of these three features and is in most need of protection. Its path will require steps to climb a steep bank. All of these trails provide opportunities for benches and interpretive signage.



Huckleberry Trail



North end of Broken Tree Trail



Main Pedestrian Route to Amphitheatre



Social Trail

New trails – Parkland connections. Improve several social trails to Seward Park Standard including the link between picnic shelters 4 and 5 and the nearest restroom and the link between the Upper Loop Road south parking area and the Amphitheater. Build trails alongside the south half of the Upper Loop Road to facilitate signed connections between facilities and to provide an attractive alternative to social trails.

Reconfigured trailhead. Recognize the Lost Lake and Bald Eagle trailhead as the primary trailhead with access to parking in the Park. Reconfigure the existing parallel trailheads into one, with one set of signage. Fill in vegetation between existing forest and road to help buffer trail entry signage and to extend the trail as a single trail toward the road. Provide a crosswalk to the existing wide planting strip. Provide a ramp and steps to an accessible car or van stall and a vacated parking space for general pedestrian access to the trailhead (see p. 14).

Wayfinding

Facilities signage. In the Parkland area, reduce visitor confusion and proliferation of social trails by providing clear signage to and from facilities, such as from the parking areas to the amphitheater and from the picnic shelters to the restrooms and to trailheads (see p.18).

Trail signage. Remove the kiosk from the Spine Trail/Andrews Bay intersection in the forest and move it to the Lost Lake/Bald Eagle Trailhead (see Trail Plan p.7). This will be the one trailhead with a posted map, although folded maps maybe available at Info Posts at the other trailheads as well as on other kiosks and at the Audubon Center. The 4 other major trailheads on the Shore Loop Road and on the Upper Loop Road will have Info Posts that indicate trail names, destinations and a symbol key for accessible, moderate and challenging trails. These Info Posts may be the same as the Seattle Parks standard "Wayfinding Directional Post", although we are proposing some innovation in labeling trail difficulty. Smaller posts at trail crossings along the Spine Trail/Service Road will indicate the trail name, distance and symbol indicating trail difficulty as well as the difficulty of upcoming trails in the Forest (see p.19). Trail crossings within the forest (not on the Spine Trail) will not be marked with signage. Improved mapping per federal outdoor accessibility standards (see p.19) must be developed for accessible trails as they are improved. The improved maps with detailed information about trail surface, length, width, gradient and hazards will be posted at the Bald Eagle trailhead (the only accessible forest trailhead) kiosk and available as a pamphlet.



Ferns in Forest



Existing Facilities Signage



Log Bench (for use on Forest Trails)



Park Bench (for use only on Earthquake Scarp & Skunk Cabbage Trails)



Dog Bag Station (at major trailheads)

Furnishings

Benches. Add 2 half-log benches to the Spine Trail. Make a grouping of 3 or 4 half-log benches for an informal outdoor classroom located near the Andrews Bay/Spine Trail Intersection for use by Audubon Center guides as well as all other trail users. Lower priority is to add an additional half-log bench on the Bald Eagle Trail and log benches (which are simply well-selected and placed logs) in several locations on Ravine standard and primitive trails, including an overlook on the West Ridge trail. The new Skunk Cabbage, Earthquake Scarp and Forest View trails represent opportunities for donors to provide benches. The Park Bench is a style acceptable for those locations. The surface under the benches is to be crushed rock to match the trail.

Commemorative plaques. Plaques will not be allowed in the Forest area, except on the new Skunk Cabbage, Ravine View and Earthquake Scarp trails. Plaques on these trails or in the Shoreline and Park-land zones are to be mounted on freestanding concrete footings, sized to just fit the plaque so that visible concrete is minimized. Donor plaques may be associated with a bench donation or with the trail itself, or with an interpretive display.

Dog bag stations. Make dog bags available in dispensers strategically located to intercept most trail users: on the kiosk at the Clay Studio, on the proposed kiosk at the Bald Eagle Trailhead, on the Info Post at the south end of the Spine Trail, and on a small trail post on the Shore Loop Road near Picnic Shelter 2.

Kiosks. Remove the kiosk that is currently located at the intersection of the Hatchery and Spine Trails. Reinstall it at the reconfigured Bald Eagle/Lost Lake Trailhead.

Undesirable Uses. Approach the problem of off-leash dog use by two methods: Education—provide a display at kiosks explaining why allowing dogs off leash is bad for the Park and inconsiderate to other park users. Enforcement—With the educational message, provide information about leash-violation fines and the phone number for Animal Control(see suggested message wording p.24).



Forest Kiosk



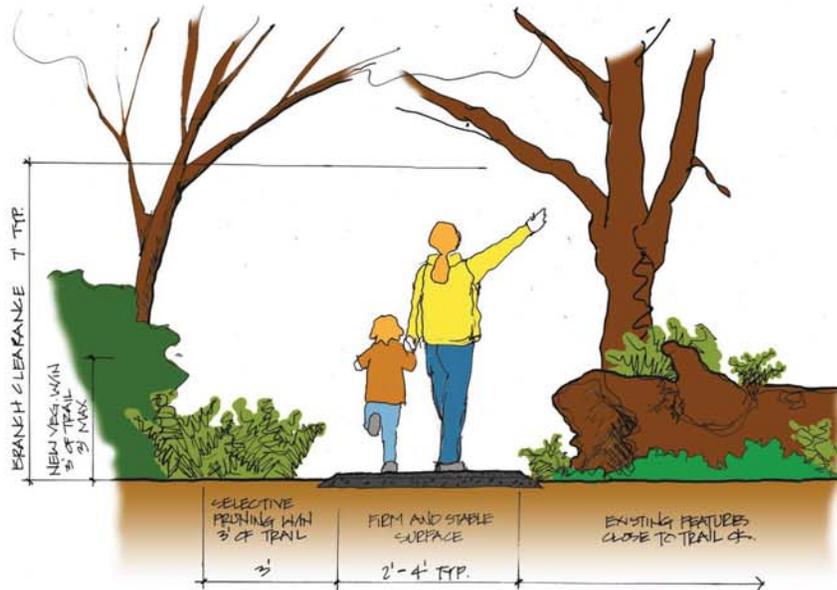
Trail Standards

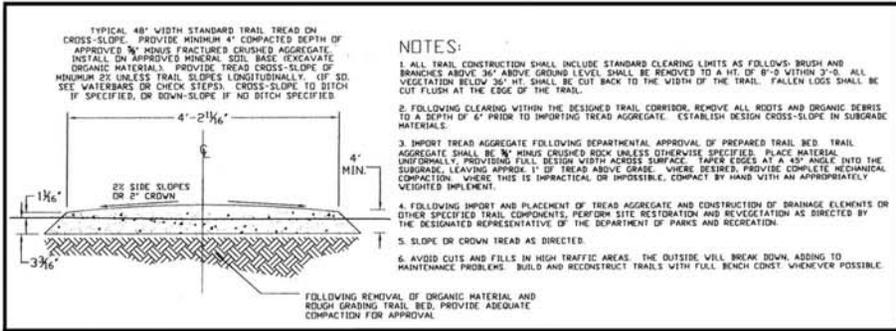
Seward Park Standard Trail

Description. Seward Park Standard Trails are similar to Seattle Parks' standard trail, with minor modifications to make it more appropriate to the unique environment of Seward Park.

Specifications. The intent of the trail surfacing specification is to provide the quietest and most compact tread possible.

- Trail surfacing is to be minimum 4" depth of sharp 3/8-inch minus crushed rock with fines and compacted by a plate compactor OR alternate material shown in field samples to provide a superior result in achieving a quiet and compact tread (Parks' standard trail specification allows various crushed rock sizes but the standard detail calls for 5/8" minus).
- Existing features such as trees, fallen logs or boulders directly adjacent to trails are acceptable.
- Specific trail problems may be addressed, for instance repairing a muddy spot, without improving the entire trail.
- Horizontal clearing limits are 3' to either side of the trail edge and 7' vertical. Within the clearing limits, brush and branches taller than 3' are to be selectively pruned for a natural appearance. Within 3' of the trail, use low-growing plants only as part of any revegetation effort. (Parks construction standards calls for removal of brush and branches over 3' in height within 3' of the trail and up to 8' height, whereas their maintenance standards call for maintaining a 8' wide and 8' tall corridor, centered on the trail, clear of anything growing over 18" in height.)
- Timber steps at slopes as needed, per Parks standards.
- Sub-base, cross-slope, and drainage per Parks Standards.
- In new construction or reconstruction of boardwalks, design the bull rail so that there is a gap between it and the deck so leaves can go through more easily and be proportioned as attractively as possible while meeting design requirements. Design footing or supports to be inconspicuous or hidden with plants.
- Horizontal dimensions may vary as appropriate to the trail environment from 2' to 6'.
- If provided and installed by volunteers, a top layer of infield soil may be applied to provide the immediate satisfaction of a quiet and dark trail surface.





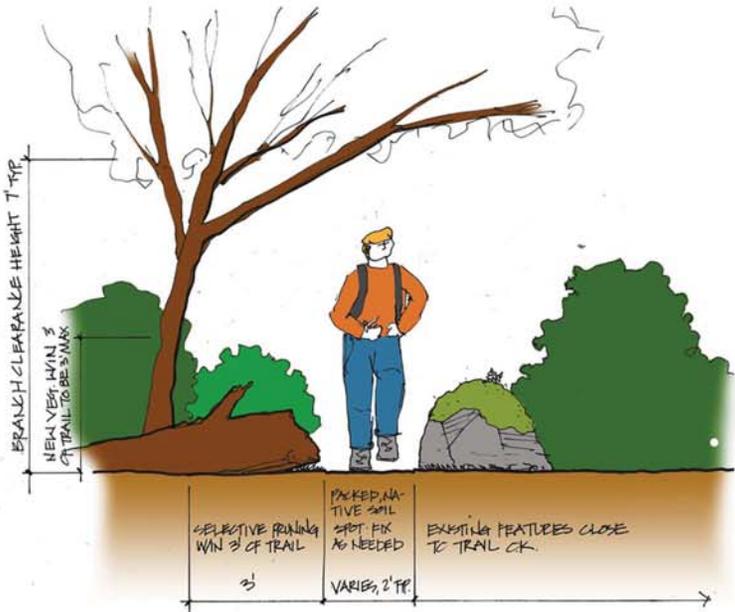
Seattle Parks and Recreation Standard Trail for reference
 For more information see www.seattle.gov/parks/projects/standards/trails.asp

Primitive Trail

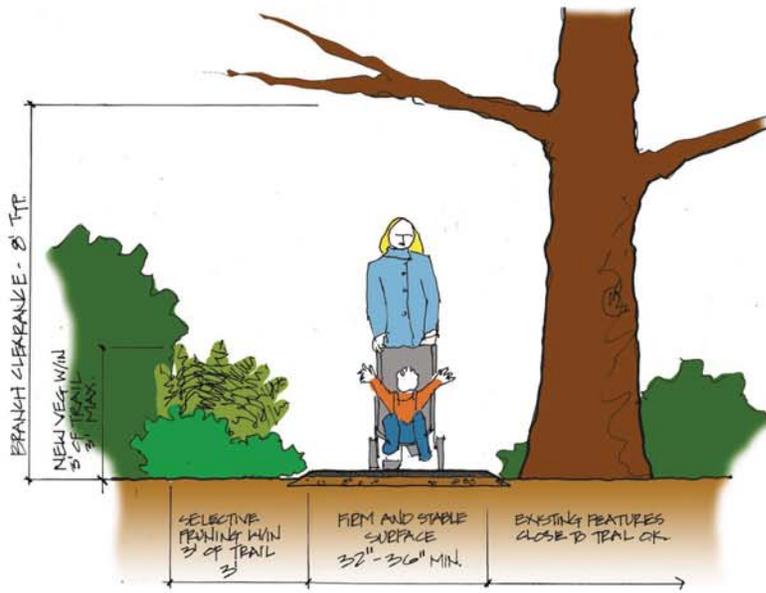
Description: The Primitive Trail standard is a new standard for Seattle Parks, specifically designed for Seward Park. Primitive trails will remain primitive, with unimproved tread and existing natural features. Signage at the major trailheads will warn trail users that these are challenging, unmaintained trails. The warning will be repeated by a symbol appearing on trail posts at trail junctions along the Spine Trail. (see further detail in Wayfinding section P.19). As time goes by and if trail usage increases, periodically review the Primitive Trail environment as appropriate to verify that this standard is adequately protecting the Forest and the trail users.

Specifications:

- Maintain primitive trails only in response to demonstrated problems, as evidenced by user complaints or deterioration of forest habitat. Specific trail problems may be addressed, for instance repairing a muddy spot, without improving the entire trail.
- Existing features such as trees, fallen logs or boulders directly adjacent to trails are acceptable.
- Brushy vegetation may be pruned back from the trails periodically, using selective pruning techniques.
- Close and revegetate social trails branching from or developing in association with Primitive Trails



Fallen Tree Trail



Accessible Trail

Description. Seattle Parks does not have a specification for accessible trails. Accessible trails are to meet proposed standards of the United States Access Board for outdoor accessibility (see summary of requirements next page). Accessibility is a condition that can be overlaid on some park trails, including the Bald Eagle Trail, Spine Trail/Service Road, the new Earthquake Scarp Trail and the trail connecting the Shoreline Loop trail with Picnic Shelter 2 and the south restroom. The Access Board's proposed requirements address physical requirements of the trail itself--tread firmness, slope, width, acceptable obstacles--but also require signage with information about all of these physical characteristics so that people with mobility limitations can decide for themselves what trails they are able to use. Therefore, while most of the Spine Trail already meets requirements for surfacing, width and gradient, it cannot be considered accessible until requirements for accessible parking and signage or pamphlets with detailed trail information are also implemented.

Social Trail

There will be no standard for social trails. This plan calls for either closing social trails and rehabilitating them to native vegetation (see Major Trail Projects, p.12) or upgrading them to Primitive or Seward Park Standard trails where they appear to be well-located.





Outdoor Accessibility Guidelines

(Summarized from U.S. Access Board proposed standards)

Surface:

Firm and stable
 Clear Tread Width:
 36"; exception for 32"
 Openings (Gaps):
 To prevent wheelchair wheels and cane tips from being caught in openings or gaps, openings in trail surfaces should not permit passage of a 1/2 inch diameter sphere; elongated openings must be perpendicular or diagonal to direction of travel; first exception if openings do not permit passage of a 1/4 inch sphere; second exception to permit openings which do not permit passage of a 3/4 inch sphere.

Protruding Objects:

Provide warning if vertical clearance is less than 80"

Tread Obstacles
 (Changes in level, roots, rocks, ruts):
 Up to 2"; exception up to 3"
 Passing Space:

At least 60" width within 1,000 foot intervals. Advisory recommends more frequent intervals for some trail segments

Cross Slope:

1:20 (5%) maximum; exceptions for open drains up to 1:10 (10%)



Analysis of Accessibility Potential

Spine Trail and Bald Eagle Trail

Running Slope:

1:20 (5%) any length
 1:12 (8.33%) for up to 200'
 1:10 (10%) for up to 30'
 1:8 (12.5%) for up to 10'
 No more than 30% of trail length to exceed 1:12

Resting Intervals:

60" length, at least as wide as the widest trail segment adjacent to the rest area. Less than 1:20 (5%) slope in all directions. Resting areas are required where trail running slopes exceed 1:20 (5%), at intervals no greater than the lengths permitted under running slope.

Edge Protection:

Where provided, 3" minimum height. Handrails not required.

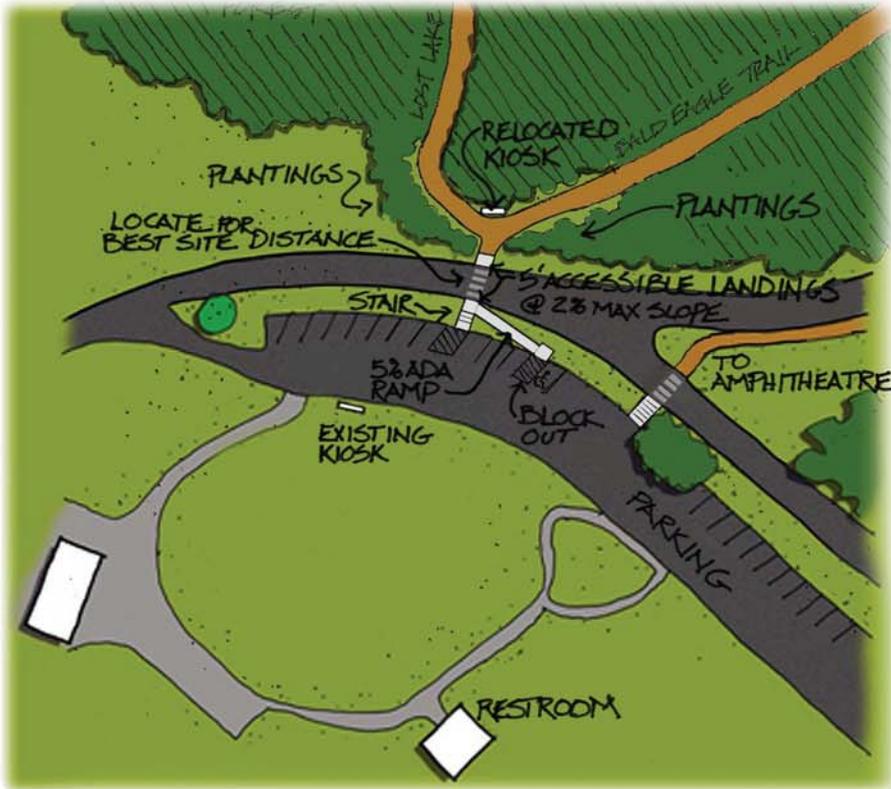
Trail Signs:

Include symbol of accessibility and information on total length of the accessible segment.

Major Trail Projects

Closing Social Trails

Closing inappropriate social trails has emerged as a high priority element of the Comprehensive Trail Plan. The objectives of closing social trails are, first, to address damage they cause to the forest by fragmenting habitat, eroding soils and damaging vegetation and second, to reduce the confusion they create for trail users. Closing off trails with branches and logs and replanting native vegetation will be the primary means of implementation and are excellent projects for volunteers. Organizers for social trail closure projects should coordinate efforts with the Seward Park Reforestation project to take advantage of mutual resources and objectives. This study has noted that many of the social trails appear to have developed as a direct effort of people trying to get from one place to another. Wayfinding projects, such as signs directing people to more appropriate routes to their destinations, will help ensure the success of social trail closures.



Existing Forest Trailheads. Currently, there are 6 trail entries into the Magnificent Forest Zone. Three trails enter from the Shoreline Loop Road. The Spine Trail/Service Road connects directly to the Upper Loop Road. Some trail users park their cars along the Upper Loop Road across the street from the trailhead. The Bald Eagle and Lost Lake Trails emerge from the forest across the street from the upper west parking lot and are most convenient for people who want to park close to the trailhead and for people who don't want to walk on the Shoreline Loop Road prior to getting on a Forest Trail. However, there is no pedestrian path across the wide planting strip between the parking lot and the road, no crosswalk across the road, and no curb cuts. While the two trails are well established within the forest, they cross the 30-40 foot lawn between the forest edge and the road as indecisive parallel social trails about 30 feet apart. Each trail has its own set of signage prohibiting bicycle use and dogs off leash on the trail.

Objectives :

- Reduce clutter and improve appearance of the trail heads so that they fit better into the pristine forest setting. Combine the two trailheads into one, providing only one set of signage that serves both trails, and extending forest vegetation toward the road that will screen some of the signage from the road and will remove/restore the poorly defined extension of the Lost Lake Trail across the grass.
- Improve safety and usability of the trailhead. Provide a path through the planting strip and a crosswalk across the road. Provide "To Bald Eagle Trailhead" directional signage from the parking area.
- Provide handicap accessibility. Provide an accessible parking space and a ramp to the crosswalk.

To become an accessible trailhead, this project must be done concurrently with a project to make improvements to the Bald Eagle trail and provide signage meeting the Federal Accessibility Board's proposed standards for outdoor accessibility.

Earthquake Scarp Trail

Existing Conditions. The earthquake scarp is cliff, an exposed thrust block feature of the Seattle Fault, just inland of the Shoreline Loop Road. It provides a dramatic interpretive opportunity. In the past, people have created a social trail to the base of the cliff, although the Forest Restoration project has recently restored and re-vegetated this area.

Objectives. The objectives for this project are to allow people access to view the earthquake scarp while keeping them on a trail to protect the forest, and to expand the opportunities for people needing accessible trails to enjoy the unique features of the park.

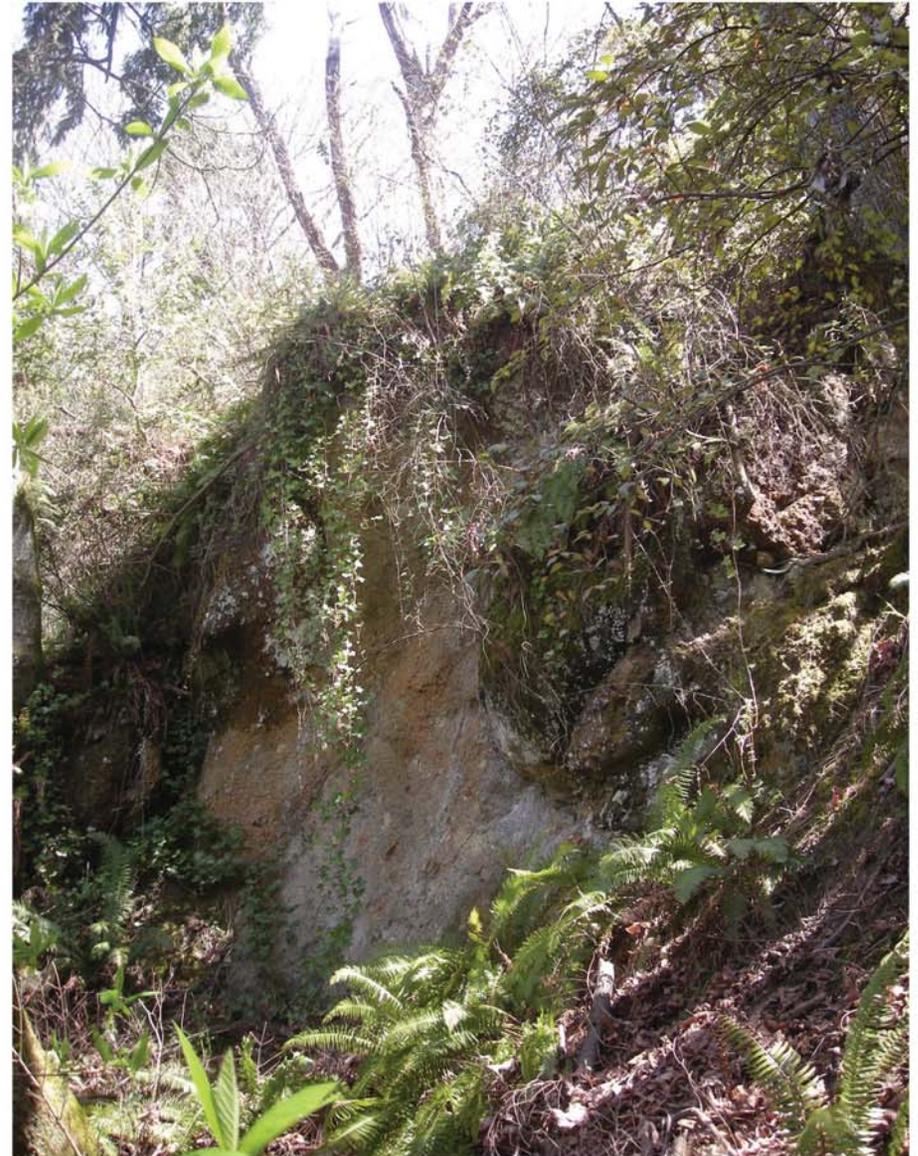
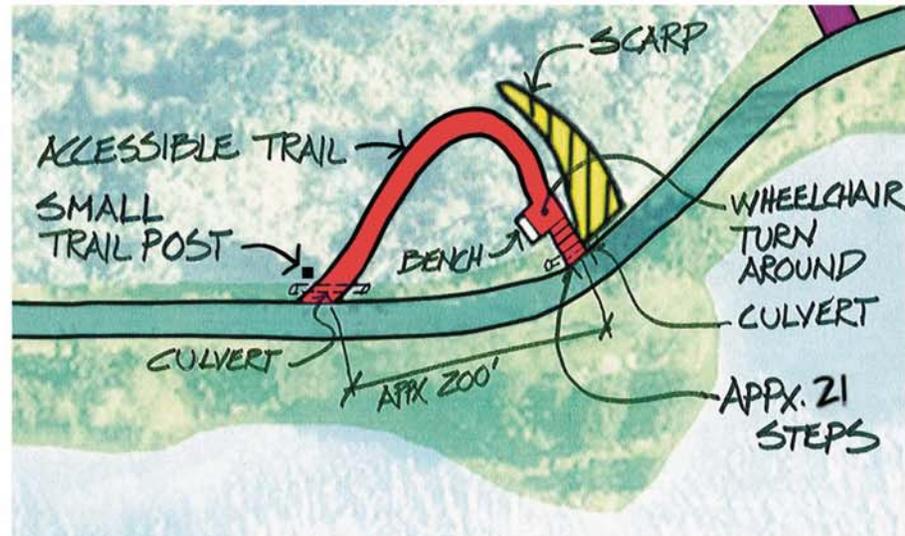
Design. The trail design is a loop off of the Shore Loop Road to maximize people's sense that they have seen all there is to be seen and to minimize the temptation of creating social trails. A trail beginning on the Shore Loop Road about 200' north of the scarp can be wheelchair accessible, although a more direct access at the south end of the trail will require steps.

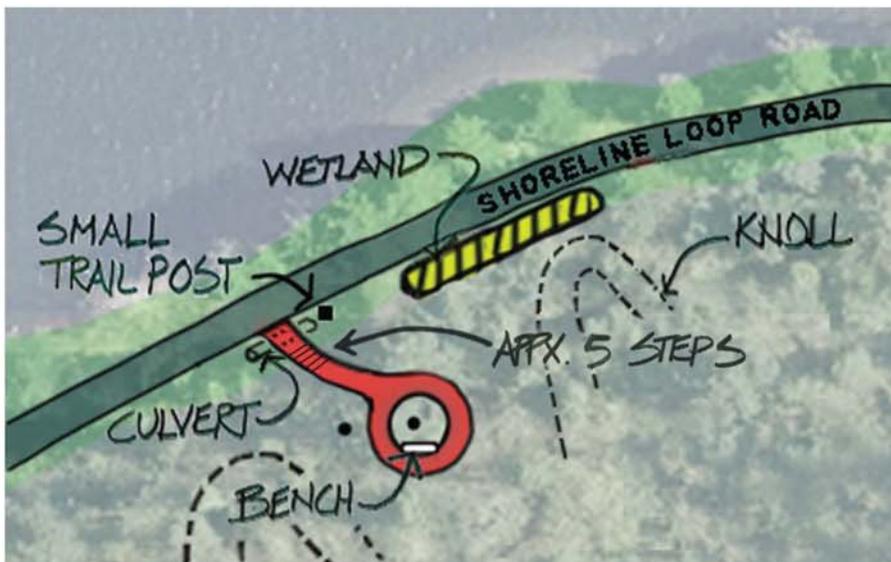
The trail will require:

- Culverts so the trail can pass over the drainage ditch that runs along the inside of the road.
- Timber steps per Park Department standards at the south end of the trail.
- Accessible Trail with turnaround at viewing area.
- Small trail post signage

Opportunities exist for interpretive signage, bench.

This proposed trail is in the Shoreline zone. Specific design for this project must take into account permit requirements.





Ravine View Trail

Existing Conditions. The Forest Viewpoint is part of a low area where a couple of small ridges and valleys converge, providing nice views into the forest and of a small skunk cabbage patch, inland of the Shoreline Loop Road. It provides a nice opportunity to step within the forest and has the potential to be accessible.

Objectives. The objective of this project is to provide an opportunity for people to step off of the Shoreline Loop Road and enjoy the Forest environment and to expand the opportunities for people needing accessible trails.

Design. The trail design is a spur with a short loop off of the Shoreline Loop Road.

The trail will require:

- A culvert so the trail can pass over the drainage ditch that runs along the inside of the road.
- Accessible Trail.
- Small trail post signage.

Opportunities exist for interpretive signage and a bench.

This proposed trail is in the Shoreline zone and a wetland setback. Specific design for this project must take into account permit requirements due to these conditions.

Skunk Cabbage Trail

Existing Conditions. The Skunk Cabbage Patch is a wetland tucked in to the forest inland of the Shoreline Loop Road. Along this portion of the Shoreline Loop, vegetation on the Forest side of the road creates a fairly solid wall, interrupted by the outlet of the skunk cabbage wetland. In the spring when the skunk cabbage is in bloom, this opening is like a window into a secret garden. Passersby feel compelled to climb up the soggy bank to take a better look. The wetland extends uphill from the skunk cabbage patch. The forest immediately surrounding the wetland is deciduous, creating a large sunny opening in the forest in the early spring when the skunk cabbage is in bloom.

Objectives. The objective of this project is to protect the skunk cabbage patch and to allow people to enjoy it, by providing a trail and viewpoint on dry ground that overlooks the wetland.

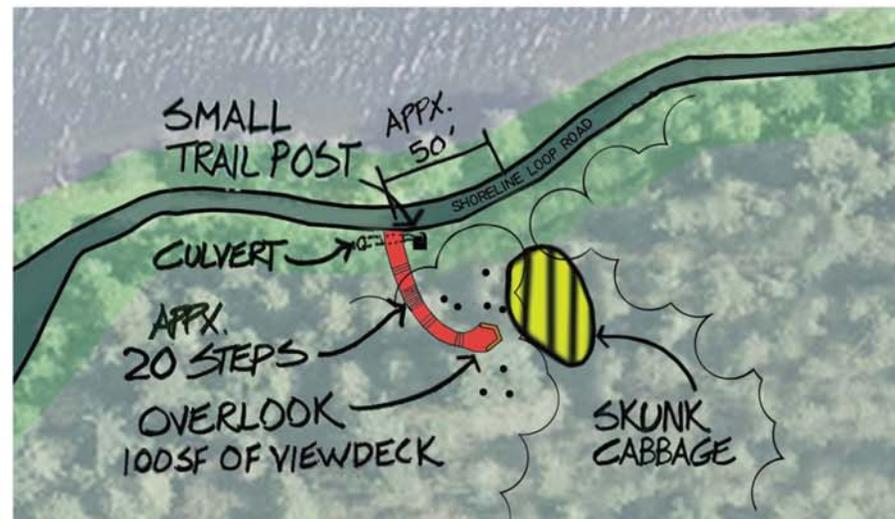
Design. The trail design is a short spur off of the Shoreline Loop Road leading to an overlook (possibly a deck) with a view rail and information educating people to stay on the trail.

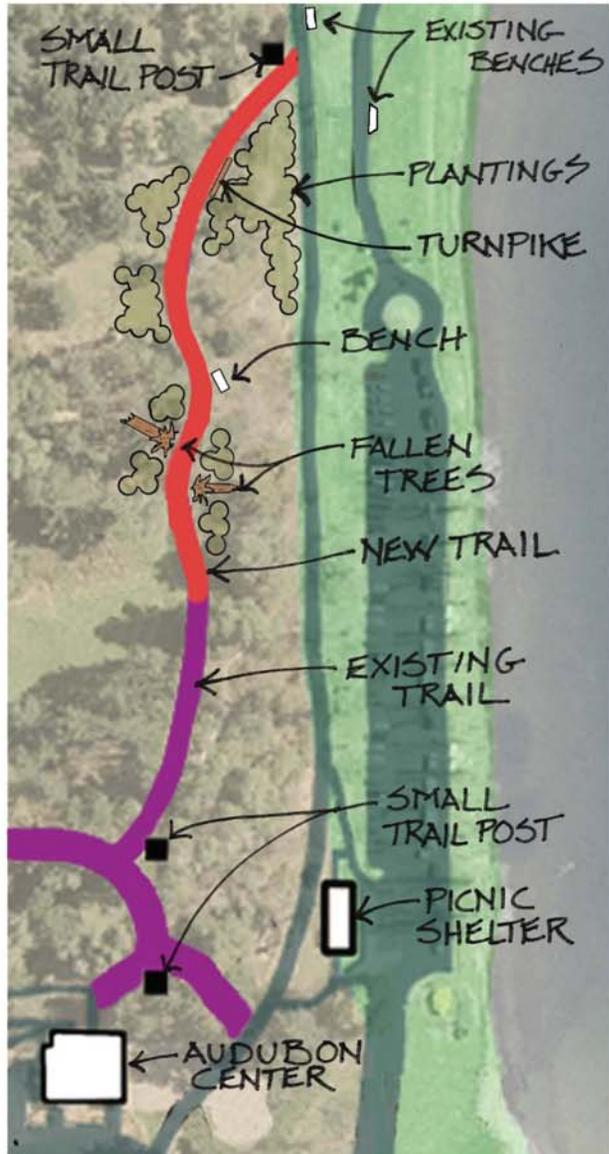
The trail will require:

- A culvert so the trail can pass over the drainage ditch that runs along the inside of the road.
- Timber steps per Park Department standards at the steep bank
- Seward Park standard trail
- Viewpoint--possibly a deck with a view rail
- Small trail post signage

Opportunities exist for interpretive signage, a view rail, and bench.

This proposed trail is in the Shoreline zone and a wetland setback. Specific design for this project must take into account permit requirements due to these conditions.





Clark's Prairie Trail

Existing Conditions. The Clark's Prairie Trail is a trail that tees off on the south end of the broken tree trail and heads east. This trail has been established with crushed rock. The crushed rock portion of the trail ends at a non-descriptive location. Users then wander up to the play area and open meadow or mostly, down to the Shoreline. The users have created a number of social trails cutting down the slope to the Shoreline Loop Trail.

Objectives. The objective of this project is to protect the slope and native plantings, by providing a trail that connects the established trail with the Shoreline Loop Road.

Design. The trail design is an extension of the established portion of Clark's Prairie Trail to the Shoreline Loop Trail. This extension will run between two fallen trees to an overlook with a bench and then cut across the slope to the trail below. The connection to the Shoreline Loop Trail will run between two madrona trees and connect just west of a large oak across the Shoreline Loop Trail.

The trail will require:

- Native plantings to eliminate social trails
- Turnpike as needed on lower portion
- Seward Park standard trail
- Viewpoint- with bench
- Small trail post signage



Wayfinding

A summary of the proposed wayfinding system on page #9. The discussion of Primitive Trails is on page #8.

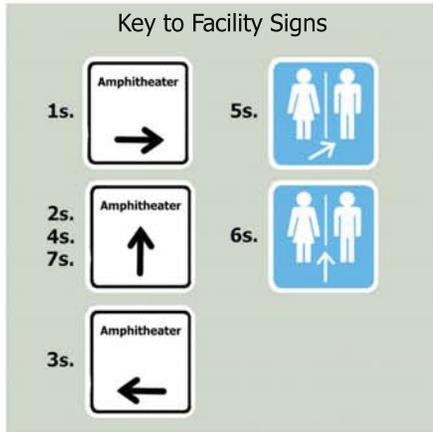
Objectives

A wayfinding system to help orient people to the trails and facilities is desirable with the following objectives:

- To reduce confusion and unease for trail users and potential trail users.
- To prevent creation and use of social trails
- To provide information needed for handicapped use of accessible trails
- To warn users that Primitive Trails may be challenging
- To achieve the above with the most understated approach possible, using small signs, symbols, and no signs at all on inner forest intersections.

Facility Signs

To reduce visitor confusion and proliferation of social trails, provide clear signage to and from facilities in the Parkland zone, similar to existing signage.



Trail Signage

In addition to providing trail identification, the objectives of trail signage in terms of its content are to 1)warn trail users that primitive trails may be challenging and unmaintained, and to identify these trails*, 2)provide information to about all trail conditions so that people with mobility challenges can decide for themselves which trails they can use, 3)identify trails meeting accessibility standards, 4)provide distance and directional information and 5)post leash and bicycle restrictions. The objectives for the physical expression of signage is that signs be subtle and fit into the forest setting as much as possible. Meeting the content goals while making a sign that is aesthetically acceptable is challenging. To reduce the volume of all the information required on signs, we are proposing a symbolic code (circle, square and diamond) to signify trail difficulty. The idea is to post all of the information and familiarize people with the symbolic code at the major trailheads, so that signs at the intersections along the Spine trail can be smaller and carry less information.

The signage content is illustrated here on the Park's standard Wayfinding Directional Post, which is a recycled plastic timber with an embedded metal or plastic information panel. The idea is to compress the information so that it can be carried on the post itself without the need for an actual sign.

There is community interest in exploring alternative materials and styles that would be specifically designed for Seward Park, such as wood or stone posts (to match the existing mileage markers on the Shoreline Loop Road). Any signage project should include a sign design phase with public review prior to implementation.

Info Post. Info Posts will be located at 4 Forest trailheads (see plan, previous page).

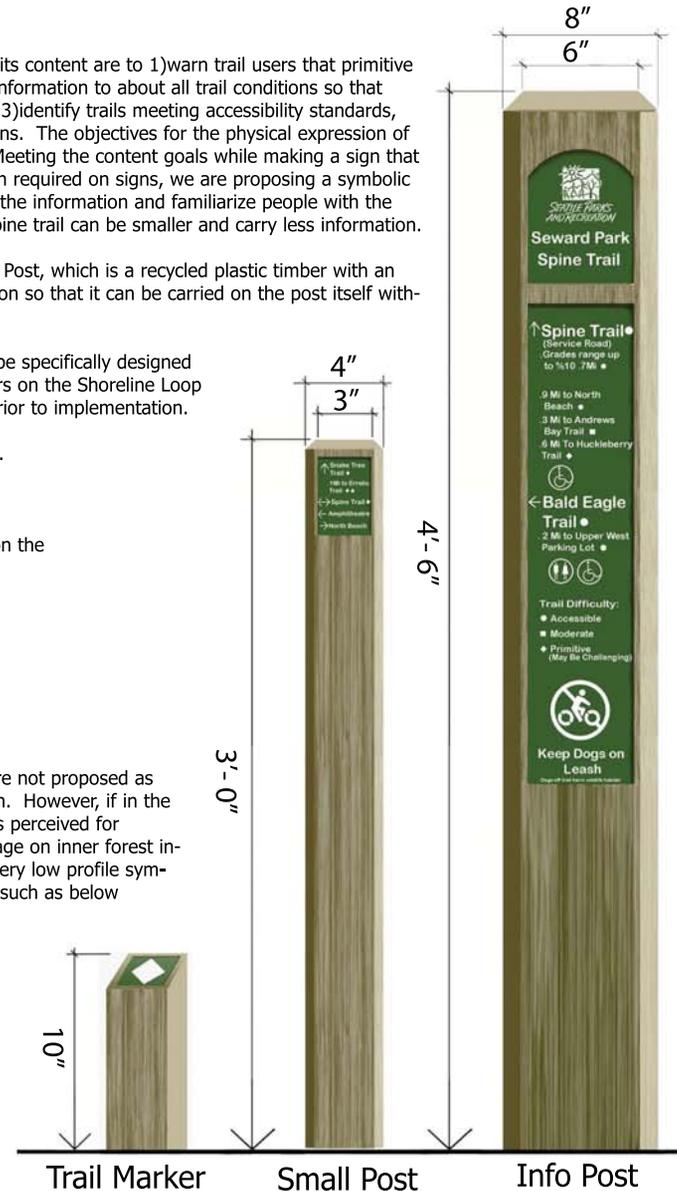
Small Post. Small posts are located at trail intersections along the Spine Trail.

*The Parks Department has agreed to adopting a Primitive Trail Standard, but only on the condition that trail users are warned that trails are not kept up to usual standards.



Trail Marker

Trail Markers are not proposed as part of this plan. However, if in the future a need is perceived for additional signage on inner forest intersections, a very low profile symbolic approach such as below is desirable.

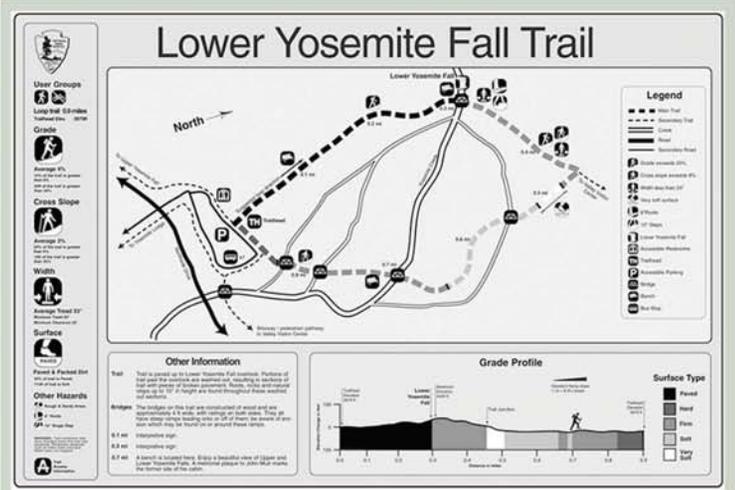


Trail Maps

As part of the Comprehensive Trail Plan, we are proposing that the Bald Eagle/Lost Lake Trailhead be improved (see p.6) and provided with a crosswalk with the parking area and an accessible parking stall. It will be the only accessible trail entry for wheelchair users. Therefore, we propose that once these improvements are made, a kiosk be installed at the trailhead with the detailed map information needed for accessible trails. Maps would also be available as pamphlets in dispensers at the kiosk, some of the Info Posts and the Audubon Center.



Trail Map at Kiosk



Sample map provided by the United States Access Board illustrating the level of information needed for an Accessible Trail.

PROJECT PRIORITIES, PHASING AND COSTS

Members of the community expressed their preferences in surveys, in writing and at public meetings (see appendix). The priorities expressed in the introduction to this study are a result of this process and were used to develop the proposals expressed in this document. Survey #2 was specifically designed to arrive at a method of prioritizing specific trail projects. Using this information, we have distilled what we understand the community's preferences to be into the following general criteria for ranking projects or entire categories of projects:

Criteria		(general guidelines for ranking)
1	Highest	Protect primitive trails from overdevelopment
2	High	Restoration, promotes/protects health of forest, define trails so people will stay on them, safety & usability
3	Medium	New trails to skunk cabbage and earthquake fault, wayfinding system, improve accessibility
4	Low	Furnishings
5	Lowest	Changes in trails for aesthetic purposes

The projects in the matrix below are grouped into categories generally relating to the above criteria and the categories are arranged in priority order. Therefore, "trail closures and habitat restoration/protection" is generally a higher priority than "trail conditions" which is generally a higher priority than "Wayfinding and Accessibility" etc. However, in finally prioritizing projects for implementation, a number of factors must also be taken into account:

- Interdependence of projects. For instance, while closing social trails ranks very high, the reason they exist is often that people need a route or can't find a route to their destination. Therefore, some trail closure projects should go hand-in-hand with trail building and/or signage projects.
- Volunteer enthusiasm. Many of the projects will only be implemented if volunteers do them, therefore projects that are popular with potential volunteers may happen first.
- Funding. Projects range in estimated costs from a few hundred dollars for materials for sample restoration projects to approximately \$35,000 each for a couple of the major trail and trailhead projects. Many of them present attractive donor opportunities. Any projects receiving specific funding may move up the priority list. Friends of Seward Park should work together with the Seattle Parks to find funding sources.

Within each category, we have ranked the projects from 1-3, again using a rough application of the above criteria.

TRAIL PROJECT WORKSHEET

Legend

Old Trail #	New Trail Name or Code	Description
1	Spine / Service Road	
2(west)	Andrews Bay	
2(east)	Hatchery	
3	Lost Lake	
4	Fallen Tree	
5	Huckleberry	
6	Woodpecker	
7	Erratic	
8	Broken Tree	south
9	Broken Tree	north
10	Shore Loop Road	
25	Bald Eagle (along Upper Loop Road)	
26	Bald Eagle (mid section)	
27	Bald Eagle (west end)	
28		
30		missing skunk cabbage trail
	Forest View	
	Skunk Cabbage	
	Earthquake Scarp	
	Clark's Prairie	
	BTa	Short trail - Broken Tree to meadow
	BTb	Short trail - Broken Tree to meadow
	BTc	Short trail - Broken Tree to Shore Loop north parking
	BTd	Short trail - Broken Tree to viewpoint
	UL	Upper Loop Road
	ULa	Sidewalk trail - PS 5 to UL south parking
	UL b	Sidewalk trail -UL south parking to west parking
	UL c	Short trail - UL to Campfire Fire Pit & Shoreline
	UL d	Short trail - ULa to Shore Loop restroom
	UL e	Short trail - UL south parking to restroom
	UL g	Short trail - UL south parking to PS 2
	UL g	Short trail - Bald Eagle to Amphitheatre parking

NOTE:

1. Costs do not include volunteer hours. Costs include materials, contractor costs and Parks staff cost. Costs are developed at a conceptual level to give an idea of potential scale of the projects.
2. Layout, quantities, and level of effort should be verified for each project prior to implementation.
3. AL = "Allow", SF="Square Foot", EA = "Each"
4. Revegetation project costs are escalated from the 2005 VMP SF costs and assume volunteer installation.
5. Trail construction costs are derived from Parks cost estimate templates and include contractor installation. Costs may be lower with substantial volunteer involvement.
6. All projects are assumed to require some supervision and approval by Parks
7. FoSP listed as "leader" means that project may be implemented by volunteers with minimal Parks supervision
8. "Contractor Needed" means that skilled workers, consultants or machinery (beyond a compactor) are needed

Trail Closures & Habitat Restoration/Protection

project #	trail/soc. Trail #	issue/location	proposed solution	Priority w/in Category	Leader	Contractor Needed?	Volunteer Opportunity?	Qty	Unit	cost/unit	Estimated Cost	Comment	
1	2	north Spine to Shore Loop	close w/branches and re-vegetate 30 LF @ each end	1	FoSP	N	Y	120	SF	\$1.55	\$186	incl. only 1 gal shrubs @ 1 per 45F, typ.	
2	6,7	Erratic to Shore Loop	close w/branches and re-vegetate 30 LF @ each end	1	FoSP	N	Y	240	SF	\$1.55	\$372	steep and muddy	
3	9,10,11	WP,LI and AB to Shore Loop	close w/branches and re-vegetate 30 LF @ each end	1	FoSP	N	Y	240	SF	\$1.55	\$372	crosses drainage, muddy and erosive	
4	8	Licorice Fern to Earthquake Scarp	close w/branches and re-vegetate 30 LF @ each end	1	FoSP	N	Y	120	SF	\$1.55	\$186		
5	1	north end of Erratic Trail	close w/branches and re-vegetate 30 LF @ each end	1	FoSP	N	Y	120	SF	\$1.55	\$186		
6	trailheads	dog & bike use	provide instructional messages at existing kiosks	1	FoSP	N	Y	1	AL	\$20.00	\$20		
7	14	ps 4 & 5 to amphitheater	close w/branches and re-vegetate 30 LF @ each end	1	FoSP	N	Y	120	SF	\$1.55	\$186	coordinate with wayfinding	
8	3,4,5	Huckleberry to Spine	close w/branches and re-vegetate 30 LF @ each end	2	FoSP	N	Y	360	SF	\$1.55	\$558	coordinate with wayfinding	
9	15, 16	UL to restroom	close and re-vegetate	2	FoSP	N	Y	120	SF	\$1.55	\$186	has been revegetated, block & coordinate with wayfinding	
10	18	UL west parking to amphitheater	close w/branches and re-vegetate 30 LF @ each end	2	FoSP	N	Y	120	SF	\$1.55	\$186		
11	12	upper meadow, close to eagle tree	close w/branches and re-vegetate 30 LF @ each end	3	FoSP	N	Y	120	SF	\$1.55	\$186	coordinate with wayfinding	
12	13	connection to picnic shelters 4 & 5	watch and reassess	3	FoSP	N	Y	0	SF	\$0.00	\$0	coordinate with wayfinding	
13	17	UL south parking	watch and reassess	3	FoSP	N	Y	0	SF	\$0.00	\$0		
14	Bald Eagle	lawn along trail near amphitheatre	remove lawn, reforest with natives	3	Parks	Y	Y	3000	SF	\$3.80	\$11,400	incl. lawn removal, soil prep, shrubs, trees & mulch	
15	Bald Eagle	concrete and other debris near trail	remove & dispose debris; restore area	2	Parks	Y	Y	1	AL	\$2,000.00	\$2,000	cobbles may be recycled to playground project	
16	UL d	confusion - UL south parking to restroom	improve visibility of preferred trail, block social trail	2	FoSP	N	Y	120	SF	\$1.55	\$186		
17	Huckleberry	northern (lower) trail head is wide	plant to narrow trail head	3	FoSP	N	Y	100	SF	\$1.55	\$155		
18	Lost Lake	wide places in trail	planting to narrow trail in places	3	FoSP	N	Y	500	SF	\$1.55	\$775		
											Subtotal	\$17,140	
											Parks supervision @ min. 12 hrs per project @ \$40/hr	\$8,640	
											TOTAL TRAIL CLOSURES AND HABITAT PROTECTION PROJECT COSTS	\$25,780	

Trail Conditions

1	general	reduce impact of crushed rock on standard trails	provide/spread infield soil as needed	1	FoSP	N	Y	2000	SF	\$0.25	\$500	1/2" on flat, 1/4" on slopes, quantity based on new gravel	
2	Lost Lake	trail on large root - needs reroute	new trail	1	FoSP	Y	Y	80	SF	\$2.50	\$200		
			revegetate old trail	1	FoSP	N	Y	80	SF	\$1.55	\$124		
3	Andrews Bay	muddy spot	crushed rock between lower step and cross drain	2	FoSP	Y	Y	60	SF	\$2.00	\$120		
4	Licorice Fern	2 muddy spots	regrade and inset gravel	2	FoSP	Y	Y	120	SF	\$2.00	\$240		
5	Licorice Fern	step over root needs repair and is unnecessary	remove step, reroute path around snake tree -new trail	2	FoSP	Y	Y	240	SF	\$2.50	\$600		
			revegetate old trail	2	FoSP	N	Y	120	SF	\$1.55	\$186		
6	Huckleberry	muddy spot	regrade and inset gravel muddy spot	2	FoSP	N	Y	60	SF	\$2.00	\$120		
7	Huckleberry	muddy spot	crushed rock, lower area to main trail	2	FoSP	N	Y	150	SF	\$2.00	\$300		
8	Broken Tree	muddy, missing steps, exp. roots, missing link	new steps near playground	2	Parks	Y	Y	3	EA	\$140.00	\$420		
			link to PS - extend trail	2	Parks	Y	Y	120	SF	\$2.50	\$300		
			spot repair muddy spots	2	Parks	Y	Y	500	SF	\$2.00	\$1,000		
9	Bald Eagle	No buffer btwn walkway and roadway near Spine	move trail 2' to west to create planting strip	2	Parks	Y	Y	600	SF	\$3.00	\$1,800	requires moving trail 2' to west and planting	
			plant planting strip & additional grass slope	2	FoSP	N	Y	500	SF	\$2.00	\$1,000	plant closer together than typ revegetation	
10	UL e	double route - UL south parking to PS 2	Improve social trail to standard, remove steps	3	Parks	Y	Y	480	SF	\$2.50	\$1,200		
											Subtotal	\$8,110	
											Parks supervision @ min. 12 hrs per project @ \$40/hr	\$4,800	
											TOTAL TRAIL CONDITIONS PROJECT COSTS	\$12,910	

Wayfinding & Accessibility

1	general	Trail Wayfinding - 1st phase	Install large Info-Posts	1	Parks	Y	Y	4	EA	\$800.00	\$3,200		
2	general	wayfinding in Parkland	Provide directional facility signs	1	Parks	Y	N	7	EA	\$400.00	\$2,800		
3	Upper Loop Road	no x-walks	4 new x-walks	2	Parks	Y	N	4	EA	\$1,500.00	\$6,000		
4	Bald Eagle	Grading and trail realignments needed for ADA	Engineering	3	Parks	Y	N	1	AL	\$10,000.00	\$10,000		
			Construction		Parks	Y	N	1	AL	\$12,000.00	\$12,000		
5	Bald Eagle TH	poor accessibility of trailhead	accessible parking, ramp, regrade trailhead	3	Parks	Y	N	1	AL	\$25,000.00	\$25,000	see plan	
6	general	Trail Wayfinding - 2nd phase	Small trail posts	3	Parks	Y	Y	17	EA	\$600.00	\$10,200		
7	Bald Eagle TH	wayfinding/accessibility/aesthetics	Move forest kiosk to BE trailhead	3	Parks	Y	Y	1	AL	\$500.00	\$500		
8	general	Trail maps w/detailed accessibility info	Design and Publish	3	Parks	Y	Y	1	AL	\$5,000.00	\$5,000		
											Subtotal	\$74,700	
											Parks supervision @ 45%	\$33,615	
											TOTAL WAYFINDING & ACCESSIBILITY PROJECT COSTS	\$108,315	

PROJECT PRIORITIES, PHASING, AND COST

Trail Closures & Habitat Restoration/Protection

project #	trail/soc. Trail #	issue/location	proposed solution	Priority w/in Category	Leader	Contractor Needed?	Volunteer Opportunity?	Qty	Unit	cost/unit	Estimated Cost	Comment
New Trails												
1	Skunk Cabbage	new trail & viewpoint opportunity	design, engineering, permitting	1	Parks	Y	Y	1	AL	\$10,000.00	\$10,000	permits for Shoreline and Wetland, structural work
			trail - 60LF		Parks	Y	Y	240	SF	\$2.50	\$600	
			deck overlook with rail		Parks	Y	N	100	SF	\$150.00	\$15,000	
			steps		Parks	Y	N	20	EA	\$140.00	\$2,800	
			bench, interpretive signage		Parks	Y	N	1	AL	\$5,000.00	\$5,000	donation opportunities
2	Clark's Prairie	new trail opportunity-Broken Tree to Shore Loop	new trail - 450LF	1	FoSP	N	Y	1800	SF	\$2.50	\$4,500	
3	Earthquake Scarp	new trail opportunity	design, engineering	2	Parks	Y	Y	1	AL	\$7,000.00	\$7,000	
			trail - 300 LF plus handicap turnaround & view area		Parks	Y	Y	1300	SF	\$2.50	\$3,250	
			steps		Parks	Y	N	21	EA	\$140.00	\$2,940	
			bench, interpretive signage		Parks	Y	N	1	AL	\$5,000.00	\$5,000	donation opportunities
4	Ravine View	new Ravine View trail opportunity	design, engineering, permitting	2	Parks	Y	Y	1	AL	\$5,000.00	\$5,000	donation opportunities
			trail - 200 LF		Parks	Y	Y	800	SF	\$2.50	\$2,000	
			steps		Parks	Y	N	5	EA	\$140.00	\$700	
			bench, interpretive signage		Parks	Y	N	1	AL	\$2,000.00	\$2,000	
5	Clark's Prairie	Shore Loop sidewalk to restroom is social trail	build accessible trail - 500LF	2	FoSP	N	Y	2000	SF	\$2.50	\$5,000	
6	ULa	missing link- PS 5 to UL south parking	Sidewalk trail - PS 5 to UL south parking -500LF	2	Parks	N	Y	2000	SF	\$2.50	\$5,000	
7	UL b	missing link -UL south parking to west parking	Sidewalk trail -UL south parking to west parking-470LF	2	Parks	N	Y	1880	SF	\$2.50	\$4,700	
8	UL g	missing link - BE to Amphitheatre parking	improve social trail to standard -80LF	2	Parks	N	Y	320	SF	\$2.50	\$800	
9	UL c	social trail - ULa to camp fire & restroom	design, engineering	3	Parks	Y	N	1	AL	\$3,000.00	\$3,000	
			implementation		Parks	Y	N	1	AL	\$5,000.00	\$5,000	
9	Uld	UL south parking to restroom & shoreline	repair steps, extend trail	2	Parks	Y	Y	1	AL	\$7,000.00	\$7,000	coordinate with wayfinding
Subtotal											\$96,290	
Parks supervision @ 45%											\$43,331	
TOTAL NEW TRAILS PROJECT COSTS											\$139,621	

Furnishings

1	general	dog use	provide dog bags at trail heads	1	FoSP	N	Y	4	EA	\$75.00	\$300	1 on existing kiosk, 3 on future posts or kiosk
2	Spine	half-log benches	build, locate and install 2 half log benches	2	Parks	Y	Y	2	EA	\$900.00	\$1,800	
3	Bald Eagle	eagle viewing point	build, locate and install 1 half log bench	2	Parks	Y	Y	1	EA	\$900.00	\$900	
4	Spine	3-log outdoor classroom	locate best site w/ Audubon, establish	3	Parks	Y	Y	3	EA	\$900.00	\$2,700	
5	Forest Trails	log benches	gently move 1-3 found logs to approp. Locations	3	FoSP	N	Y	0	EA	\$0.00	\$0	
6	New trails	park benches on Shore related new trails	install per specification	3	Parks	Y	Y	3	EA	\$1,200.00	\$3,600	
7	Broken Tree	high point	build, locate and install half log bench	3	Parks	Y	Y	1	EA	\$900.00	\$900	
Subtotal											\$10,200	
Parks supervision @ 45%											\$4,590	
TOTAL FURNISHINGS PROJECT COSTS											\$14,790	

Aesthetic Issues

1	Hatchery	fish hatchery fence is visible	plant to screen fence (and buildings beyond)	1	FoSP	N	Y	1200	SF	\$1.55	\$1,860	coordinate with trailhead & kiosk projects,
2	Bald Eagle/Lost Lake	confusing double trail entry	revegetate existing lawn & 1 trail entry	2	Parks	N	Y	2700	SF	\$3.80	\$10,260	incl. lawn removal, soil prep, shrubs, trees & mulch
3	Woodpecker	aesthetic	remove stone steps, revegetate exist trail	2	FoSP	Y	Y	1	AL	\$200.00	\$200	
			new trail			N	Y	200	SF	\$2.50	\$500	
4	general	boardwalks	design new or replacement side rails to have bigger gap	3	Parks	Y	N	0	EA	\$0.00	\$0	investigate whether side rails are really required
5	general	conceal turnpike logs, concrete supports, rocky	plant to hide man-made elements	3	FoSP	N	Y	200	EA	\$5.50	\$1,100	allowance for 1 gallon plants
6	Lost Lake	when boardwalks are replaced	consider reroute	3	Parks	Y	Y	0	EA	\$0.00	\$0	
7	Andrews Bay	aesthetic	rebuild steps near segment 28, remove steps	3	FoSP	N	Y	1	AL	\$500.00	\$500	
8	Licorice Fern	aesthetic	removal & adjustment to existing steps	3	FoSP	N	Y	1	AL	\$500.00	\$500	
9	Spine	aesthetic	replace existing concrete bench with log bench	3	FoSP	Y	Y	1	AL	\$2,200.00	\$2,200	
10	Broken Tree	aesthetic	rebuild steps to meadow	3	Parks	Y	N	12	EA	\$100.00	\$1,200	
Subtotal											\$5,500	
Parks supervision @ 45%											\$2,475	
TOTAL AESTHETICS PROJECT COSTS											\$7,975	
TOTAL COSTS ALL PROJECTS											\$309,391	

Pre-project Informal Trail Interviews

Seven individuals forming the Friends of Seward Park Trails Committee walked the trails of Seward Park on July 1 2006 to look at the trail work that has already been done and that proposed. While we were on the trails, we also asked everyone we met for input on trails. This amounted to about 12-15 people in addition to our group.

When asked about trail work, most people responded positively. However, when asked about preference for gravel or dirt trails, nearly all people expressed a preference for the smaller dirt trails. Reasons included "it's more like hiking" and "it's more like you are off in the woods instead of in the city". Some people specifically objected to widening trails.

One person expressed indifference about gravel, and another woman said that she liked the gravel because after she had a knee operation, the gravel trail was the only one she could walk on. It was unclear to which specific trail she was referring, but the most likely reference seemed to be the spine trail/service road. She said that in the next year the leaf litter would fall and the trail would be quieter. However, when she was told that the spine trail/service road had been graveled five years earlier, she changed her mind and thought that it would take a long time for the gravel to be covered and for the trails to become quiet.

When wet patches were mentioned, all respondents supported repairing wet spots. When asked about doing spot repair versus graveled the entire trail, nearly all respondents preferred spot repair and none expressed a preference for graveled whole trails. One person asked if gravel didn't strengthen the trail. One person specifically insisted that the hatchery trail needed no work and was fine the way it is. Most thought the side trails did not need work. A few people expressed concern that widening and graveled the trails would draw more traffic onto the trails, reducing quietude and opportunities for wildlife watching.

Results of Public Meeting #1



Dot-Prioritization Results of Community Meeting #1

Comment	# high	# med	score	(high=2, med=1)
Preserve sense of remoteness on inner trails/preserve primitive feeling	26	3	55	
Signage that fits into park, small, subtle/a few markers for wayfinding	17	8	42	
Avoid the Parks trail standard/don't cut the wide swathe	11	20	42	
Preserve diversity of users/welcome diversity of users	15	5	35	
Avoid impacting wildlife	12	5	29	
GPS signage w/ podcast info of site	8	11	27	
Avoid gravel/address too much gravel	7	11	25	
Preserve the quietness of inner trails	8	9	25	
Protect skunk cabbage patch with viewpoint	10	5	25	
Avoid signage	5	14	24	
Trail to earthquake fault	9	6	24	
Preserve the sense of unknown, explorability/takes practice to enjoy	10	3	23	
Preserve diversity of trails; type and width/different surfaces for diff trails	8	3	19	
Avoid creating more noise & open space in interior by expanding trails	5	6	16	
Remove stone steps on trail 6	6	3	15	
No cell phone zone	4	5	13	
Name trails after features	2	8	12	
Fix erosive social trails/get rid of social trails	1	9	11	
Expand wake zone for boats	2	7	11	
Create trails that take you away from the perimeter	4	1	9	
Screen or remove chain link fence at hatchery		8	8	
Preserve plants close to the trails	3	1	7	
Trail name sign at trails	3	1	7	
Trail distances on map	2	3	7	
Close some trails to dogs	3	1	7	
Preserve some social trails	2	2	6	
Address--easy to get lost	2	1	5	
Braille signage	1	1	3	
Make more natural by changing spine trail to foot trail		2	2	

Summary of Survey #1

TOTAL # SURVEYS: 184	Response %	Response #
1. How often do you walk in Seward Park?		
daily	14%	25
weekly or more	45%	83
occasionally	34%	62
rarely	03%	6
2. Which trails do you use?		
paved outer loop	93%	172
Main ("spine") trail in forest	76%	140
"when its hot"		
"scary--not enough people"		
Inner/small trails in the forest	66%	122
"not sure if they were meant for public"		
"how do you get up there?"		
3. Do you avoid any trails due to safety concerns, mud, roughness, crowding or any other reason? (only 100 surveys had this Q)		
Paved outer loop	15%	15
Main ("spine") trail	11%	11
Inner/smaller trails	38%	38
4. Would you like to see any improvements in the trails?		
Signage and trail maps	46%	84
Improved trail between upper & lower playgrounds	26%	48
New trail to earthquake fault	46%	85
New trail or view platform for skunk cabbage patch	45%	82
No, leave them as they are now (of 100 surveys)	19%	19
Rustic benches for more trails (of 84 surveys)	32%	27

Results of Public Meeting #2

Alternative schemes were presented for Trail Hierarchy, Wayfinding and Furnishings. Attendees then expressed their preferences by voting with a budget of one dot per category.

Trail Hierarchy:

More Accessible – 1 Dots

More Primitive – 19 Dots

Comments: "I'm fine w/making stroller-friendly" (re Bald Eagle Trail)
 "Me too!"
 "I'm not—kids can be back-packed in—what is the difference between strollers and bikes?"

Wayfinding:

No signs (maps and GPS only) – 1 Dot

Minimal Signage – 6 Dots

Comments: Sign-style info post "way too big, make smaller"
 "signs in parkland don't need to be as minimal as in forest"
 "make Info Post more minimal"
 "I agree"

Moderate Signage – 15 Dots

Comments: "2'or 3' sign would be just as informative and much less obtrusive"
 "improve use/location of kiosks"
 "paper (take with you) maps may create litter issue. Parks will not put garbage cans in the forest"
 "remove forest kiosk"
 "second that!"

Thorough Signage – 0 Dots

Furnishings:

None – 0 Dots

Least – 8 Dots

Comments: "bench ok at north skunk cabbage"

Medium – 9 Dots

Comments: "put dog bag station at north end"
 "and garbage can next to it"

Most – 3 Dots

Fall back position on Primitive Trails:

Alt 1: Parks to review trails periodically for complaints from users or damage to forest.

If necessary, upgrade trail to secondary trail – 11 Dots

"not upgrade to secondary trail"

"review is good. not upgrade to 2ndary trail. If complaints and problems, revert to Alternative 2"

Alt 2: Remove Primitive Trails from maps and signs, ask Parks Department to cease all maintenance on them – 2 Dots

Alt 3: "stop discussing" (we think this comment means don't force parks to take a position on the obstacle issue, it would be better just to call it a challenging trail, then work with them informally to keep it the way it is)

Map related comments:

"close north end (proposed) of erratic trail"
 "west ridge – make Broken Tree Trail"

Public Meeting #2



Results of Survey #2

(as of March 3, 2009)

ARRANGED BY HIGHEST PRIORITY

Question	Priority				
	highest	good idea	low	neutral	bad idea
1 Better define some trails so people will be more likely to stay on them	33	39	6	1	2
2 Restore habitat by closing poorly defined social trails	30	28	12	9	1
3 Restore habitat where trails have widened due to foot traffic	23	43	8	6	1
4 Signs at parking & picnic areas to facilities/discourage social trails	20	43	7	8	2
5 Spot-fix muddy or slippery places on trails	19	34	15	11	1
6 Install a way finding system of trail posts	17	40	12	7	4
7 Add short spur trails to skunk cabbage patch & earthquake fault	15	43	12	8	3
8 Install small trail markers at other trail intersections(smaller trails)	13	38	15	7	7
9 Rebuild certain steps to achieve uniform spacing/add in steep area	7	22	20	28	4
10 Add 2-3 park benches along the spine trail	6	43	17	11	4
11 Remove or hide man-made elements on forest trails	5	18	30	22	4
12 Add some log benches on smaller trails	4	32	18	12	15
13 Remove stone steps and replace or reroute	1	18	26	24	11
14 Remove unnecessary steps from shallow grades on forest trails	0	24	21	34	2

Proposed Signage to address Dogs and Wildlife Issues

Dogs and Wildlife

Many dogs and owners enjoy walking the trails in Seward Park. Many dogs are well-behaved even off-leash. However, almost all dogs can behave unpredictably around wildlife. Seward Park is home to coyotes, raccoons, opossums, chipmunks, Douglas squirrels, mountain beavers, deer mice, bats, Townsend's moles, muskrats, over 100 kinds of birds, turtles and an occasional snake, lizard or salamander. Dogs can harm all of these animals, and some such as coyotes and raccoons can harm dogs. Even the best-behaved dog is oblivious to trampling plants underfoot, but Seward Park has many plants that are uncommon in the city and a few that are found in the wild nowhere else in Seattle. Keeping your dog on leash protects the forest, wildlife, and your dog. It is also considerate to other park users who may not feel comfortable with your dog, and is required by law.

Please protect our park by keeping your dog on leash.

Fines for off-leash, license and scooping violations range from \$50 to \$150, and can be \$500 at a beach.

To request a visit by Animal Control, call (206) 386-PETS

[Note: We talked with Don Baxter of Seattle Animal Control. He noted that Animal Control has been working with Seattle Parks, especially in Volunteer Park, to inform employees how they (or anybody) can write incident reports of leash violators which Animal Control can use to issue tickets after the violation. This combined with increased complaint calls (which lead to park visits by Animal Control) has led to a drastic decrease in leash violations at Volunteer Park. FoSP would like to pursue a more positive educational message as a first step.]

