# BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF COUNCIL APPROVAL ) OF THE SMITH AND BYBEE WETLANDS ) NATURAL AREA TRAIL FEASIBILITY STUDY ) AND RECOMMENDATION OF A PREFERRED ) TRAIL ALIGNMENT )

### **RESOLUTION NO. 05-3592B**

Introduced by Council President David Bragdon and Councilor Rex Burkholder

WHEREAS, in the spring of 1983 the 40-Mile Loop Master Plan was completed and identifies a desired trail network in the vicinity of the Smith and Bybee Wetlands Natural Area; and

WHEREAS, on July 23, 1992, the Metro Council adopted Resolution No. 92-1637 ("For the Purpose of Considering Adoption of the Metropolitan Greenspaces Master Plan"), including the Regional Trails and Greenways Map (amended December 1993 and July 2002); and

WHEREAS, the Regional Trails and Greenways Map identifies a desired trail network in the vicinity of the Smith and Bybee Wetlands Natural Area; and

WHEREAS, in November 1990, the City of Portland adopted by Ordinance 163610 the Smith and Bybee Lakes Natural Resources Management Plan (NRMP); which guides natural resource management and development within the Smith and Bybee Wetlands Natural Area (Natural Area); and

WHEREAS, on November 8, 1990, the Metro Council adopted Ordinance No. 90-367 ("Approval of Natural Resources Management Plan for Smith and Bybee Lakes") the NRMP; and

WHEREAS, the NRMP required the establishment of the Smith and Bybee Wetlands Management Committee (Management Committee) to implement the NRMP and provide ongoing policy guidance; and

WHEREAS, the NRMP identified a conceptual trail alignment through the Natural Area, and

WHEREAS, since the NRMP alignment was identified, several changes have occurred in and around the alignment to cause great concern and opposing views amongst members of the Management Committee as to the best location for a trail alignment; and

WHEREAS, on April 11, 2003, the Management Committee sent a letter (Exhibit A) to David Bragdon, Metro Council President, recommending that Metro Council and the City of Portland conduct a trail feasibility study; and

WHEREAS, on September 29, 2005, Metro Council and the City of Portland entered into an Intergovernmental Agreement (No. 925992) (Exhibit B) where by Metro Council agreed to 1) jointly fund and solely manage a contract with independent consultants to perform a trail feasibility study, 2) pay for design, permitting and construction of trails recommended for development on the St. Johns landfill and within the Natural Area boundary, 3) collaborate with City of Portland to implement recommended alignments outside the Natural Area boundary; and

WHEREAS, Metro Council retained MacLeod Reckord consultants in June 2004, to perform trail feasibility study services in the vicinity of the Natural Area; and

WHEREAS, the components of the trail feasibility study were presented to the Metro Council in April 2005 in a work session, and again in October 2005 in an informal briefing, and Councilors have been given guided technical tours; and

WHEREAS, the trail feasibility study has been successfully completed and meets the intent of the IGA between Metro Council and the City of Portland; and

WHEREAS, in July 2005, the Technical Working Group for the study reached consensus that the content and analysis presented in the trail feasibility study fairly represented the study data; and

WHEREAS, none of the comment letters received during the public comment period for the trail feasibility study took issue with the accuracy of the content of the trail feasibility study; and

WHEREAS, the purpose of the feasibility study was to present the facts and an objective analysis of the trail alignments, and to leave the decision for a preferred alignment to the Metro Council; now therefore

BE IT RESOLVED that the Metro Council hereby accepts the Smith and Bybee Wetlands Trail Feasibility Study and appended hereto as Exhibit C; and directs staff to implement the following recommendation:

- A. Remove the South Lake Shore segment from further study at this time.
- B. The South Slough Alignment is the preferred alignment, but further analysis is required for the Metro Council to determine feasibility. Staff will conduct the following feasibility analysis and report back to the Metro Council:
  - Perform feasibility study for a slough bridge.
  - If a slough bridge is infeasible, determine impact to developing Ash Grove segment.
  - If Ash Grove segment infeasible, consider no build option.
  - Explore extending South Slough segment beneath the North Portland Road Bridge, and continuing the trail through the Columbia Blvd. Waste Water Treatment Plant (WWTP) to cross the Columbia Slough at the existing pedestrian bridge within the WWTP.

- Begin negotiations with private property owners along South Slough, on a ٠ "willing-seller" basis.
- C. Evaluate the South Slough alignment as a regional project for the 2006 bond measure.
- D. Take immediate action to implement the neighborhood connection between the landfill and Peninsula Crossing trail, including improvements to the landfill perimeter roads.

ADOPTED by the Metro Council this  $1/s^4$  day of December, 2005

David Lincoln Bragdon, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney



Resolution 05-3592B Page 3 of 3

# BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF COUNCIL APPROVAL ) OF THE SMITH AND BYBEE WETLANDS ) NATURAL AREA TRAIL FEASIBILITY STUDY ) AND RECOMMENDATION OF A PREFERRED ) TRAIL ALIGNMENT ) **RESOLUTION NO. 05-3592A** 

Introduced by Council President David Bragdon and Councilor Rex Burkholder

WHEREAS, in the spring of 1983 the 40-Mile Loop Master Plan was completed and identifies a desired trail network in the vicinity of the Smith and Bybee Wetlands Natural Area; and

WHEREAS, on July 23, 1992, the Metro Council adopted Resolution No. 92-1637 ("For the Purpose of Considering Adoption of the Metropolitan Greenspaces Master Plan"), including the Regional Trails and Greenways Map (amended December 1993 and July 2002); and

WHEREAS, the Regional Trails and Greenways Map identifies a desired trail network in the vicinity of the Smith and Bybee Wetlands Natural Area; and

WHEREAS, in November 1990, the City of Portland adopted by Ordinance 163610 the Smith and Bybee Lakes Natural Resources Management Plan (NRMP); which guides natural resource management and development within the Smith and Bybee Wetlands Natural Area (Natural Area); and

WHEREAS, on November 8, 1990, the Metro Council adopted Ordinance No. 90-367 ("Approval of Natural Resources Management Plan for Smith and Bybee Lakes") the NRMP; and

WHEREAS, the NRMP required the establishment of the Smith and Bybee Wetlands Management Committee (Management Committee) to implement the NRMP and provide ongoing policy guidance; and

WHEREAS, the NRMP identified a conceptual trail alignment through the Natural Area, and

WHEREAS, since the NRMP alignment was identified, several changes have occurred in and around the alignment to cause great concern and opposing views amongst members of the Management Committee as to the best location for a trail alignment; and

WHEREAS, on April 11, 2003, the Management Committee sent a letter (Exhibit A) to David Bragdon, Metro Council President, recommending that Metro Council and the City of Portland conduct a trail feasibility study; and

WHEREAS, on September 29, 2005, Metro Council and the City of Portland entered into an Intergovernmental Agreement (No. 925992) (Exhibit B) where by Metro Council agreed to 1) jointly fund and solely manage a contract with independent consultants to perform a trail feasibility study, 2) pay for design, permitting and construction of trails recommended for development on the St. Johns landfill and within the Natural Area boundary, 3) collaborate with City of Portland to implement recommended alignments outside the Natural Area boundary; and

WHEREAS, Metro Council retained MacLeod Reckord consultants in June 2004, to perform trail feasibility study services in the vicinity of the Natural Area; and

WHEREAS, the components of the trail feasibility study were presented to the Metro Council in April 2005 in a work session, and again in October 2005 in an informal briefing, and Councilors have been given guided technical tours; and

WHEREAS, the trail feasibility study has been successfully completed and meets the intent of the IGA between Metro Council and the City of Portland; and

WHEREAS, in July 2005, the Technical Working Group for the study reached consensus that the content and analysis presented in the trail feasibility study fairly represented the study data; and

WHEREAS, none of the comment letters received during the public comment period for the trail feasibility study took issue with the accuracy of the content of the trail feasibility study; and

WHEREAS, the purpose of the feasibility study was to present the facts and an objective analysis of the trail alignments, and to leave the decision for a preferred alignment to the Metro Council; now therefore

BE IT RESOLVED that the Metro Council hereby accepts the Smith and Bybee Wetlands Trail Feasibility Study and appended hereto as Exhibit C; and directs staff to implement the following recommendation:

- A. Remove the South Lake Shore segment from further study.
- B. The South Slough Alignment is the preferred alignment, but further analysis is required for the Metro Council to determine feasibility. Staff will conduct the following feasibility analysis and report back to the Metro Council:
  - Perform feasibility study for a slough bridge.
  - If a slough bridge is infeasible, determine impact to developing Ash Grove segment.
  - If Ash Grove segment infeasible, consider no build option.
  - Explore extending South Slough segment beneath the North Portland Road Bridge, and continuing the trail through the Columbia Blvd. Waste Water Treatment Plant (WWTP) to cross the Columbia Slough at the existing pedestrian bridge within the WWTP.

- Begin negotiations with private property owners along South Slough, on a "willing-seller" basis.
- C. Evaluate the South Slough alignment as a regional project for the 2006 bond measure.
- D. Take immediate action to implement the neighborhood connection between the landfill and Peninsula Crossing trail, including improvements to the landfill perimeter roads.

ADOPTED by the Metro Council this \_\_\_\_\_ day of December, 2005

David Lincoln Bragdon, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney

# BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF COUNCIL APPROVAL ) OF THE SMITH AND BYBEE WETLANDS ) NATURAL AREA TRAIL FEASIBILITY STUDY ) AND RECOMMENDATION OF A PREFERRED ) TRAIL ALIGNMENT )

### **RESOLUTION NO. 05-3592**

Introduced by Council President David Bragdon and Councilor Rex Burkholder

WHEREAS, in the spring of 1983 the 40-Mile Loop Master Plan was completed and identifies a desired trail network in the vicinity of the Smith and Bybee Wetlands Natural Area; and

WHEREAS, on July 23, 1992, the Metro Council adopted Resolution No. 92-1637 ("For the Purpose of Considering Adoption of the Metropolitan Greenspaces Master Plan"), including the Regional Trails and Greenways Map (amended December 1993 and July 2002); and

WHEREAS, the Regional Trails and Greenways Map identifies a desired trail network in the vicinity of the Smith and Bybee Wetlands Natural Area; and

WHEREAS, in November 1990, the City of Portland adopted by Ordinance 163610 the Smith and Bybee Lakes Natural Resources Management Plan (NRMP); which guides natural resource management and development within the Smith and Bybee Wetlands Natural Area (Natural Area); and

WHEREAS, on November 8, 1990, the Metro Council adopted Ordinance No. 90-367 ("Approval of Natural Resources Management Plan for Smith and Bybee Lakes") the NRMP; and

WHEREAS, the NRMP required the establishment of the Smith and Bybee Wetlands Management Committee (Management Committee) to implement the NRMP and provide ongoing policy guidance; and

WHEREAS, the NRMP identified a conceptual trail alignment through the Natural Area, and

WHEREAS, since the NRMP alignment was identified, several changes have occurred in and around the alignment to cause great concern and opposing views amongst members of the Management Committee as to the best location for a trail alignment; and

WHEREAS, on April 11, 2003, the Management Committee sent a letter (Exhibit A) to David Bragdon, Metro Council President, recommending that Metro Council and the City of Portland conduct a trail feasibility study; and

WHEREAS, on September 29, 2005, Metro Council and the City of Portland entered into an Intergovernmental Agreement (No. 925992) (Exhibit B) where by Metro Council agreed to 1) jointly fund and solely manage a contract with independent consultants to perform a trail feasibility study, 2) pay for design, permitting and construction of trails recommended for development on the St. Johns landfill and within the Natural Area boundary, 3) collaborate with City of Portland to implement recommended alignments outside the Natural Area boundary; and

WHEREAS, Metro Council retained MacLeod Reckord consultants in June 2004, to perform trail feasibility study services in the vicinity of the Natural Area; and

WHEREAS, the components of the trail feasibility study were presented to the Metro Council in April 2005 in a work session, and again in October 2005 in an informal briefing, and Councilors have been given guided technical tours; and

WHEREAS, the trail feasibility study has been successfully completed and meets the intent of the IGA between Metro Council and the City of Portland; and

WHEREAS, in July 2005, the Technical Working Group for the study reached consensus that the content and analysis presented in the trail feasibility study fairly represented the study data; and

WHEREAS, none of the comment letters received during the public comment period for the trail feasibility study took issue with the accuracy of the content of the trail feasibility study; and

WHEREAS, the purpose of the feasibility study was to present the facts and an objective analysis of the trail alignments, and to leave the decision for a preferred alignment to the Metro Council; now therefore

BE IT RESOLVED that the Metro Council hereby accepts the Smith and Bybee Wetlands Trail Feasibility Study and appended hereto as Exhibit C; and directs staff to implement the following recommendation:

- A. Remove the South Lake Shore segment from further study.
- B. The South Slough Alignment is the preferred alignment but further analysis is required to determine feasibility including:
  - Perform feasibility study for a slough bridge.
  - If slough bridge infeasible, determine impact to developing Ash Grove segment.
  - If Ash Grove segment infeasible, consider no build option.
  - Explore extending South Slough segment beneath the North Portland Road Bridge, and continuing the trail through the Columbia Blvd.Waste Water Treatment Plant (WWTP) to cross the Columbia Slough at the existing pedestrian bridge within the WWTP.

- Begin negotiations with private property owners along South Slough, on a "willing seller" basis.
- Evaluate the South Slough alignment as a regional project for the 2006 bond measure.
- C. Take immediate action to implement the neighborhood connection between the landfill and Peninsula Crossing trail, including improvements to the landfill perimeter roads.

ADOPTED by the Metro Council this \_\_\_\_\_ day of December, 2005

David Lincoln Bragdon, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney

#### Coordinated by:

# Smith & Bybee Lakes Wildlife Area Management Committee

Metro

600 NE Grand Ave. Portland, OR 97232 (503) 797-1515

April 11, 2003

David Bragdon President, Metro Council Metro 600 NE Grand Avenue Portland, Oregon 97232-2736

Dear President Bragdon,

The Smith and Bybee Lakes Management Committee (SBLMC) has been interested in the issues surrounding public trails and their alignment, construction and management for some time. Metro, the City of Portland, and the Port of Portland have discussed the trail issue for many years without resolution. In order to assist in finding a solution, the SBLMC designated a trail subcommittee, which met four times between October 2002 and February 2003. The subcommittee forwarded its unanimous recommendations to the SBLMC, which adopted them unanimously on February 25, 2003.

The recommendations include:

- A suggested alignment onto and around the St. Johns Landfill, connecting to the community of St. Johns,
- A feasibility study to determine whether a trail segment is necessary between the landfill and North Portland Road, and what alignment it should follow,
- Best management practices and performance standards to be followed in aligning, building and managing trails.

Our recommendations are the result of considerable time, effort and compromise by people on all sides of the trail issue. We hope that these recommendations can provide Metro with a framework within which to find the solution. The SBLMC encourages Metro to work with the City of Portland on the feasibility study as soon as possible – this issue has languished for many years and a resolution is needed.

Please do not hesitate to contact me at (503) 249-0482 if you would like to discuss this further.

Sincerely,

Troy Clark Vice Chair

# Trail Subcommittee Recommendations to Management Committee

February 25, 2003

Trail subcommittee members (attending at least 1 of 4 meetings):Pam Arden40-mile Loop TrustTroy ClarkAudubon Society of PortlandNancy HendricksonPortland Bureau of Environmental ServicesHolly MichaelOregon Dept. Fish and WildlifeEmily RothThe Wetlands ConservancyDenise RennisPort of PortlandJim SjulinPortland Parks and Recreation

# 1. Alignment – segment from the confluence of North and Columbia sloughs to the landfill bridge

Subcommittee members reached consensus regarding alignment of the trail segment from the confluence of North and Columbia sloughs to the landfill bridge. This segment would pass over the North Slough and along the west side of the St. Johns Landfill, on the landfill perimeter road. A loop or spur could be used to take trail users a short distance onto the landfill dome in the northwest corner, using another existing road on the landfill. This consensus alignment has several important positive points:

- Minimizes habitat fragmentation (leaving most of the landfill untouched)
- Avoids sensitive habitat on the south side of Bybee Lake
- Provides a good view opportunity from the landfill dome
- Provides a good experience for trail users
- Has connectivity to St. Johns and a trail to be routed in that community.

The aerial photo used in the meeting shows the trail alignment around the west side of the landfill, with a zone outlined where the trail could go one of three ways in the northwest corner:

- 1. Spur trail up onto the dome
- 2. Main trail up onto the dome
- 3. Trail stays on perimeter road and does not go up onto the dome.

# 2. Alignment – segment from the landfill bridge to North Portland Road

The group did not reach consensus regarding this segment, or even the need for it. The discussion began with a question whether this trail segment was necessary. On the "pro" side, it would provide a quality experience for trail users and take them along the slough as it does for much of the rest of the route in the Columbia Slough watershed. On the "con" side, it would cause fragmentation of important riparian habitat, taking trail users right through the riparian zone of the slough.

A route along the south side of the Columbia Slough was discussed, with questions regarding its viability. For example, there are many property owners involved. The group agreed that this route would need more investigation.

The group saw four options for this trail segment:

- 1. No trail segment in this area
- 2. Mode split, with the south side of Smith Lake pedestrian-only (bicycles go over the landfill bridge to another alignment)
- 3. Mode split, pedestrian trail follows south side of Columbia Slough (bicycles go to another alignment)
- 4. No mode split, pedestrians and bicyclists follow trail on south side of Columbia Slough.

Issues identified for the alignment on the south side of Smith Lake included the grade change from the landfill to the natural area (how to make it ADA-accessible), questions regarding the cooperation of property owners, and potential issues of wetland fill. Other issues included what standards would be appropriate for this segment (width, surface type) and what ADA requirements might be. The group also discussed whether this trail alignment could be different than the route taken by maintenance vehicles, and whether this segment could be open seasonally.

Some of the same issues were identified for siting a trail on the south side of the Columbia Slough, including questions regarding the cooperation of property owners. The bridge at North Portland Road was seen as a potential major obstacle to a trail alignment in this area. The group was unsure whether it would be logistically possible to locate the trail on the south side of the slough. Allowing bicycles on the south side remains an open question also.

The trail subcommittee recommended that additional work be done to evaluate four alternatives:

- 1. No trail connection from the landfill to North Portland Road (allow another trail alignment through the community of St. Johns to provide connectivity),
- 2. Trail alignment on the south side of Smith Lake (north side of Columbia Slough),
- 3. Trail alignment on the south side of the Columbia Slough,
- 4. Trail alignment along Columbia Boulevard.

The group acknowledged that evaluating the feasibility of these four options is more work than could be done by staff and the subcommittee. They recommended that Metro work with the City of Portland, via the IGA under discussion or some other manner, to perform this feasibility study.

#### 3. Best Management Practices and Performance Standards

The subcommittee began a list of BMPs at its meeting on November 20, 2002. All of the concepts discussed at that meeting are important, and the subcommittee agreed that they require careful balancing of sometimes-conflicting needs.

Below is the list from November 20, 2002, with new concepts added from the February 6, 2003, meeting. The practices (or sometimes concepts) are arranged by relevant area – general principles, alignment, design, construction and management.

# **General principles**

- From the Colorado trail planning guide\*:
  - Any trail will have at least some negative impacts on wildlife, which must be weighed with the benefits of the trail.
  - Don't focus solely on the narrow width of the trail's treadway also consider the wider area it may influence.
  - Trail corridors may encourage edge-loving generalists, but these species are already increasing across the landscape and may not need encouraging.
  - Trails may negatively affect species that need conditions that are altered in trail construction.
  - It is easier to balance competing wildlife and recreation needs across a landscape or region than it is on a specific trail project within a smaller area.
  - Plan a trail consistent with a regional or landscape-wide plan that identifies where trails should go and which areas should be conserved for wildlife.
  - Enlist the help of conservation advocates in planning trails, and find opportunities to integrate trails and open space planning.
  - Determine which species of interest actually occur in the area you are studying.
  - Use public support of trails to protect riparian corridors.
  - Because there isn't much detailed knowledge about the effects of human disturbance on wildlife, be cautious in planning a trail, carefully weighing the alternatives.
  - Use the best wildlife information available, even if it is scarce.
  - Generally, it is better to concentrate recreational use rather than disperse it.
  - Don't assume all wildlife impacts can be resolved through management.
  - In discussing trails and wildlife, avoid sweeping generalities about wildlife impacts that may not be possible to substantiate or even be true in a specific situation.
  - Scientific study doesn't reveal how the public values wildlife.
  - Invite broad public participation on every trail project.

# Alignment

- Site trails along habitat edges don't create new edges and fragment the habitat.
- Site trails where the area is already receiving disturbance from recreation.
- Trails need to have connectivity.
- Use spurs where you want lower traffic.
- Minimize impacts to riparian habitat.
- No net fill of wetlands.
- Consider what you want users to get out of the trail experience e.g., take them through different habitats and educate them.
- Consider what people are coming to S&B for e.g., bicycling for health and passing through, or coming to see the site itself.
- Keep education focused at one place.
- Alignments have to be truly viable.
- Look at the broad area where else do trails go, where is the riparian area.
- For alignments on or near the landfill, minimize health and safety risks to the public.
- Minimize risks to the landfill infrastructure.

- Locate trails in a way that minimizes interference to landfill staff performing their duties.
- Incorporate the City of Portland's comprehensive plan objectives regarding wildlife and trails. These are:
  - Conserve significant areas and encourage the creation of new areas which increase the variety and quantity of fish and wildlife throughout the urban area in a manner compatible with other urban development and activities [overall goal].
  - Regulate activities in natural resource areas which are deemed to be detrimental to the provision of food, water, and cover for fish and wildlife [natural resource areas].
  - Encourage the creation or enhancement of fish and wildlife habitat throughout the city [city-wide].
  - Protect existing habitat and, where appropriate, incorporate new fish and wildlife habitat elements into park plans and landscaping [city parks].
- Incorporate the objectives in the 40-mile Loop master plan. These are:
  - Provide a trail and open space system that connects existing parks and future parks into a visually and mentally comprehensible park system for the region's citizens and visitors.
  - Plan and encourage neighborhood and community access to the 40 Mile Loop.
  - Serve as a "hub" for long distance regional and state trails including the Lower Elevation Columbia River Gorge Trail, the Portland to the Coast Trail and the Sandy River Gorge Trail.
  - Help protect and utilize the natural resources and physically attractive aspects of the urban environment.
  - From the Colorado trail planning guide:
    - Seek out degraded areas that have the potential to be restored when aligning a trail, rather than creating another disturbed area.
    - Site a trail where there are already human-created disturbances or in areas of less sensitive habitat.
    - Align a trail along or near an existing human-created ecological edge, rather than bisecting undisturbed areas.
    - When possible, leave untouched large, undisturbed areas of wildlife habitat.
    - Keep a trail and its zone of influence away from specific areas of known sensitive species, populations, or communities.
    - Even within a single type of habitat, some elements may be of greater importance to wildlife than others.
    - Locate trails and supporting facilities in areas where they can be screened and separated from sensitive wildlife by vegetation or topography.
    - Provide trail experiences that are diverse and interesting enough that recreationists are less inclined to create their own trails and thereby expand the zone of influence.
    - Keep the density of trails lower within and near pristine or other high quality areas to reduce the contribution of trails to fragmentation.
    - Avoid small patches of high quality habitat in routing a trail.
    - Avoid smaller, isolated patches when laying out a trail, but do give users an experience of the varied landscape.
    - Avoid patches that are habitat for threatened, endangered, or other species of concern.
    - Analyze the landscape noting the patches, corridors, and matrix the landscape structure
      as they might be used by species of special interest.

- Minimize the number of times prominent landscape corridors such as riparian zones are crossed by a trail.
- For both habitat and maintenance reasons, it is better to run a trail just outside the riparian area (perhaps on a topographic bench) and bring it in at strategic places, than to keep it continuously close to a riparian area.
- In routing a trail near a pond or lake, don't run it completely around the body of water.
- Avoid crossings where two or more streams come together.
- In riparian areas of variable habitat quality, route a trail closer to a stream where habitat quality is poorer.
- Give trail users the opportunity to be near water or they will find ways themselves.
- When it is appropriate to provide access to a more sensitive area, use a spur trail instead of a through trail because spur trails tend to have lower volumes of traffic.
- In urban landscapes there are often few options for routing trails other than streetside (where there are not many ecological implications) and along streams.

### Design

- Minimize the impact of impervious surface.
- Locate trails away from the water.
- Preserve the existing hydrology (shallow water), via French drains, boardwalks or other methods.
- From the Colorado trail planning guide:
  - To maintain natural processes along a stream corridor, maintain an interior or upland
  - buffer on both sides of a stream.
  - In areas with sensitive vegetation, provide a well-designed trail to encourage users to stay
  - on the trail.
  - Provide toilets at trailheads and other key locations to reduce damage to surrounding vegetation.
  - Design trails with proper drainage and sustainable gradients so users are less likely to trample vegetation along alternate routes.
  - Route a trail around meadows and other wet areas and build up a dry trail in areas where seasonal water creates boggy soil.
  - To minimize ground disturbance and possible spread of weedy species, reconstruct an existing trail instead of rerouting it.
  - Provide facilities, such as blinds, viewing areas, and boardwalks, for visitors to see wildlife with minimal disturbance.

# Construction

- Avoid removing trees.
- Minimize construction impacts, including permanent impacts from temporary activities (e.g., soil compaction from movement of heavy equipment).
- Work within the final trail footprint to the extent possible.
- Build during the appropriate season.
- From the Colorado trail planning guide:
  - In constructing or upgrading a trail, disturb as narrow an area as possible to help minimize the zone of influence.

# Management

- Do not allow dogs or other pets on trails within the wildlife area.
- Allow bicycle use only on perimeter trails designed for multi-modal transportation; this does not include the south side of Smith Lake.
- From the Colorado trail planning guide:
  - Either avoid wildlife breeding areas or close trails through them at the times such wildlife are most sensitive to human disturbance.
  - If there won't be sufficient resources to enforce a trail closure during wildlife-sensitive seasons, consider rerouting the trail through another area.
  - Educate trail users about the results of direct impacts to vegetation and indirect impacts to wildlife.
  - To prevent weed spread, control aggressive weeds along trails.
  - Plan how to manage a trail's wildlife issues before its alignment is set.
  - Don't depend on management to resolve wildlife conflicts that can be avoided by careful alignment in the first place.
  - More careful management of resources will be required when a trail passes through or near sensitive habitat.
  - Wildlife accept the more predictable disturbances of people on trails more readily than off trails.
  - Encourage visitors not to leave food or garbage around to further support generalist species.
  - Use a combination of management techniques to facilitate the coexistence of recreationists and wildlife.
  - Enlist the help of trail users in monitoring wildlife use of the trail corridor and other activities.
  - To protect wildlife, when describing points of sensitive, ecological interest near a trail sites you want people to know about, but not visit don't indicate the direction or distance to the spot.
  - Interpretation and environmental education are very important management tools.
- \* Planning Trails with Wildlife in Mind: A Handbook for Trail Planners. Colorado State Parks, Trails and Wildlife Task Force. Available online at: http://www.coloradoparks.org/home/publications.asp#Trails%20Publications

# INTERGOVERNMENTAL AGREEMENT 925992 Smith and Bybee Lakes Trails Feasibility Study

This Intergovernmental Agreement ("Agreement") dated this  $\frac{9/29/04}{}$ , is by and between the City of Portland, Parks and Recreation Department, (the "City") and Metro, a metropolitan service district organized under the laws of the state of Oregon and Metro Charter ("Metro"). (The City and Metro shall be individually referred to herein as a "Party" or collectively as the "Parties.") The Parties acknowledge that they have authority to enter into this Agreement pursuant to the powers contained in their respective charters and in ORS 190.010.

The Parties agree as follows:

1. Project Declaration.

a. The activities and funding described in this Agreement are for the feasibility study and design services of trails in the vicinity of the Smith and Bybee Lakes Wildlife Area (the "Wildlife Area"), including St. Johns Landfill or SJLF. The feasibility study and design services, (the "Project"), are described in the attached Request for Proposals ("RFP"; Exhibit A). A schedule for completing the project is provided in Exhibit B.

The Smith & Bybee Lakes Management Committee (the "Management Committee") was established by the *Natural Resources Management Plan for Smith and Bybee Lakes* ("Management Plan") to advise Metro on implementation of the Management Plan and to advise Metro on the Smith & Bybee Lakes Wildlife Area. The Management Committee includes representatives of Metro, the City, the 40-Mile Loop Land Trust, neighborhood citizens' groups and the Port of Portland.

The 40-Mile Loop Land Trust advocates for public trails in the Portland area and assists in the acquisition of lands, along with conservation and recreation easements, along the 40-Mile Loop Trail corridor.

The Friends of Smith and Bybee Lakes ("Friends") advocates for the conservation, restoration and enhancement of the Wildlife Area, and supports passive recreational activities within the Wildlife Area.

Metro will create a technical working group ("Technical Group") to assist in the project. Membership of the Technical Group will include a representative from each of the following: Metro Parks and Greenspaces Department ("Metro Parks"), Metro Solid Waste and Recycling Department ("Metro Solid Waste"), Portland Parks and Recreation ("Portland Parks"), the Management Committee, the 40 Mile Loop Land Trust, St. Johns Neighborhood Association and the Friends. Additional representatives may be appointed by mutual agreement between Metro and the City. The Technical Group will serve to ensure transparency in the feasibility study, see that the information used by the consultant is unbiased, and make sure that important information is not overlooked. Information on the alignment planning and decision process is attached as Exhibit C. Metro will forward the alternatives resulting from this study to the Metro Council and to other authorities for guidance as appropriate.

b. To assure an outcome that is consistent with efforts to protect natural resources at Smith and Bybee Lakes, efforts to complete the 40 Mile Loop Trail, and efforts to maintain public safety at the St. Johns Landfill site, the Project will be managed by Metro Parks in collaboration with Portland Parks and Metro Solid Waste. Metro and the City will collaborate to ensure key goals and objectives of each agency are addressed in the planning process and a suitable public involvement process is implemented. Both agencies are committed to resolving long-standing issues surrounding these trail alignments and will work together to achieve a mutually satisfactory outcome. Metro will implement final trail alignments located on property under Metro's management as provided in Paragraph 2. Metro and the City will collaborate on implementing final alignments located outside the Wildlife Area.

### 2. Feasibility Study and Design Services.

- a. Metro will hire a consultant to research and evaluate conceptual alignments for recreational trails within the project area, including limited design services, as described in the RFP. The Technical Group will participate in consultant selection.
- b. Metro Parks will manage the consultant's contract. In addition, acting through both its Solid Waste and Parks departments, Metro will perform the following tasks:
  - i. Provide topographic surveys as available and other relevant maps and data for the Wildlife Area, including the SJLF;
  - ii. Report to the Management Committee and 40 Mile Loop Land Trust on the Project's progress and on the final results;
  - iii. Present the results of the Project to the Metro Council for a decision regarding the preferred trail alignment(s);
  - iv. Pay for design, permitting, and construction of any trail segment on the SJLF and complete construction of any such trail segment according to the timeline determined by the Project as adopted by the Metro Council;
  - v. Secure funding and implement design, permitting and construction of any other final trail alignments that are selected through this feasibility study and located within the Wildlife Area.
  - vi. If the recreational trail plan adopted by the Metro Council requires the construction of a bridge across the North Slough to the SJLF, allocation of the costs shall be based on a method acceptable to both Metro and the City.
- c. The City will perform the following tasks:
  - i. Participate on the Technical Group;
  - ii. Provide existing information when available and needed for evaluation of alignments located outside of the Wildlife Area.

- 3. <u>Design, Construction, Management, Maintenance, and Operations</u>. Except as specifically provided in Paragraph 2, responsibility for design, construction, management, maintenance, and operations of any portion of a recreational trail will be determined by separate intergovernmental agreement(s) to be developed following final determination of alignment(s).
- 4. <u>Project Budget</u>. The City agrees to pay up to \$15,000 for costs incurred for the feasibility study; Metro will bill the City as work is completed and the City will reimburse Metro within 30 days of date of invoice. Metro agrees to pay the balance of costs incurred for the study, anticipated to be at least \$15,000 but not more than \$35,000.
- 5. <u>Termination of Funding Obligation</u>. The obligation of Metro to provide up to \$35,000 and the City to provide \$15,000 in funding shall terminate June 30, 2005 unless extended by mutual agreement between Metro and the City.
- 6. Indemnification.
  - a. To the extent permitted by Oregon law, and subject to the limitations of the Oregon Tort Claims Act, ORS 30.260 to 30.300, as may be amended from time to time, the City shall defend, indemnify, and hold harmless Metro and its respective officers, employees, and agents, against any and all liabilities, damages, claims, demands, judgments, losses, costs, expenses, fines, suits, and actions, whether arising in tort, contract, or by operation of any statute, including but not limited to attorneys' fees and expenses at trial and on appeal, arising out of the City's obligations as set forth in this Agreement.
  - b. To the extent permitted by Oregon law, and subject to the limitations of the Oregon Tort Claims Act, ORS 30.260 to 30.300, as may be amended from time to time, Metro shall defend, indemnify, and hold harmless the City, and its respective officers, employees, and agents, against any and all liabilities, damages, claims, demands, judgments, losses, costs, expenses, fines, suits, and actions, whether arising in tort, contract, or by operation of any statute, including but not limited to attorneys' fees and expenses at trial and on appeal, arising out of Metro's obligations as set forth in this Agreement.
- 7. <u>Notices.</u> All notices or other communications required or permitted under this Agreement shall be in writing, and shall be sent by personal delivery (including by means of professional messenger service), facsimile, electronic mail, or regular mail to the other Party's designee. The City and Metro may change their respective designee by providing written notice of such a change to the other Party. Unless changed as provided in this paragraph, the Parties' respective designees are:

For the City:

Deborah Lev

City of Portland Parks and Recreation 1120 SW Fifth Ave, Rm. 1302 Portland, Oregon, 97204 503-823-6009 office 503-823-5570 FAX For Metro: Elaine Stewart Metro Regional Parks and Greenspaces 600 NE Grand Avenue Portland, Oregon, 97232 503-797-1515 office 503-797-1849 FAX

- 8. General Provisions.
  - a. <u>Funding Declarations</u>. The Parties will document in any publication, media presentation, or other presentations, the sources of funds for the project. If signs are placed in the project areas, such signs shall include the logos of the Parties to this Agreement, and shall recognize the Parties' respective contributions to the project.
  - b. <u>Oregon Law and Forum</u>. This Agreement shall be construed according to the laws of the State of Oregon. Any litigation among the Parties arising out of this Agreement or out of work performed under this Agreement shall be brought, if in the state courts, in Multnomah County, and, if in the federal courts, in the United States District Court for the District of Oregon.
  - c. <u>Assignment</u>. No Party shall assign this Agreement, in whole or in part, without the prior written consent of the other Party, except that a Party may delegate or subcontract for performance of any of its respective responsibilities under this Agreement.
  - d. <u>Severability</u>. If any non-material provision in this Agreement is found to be illegal or unenforceable, all other provisions of this Agreement shall nevertheless remain in full force and effect and the illegal or unenforceable provision shall be stricken.
  - e. <u>Integration</u>. This Agreement contains the entire agreement among the Parties regarding the subject matter set forth herein, and supersedes all prior written or oral discussions or agreements. No waiver, consent, modification or change of the terms of this Agreement shall bind any Party unless it is in writing and signed by both Parties.

IN WITNESS WHEREOF, the Parties hereto have set their hands on the day and year set forth above.

**CITY OF PORTLAND:** By: Approved as to Form: Title: Date: and Deputy City Attorney **METRO:** By: Approved as to Form: Title: Date: Metro General Counsel Attorney

# **Metro Regional Parks and Greenspaces**



# Request for Proposals (RFP # 04-1100-PKS)

# **Trails Feasibility and Design Services**

# for the

# Smith and Bybee Lakes Wildlife Area Portland, Oregon

**Proposals Due:** 

March 31, 2004 by 5:00 p.m.

Submit seven paper copies to: Metro Parks and Greenspaces Receptionist 600 NE Grand Avenue Portland, OR 97232-2736

**Project Manager:** 

Jane Hart, Environmental Planner (503) 797-1585 <u>hartj@metro.dst.or.us</u>

# **Table of Contents**

Section 1 - Project Objective

Section 2 - Site Location

Section 3 - Project Background and Key Partners

Section 4 - Proposed Scope of Work

Section 5 - Budget

**Section 6 - Project Timeline** 

Section 7 - Pre-Proposal Conference

Section 8 - Proposal Submittal Requirements

Section 9 - Evaluation of Proposals

Section 10 - Method of Selection

Section 11 - Project Contact

**Section 12 - Proposal and Contract Conditions** 

Section 13 - Standard Agreement

Page 7 -- Smith and Bybee Lakes Trail IGA

# Trails Feasibility and Design Study for the Smith and Bybee Lakes Wildlife Area

# I. Project Objective

Several alignments that would connect Smith and Bybee Lakes Wildlife Area with nearby existing trails, parks and neighborhoods have been identified and need further evaluation. This work will provide an objective and factual analysis of potential trail alignments and trail design parameters/features to provide future connections between the Smith and Bybee Lakes Wildlife Area and nearby existing trails, parks and neighborhoods.

The study will determine buildable trail alignments taking into consideration existing land uses, ownership and topography; connectivity to neighborhoods and other trails; protection of sensitive wildlife habitat and species; appropriate level of trail use; land use and environmental permitting requirements (including Americans with Disabilities Act requirements) cost to construct and maintain trail routes; and project phasing.

A primary goal of this work is to get consensus from project partners on the criteria used to evaluate potential alignments and the factual results of the feasibility analysis. A secondary goal is to achieve consensus on which alignment(s) to recommend for development. Based on the facts and input from consultants, project partners and the public, the Metro Council will make an informed decision on which alignment(s) to pursue.

It should be understood that all being equal, the preferred alignment, if feasible, would be the one already shown in the 1990 Natural Resources Management Plan (NRMP) for Smith and Bybee Lakes, adopted by Metro and the City of Portland.

# II. Site Location

Smith and Bybee lakes and their associated sloughs and wetlands are remnants of formerly extensive river bottomlands located near the confluence of the Willamette and Columbia rivers. Part of the Columbia Slough watershed, these large shallow lakes and wetlands are part of the 1,928-acre Smith and Bybee Lakes Wildlife Area. The wildlife area also includes the St. Johns Landfill, a 238-acre closed landfill. The wildlife area is managed primarily for wildlife habitat protection and enhancement while providing passive recreational opportunities for the Portland metropolitan area. Nearby neighborhoods include St. Johns, Kenton and Portsmouth.

The planning area (see Figures 1 and 2) is bounded by the Columbia Slough to the west, the St. Johns neighborhood to the south, North Portland Road to the east and the two lakes (Bybee Lake and Smith Lake) to the north.

# III. Project Background and Key Partners

Existing policy, planning and regulatory documents and land use decisions provide important context for this feasibility study. An important outcome of this feasibility study is to resolve a long standing challenge to identify a feasible alignment, or alignments, that meet multiple, and sometimes conflicting objectives. These objectives include, but are not limited to, connecting nearby neighborhoods and existing local and regional trails with the wildlife area, closing gaps in the regional trail system, protecting natural resources within the wildlife area, and maintaining public safety and security of trail users. The feasibility study process needs to be transparent, build trust amongst partners who have not been able to agree, and result in the best compromise given the multiple objectives. A list of background documents and information related to this project is attached and can be viewed at Metro by calling Patricia Sullivan at 503-797-1870.

# Key partners include:

- The Smith and Bybee Lakes Management Committee
- Friends of Smith and Bybee Lakes
- 40 Mile Loop Land Trust
- The City of Portland Parks and Recreation
- Metro Parks and Greenspaces
- Metro Solid Waste and Recycling
- St. John's Neighborhood Association

# Other Stakeholders

- Nearby Neighborhood Associations
- The Columbia Slough Watershed Council
- The Bicycle Transportation Alliance
- The Port of Portland
- Local businesses

# IV. Proposed Scope of Work Project work to be performed by Consultant

# A. Trail Alignment Analysis

- 1. Assess identified trail alignments and recommend any other potential trail alignments within the planning area.
- 2. Conduct a land inventory of the natural and man-made features in the potential alignments including land ownership, presence of natural, cultural and scenic resources, facilities and structures, and topography. Incorporate inventory information into tables and aerial and plan maps. If necessary, conduct a right-of-way analysis to determine if public or private lands may be needed to accommodate the potential alignment(s).
- 3. Conduct analysis of various alignments including opportunities and constraints of environmentally sensitive trail design, regulatory requirements [e.g. fill-removal law, Endangered Species Act (ESA)],

proximity to the landfill, construction, long term management/maintenance, user safety, aesthetic enjoyment, appropriate uses and level of accessibility and policy implications (e.g. dogs, bikes, access on landfill). Conduct survey work as needed at points where exact topography is critical (e.g. for possible bridge crossings, wetland fill). Identify potential wetland fill that will require mitigation.

- 4. Review, assess and coordinate with existing and future trail planning projects in the vicinity. Projects may include public and private developments including residential, commercial and industrial areas. Recommend and illustrate potential connections to:
  - existing regional trails, trailheads, access points, neighborhoods
  - existing and future developments
- 5. Work in coordination with Metro Data Resource Center (DRC) staff on computer mapping analysis and final products to ensure compatibility of work products.

# B. Identify Feasible Trail Alignment(s)

- 1. Establish criteria for ranking feasible trail alignment(s) [e.g.
- functionality, trail standards and guidelines, additional costs for required bridges or other significant additional infrastructure, regulatory and political implications].
- 2. Complete a comparison of alignments and designate which are feasible.

# C. Trail design

Provide recommendations for the following:

- 1. Options for type and level of use on proposed trails (e.g. ped only, multi-use) and associated impacts.
- 2. Environmentally sensitive areas / drainage and buffer areas
- 3. Amenities and support facilities, including fences and bridges
- 4. Width of trails
- 5. Trail and shoulder surface treatments
- 6. Typical cross section
- 7. Road and/or water crossings
- 8. Phasing priorities (acquisition, easements, development)

# D. Identify Land Use Approvals and Permitting Requirements for Recommended Alignments

1. Identify all land use approvals, permits and other regulatory requirements (e.g. ADA) and governmental reviews needed in order to design, build and maintain the trails within the feasible alignments.

# E. Provide Cost estimates for:

1. Design, engineering and contingency

- 2. Trail construction
- 3. Trail amenities and infrastructure
- 4. Permits
- 5. Ongoing operations and trail maintenance
- 6. Land and ROW acquisition and/or easements and dedications if needed

# F. Public Involvement

- 1. Facilitate approximately 4 Technical Working Group (TWG) meetings and one public meeting.
- 2. Prepare display graphics for TWG and public meeting.
- 3. Prepare a Public Information / Involvement Plan(s) for each of the feasible alignment(s) to ensure successful implementation. This task is necessary to evaluate costs and timelines for public involvement related to various alignments.
  - G. Project Deliverables
    - Final Report will describe feasible trail alignments and trail design features (e.g. width, surface, slope, amenities, types and level of use, connectivity, environmentally sensitive design), incorporating illustrations, maps and aerial photography. Appendices may include technical research, and other information used in making trail alignment and design recommendations. Two camera ready paper copies in color and an electronic copy of the report on a CD.
    - 2. Digital photographs on a CD-ROM of the feasible trail alignments. Location of images must be described. Metro DRC may provide original data.
    - 3. Spreadsheet detailing actions and cost necessary to build feasible alignments.
    - 4. Representative drawing(s) of typical trail cross section(s).
    - 5. Recommend the optimum alignment if a clear choice is apparent.
    - 6. Public Involvement Plan(s) for feasible alignment(s).

Project deliverable due dates will be determined prior to entering into a contract with the successful proposer.

# Project Work to be performed by Metro

- H. Provide Existing Site Information
  - 1. Provide Metro GIS mapping data for zoning, topography , hydrology, water features, goal 5 resources on a CD
  - 2. Provide Metro DRC staff assistance to coordinate GIS mapping and aerial photography needs.

- 3. Provide historic and ongoing natural resource data (e.g. wildlife surveys, plant surveys)
- 4. Document local, regional and state plans, policies and programs that support trails.
- 5. Identify upcoming trail construction, bike lane striping, sidewalk construction, signal projects, etc. within the planning area.
- 6. Provide 11 x 17 maps of landfill gas collection system and groundwater monitoring wells.

# I. Identify Project Goals

1. Propose draft project goals for discussion with Technical Working Group and consultants. Finalize project goals.

# J. Project Management

- 1. Metro Regional Parks and Greenspaces staff will serve as project manager and liaison to a Technical Working Group. Metro project manager will coordinate with consultant and project partners on all aspects of the study.
- 2. Provide timely feedback on review material.
- 3. Conduct final printing and distribution of the Feasibility and Design Study.
- 4. Coordinate work with other trails, bike/ped and sidewalk improvement projects within one mile of the planning area in the jurisdiction of the City of Portland.
- 5. Prepare meeting agendas and minutes.

# K. Public Involvement

- 1. Prepare public involvement and information plan for the feasibility study process.
- 2. Establish Technical Working Group (TWG). The purpose of the TWG is to help compile existing factual information about the project area and provide expert review of the technical information presented by the consultants. Metro's goal in convening this TWG is to achieve consensus on the facts and criteria which the consultants will use to determine alignment feasibility. The working group will consist of a representative from each of the following partners:
  - Smith and Bybee Lakes Management Committee
  - Friends of Smith and Bybee Lakes
  - 40-Mile Loop Land Trust
  - The City of Portland Parks and Recreation
  - Metro Parks & Greenspaces
  - Metro Solid Waste & Recycling
  - St. John's Neighborhood Association

- 3. Present project updates to Metro Council and City of Portland.
- 4. Present final draft feasibility study to Metro Council and City of Portland.
- 5. Perform public outreach to stakeholders as necessary.

#### L. Identify potential funding sources

- 1. Federal or state transportation and trails funds
- 2. Regional / Local funding (e.g. bonds, SDCs)

#### V. Budget

This project and solicitation process envisions consulting services costing between \$40,000 and \$45,000.

#### VI. **Project Timeline**

Α.	Pre-Proposal Conference	March 16, 2004
B.	Proposals Due	March 31, 2004
~		A 11.000.4

Approximate Start Date C.

Completion Date D.

4 4 April 2004 October 2004

#### **Pre-Proposal Conference** VII.

A non-mandatory pre-proposal conference will be held on Tuesday, March 16<sup>th</sup>, from 9:00 a.m. to noon. The pre-proposal conference will begin with a site tour of the project area from 9 a.m. - 10:15 a.m., followed by a question and answer session from 10:30 a.m. noon. The site tour will commence at the St. John's Landfill at 9387 N. Columbia Blvd. Following the tour, the group will proceed to the nearby Columbia Blvd. Wastewater Treatment Plant at 5001 N. Columbia Blvd., Mt. Hood Room, for the guestion and answer session.

Directions to the St. John's Landfill: I-5 North to the Columbia Blvd. exit, west on Columbia Blvd; turn right at the sign that says Metro St. John's Facility; cross the railroad tracks; park on the side of the road leading to the slough bridge; meet at the south side of the bridge. Metro will provide two 15 passenger vans for the tour. It is advised that participants wear clothing for inclement weather.

Directions to the Columbia Blvd. Wastewater Treatment (from St. John's Landfill): East on N. Columbia Blvd. for approximately 1 mile; turn left at yellow sign at plant entrance; guest parking in front of the plant.

# VIII. Proposal Submittal Requirements

- A. <u>Transmittal Letter</u>: A letter that indicates the name, title, address, telephone number, FAX number and e-mail address of the lead contact person(s) authorized to sign any contract which may result. State the firm's interest in the project. A statement must be provided establishing that the proposal will be valid for sixty (60) days after receipt by Metro.
- B. <u>Approach/ Work Plan / Schedule</u>: Describe how the work will be done within the given timeframe and budget. Include a proposed work plan and schedule. Provide a spreadsheet showing the number of hours to be worked by each staff by task, and their hourly rates. Metro will not reimburse for out of pocket expenses or overhead expenses. Work hours shall not include travel time.

Proposers may include suggested revisions to the scope of work, associated impact on the project budget and completion time frames and rationale for suggestions.

- C. <u>Project Deliverables</u>: Describe project deliverables Metro would receive.
- D. <u>Background and Qualifications</u>: Provide information about the experience of the firm and any subconsultant(s), particularly experience of individual team members, that qualifies the firm and individuals to successfully carry out the work identified in the Proposed Scope of Work. Include resumes and three references for each team member included in this RFP.

Please include detailed information about three recent projects (involving services similar to the services required in this RFP) the firm and team members have been involved in. For each of these projects Include client contact person, his/her title, role on the project, and telephone number. Identify persons on the proposed team for this RFP who worked on each of the projects listed, and their respective roles. Please submit 3 trail feasibility studies conducted by your firm. Metro will return work samples if requested.

Indicate if the firm and any subconsultant(s) is/are a State of Oregon certified Emerging Small Business (ESB), Minority Business Enterprise (MBE), or Women-Owned Business (WBE).

The proposal should be submitted on recyclable, double-sided recycled paper (post consumer content). No waxed page dividers or non-recyclable materials should be included in the proposal. Proposals should be bound by staples or reusable clips only. In addition, vendors shall use recycled and recyclable materials and products to the maximum extent economically feasible in the performance of contract work set forth in this document.

# IX. Evaluation of Proposals

- A. <u>Evaluation Procedure</u>: Proposals received that conform to the proposal instructions will be evaluated. The evaluation will take place using the evaluation criteria identified in the following section. A committee of Metro and project partners will select the most qualified firm with the most responsive proposal. Interviews may be requested prior to final selection of one firm.
- B. <u>Evaluation Criteria</u>: This section provides a description of the criteria that will be used in the evaluation of the proposals submitted to accomplish the work defined in the RFP.
  - 40% Approach/Project Work Plan
    - 1. Demonstration of understanding of the project objectives
    - 2. Comprehensiveness and efficiency of approach
    - 3. Allocation of staff to tasks
    - 4. Project schedule, including deliverables.
  - 35% Project Staffing Experience
    - Familiarity and proven track record of identifying relevant land use and regulatory permits from city, State and federal agencies. This project will include city of Portland land use review (including transportation issues), state fill/removal law, and federal ESA)
    - 2. Experience successfully facilitating consensus with groups who have strongly held and passionate opinions.
    - 3. Expertise using current science to evaluate impacts on natural resources.
    - 4. Experience designing trails in sensitive areas.
    - 5. Ability to maintain project priority and assigned staff given other work demands.
  - 25% Budget/Cost Proposal
    - 1. Projected cost/benefit of proposed work plah/approach
    - 2. Ability to adhere to budget and schedule parameters

# X. Method of Selection

Members of the Selection Committee for this project will individually evaluate each submitted Proposal to determine those individuals/firms best qualified to perform the services required. Committee member ratings will not be revealed prior to the selection.

Proposers selected for final evaluation *may* be required to present an oral interview of their proposal to Metro's Selection Committee. Such presentations provide an opportunity for the firm to clarify its proposal and ensure mutual understanding. Metro will schedule the time and location for these presentations.

Consultant selection will be based upon the proposal submitted and oral interviews, if conducted. Upon completion of the oral interviews, the Committee will advise all proposers of its selection. Metro reserves the right to request and require submission of technical, managerial, financial, or other evidence of abilities prior to selection.

# XI. Project Contact

Jane Hart, Metro Project Manger Metro Regional Parks and Greenspaces (503) 797-1585

# XII. General Proposal/Contract Conditions

- A. <u>Limitation and Award</u>: This RFP does not commit Metro to the award of a contract, nor to pay any costs incurred in the preparation and submission of proposals in anticipation of a contract. Metro reserves the right to waive minor irregularities, accept or reject any or all proposals received as the result of this request, negotiate with all qualified sources, or to cancel all or part of this RFP.
- B. <u>Billing Procedures</u>: Proposers are informed that the billing procedures of the selected firm are subject to the review and prior approval of Metro before reimbursement of services can occur. Contractor's invoices shall include an itemized statement of the work done during the billing period, and will not be submitted more frequently than once a month. Metro shall pay Contractor within 30 days of receipt of an approved invoice.
- C. <u>Validity Period and Authority</u>: The proposal shall be considered valid for a period of at least sixty (60) days and shall contain a statement to that effect. The proposal shall contain the name, title, address, and telephone number of an individual or individuals with authority to bind any company contacted during the period in which Metro is evaluating the proposal.
- D. <u>Conflict of Interest</u>. A Proposer filing a proposal thereby certifies that no officer, agent, or employee of Metro or Metro has a pecuniary interest in this proposal or has participated in contract negotiations on behalf of Metro; that the proposal is made in good faith without fraud, collusion, or connection of any kind with any other Proposer for the same call for proposals; the Proposer is competing solely in its own behalf without connection with, or obligation to, any undisclosed person or firm.
- E. <u>Ownership of Documents.</u> All documents of any nature including, but not limited to, reports, drawings, and works of art and photography, submitted by the proposer as part of this proposal shall become the property of Metro and are subject to public review and request according to the laws of the State of Oregon and Metro Code.

# XIII. Notice to all Proposers -- Standard Agreement

The attached personal services agreement (Attachment A) is a standard agreement approved for use by the Office of the Metro Attorney. This is the contract the successful proposer will enter into with Metro; it is included for your review prior to submitting a proposal.

# Attachment A

#### STANDARD PERSONAL SERVICES AGREEMENT

THIS AGREEMENT is between Metro, a metropolitan service district organized under the laws of the State of Oregon and the Metro Charter, located at 600 NE Grand Avenue, Portland, OR 97232-2736, and \_\_\_\_\_\_\_ referred to herein as "Contractor," located at

In exchange for the promises and other consideration set forth below, the parties agree as follows:

1. <u>Duration</u>. This personal services agreement shall be effective \_\_\_\_\_

and shall remain in effect until and including

\_\_\_\_\_, unless terminated or extended as provided in this Agreement.

2. <u>Scope of Work</u>. Contractor shall provide all services and materials specified in the attached "Exhibit A — Scope of Work," which is incorporated into this Agreement by reference. All services and materials shall be provided by Contractor in accordance with the Scope of Work, in a competent and professional manner. To the extent that the Scope of Work contains additional contract provisions or waives any provision in the body of this Agreement, the Scope of Work shall control.

\_\_\_\_/100THS DOLLARS (\$\_\_\_\_\_).

4. <u>Insurance</u>.

a. Contractor shall purchase and maintain at the Contractor's expense, the following types of insurance, covering the Contractor, its employees, and agents:

- (1) Broad form comprehensive general liability insurance covering bodily injury and property damage, with automatic coverage for premises, operations, and product liability shall be a minimum of \$1,000,000 per occurrence. The policy must be endorsed with contractual liability coverage; and
- (2) Contractor shall maintain for the duration of this Agreement professional liability insurance covering personal injury and property damage arising from errors, omissions, or malpractice. Coverage shall be in the minimum amount of \$1,000,000. Contractor shall provide to Metro a certificate of

this insurance, and 30 days' advance notice of material change or cancellation.

b. <u>Metro, its elected officials, departments, employees, and agents shall be</u> <u>named as ADDITIONAL INSUREDS</u>. Notice of any material change or policy cancellation shall be provided to Metro 30 days prior to the change or cancellation.

c. Contractor, its subcontractors, if any, and all employers working under this Agreement that are subject employers under the Oregon Workers' Compensation Law shall comply with ORS 656.017, which requires them to provide Workers' Compensation coverage for all their subject workers. Contractor shall provide Metro with certification of Workers' Compensation insurance including employer's liability. If Contractor has no employees and will perform the work without the assistance of others, a certificate to that effect may be attached, as Exhibit B, in lieu of the certificate showing current Workers' Compensation.

d. Contractor shall provide Metro with a certificate of insurance complying with this article and naming Metro as an additional insured within fifteen (15) days of execution of this Contract or twenty-four (24) hours before services under this Contract commence, whichever date is earlier.

5. <u>Indemnification</u>. Contractor shall indemnify and hold Metro, its agents, employees and elected officials harmless from any and all claims, demands, damages, actions, losses and expenses, including attorney's fees, arising out of or in any way connected with its performance of this Agreement, or with any patent infringement or copyright claims arising out of the use of Contractor's designs or other materials by Metro and for any claims or disputes involving subcontractors.

6. <u>Maintenance of Records</u>. Contractor shall maintain all of its records relating to the Scope of Work on a generally recognized accounting basis and allow Metro the opportunity to inspect and/or copy such records at a convenient place during normal business hours. All required records shall be maintained by Contractor for three years after Metro makes final payment and all other pending matters are closed.

7. <u>Ownership of Documents</u>. All documents of any nature including, but not limited to, reports, drawings, works of art and photographs, produced by Contractor pursuant to this Agreement are the property of Metro, and it is agreed by the parties that such documents are works made for hire. Contractor hereby conveys, transfers, and grants to Metro all rights of reproduction and the copyright to all such documents.

8. <u>Project Information</u>. Contractor shall share all project information and fully cooperate with Metro, informing Metro of all aspects of the project including actual or potential problems or defects. Contractor shall abstain from releasing any information or project news without the prior and specific written approval of Metro.

9. <u>Independent Contractor Status</u>. Contractor shall be an independent contractor for all purposes and shall be entitled only to the compensation provided for in this Agreement. Under no circumstances shall Contractor be considered an employee of Metro. Contractor shall provide all tools or equipment necessary to carry out this Agreement, and shall exercise complete control in achieving the results specified in the Scope of Work. Contractor is solely responsible for its performance under this Agreement and the quality of its work; for obtaining and maintaining all licenses and certifications necessary to carry out this Agreement; for payment of any fees, taxes, royalties, or other expenses necessary to complete the work except as otherwise specified in the Scope of Work; and for meeting all other requirements of law in carrying out this Agreement. Contractor shall identify and certify tax status and identification number through execution of IRS form W-9 prior to submitting any request for payment to Metro.

10. <u>Right to Withhold Payments</u>. Metro shall have the right to withhold from payments due to Contractor such sums as necessary, in Metro's sole opinion, to protect Metro against any loss, damage, or claim which may result from Contractor's performance or failure to perform under this Agreement or the failure of Contractor to make proper payment to any suppliers or subcontractors.

11. <u>State and Federal Law Constraints</u>. Both parties shall comply with the public contracting provisions of ORS chapter 279, and the recycling provisions of ORS 279.545 - 279.650, to the extent those provisions apply to this Agreement. All such provisions required to be included in this Agreement are incorporated herein by reference. Contractor shall comply with all applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations including those of the Americans with Disabilities Act.

12. <u>Situs</u>. The situs of this Agreement is Portland, Oregon. Any litigation over this agreement shall be governed by the laws of the State of Oregon and shall be conducted in the Circuit Court of the state of Oregon for Multnomah County, or, if jurisdiction is proper, in the U.S. District Court for the District of Oregon.

13. <u>Assignment</u>. This Agreement is binding on each party, its successors, assigns, and legal representatives and may not, under any circumstance, be assigned or transferred by either party.

14. <u>Termination</u>. This Agreement may be terminated by mutual consent of the parties. In addition, Metro may terminate this Agreement by giving Contractor seven days prior written notice of intent to terminate, without waiving any claims or remedies it may have against Contractor. Termination shall not excuse payment for expenses properly incurred prior to notice of termination, but neither party shall be liable for indirect or consequential damages arising from termination under this section.

15. <u>No Waiver of Claims</u>. The failure to enforce any provision of this Agreement shall not constitute a waiver by Metro of that or any other provision.
16. <u>Modification</u>. Notwithstanding and succeeding any and all prior agreement(s) or practice(s), this Agreement constitutes the entire Agreement between the parties, and may only be expressly modified in writing(s), signed by both parties.

	METRO
By	By
Title	Title
Date	Date

1

Metro Contract No.

## Exhibit A

### **SCOPE OF WORK**

#### 1. <u>Description of the Work</u>.

(Description of the Work will be based on the enclosed RFP and finalized prior to entering into a contract with the successul proposer.)

## 2. <u>Payment and Billing.</u>

Contractor shall perform the above work for a maximum price not to exceed
THOUSAND
HUNDRED AND
DOLLARS (\$).

The maximum price includes all fees, costs and expenses of whatever nature. Each of Metro's payments to Contractor shall equal the percentage of the work Contractor accomplished during the billing period. Contractor's billing statements will include an itemized statement of work done and expenses incurred during the billing period, will not be submitted more frequently than once a month, and will be sent to Metro. Metro will pay Contractor within 30 days of receipt of an approved billing statement.

#### Attachment B

#### **Background Information**

Smith and Bybee Lakes Trails Feasibility and Design Study

- 1. Excerpts from the 1983 40-mile Loop Master Plan, prepared for the 40-mile Loop Trust by David Evans and Associates.
- 2. The City of Portland's comprehensive plan map of proposed trail alignment in the vicinity of the Smith and Bybee Lakes Wildlife Area.
- 3. The 1990 Natural Resources Management Plan for Smith and Bybee Lakes, adopted by the city and Metro.
- 4. The 1992 Recreation Master Plan, prepared for Metro by Portland Parks and Recreation.
- 5. The 4/11/03 recommendations to Metro from the Smith and Bybee Lakes Management Committee.
- 6. Opportunities & Constraints Matrix for Potential Trail Alignments (by segment). (February 2004)
- 7. Smith and Bybee Lakes Wildlife Area Recreation Facilities Plan -Trailhead Concept Plan Map Oct. 1999.
- 8. The June 10, 1999 North Portland Trails Summit (meeting packet), sponsored by North Portland Neighborhood Services.
- 9. Revised Closure and Financial Assurance Plan, St. Johns Landfill, September 1989
- 10. Two City of Portland Notice of Decisions for Metro improvement projects in the Smith and Bybee Lakes Wildlife Area.
- 11. Regional Trails & Greenways Brochure and Concept Map (Metro 2003).
- 12. 2000 Regional Transportation Plan (Metro, Updated 2004). Available on Metro's website at <u>www.metro-region.org</u>
- 13. Transportation System Plan (City of Portland, 2002). Available on the city's website at <u>www.trans.ci.portland.or.us</u>

To arrange an appointment to view items 1 through 11, please contact Patricia Sullivan at Metro at 503-797-1870.

# Smith and Bybee Lakes Wildlife Area - Trails Feasibility Study Schedule 2004-05

04							05							
Planning Activity	J	F	M	Α	M	J	J	A	S	0	N	D	J	F
1. Draft IGA with City of Portland														
2. Develop and finalize RFP														
3. Receive Metro/City Approvals for IGA														
4. Release RFP														
5. Hire Consultant / Kick Off Work														
6. Establish Technical Working Group														
7. Conduct Trails Feasibility Study	•				· .									
8. Periodic Updates to Stakeholders														
9. Prepare draft Feasibility Report														
10. Release draft Report for Public Review														
11. Metro Council Consideration and Decision														
12 Release Final Feasibility Report										· · · · ·				CHARACTER CHARAC

EXHIBIT B

Task	Details	Involved groups	Public outreach	Timeline
1. Smith and Bybee	SBLMC forwarded	More than 10 agencies	Standard meeting notices for	Recommendations
Lakes Management	several alignments to	and citizen groups.	SBLMC meetings, no directed	were given to
Committee	Metro for study.		outreach.	Metro in spring
recommends				2003.
alignments for further				
study				
2. Metro and City of	Focused technical	40-mile Loop group, St.	Informational briefings to	2004
Portland partner on	study to evaluate	Johns NA, Friends of	interested groups (Friends,	
feasibility study of	benefits, costs and risks	S&B, SBMC, Portland	SBLMC, 40-mile Loop group,	
SBLMC alignments	of each alignment, and	Parks, Metro Solid	watershed council, etc.)	
	to identify "fatal flaws"	Waste, Metro Parks.		
2 61	II they exist.	Tudous da internet		T ( 2004
5. SHORT HIST OF	Policy decision on	Interest groups and	Informational briefings with	Late 2004
forwarded to Motro	appropriate alignment(a) to build	general public.	interested groups, public	
Council for decision	angimeni(s) to build.		mosting	
on routes to pursue	1		meeting.	
4 Fundraise design	Metro and nartners take	Primarily Metro and City	Public information and comment	2005
nermit and build	on appropriate	of Portland	as appropriate through design	2003 →
portinit und ourid.	segments and tasks.	of i officiality.	and permit process	
4a. Permit process:	Review process	Interest groups and	Informational briefings prior to	2005 - 2006
final alignment	depends on alignments	general public.	submissions for BDS.	2000 2000.
proceeds to City of	and will probably be	5 r · · · · ·	(a) Type 2 review allows	-
Portland (BDS) for	either Type 2 land use		written public comment.	
planning review	review or legislative		(b) Legislative review includes	
	process (see next		planning commission and	
	page).		city council decisions, with	
			public comment	
			opportunities throughout	

# **Trail Alignment Decision Process**

April 2004

EXHIBIT C

# **City of Portland review processes**

This is the current understanding between Metro and Portland Bureau of Development Services staff as of April 2004. All of the following information is preliminary – the final decisions regarding process and criteria will be made when applications are submitted to the city.

#### To build alignments within the Smith and Bybee Lakes Wildlife Area boundary

A Type 2 Land Use Review applies when:

- 1. Building any of the alignments shown within the wildlife area on the Natural Resources Management Plan (NRMP). This is regarded as development in conformance with the NRMP. Approval criteria are listed on page 67 of the NRMP.
- Replacing an alignment shown in the NRMP with another alignment within the wildlife area. This would be a minor exception to the NRMP, stated on page 68, item i: "Modification in the 40 Mile Loop Trail location where trail, purpose, and continuity are maintained and important natural resource values are not significantly impacted."
  - Approval criteria are shown on the same page.

No city review process is required if an alignment shown in the NRMP is not built. However, if an applicant proposed to *remove* an alignment from the NRMP, it would require a legislative process.

Regarding the segment along the south side of Smith Lake, shown as recreation project #3 in the NRMP. Changing the type of trail at this location from soft-surface hiking trail to paved multimodal trail would not meet the purpose of the trail (hiking only). This change would not be regarded as a minor exception to the plan and it would require a legislative process.

#### To build alignments outside the boundary

The NRMP does not address trail alignments outside the wildlife area boundary. The permit requirements will be found in the relevant base zones (residential, industrial) and overlays and corresponding city code. Depending on trail locations, it may be necessary to secure rights of way from the city.

# FINAL DRAFT

Smith and Bybee Wetlands Natural Area Trail Feasibility Study



August 2005



# Smith and Bybee Wetlands Natural Area Trail Feasibility Study Portland, Oregon

Prepared for:

Metro Regional Parks and Greenspaces Department Metro Solid Waste and Recycling Department Portland Parks and Recreation Department

Prepared by:

**MacLeod Reckord** Terry Reckord, Principal Marianne Zarkin, Landscape Architect

In Association with:

Dean Apostol, Landscape Architect

#### **Pacific Habitat Services**

John Van Staveren Fred Small

# DKS, Associates

Dana Beckwith

Metro Regional Parks and Greenspaces Department 600 NE Grand Avenue Portland, Oregon 97212 (503) 797-1700 www.metro-region.org Portland Parks and Recreation 1120 SW Fifth Ave, Suite 1302 Portland, Oregon 97204 (503) 823-PLAY www.portlandparks.org MacLeod Reckord 5500 SE Belmont Street Portland, Oregon 97215 (503) 223-1171

For more information or copies of this report contact: Jane Hart, Project Manager, (503) 797-1585, hartj@metro.dst.or.us

# ACKNOWLEDGEMENTS

#### Metro Regional Parks and Greenspaces Department

Jim Desmond, Director Chris Carlson, Parks and Natural Area Planning Manager William Eadie, Property Acquisition Specialist Jane Hart, Project Manager Heather Neslon Kent, Community and Media Relations Manager Dan Kromer, Willamette District Manager Lia Waiwaiole, Project Website Designer

#### Metro Council

David Bragdon, Council President Rod Park, Council District 1 Brian Newman, Council District 2 Carl Hosticka, Council District 3 Susan McLain, Council District 4 Rex Burkholder, Council District 5 Robert Liberty, Council District 6

#### Metro Solid Waste and Recycling Department

Mike Hogland, Director Paul Ehinger, Senior Engineer St. Johns Landfill Staff

#### Portland Parks and Recreation

Janet Bebb, Planning Supervisor

#### **Technical Working Group**

Joe Adamski, St. Johns Neighborhood Association Pam Arden, 40-Mile Loop Land Trust Troy Clark, Smith and Bybee Wetlands Management Committee Deborah Lev, Portland Parks and Recreation Emily Roth, Friends of Smith and Bybee Lakes Elaine Stewart, Metro Regional Parks and Greenspaces Department Paul Vandenberg, Metro Solid Waste and Recycling Department

# **TABLE OF CONTENTS**

# Page Number

I.	Executive Summary	1
	• Purpose	1
	<ul> <li>Overview</li> </ul>	1
	Elements Common to All Alternative Alignments	2
	Summary of Alternatives	4
II.	Background	6
	Study Area	6
	Project Purpose	6
	<ul> <li>Project Partners</li> </ul>	7
	<ul> <li>Technical Working Group</li> </ul>	7
	<ul> <li>Project Goals</li> </ul>	7
	Trail Goals	8
III.	Site Context	9
	Project Site	9
	Project History	9
IV.	Evaluation Criteria	12
V.	Trail Segments	14
VI.	Alternative Alignments	17
	<ul> <li>Elements Common to All Alignments</li> </ul>	17
	Ash Groves Trail Alignment	19
	Landfill Trail Alignment	24
	South Lake Shore Trail Alignment	29
	South Slough Trail Alignment	34
	<ul> <li>Summary of Alignments</li> </ul>	39

# Page Number

VII.	Trail Design	40		
	Pedestrian Trail	40		
	<ul> <li>Multi-Use Trail</li> </ul>	40		
	Landscape Mitigation	41		
VIII.	Stakeholder/Public Input	44		
	<ul> <li>Technical Working Group</li> </ul>	44		
	Public Workshop and Tour	44		
	<ul> <li>Stakeholder Meetings</li> </ul>	45		
	Project Outreach	45		
IX.	Next Steps	46		
Biblio	graphy	47		
Apper	ndices			
А.	Technical Working Group			
B.	. Technical Memoranda			
C.	Cost Estimates			

D. Public Involvement

# Page Number

# Maps

Map 1. Study Area	6
Map 2. Context	11
Map 3. Trail Segments	16
Map 4. Ash Groves Alignment	20
Map 5. Landfill Alignment	25
Map 6. South Lake Shore Alignment	30
Map 7. South Slough Alignment	35

# Tables

Table 1. Related Planning Documents	10
Table 2. Alternative Alignment Segments	17
Table 3. Alternative Alignment Comparison	39

# Figures

Figure 1. Soft Surface Pedestrian Trail in Natural Area	42
Figure 2. Boardwalk in Wildlife/Sensitive/Wet Areas	42
Figure 3. Paved Multi-Use Trail in Natural Area	42
Figure 4. Paved Multi-Use Trail in Landfill on 14' Road	43
Figure 5. Paved Multi-Use Trail in Landfill on 10' Road	43
Figure 6. Viewpoint on Landfill Cap	43
Figure 7. Viewpoint on Landfill Road	43

# I. EXECUTIVE SUMMARY

#### Purpose

The Metro Council is being asked to select a trail alignment, in order to complete a missing link in the 40-Mile Loop and regional trail system in the vicinity of the Smith and Bybee Wetlands Natural Area (Natural Area). The four alternative alignments presented in this report were developed after many months of effort by a number of interested stakeholders. Key stakeholders that participated on a Technical Working Group for this study include: Metro Regional Parks and Greenspaces Department; Metro Solid Waste and Recycling Department; Portland Parks and Recreation; Smith and Bybee Wetlands Management Committee; the 40-Mile Loop Land Trust; the Friends of Smith and Bybee Lakes; and the St. Johns Neighborhood Association.

Years of previous effort have failed to produce a consensus on a single alignment. Conflicts between the desire for a user experience that interacts with a natural landscape and the desire to protect wildlife and habitat from further human encroachment have not been reconciled. However, there is agreement among key stakeholders who have engaged in this effort that the four alternative alignments under consideration represent an appropriate range of options, and that the facts and conclusions of this analysis are correct.

#### Overview

Each of the four alternatives has distinct advantages and disadvantages. Each has supporters and opponents. Any alignment selected for development would require further assurances prior to implementation (i.e. funding identified, property and ROW negotiations, permit approvals).

All four alternative alignments provide some level of aesthetic benefits, and make important connections between the Smith and Bybee Wetlands Natural Area and nearby parks, neighborhoods, and regional trails. Impacts to habitat vary from low to very high potential depending on the alignment. Railroad and Slough crossings contribute significantly to the cost of some of the alignments. The key variables for Metro Council consideration are:

- 1. The trail user experience. Much research supports the intuitive assumption that people prefer to visit trails within or with views of natural scenery, including water, trees, wetlands, and green vegetation. This is not merely a matter of visual delight. Research shows that recreation and views of natural landscapes lower stress and blood pressure, and help urban residents lead more physically and psychologically healthy lives.
- 2. Impacts to fish/wildlife and their habitat. Research also supports the intuition that trails located within natural areas have demonstrated negative impacts and risks to wildlife. Nests may be abandoned, foraging disrupted, and habitat lost as a consequence of trail construction and regular use. These outcomes are not certain, but there is risk of one or more of them occurring with certain trail alignments.
- 3. Trail construction cost. The four options range from \$4 to \$7 million dollars to develop, exclusive of land acquisition.
- 4. Public sentiment. There is no clear consensus alternative alignment available. Those advocating one alignment or another have very good and sensible arguments in their favor based on their core values.

#### **Elements Common to All Alternative Alignments**

Each of the four alternative alignments links the east end of the Port of Portland Trail<sup>1</sup> through the Natural Area to neighborhoods, parks, and other regional trails. Each alignment has the potential to provide access for multiple trail users, including hikers, cyclists, and those with disabilities, although trail surface (hard vs. soft) has not been determined for some portions of some alignments. Each alignment includes



Water control structure between Bybee Lake and North Slough



North Portland Road bridge over Columbia Slough

<sup>&</sup>lt;sup>1</sup> The Port of Portland Trail (also known as the Rivergate Trail) refers to a 1.3-mile segment of the Columbia Slough Trail built by the Port of Portland in 2002.



Wapato Wetland along the south side of the Columbia Slough



View of the Columbia Slough from the south shore of Smith Lake

traveling the east side of the St. Johns landfill, and connecting the landfill to the St. Johns neighborhood through Chimney and Pier Parks.

## SUMMARY OF ALTERNATIVE TRAIL ALIGNMENTS

# Ash Groves Alignment \$4.

## \$4.6 million

- Sensitive wildlife habitat will be impacted.
- No new bridge needed to cross Columbia Slough.
- High quality user experience through ash groves woodland.
- Crosses through western painted turtle nesting area yet avoids impacts to heron and Bald Eagles.
- Provides improved route through neighborhood to Peninsula Crossing Trail.
- May require crossing wetlands.
- Careful route selection can reduce impacts to old growth ash trees.
- Does not provide direct link to 40-Mile Loop trails along Columbia Slough east of the Natural Area.
- No land acquisition needed to complete.

# Landfill Alignment

# \$6.2 million

- Requires new bridge to cross Columbia Slough, bridge engineering studies required.
- ESA listed fish in Columbia Slough.
- Lowest environmental impact.
- User experience not as high as Ash Groves or South Lake Shore alignments.
- Does not provide direct link to 40-Mile Loop trails along Columbia Slough east of the Natural Area.
- No land acquisition needed to complete.





SMITH AND BYBEE WETLANDS NATURAL AREA TRAIL FEASIBILITY STUDY





# South Lake Shore Alignment \$7.1 million

- Trail would run close to a 70 nest heron rookery and four Bald Eagle (ESA listed species) nesting sites.
- Wetlands may be impacted.
- Requires new bridge to cross Columbia Slough, bridge engineering studies required.
- ESA listed fish found in Slough.
- Trail route used as a wildlife crossing between Slough and Smith Lake.
- High quality user experience.
- Provides a direct link to the 40-Mile Loop trails east of Natural Area.
- Route crosses two small parcels in private ownership acquisition or purchase required.
- This alignment shown in 1990 Management Plan adopted by the City of Portland.

# South Slough Alignment \$7.6 million

- Requires new bridge to cross Columbia Slough, bridge engineering studies required.
- Need major improvements to North Portland Road bridge to accommodate widened sidewalk.
- Provides direct link to 40-Mile Loop trails east of Natural Area.
- Wetlands may be impacted.
- User experience lower than South Lake Shore and Ash Groves, yet 'Wapato Wetland' provides high quality wildlife viewing opportunities.
- Most of the South Slough segment of trail in private or other agency ownership. Easements or acquisition required.

# II. BACKGROUND

#### Study Area

This project involves examining alternative trail alignments on the North Portland Peninsula, generally in the southern portion of the Smith and Bybee Wetlands Natural Area, including the St. Johns landfill (landfill).



The project study area is bounded by the Columbia Slough to the west, the St. Johns neighborhood to the south, North Portland Road to the east and the Smith and Bybee wetlands to the north (Map 1). Nearby neighborhoods include St. Johns, Kenton and Portsmouth.

### **Project Purpose**

The purpose of this study is to provide an objective and factual analysis of potential trail alignments to connect the Smith and Bybee Wetlands Natural Area with nearby neighborhoods, parks, and local and regional trails. A number of options for completing this missing link in the 40-Mile Loop and Regional Trail System have been discussed over the years without reaching a consensus among the various trail, neighborhood, and Natural Area advocates.

### **Project Partners**

Metro's Regional Parks and Greenspaces Department managed this feasibility study in collaboration with Portland Parks and Recreation and Metro's Solid Waste and Recycling Department. An Intergovernmental Agreement (IGA) was signed by both agencies to work together to hire a consulting team to resolve the long-standing issues surrounding the siting of this important section of trail. The IGA also mandated that a technical working group be established to insure that the process was unbiased and provide the technical expertise necessary to insure that all pertinent information was included and considered.

## **Technical Working Group**

A seven-member Technical Working Group comprised of representatives of major stakeholder groups met at project milestones to provide feedback and approval of evaluation criteria, criteria measurements, trail segment analysis, and alternative trail alignments. This advisory group also attended the public workshop to assist in presenting the study process and recommendations. Notes from each Technical Working Group meeting are included in Appendix A. The Technical Working Group includes the individuals listed below including the group they represent:

- Joe Adamski-St. Johns Neighborhood Association
- Pam Arden-40-Mile Loop Land Trust
- Troy Clark-Smith and Bybee Wetlands Management Committee
- Deborah Lev-City of Portland Parks and Recreation
- Emily Roth-Friends of Smith and Bybee Lakes
- Elaine Stewart–Metro Regional Parks and Greenspaces Department
- Paul Vandenberg-Metro Solid Waste and Recycling Department

# **Project Goals**

Goals for this study were developed by the project partners through the review of previous planning efforts and documents relating to the siting of trails at Smith and Bybee Wetlands Natural Area.

The Natural Resource Management Plan for Smith and Bybee Lakes (NRMP), adopted by Metro and the City of Portland in 1990, currently guides site management and development within the Natural Area. The goal of the NRMP is:

... to protect and manage the Smith and Bybee Lake area as an environmental and recreational resource for the Portland region. The lakes will be preserved as historical remnants of the Columbia River riparian and wetlands system. They will be maintained and enhanced, to the extent possible, in a manner that is faithful to their original natural condition. Only those recreational uses that are compatible with environmental objectives of the Management Plan will be encouraged. Smith Lake and adjacent uplands will be the principal location for recreational activities. Bybee Lakes will be less accessible. Its primary use will be as an environmental preserve.

The *NRMP* identified a trail alignment within the Natural Area. Since the *NRMP* was adopted there is new information and greater understanding of natural resources; many changes have occurred within the Natural Area and along the identified alignment. This feasibility study looks at a larger context beyond the Smith and Bybee Wetlands Natural Areas to include nearby parks, industrial properties and neighborhoods.

Project goals for the Trail Feasibility Study include:

• Re-evaluate the *NRMP* alignment in light of new information and changes that have occurred within the Natural Area.

- Achieve consensus among project partners on the criteria used to evaluate trail segments, and on the factual results of the evaluation of alternative alignments.
- If possible, find a consensus alignment to recommend for development.
- Provide the Metro Council with enough information to assist them in making an informed decision on a trail alignment.
- Make this study and analysis transparent, inclusive, and open to input from project stakeholders and the wider public.

# **Trail Goals**

The goals listed below were developed by the project partners with input from the Technical Working Group. The trail goals are as follows:

- Connect nearby neighborhoods, parks, and existing local and regional trails with the Natural Area.
- Close gaps in the 40-Mile Loop and regional trail system.
- Protect sensitive wildlife habitat and species.
- Maintain public safety and security of trail users.
- Protect the infrastructure of the landfill.
- Provide a positive trail user experience.
- Design trails to avoid/minimize/mitigate negative impacts to sensitive wildlife habitat wherever possible.

# III. SITE CONTEXT

#### **Project Site**

Smith and Bybee Lakes and their associated sloughs and wetlands are remnants of formerly extensive river bottomlands located near the confluence of the Willamette and Columbia rivers. Part of the Columbia Slough watershed, these large shallow lakes and wetlands are part of the 1,928-acre Smith and Bybee Wetlands Natural Area. The Natural Area also includes the St. Johns landfill, a 238-acre closed landfill. The Natural Area is managed primarily for wildlife habitat protection and enhancement while providing passive recreational opportunities for the Portland metropolitan area. As a regionally significant urban natural resource area, Smith and Bybee Wetlands Natural Area provides productive habitat for large and small mammals, waterfowl, birds of prey and numerous other species.

Adjacent industrial land uses include the Union Pacific auto distribution center, Port of Portland storage facilities, Columbia Steel Casting facilities, and numerous automobile-wrecking yards.

During the last fifteen years several portions of the 40-Mile Loop and the regional trail system have been completed adjacent to and near the Natural Area. These routes are found along North Marine Drive to the north, the Port of Portland Trail providing connections to Marine Drive and Kelley Point Park to the west, the Peninsula Crossing and Columbia Slough Trails to the east and an on-street route through the St. Johns neighborhood connecting to the St. Johns Bridge to the south.

Recreational facilities available at the Natural Area include a canoe launch, ADA-accessible paved trails with viewing platforms, interpretive art and signage, picnic shelter, restrooms, and parking. All of these facilities are accessible off of North Marine Drive.

#### **Project History**

This site, tucked away in North Portland, has been studied and altered for decades. Early settlers from Native Americans to farmers benefited from the rich diversity of plant and animal life. Physical changes to the waterways include dredging, diking, filling and land clearing since the 1800s. Garbage was deposited at the St. Johns landfill from 1932 until 1991, when it was closed to waste disposal. Landfill closure activities are regulated pursuant to a 10-year closure permit renewed by DEQ in 2003.

Numerous natural resource and recreational planning documents were also prepared for this site (see Table 1). The 1972 *North Portland Peninsula Plan* was an early look at balancing preservation with development. In 1983, the *40-Mile Loop Master Plan* showed the potential layout of trails in North Portland. Setting the tone for future development, preservation and restoration in the Natural Area, the 1990 *NRMP* was completed by the City of Portland and the Port of Portland. This plan, adopted by the Portland City Council and Metro Council, continues to direct management and guide projects in the Natural Area. The establishment of the Smith and Bybee Wetlands Management Committee (Management Committee) was a requirement of the *NRMP*. Subsequently, the *1999 Recreation Facilities Plan* was completed which created the concept for the newly improved visitor facilities accessed from North Marine Drive.

In 2003, following considerable discussion and work, the Management Committee recommended an alignment along the landfill's southwest perimeter road and a feasibility study to explore alignments between the landfill and the Peninsula Crossing Trail. The Management Committee's recommendation is documented in a letter included in Appendix B.

#### Table 1. Related Planning Documents

1972	North Portland Peninsula Plan
1983	40-Mile Loop Master Plan
1987	Smith and Bybee Lakes Environmental Studies
1990	Natural Resource Management Plan for Smith and Bybee Lakes (NRMP)
1999	Smith and Bybee Lakes Recreation Facilities Plan
1999	North Portland Trails Summit
1999	Recreation Facilities Plan
2003	Smith and Bybee Lakes Management Committee Recommends Trail Feasibility Study
2005	Smith and Bybee Wetlands Natural Area Trail Feasibility Study



# **IV. EVALUATION CRITERIA**

The consultant team recommended, and the Technical Working Group accepted, a number of evaluation criteria to be applied to nine possible trail segments. Eight categories of criteria were developed, with more specific items within each category. Listed below are all of the evaluation criteria and a brief explanation. More detailed explanations are included in Appendix B. Each evaluation criterion also received a measurement – a means for evaluating and measuring that criterion. Measurements for each criterion are also found in Appendix B.

#### Safety:

- Number of collector or arterial road crossings.
- Number of railroad crossings
- Proximity to landfill facilities that are vulnerable to vandalism, such as standing pipes, valves, monitoring stations.
- On-road distance, where trail is located adjacent to roadways with no separation between trail users and motor vehicles.

#### Environmental:

- Habitat fragmentation, including the need to cut through and divide important natural habitats.
- Loss of riparian area, including estimated direct loss of native riparian vegetation.
- Proximity to known Bald Eagle nesting sites and associated risk of abandonment.
- Proximity to known great blue heron rookery, and risk of abandonment.
- Proximity to known western painted turtles basking or nesting areas and risk of abandonment or damage due to disturbance.
- Impacts to wetlands.

#### **Cost Considerations:**

- Number of new bridges and/or improvements to existing bridges over the Columbia Slough.
- Amount of fencing need to protect facilities or users.

- Amount of grading required to meet accessibility requirements.
- Acquisition needs for private land easement or purchase.
- Need for new pedestrian road crossings.
- Number of new railroad crossings underpass and/or overpass.
- Estimated cost of maintaining trail.
- Eligibility of route for grants and other funding.
- Costs associated with mitigation required for permits.

# Multi-Use Potential:

• Opportunity for locating an 8' wide paved multi-use path – dependent on size of area, topography.

# User Experience:

- Naturalness of foreground views (within 1/8 mile).
- Opportunities for distant views, including Portland, west hills, Cascade mountains.
- Sounds, including positive (birdsong) and negative (highway, industry).
- Extent that trail user shares space with automobiles and trucks.
- Potential for trail closures due to landfill activities.
- Opportunities for wildlife viewing.
- Opportunities for interpretive signage.
- Potential for trail closures due to flooding, including areas expected to be under water for part of most years.

# Permitting:

- ODOT: permits needed for railroad crossings or for underpass beneath Portland Road bridge.
- Union Pacific Railroad: permit required for crossing tracks.
- DEQ: permits required for changes to use of St. Johns landfill.
- NOAA Fisheries and USFWS: Consultation required for potential impacts to species protected under the Endangered Species Act (e.g. salmonids, Bald Eagle).

- Oregon Department of State Lands (DSL): State of Oregon law strictly limits fills within Smith and Bybee Lakes, also regulates fill in wetlands. DSL does not allow more than 50 cubic yards of fill to be placed below 11 feet mean sea level within Smith Lake and Bybee Lake. The text of this regulation is found in Appendix B.
- US Army Corps of Engineers (ACOE): regulates fills in wetlands.
- City of Portland: Environmental zone permitting (E-Zone) applies in many areas, also Portland Department of Transportation (PDOT) approval needed for pedestrian improvements to roadways. Enforces Natural Resource Management Plan policy and development activities.

# Management:

- Potential for disruptions to landfill staff.
- Amount of time required for staff to patrol trails.
- Ability of emergency services to reach trail users.

# Trail Connectivity:

- Linkage of Natural Area directly to neighborhoods and parks.
- Linkage to existing local and regional trails in the vicinity.

# V. TRAIL SEGMENTS

The evaluation criteria were used as a means to review trail segments. These segments are logical sections of trail that were part of larger trail alignments identified in previous documents such as the *Natural Resource Management Plan* and by the Smith and Bybee Wetlands Management Committee or the consulting team.

The criteria were applied to each of the following nine trail segments, and a qualitative rating was given for each. The detailed scoring of the segments by criteria is shown in Appendix B.

The segments are shown in Map 3 and their locations are described below:

**Ash Groves:** located near the north bank of the North Slough following for much of the route along an existing social trail used infrequently by maintenance vehicles that travels through an old-growth Oregon ash forest. This segment also crosses the water control structure. Some grading would be required to maintain ADA accessibility as the trail travels up the hill from the water control structure to the landfill segments.

**Southwest Landfill:** travels along the landfill perimeter road between the northwest corner of the landfill and the south side of the existing landfill bridge. This segment would require a new bridge over the North Slough.

North Landfill: follows landfill perimeter road on the north side of the landfill, connecting to the East Landfill segment. This segment would require a new bridge to cross the North Slough.

**East Landfill:** travels along the east side of the landfill along the existing perimeter road. This segment terminates at the south side of the existing landfill bridge crossing the Slough.

**South Lake Shore:** heads down a steep bank from the East Landfill segment, past the south edge of wetlands bordering Smith Lake, and continues on top of an existing social trail used infrequently by maintenance vehicles along the bank of the Columbia Slough. The route

then travels beneath the North Portland Road bridge to connect with the Peninsula Crossing Trail.

**Landfill Connector**: after crossing the existing landfill bridge over the Columbia Slough this route travels on the north and west sides of the landfill offices and then underneath the Union Pacific tracks in a proposed new pedestrian underpass. At Columbia Boulevard, this segment would cross the roadway with an at-grade crossing with median and a standard pedestrian crossing signing. User-activated flashing beacons mounted on a pole would mark this crossing.

**South Slough:** veers east from the end of the existing landfill bridge, and loosely parallels the Slough through industrial lands owned by the Union Pacific Railroad, Columbia Steel and the City of Portland Columbia Slough Waste Water Treatment Plant. This segment would require major improvements to the North Portland Road bridge to provide for safe pedestrian and bicycle travel.

**Pier Park:** from Columbia Boulevard, this route travels through Chimney Park, skirting the dog park. A new pedestrian bridge is needed to cross the Union Pacific railroad tracks that divide Chimney and Pier Parks. The route then follows existing trails in Pier Park. From the south end of Pier Park, two neighborhood alternative routes are possible utilizing existing bike lanes and sidewalks along either North Fessenden or North Smith Streets. Minor arterial improvements would be needed to create safer crossings for bicyclists.

**Columbia Boulevard:** this segment travels along the south side of Columbia Boulevard between Chimney Park and North Portsmouth Avenue at the intersection with the Peninsula Crossing Trail.

Following the segment analysis the Technical Working Group dropped the Columbia Boulevard and Southwest Landfill segments from further study. The Columbia Boulevard segment was eliminated due to high safety risks due to volume of truck traffic and insufficient right-of-way for bike lanes or an off-street path. The Southwest Landfill segment scored low on the user experience and would be difficult to meet ADA standards due to steep grade in one narrow area adjacent to the Slough and the existing landfill bridge.



# VI. ALTERNATIVE ALIGNMENTS

				Segn	nent			
	Ash Groves	North Landfill	East Landfill	South Lake	South Slough	Landfill Connector	Pie	r Park
Alignment				Shore			with NR	without NR
Ash Groves	Х		Х			Х	Х	
Landfill		Х	Х			Х		Х
South Lake Shore		Х	Х	Х		Х		Х
South Slough		Х	Х		Х	Х		Х

Table 2. Alternative Trail Alignments

NR= Neighborhood Routes

Four draft trail alternative alignments were developed by the consulting team and were presented to the Technical Working Group for review and comment. These draft trail alignments represent a range of options of experience and impacts to habitat. These four draft alignments were discussed, some changes were made, and the Technical Working Group recommended the final four alternative alignments that would be forwarded for further analysis and presentation to the public. Table 2 shows the segments that are included in each of the four alternative alignments.

The following section includes a detailed description of each of the four trail alternatives studied. Appendix C contains detailed cost estimates for all of the trail segments studied. A map and photos accompany each alternative alignment.

#### Elements Common to All Trail Alternative Alignments

There are many issues and costs that are found in all of the alignments. These commonalties are summarized below.

#### Safety

• A safety concern to all routes is the at-grade crossing of Columbia Boulevard. The crossing will be designed to meet all traffic standards but the fact remains that this is a very busy truck route.

#### Environmental

• The East Landfill segment is common to all alignments. Fencing along the landfill side of the East Landfill perimeter road will keep trail users off of the landfill but there is some risk that trail users may wander off the perimeter road and into the wetland area east of the road.

## **Capital Costs**

-		
•	East Landfill segment	\$493,737

- Landfill Connector segment
   \$2,333,555
- Pier Park segment (excludes neighborhood routes) <u>\$1,413,836</u>
- Total Common costs shared by all routes \$4,241,128

The cost of the East Landfill segment includes grading, surfacing of trails, and fencing. The cost of Landfill Connector segment includes minor improvements to the existing landfill bridge, grading and surfacing of the trail, a proposed pedestrian/bicycle railroad underpass, and a proposed at-grade crossing of Columbia Boulevard into Chimney Park. The cost of the Pier Park segment includes a proposed pedestrian/bicycle bridge over the Union Pacific railroad tracks that currently separate Pier Park from Chimney Park.

# **Multi-Use Potential**

- All routes have the potential to provide access to multiple trail uses, including hikers, cyclists, and those with disabilities, al-though trail surface (hard versus soft) has not been determined for some portions of some routes.
- Trail design will consider many variables in determining the appropriate trail width for a particular route, but it is expected that the trail widths may range between 8' to 12' given the specific location and setting. Settings range from landfill roads to sensitive wildlife habitat to local park trails to neighborhood bike lanes and sidewalks.

# User Experience

• Two proposed viewpoints are recommended near the northeast corner of the landfill. One would be located on the slope of the landfill that would offer 360-degree spectacular views of Forest Park to the south and west and Bybee and Smith Lakes and the Cascade Mountains to the north and east. The landfill viewpoint would be part of a later phase of development, when landfill closure activities no longer occur in that area. The other viewpoint would be on the east side of the landfill road, providing a view of Smith Lake.

- There can be seasonal flooding of parts of the Port of Portland trail and the four alternative routes, all of which will require periodic closures. During flooding episodes, access to the alignments would only be available from the landfill side, since the Port of Portland trail is at a lower elevation and floods first.
- There are existing trail heads and public parking provided in the vicinity of the Natural Area at the following locations:
  - Kelley Point Park
  - Smith and Bybee Wetlands Natural Area on the north side of Smith Lake off of Marine Drive
  - Chimney Park
  - > Pier Park
  - > Columbia Slough Waste Water Treatment Plant
  - There is also the potential for a small trailhead at the existing canoe launch on the south side of the Slough near the landfill offices. This potential trailhead needs to be further explored in future phases of this project.

# Permitting

• Right-of-way easements will be required from the Union Pacific for the proposed railroad underpass and overpass needed to link the landfill to the neighborhood.

# Management

• Management issues are alignment specific and described in detail beneath each alignment subheading later in this chapter.

# **Trail Connectivity**

- All routes connect to the southern end of the Port of Portland Trail near the northwest corner of the landfill.
- All routes connect to Peninsula Crossing trail.
- All routes provide a connection between the landfill and the St. Johns Neighborhood via the Landfill Connector segment.

# Alternative 1: Ash Groves Alignment

The Ash Groves alignment begins at the end of the Port of Portland trail in the west, and extends east between Bybee Lake and the North Slough. The trail then crosses the water control structure, and heads south along the east side of the St. Johns landfill on an existing landfill access road. It crosses the existing landfill bridge, goes through a proposed pedestrian underpass under the Union Pacific railroad tracks, and crosses Columbia Boulevard with an at-grade crossing before entering Chimney Park. A proposed pedestrian overpass would take trail users across the railroad tracks between Chimney and Pier Parks. This is the only alignment that includes improvements to existing bike lanes, intersections and sidewalks between Pier Park and the Peninsula Crossing trail along either North Fessenden Street or North Smith Street.

### Safety

The route through the Ash Groves and landfill is safe from vehicular traffic although trail users may occasionally encounter a landfill maintenance vehicle on the landfill road. The Ash Groves portion of this alignment is isolated with little visibility and patrols will be important to monitor unauthorized uses. Proposed on-street improvements through the neighborhood will improve safety for trail users. The risk to the landfill infrastructure is the least of any alternatives, as this alignment minimizes the distance traveled on or around the landfill.

#### Environmental

This trail poses high potential impacts to habitat and wildlife. The Ash Groves contains the only remnant stands of Oregon ash in the Natural Area, many of which are 200 years old. There are very few of these stands left in the region, and their gnarled bark provides rare habitat for wildlife such as songbirds and bats. Existing groundcovers are, for the most part, non-native grasses and forbs with limited habitat value. There are direct habitat connections between Bybee Lake, the associated wetlands, and the North Slough through this area. Several turtle basking sites are found in the vicinity. There are wetlands throughout the area and while the trail may encroach upon wetlands in a few areas, a route that avoids crossing wetlands directly is feasible. Constructing the trail would likely not require removal of any of the mature ash trees, though there may be a few willows that would need removal. Trail design, mitigation and management can play a role in keeping trail users from leaving the trail in this sensitive area.

#### **Capital Costs**

This alignment is the lowest cost of the four alternatives. By going through the Ash Groves and using the existing water control structure, the expense of a new pedestrian bridge over the North Slough is avoided. Grading or rerouting will be required to connect the trail to the landfill perimeter road from the water control structure to meet accessibility standards.

#### **Multi-Use Potential**

This route has good multi-use potential between the southern end of the Port of Portland trail and south side of Pier Park. From this point to the Peninsula Crossing Trail, trail users would use multi-modal onstreet bike lanes and sidewalks along either North Fessenden Street or North Smith Street. Further study will be necessary to determine which of these streets should be improved for trail users.

#### **User Experience**

This alignment ties with the South Lake Shore alignment for highestranked user experience. The route in the Ash Grove travels through an attractive woodland. There are several opportunities for capturing views of the North Slough and Bybee Lake. Over time some of these views will be obscured by plant growth from revegetation projects. The Ash Grove area is far from highway and industrial noise. A trail here opens an area up to use that is presently remote and seldom visited. Interpretive and environmental education opportunities are good – especially surrounding the ash forest.



## Permitting

Multiple permits would be required for this and all route alternatives. The permits specific to this route could be related to wetland encroachment, and concerns from NOAA Fisheries due to the trail's proximity to salmonid habitat in the North Slough. There is enough higher ground through the Ash Groves segment to meet the DSL regulation on fill below 11 feet elevation.

#### Management

As this alignment has the shortest distance of travel on the landfill, it thus would impact daily operations at the landfill the least. Vehicular access for the Ash Groves segment is available from the Port of Portland trail or landfill side. Patrolling and maintaining the isolated Ash Groves segment will require more time than the other segments in this alignment.

## **Trail Connectivity**

The route through the Ash Groves links the Port of Portland trail to the water control structure. From there the route crosses the east end of the landfill and connects to the St. Johns neighborhood, but does not offer a direct connection to the Peninsula Crossing or Columbia Slough Trails near the North Portland Road bridge. Users would traverse improved neighborhood sidewalks and bike lanes to complete the connection.

## Advantages:

- The route through the Ash Groves and along the east side of the landfill is very scenic, quiet, and opens new environmental interpretation opportunities.
- Crossing the North Slough at the existing water control structure avoids environmental impacts and the expense associated with building a new pedestrian bridge.
- There are no expected expenses associated with new land acquisition.

- This is the least costly alternative.
- By going through the neighborhood, potential impacts to Bald Eagle nests, the heron rookery, and other sensitive wildlife areas along the south shore of Smith Lake are avoided.
- Improved on-street bike lanes, intersections, and sidewalks between Pier Park and Peninsula Crossing Trail will result in a safer and more enjoyable experience for trail users.

## Disadvantages:

- Building a new trail through the undeveloped Ash Groves may disturb wildlife in this area, including western painted turtles and nesting songbirds (e.g. willow flycatcher) and river otter, and may negatively impact the roots of ash trees.
- There could be encroachment and impacts to wetlands in the Ash Groves.
- There is the potential for vandalism at the water control structure.
- This alternative fails to provide a direct link to the Peninsula Crossing Trail or Columbia Slough Trail near the North Portland Road bridge. It relies instead on existing sidewalk and street improvements through the neighborhood.

## Cost Estimate\*

Ash Groves segment	\$357,500
East Landfill segment	493,737
Landfill Connector segment	2,333,555
Pier Park segment	1,475,539**
Total Cost Estimate:	\$4.6 million

\*Cost estimate for 8' wide asphalt trail with 2' gravel shoulders.

\*\*Includes Neighborhood Route 2 providing improvements to existing on-street bike lanes, sidewalks and intersections from Pier Park to Peninsula Crossing Trail.



1. Southern end of Port of Portland Trail where Ash Groves trail would begin.



4. View of Smith Lake from viewpoint along east perimeter road on landfill.



7. Looking south towards Chimney Park near landfill office.



2. Looking east into Ash Groves route from southern end of Port of Portland trail.



5. Heading west toward landfill entrance on southern perimeter landfill road.



8. Columbia Blvd. crossing location at Chimney Park driveway.



3. View across north slough to landfill.



6. Looking south towards Forest Park from north side of landfill bridge.



9. Columbia Blvd.



10. In Chimney Park looking across railroad tracks to Pier Park.



13. Existing bike lanes on N. Fessenden Street.



11. Pier Park entry at N. Seneca Street.



14. Connection to Peninsula Crossing trail at N. Fessenden Street



12. Existing bike lanes on N. Smith Street.

# Alternative 2: Landfill Alignment

The Landfill trail alignment begins at the end of the Port of Portland Trail, and immediately crosses over the North Slough to the St. Johns landfill on a proposed pedestrian bridge. It then follows an existing maintenance road along the south bank of the North Slough, heading east. It loops around the east end of the landfill, in the same alignment as described in the text for Alternative 1 - Ash Groves. It crosses the existing landfill bridge and makes its way to through Chimney and Pier Parks. The trail continues through the St. Johns neighborhood along existing (unimproved) bike lanes and sidewalks on either North Fessenden or North Smith Streets to Peninsula Crossing Trail.

Two significant differences between the Landfill and Ash Groves trail alignments are the construction of a new pedestrian bridge across the North Slough (to avoid impacts to habitat and wildlife in the Ash Groves area) and no improvements to neighborhood streets between Pier Park and the Peninsula Crossing Trail.

## Safety

The route using landfill roads is felt to be quite safe from vehicles. Occasional use of these roads by Metro staff may interfere with trail users, but does not pose much risk. Additional time spent on the landfill could expose trail users to more hazards associated with landfill operations.

#### Environmental

This trail poses the least risks of impact to habitat and wildlife. However, placement of the bridge over the North Slough will need to take an existing turtle basking site into consideration and may have impacts to fish in the crossing area. There will be soil disturbance and loss of riparian vegetation at the points where the bridge footings are built. In addition, constructing footings in this location could alter groundwater flow and movement of potential contaminants in the groundwater in this vicinity.

## **Capital Costs**

This alignment is the second lowest cost of the four alternatives. The estimated cost of this alternative is greater than the Ash Groves alignment largely due to the proposed North Slough bridge. Other expenses are in paving the surface of the existing gravel landfill perimeter roads, and fencing to protect landfill infrastructure from vandalism.

## **Multi-Use Potential**

Good multi-use potential from the end of Port of Portland trail through Pier Park. Existing bike lanes and sidewalks provide for multiple uses between Pier Park and Peninsula Crossing trail.

## **User Experience**

The North Slough bridge will offer exceptional views and interpretive opportunities. The route across the landfill is fairly attractive, with views of water and the Natural Area to the north and east. On the negative side, the trail user would have a fence and landfill infrastructure on one side, with natural landscapes on the other. Overall, this alternative ranks lowest of the four with regard to user experience.

## Permitting

Multiple permits would be required for this and the other two routes that include the North Landfill segment. The main issues for permitting agencies will be related to the North Slough bridge design and construction. National Marine Fisheries Service consultation is likely due to the presence of federally listed juvenile salmonids in the North Slough.

## Management

The main management concerns are the greater length of trail on the landfill, as compared with the Ash Groves alternative. This raises the risk of vandalism to landfill infrastructure, a risk common to Alternatives 3 and 4 as well. This trail could be easily maintained, as there is easy vehicular access to all segments.


## **Trail Connectivity**

This route links the Port of Portland trail to the landfill and on to Pier Park. This alignment does not offer a direct link to the Peninsula Crossing and Columbia Slough trails as Alternatives 3 and 4 do. Users would traverse existing (unimproved) neighborhood sidewalks and bike lanes from Pier Park to complete the connection to the Peninsula Crossing Trail.

### Advantages:

- Crossing the North Slough and use of the existing landfill perimeter roads avoids impacts to wildlife and habitat that would occur with development in the Ash Groves and South Lake Shore routes.
- The new bridge could be an attractive feature, and opens new views over the water at the confluence of the North and Co-lumbia Sloughs.
- The north end of the landfill has good views of water and the Natural Area.
- This alternative has the lowest overall impacts to wildlife of the four being considered.

#### **Disadvantages:**

- Trail users will be on the landfill perimeter road versus a more pleasing forested setting provided in other alignments.
- The new bridge over the North Slough adds considerable expense to this alignment. There may be impacts to fish and wildlife in the crossing area, particularly to federally listed juvenile salmonids. Further engineering/hydrological analysis will be required to address the potential for the bridge footings to exacerbate the movement of contaminants in groundwater in the vicinity.
- Periodic trail closures may occur if the landfill bank requires major repair work.

- Additional length of trail on the landfill raises the risk of vandalism and other management problems associated with protecting landfill infrastructure.
- This alignment does not provide a direct link to the Peninsula Crossing or Columbia Slough Trails near the North Portland Road bridge.

#### Cost Estimate\*

North Landfill segment	\$1,941,123**
East Landfill segment	493,737
Landfill Connector segment	2,333,555
Pier Park segment	1,413,836***
Total Cost Estimate:	\$6.2 million

\*Cost estimate for 8' wide asphalt trail with 2' gravel shoulders.

- \*\*Includes new North Slough bridge.
- \*\*\* Includes crossing Union Pacific rail lines between Chimney and Pier Park, does **not** include neighborhood on-street bike lanes and sidewalks.



1. Looking north from landfill towards southern end of Port of Portland trail.



4. View of Smith Lake from viewpoint along east perimeter road on landfill.



7. Looking south towards Chimney Park near landfill office.



2. Looking east on north landfill perimeter road.



5. Heading west toward landfill entrance on southern perimeter landfill road.



8. Columbia Blvd. crossing location at Chimney Park driveway.



3. View of north slough from landfill perimeter road.



6. Looking south towards Forest Park from north side of landfill bridge.



9. Columbia Blvd.



10. In Chimney Park looking across railroad tracks to Pier Park.



11. Pier Park entry at N. Seneca Street.

# Alternative 3: South Lake Shore Alignment

The South Lake Shore alignment crosses the North Slough, and follows the same route as the landfill alignment until it reaches the point where the landfill road curves west towards the bridge. Here there would be a junction, with one leg heading out of the landfill to Pier Park with connection to the Peninsula Crossing trail along unimproved bike lanes and sidewalks on either North Fessenden or Smith Streets. The other leg would head directly east, following the southern edge of Smith Lake before passing under the North Portland Road bridge and connecting with the Peninsula Crossing and Columbia Slough Trails on the other side of the bridge.

The main difference between this and previous routes is the new trail along the south shore of Smith Lake. This trail would require new clearing and ground disturbance. The eastern half of this segment would likely be located on an existing social trail used that serves as maintenance access for power lines.

# Safety

The South Lake Shore segment is considered to be quite safe, given its location away from vehicle traffic. There is an easy grade route under the north side of the North Portland Road bridge, and a ready connection to the existing Peninsula Crossing and Columbia Slough Trails on the east side. The route is very isolated, with little visibility. Patrols will be important to monitor unauthorized uses.

## Environmental

This trail poses high potential impacts to habitat and wildlife. These impacts relate to the trail passing through riparian woodland that includes a heron rookery, Bald Eagle nesting sites, encroachment on wetlands, and closeness to the Columbia Slough. The degree of risk of rookery and/or nest abandonment is uncertain. Disruption to wildlife that use the area to travel between the wetlands and Slough would be likely. Trail design, mitigation and management can play a vital role in keeping trail users on the pathway and out of sensitive areas. The eastern half of this new trail would be placed along an existing social trail currently used by maintenance access for transmission lines; the other part of the trail may have portions that skirt the edge of wetlands. Some young trees would likely have to be removed to make way for this trail. This route also includes the impacts related to the new bridge crossing the North Slough as discussed in Alternative 2.

## **Capital Costs**

This alignment is the second highest cost of the four alternatives. This alternative includes the development of new trail south of Smith Lake and an underpass beneath the North Portland Road bridge.

## **Multi-Use Potential**

There is good multi-use potential for this trail between the end of the Port of Portland trail and Pier Park. It is not possible to determine trail surface (hard vs. soft) for the south lake shore portion of this alignment until formal consultation with regulatory agencies regarding trail design in the vicinity of nesting eagles. The *NRMP* originally suggested a soft surface pedestrian only trail along the South Lake Shore segment.

## User experience

This alignment is primarily natural in character and aesthetically pleasing. It ties with Ash Groves for highest ranking of user experience. Good views of the Columbia Slough and the Natural Area are available the South Lake Shore segment, and a trail here would open a new area not presently accessible to the public. The partial view of the lake is becoming obscured as the forest regenerates and creates a dense woodland. New interpretive and environmental education opportunities are good based on the natural setting and off-road character.

## Permitting

Multiple permits would be associated with this route. The biggest issues include wetland encroachment and the close proximity of much



of the trail to the Columbia Slough. Consultation with NOAA Fisheries will be needed to address federally listed juvenile salmonids in the Columbia Slough. Consultation with the US Fish and Wildlife Service (USFWS) required under Section 7 of the Endangered Species Act would be needed to address potential impacts to nesting Bald Eagles. There is a high potential that the USFWS will require construction of a trail through this area be at least 1/4-mile from the eagle nests, which may involve a boardwalk over a portion of Smith Lake.

### Management

Patrolling and maintaining the isolated segment along the South Lake Shore will be more time consuming than patrolling the portions of the trail on landfill perimeter roads.

# **Trail Connectivity**

Of the four alternatives, this route provides the most direct link between the Port of Portland trail and the Peninsula Crossing and Columbia Slough Trails east of the North Portland Road bridge.

# Advantages:

- This route offers the most direct regional connection to the Peninsula Crossing and Columbia Slough Trails east of the North Portland Road bridge.
- It provides a high quality user experience along scenic parts of the landfill, and then through riparian woodlands, with excellent short-range views of the Columbia Slough.
- The route under the north end of the North Portland Road bridge is simple to engineer and connect to the existing Peninsula Crossing and Columbia Slough Trails.
- The replanted and naturally regenerating riparian woodland provides opportunities for mitigating some wildlife impacts by taking advantage of dense vegetation screening between the trail and Smith Lake.
- Half of the route along the south shore of the lake could be located on an existing social trail used infrequently for mainte-

nance of transmission lines.

## Disadvantages

- Of the four alternatives, this route has the most federally listed endangered species (eagles and salmonids) at present.
- There is potential that federal agencies will require construction of a trail be at least 1/4-mile from nesting eagles or require seasonal closure of the trail for more than six months (generally between January and August).
- The South Lake Shore route crosses through three small parcels of private ownership, and will require some negotiation and possible expense of land or easement acquisition.
- Much of the trail is in a riparian zone, is very close to the Columbia Slough and could impact wildlife that crosses between the Slough and Smith Lake, as well as Endangered Species Act listed salmonids.
- There are probable encroachments and/or impacts to wetlands in some areas.
- The new bridge over the North Slough adds considerable expense to this alignment. There may be impacts to fish and wildlife in the crossing area, particularly to federally listed juvenile salmonids. Further engineering/hydrological analysis will be required to address the potential for the bridge footings to exacerbate the movement of contaminants in groundwater in the vicinity.
- Periodic trail closures may occur if the landfill bank requires major repair work.

## Cost Estimate\*

South Lake Shore segment:	\$ 987,345**
North Landfill segment	1,941,123***
East Landfill segment	493,737
Landfill Connector segment	2,333,555
Pier Park segment	1,413,836****
Total Cost Estimate:	\$7.1 million

\*Cost estimate for 8' wide asphalt trail with 2' gravel shoulders. Does not include property or easement acquisitions.

\*\*Does not include possible boardwalk to avoid eagle's nest.

\*\*\*Includes new Slough bridge.

\*\*\*\*Includes crossing Union Pacific rail lines between Chimney and Pier Park, does **not** include improvements to existing neighborhood on-street bike lanes, sidewalks and intersections.



1. Looking north from landfill towards southern end of Port of Portland trail.



3. View of north slough from landfill perimeter road.



5. Near southeast corner of landfill looking east along south shore of Smith Lake.



2. Looking east on north landfill perimeter road.



4. View of Smith Lake from viewpoint along east perimeter road on landfill.



6. Looking west toward landfill along cleared area between the lake and the slough.



7. View towards Columbia Slough.



10. Looking south towards Chimney Park near landfill office.



13. In Chimney Park looking across railroad tracks to Pier Park.



8. Heading west toward landfill entrance on southern perimeter landfill road.



11. Columbia Blvd. crossing location at Chimney Park driveway.



14. Pier Park entry at N. Seneca Street.



9. Looking south towards Forest Park from north side of landfill bridge.



12. Columbia Blvd.

# Alternative 4: South Slough Alignment

The South Slough alignment follows the same route as the Landfill alignment for its first half, or up to the point where it crosses the existing landfill bridge. Once on the south side of the bridge this alignment splits in two directions. One leg travels due east along the south side of the Columbia Slough to the North Portland Road bridge. It crosses under and then over the bridge to tie into the existing Peninsula Crossing and Columbia Slough Trails. The other leg is the same as in Alternatives 2 and 3, traveling south from the landfill bridge, going under the railroad tracks, crossing Columbia Boulevard into Chimney and Pier Parks and through St. Johns neighborhood on unimproved bike lanes, intersections and sidewalks along North Fessenden or North Smith Streets to connect with the Peninsula Crossing Trail.

The distinguishing feature of this alignment is the development of a new trail route along the south side of the Columbia Slough, north of the Union Pacific railroad tracks and the Columbia Steel Castings complex.

## Safety

The route along the south side of the Columbia Slough introduces some safety issues due to its close proximity to industrial traffic. Trail design will need to address security concerns of adjacent private property owners should this route be developed. The design of the trail crossing under and over the North Portland Road bridge requires further study and engineering. The narrow bridge sidewalks create a safety issue that may require a new wider sidewalk be added to the existing bridge.

## Environmental

This trail poses the second fewest impacts or risks to habitat and wildlife of the four alternatives. These impacts include those associated with the new bridge over the North Slough, discussed in the previous two alternatives. In addition, the trail along the south side of the Columbia Slough may encroach on riparian habitat and the Wapato Wetlands.

## **Capital Costs**

This alignment is the highest cost of the four alternatives. New trail development south of the Columbia Slough will require fencing along adjacent privately and publicly owned industrial properties, and an underpass beneath and a new sidewalk on top of the North Portland Road bridge. Further design and engineering will be needed to determine the structural requirements and associated costs for sidewalk improvements to the bridge. In addition, there are unknown land or easement purchase costs associated with two privately owned parcels that occupy approximately <sup>3</sup>/<sub>4</sub> of the route along the south side of the Columbia Slough.

# **Multi-Use Potential**

The potential here is very good, with mitigating factors. Improvements are necessary to the North Portland Road bridge to make the bicycle and pedestrian crossing safe.

## **User Experience**

The route along the south of the Columbia Slough is primarily industrial in character. However, it does offer good views of the Slough, the Natural Area, and provides visual connection to the Wapato Wetlands, a unique and attractive feature not presently accessible to the public. New interpretive and environmental education opportunities are also possible, especially at the Wapato Wetlands. The crossing of the North Portland Road bridge, with its extensive truck traffic, may not be a very pleasant experience. Overall, this alternative ranks third of the four with regard to user experience.

## Permitting

Multiple permits would be associated with the South Slough route. The biggest challenges are likely to be trail easement or ROW agreements



with the Union Pacific Railroad and Columbia Steel Castings. Some US Fish and Wildlife Service consultation is needed as well as NOAA Fisheries.

### Management

Patrolling and maintaining the segment along the south bank of the Columbia Slough will be more time consuming than patrolling the portions of the trail on landfill perimeter roads.

# **Trail Connectivity**

This route provides an improved direct link to the Peninsula Crossing and Columbia Slough Trails near the North Portland Road bridge.

## Advantages:

- This route has low impacts to wildlife relative to two of the other alternatives. It avoids entering the Natural Area, including the Ash Groves and the south shore of Smith Lake, with its eagle nests and heron rookery, thus avoiding habitat fragmentation in those areas.
- The new South Slough route would provide a direct regional connection to the Peninsula Crossing and Columbia Slough Trails east of the North Portland Road bridge.
- This route, while largely industrial in character, does include views of the North and Columbia Sloughs, the Natural Area, and opens a view and interpretive opportunities at the "Wapato Wetland," one of the most striking wetlands in the region.
- Federal Endangered Species Act permits are not likely to due this route's distance back from the Columbia Slough.
- The City of Portland owns the parcel of land adjacent to the west side of the North Portland Road bridge and are willing partners in the development of a trail.

## Disadvantages:

• This is the most expensive of all alternatives, requiring a new bridge to cross the Columbia Slough, land or easement pur-

chases south of the Columbia Slough, and potentially costly improvements to the North Portland Road Slough bridge.

- Engineering the trail under and then over the North Portland Road bridge is challenging and requires additional feasibility analysis.
- The south Slough portion of this alignment crosses two large private industrial properties, and will require negotiations and possible expense of land/easement acquisition.
- The user experience along the south side of the Columbia Slough would be more industrial and less natural than the portions of the South Lake Shore and Ash Groves alternatives through the Natural Area.
- The new bridge over the North Slough adds considerable expense to this alignment. There may be impacts to fish and wildlife in the crossing area, particularly to federally listed juvenile salmonids. Further engineering/hydrological analysis will be required to address the potential for the bridge footings to exacerbate the movement of contaminants in groundwater in the vicinity.
- Periodic trail closures may occur if the landfill bank requires major repair work.

# Cost Estimate\*

South Slough segment	\$1,486,635
North Landfill segment	1,941,123**
East Landfill segment	493,737
Landfill Connector segment	2,333,555
Pier Park segment	1,413,836***
Total Cost Estimate:	\$7.6 million

\* Cost estimate for 8' wide asphalt trail with 2' gravel shoulders. Does not include property or easement acquisitions.

\*\* Includes new Slough bridge

\*\*\* Includes crossing Union Pacific rail lines between Chimney and Pier Parks, does **not** include neighborhood on-street bike lanes and sidewalks.



1. Looking north from landfill towards southern end of Port of Portland trail.



4. View of Smith Lake from viewpoint along east perimeter road on landfill.



7. Looking east from south side of landfill bridge.



2. Looking east on north landfill perimeter road.



5. Heading west toward landfill entrance on southern perimeter landfill road.



8. Looking east at Wapato Wetland; midway between landfill and N. Portland Road bridge.



3. View of north slough from landfill perimeter road.



6. Looking south towards Forest Park from north side of landfill bridge.



9. Approaching end of alignment at N. Portland Road bridge.



10. Looking north from southern end of N. Portland Road Bridge.



13. Columbia Blvd.



11. Looking south towards Chimney Park near landfill office.



14. In Chimney Park looking across railroad tracks to Pier Park.



12. Columbia Blvd. crossing location at Chimney Park driveway.



15. Pier Park entry at N. Seneca Street.

### Summary of Alignments

Table 3. summarizes and compares the development considerations unique to each alternative trail alignment. A similar table comparing the same development considerations for each individual segment is found in Appendix B.

Alignment	Segments* Included	Major Improvements	Length (miles)	Acquisition/ Easement/ Right-of-Way	Agency Approvals Needed	Capital Cost <sup>1</sup>	
						Hard Surface	Soft Surface
Ash Groves	AG, EL, LC, PP, NR2	Fencing, Modify Landfill Bridge, RR underpass & overpass, Col. Blvd. crossing On- street improvements	4.5	RR Easements PDOT	NOAA DSL/ACOE (if wetland fill) USFWS DEQ City of Portland – PDOT, Planning, Parks	\$4.3 million \$ .96 million per mile	\$3.6 million \$.8 million per mile
Landfill	NL, EL, LC, PP	Slough Bridge, Fencing, modify Landfill Bridge, RR underpass & over- pass, Col. Blvd. Crossing	2.8	RR Easements PDOT	DEQ City of Portland – PDOT, Planning	\$6.2 million \$2.2 million per mile	\$5.1 million \$1.8 million per mile
South Lake Shore	NL, EL, SL, LC, PP	Slough Bridge, Fencing, Modify Landfill Bridge, RR underpass & over- pass, Col. Blvd. crossing	4.4	RR Easements PDOT SL segment crosses 2 private parcels	NOAA, DSL/ACOE (if wetland fill) USFWS DEQ ODOT City of Portland – PDOT, Planning	\$7.1 million \$1.6 million per mile	\$5.7 million \$1.3 million per mile
South Slough	NL, EL, SS, LC, PP	Slough Bridge, Fencing, Modify N. Portland Road Bridge, RR under- pass & overpass, Col. Blvd. crossing	4.8	RR Easements PDOT SS Segment crosses 2 private & 1 public par- cels	NOAA DSL/ACOE (if wetland fill) USFWS DEQ ODOT City of Portland – PDOT, Planning	\$7.6 million \$1.6 million per mile	\$6.1 million \$1.3 million per mile

#### Table 3: Alternative Alignment Comparison Table

\* Segment Abbreviations:

AG = Ash GrovesLC = Landfill Connector

NL = North Landfill PP = Pier Park EL = East Landfill

NR1 = Neighborhood Route 1

SL = South Lake Shore NR2 = Neighborhood Route 2

SS = South Slough

1. Excludes Property Acquisition, Includes Design/Engineering/Permits

# VII. TRAIL DESIGN

Factors that are considered in the design and placement of trails include the type of use, the setting and the expected volume of use. The trails in the Smith and Bybee Wetlands Natural Area would be designed to accommodate a typical mix of regional trail users including bicyclists and pedestrians.

To assure a safe and convenient recreational experience there are specific requirements for each user group. In addition, there are design elements that can help minimize impacts of trail development within sensitive areas.

#### **Pedestrian Trail**

Narrow soft surface trails are designed primarily for pedestrian use. The advantage of these gravel or earthen trails is that they require less clearing and grading to construct. They can tolerate a greater range of slopes, unless specifically designed for ADA accessibility. Overhead clearance heights of 7 feet mean that fewer low hanging branches need to be cleared. With no shoulder and a narrower width, these trails provide greater flexibility in terms of siting and route selection. Disturbance to the existing terrain is minimized and new planting can hug the pathway. Standard widths for soft-surface pedestrian-only trails range from four to eight feet. Figure 1 illustrates how a 4 foot softsurface trail would fit into the Natural Area.

### Multi-Use Trail

Providing trail access for both pedestrians and bicyclists, multi-use trails are generally wider asphalt paved trails. A variety of specific design requirements due to higher travel speeds, maximum grade limitations and surfacing determine the route options for bicyclists. Longer sight and stopping distances are mandatory for safety. Multi-use trails range in width from 8 to 14 feet wide in the Portland metropolitan region. These trails have a higher clearance of 8 feet overhead and generally have a 2-foot shoulder on either side. The shoulder provides additional space for passing or moving aside, and is especially needed with an 8-foot wide path with two-way travel. The reinforced gravel shoulder also provides structural support for the edge of the asphalt. Lower grades of 2% to 3% are desired, with grades not exceeding 4% to 5%. Sight distance requirements are longer than in pedestrian trails at a distance of 150' each way. With the broader width and shoulders, and requirement for lower slopes, the clearing and grading needs for constructing a multi-use pathway are far greater than those for building a pedestrian pathway. How a multi-use pathway would fit on the landfill perimeter roads is illustrated in Figures 4 and 5.

## Landscape Mitigation

There has been much discussion about how to fit a trail into a sensitive area and avoid, minimize or mitigate any disturbance. There are ways to insert a trail into a landscape and minimize the amount of construction disturbance. Provided below are some specific options for the alternative alignments, as well as best practices for trail design construction and use:

## Ash Groves

- Field locate trail to avoid removal of large ash trees, as well as to keep construction from disturbing root zones. This will preserve the trees and habitat they provide for bats and other wildlife.
- Identify turtle nesting areas prior to design phase and maintain recommended buffers.
- Locate trail on or adjacent to existing social trail in Ash Groves segment.
- Elevate trail or provide boardwalks where needed to maintain access to North Slough for turtles and other small wildlife. See Figure 3.
- Provide erosion control measures where needed including where trail connects with water control structure.
- Design trail to keep users on pathway and out of sensitive areas.

# Landfill

- Provide a low vegetated barrier along east side of landfill to discourage off-trail wandering into Natural Area.
- Install fencing and gates to keep trail users on landfill perimeter roads and off landfill.

## South Lakeshore

- Maintain recommended buffers (per consultation with permitting agencies) for heron and Bald Eagle nest sites.
- Keep trail above wetland zone along lake shore using boardwalks (as required per consultation with permitting agencies).
- Avoid removal of ash trees.
- Locate trail on or adjacent to existing social trail.
- Design trail to keep users on pathway and out of sensitive areas.

# South Slough

- Design trail to discourage off-trail travel into Wapato Wetlands.
- Provide spur trail and viewing platform to provide visual access to wetlands.

# **Best Practices for Trails**

- Work to avoid and minimize impacts to sensitive areas where practicable.
- Avoid tree removal with careful trail routing.
- Avoid impacts to water bodies, wetlands and seeps; maintain or establish recommended buffers; and use boardwalks or bog bridges (where appropriate) to cross wet areas.
- Modify design to provide wildlife passage at wildlife crossings.
- Prohibit bicycle use in sensitive areas. Enforce this design with gates or other structures to physically restrict their use.
- Keep trails to a minimum and narrower in sensitive areas.
- Site trails along already disturbed areas including social trails

and maintenance vehicle paths.

- Locate thorny plant material or boulders to reinforce trail boundary, close inappropriate social trails and discourage off-trail travel.
- Remove weedy non-native plants within 10 feet on either side of the trail, revegetate with native plants and restore disturbed areas with native plants.
- Plant taller native shrubs to create buffers to screen the trail from sensitive habitat areas.
- Provide spur trails and viewing blinds to provide visual access at specified locations to minimize impacts to wildlife.
- Use appropriate trail construction techniques and materials to minimize impact to habitat.
- Use Metro's Green Trails recommendations for preventing erosion, providing bioswales.



Figure 1. Soft Surface Pedestrian Trail in Natural Area



Figure 2. Boardwalk in Wildlife/Sensitive/Wet Areas



Figure 3. Paved Multi-Use Trail in Natural Area



Figure 4. Paved Multi-Use Trail in Landfill on 14' Road Bed



Figure 6. Viewpoint on Landfill Cap



Figure 5. Paved Multi-Use Trail in Landfill on 10' Road Bed

The existing landfill perimeter rod varies in width between 8' and 14'—Figures 4 and 5 show the trail set into the road in the widest and narrowest circumstances.



# VIII. STAKEHOLDER/PUBLIC INPUT

There is a well-documented history of citizen interest and public policy favoring the linkage of nearby neighborhoods, parks and trails with the Smith and Bybee Wetlands Natural Area. While there has been a common interest of trail advocates and trail providers to complete this missing link in the regional trail system, the parties have not been able to reach an agreement on a specific alignment.

An important goal of this trails study has been to achieve consensus among key stakeholder groups on the facts and findings. Metro sought public input throughout the study process by convening a Technical Working Group, conducting a public workshop and tour, meeting with stakeholders and providing a project website. Appendix D contains public involvement materials produced during the project.

#### **Technical Working Group**

Representatives from key stakeholder groups were invited to participate on a Technical Working Group. The group included representatives from the St. Johns Neighborhood Association, 40-Mile Loop Land Trust, Smith and Bybee Wetlands Management Committee, Friends of Smith and Bybee Lakes, Portland Parks and Recreation Department, Metro Solid Waste and Recycling Department and Metro Regional Parks and Greenspaces Department. The group met five times over a 12-month period to discuss and seek consensus on project information developed by the project consultants.

#### Public Workshop and Tour

Approximately 50 citizens attended a public workshop to review alternative alignments and provide their input on the study findings.

Following public release of the feasibility study a public tour was offered to view the proposed alignments.

### **Stakeholder Meetings**

Project staff made presentations on the study findings to the groups and committees listed below:

- Columbia Slough Watershed Council
- North Portland Neighborhood Chairs
- St. John's Neighborhood Association
- Metro Council Work Session
- 40-Mile Loop Land Trust
- Friends of Smith and Bybee Lakes
- Smith and Bybee Wetlands Management Committee

## **Project Outreach**

Metro's web site was an effective tool in engaging citizens in the project as well. Many citizens visited the website to learn about the project and approximately a dozen provided comment for the public record through the project website. Metro also participated in an event for the grand opening of the New Columbia housing development near the Natural Area to inform new residents about the trail options. Approximately 30 citizens stopped by to view the exhibits.

This chapter to be completed when Council makes their final decision.

# IX. NEXT STEPS

# **BIBLIOGRAPHY**

# **Trail Design and Planning**

AASHTO. *Guide for the Development of Bicycle Facilities 1999.* Washington D.C.: American Association of State Highway and Transportation Officials, 1999.

Metro. Green Trails. 2002.

USDOT. *Bicycle and Pedestrian Provisions*. U.S. Department of Transportation, 1998.

# Site History/Context

City of Portland. Natural Resources Management Plan for Smith and Bybee Lakes. 1990.

City of Portland. Recommended St. Johns/Lombard Plan. February 2004.

City of Portland. *Smith and Bybee Lakes Recreation Master Plan*. November 1992.

Evans, D. and Associates. 40-Mile Loop Master Plan. 1983.

Metro. St. Johns Landfill Operations and Maintenance Manual. June 1998.

Metro. Revised Closure and Financial Assurance Plan, St. Johns Landfill. September 1989.

Metro. Smith and Bybee Lakes Wildlife Area Recreation Facilities Plan. 1999.

Port of Portland, City of Portland and Fishman Environmental Services. Smith and Bybee Lakes Environmental Studies Summary Report. September, 1987.

# User Experience

Gobster, H. Paul and Lynn Westphal, "The Human Dimension of Urban Greenways: planning for recreation and related experience." North Central Research Station, USDA Forest Service, Landscape and Urban Planning (68). 2004. Hedfors, Per, and Per G. Berg, *The* Sounds of Two Landscape Settings: Auditory concepts for physical planning and design, *Landscape Research*, Volume 28, No. 3. July 2003.

Kaplan, Rachel, Stephen Kaplan and Robert Ryan. *With People in Mind*. Island Press: Washington, DC. 1998.

Wiberg-Carlson, Dawn and Herbert Schroeder. *Modeling and Mapping Urban Bicyclists Preferences for Trail Environments*. USDA Forest Service Research Paper, NC-303. 1992.

# Vehicular Traffic/Transportation Issues

Bicycle and Pedestrian Information Center at the University of North Carolina Highway Safety Research Center. *Pedestrian Facilities Design*. Online at www.walkinginfo.org.

City of Portland Office of Transportation Engineering and Development. *The Portland Pedestrian Design Guide*. June 1998.

City of Portland Office of Transportation. Transportation System Plan – Policies and System Improvements. 2002.

City of Portland Bureau of Planning. *St. Johns/Lombard Plan.* Ordinance 178452, Resolution 36219. June 2004.

City of Portland Office of Transportation. St. Johns Truck Strategy – Columbia Corridor Transportation Study – Report and Recommendations. May 2001.

Institute of Transportation Engineers. Traffic Control Devices Handbook. 2001.

Zegeer, Charles; Stewar, J; Huang, Herman; Lagerwey, Peter. Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations: Executive Summary and Recommended Guidelines. Report No. FHWA-RD-01-075. Federal Highway Administration, Turner-Fairbank Highway Research Center. McLean, VA. March 2001.

#### **Environmental Regulation**

Adamus, P.R. and D. Field. Guidebook for Hydrogeomorphic (HGM)-based Assessment of Oregon Wetland and Riparian Sites. Willamette Valley Ecoregion, Riverine Impounding and Slopes/Flats Subclasses. Oregon Department of State Lands, Salem, Oregon. 2001.

Oregon Department of State Lands. Removal-Fill Law (ORS 196.800-196.990) and Removal and Filling in Scenic Waterways (ORS 390.805-390.925). September 2001.

US Army Corps of Engineers, Environmental Laboratory. *Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1.* 1987.

#### Human-Wildlife Interactions

Bennett, Karen A. and Eric F. Zuelke. *The Effects of Recreation on Birds: A Literature Review.* Delaware Natural Heritage Program. 1999.

Miller, Scott G., Richard L. Knight, and Clinton K. Miller. *Influence of Recreational Trails on Breeding Bird Communities*. Ecological Applications, 8(1), pp. 162-169. 1998.

Miller, Scott G., Richard L. Knight, and Clinton K. Miller. *Wildlife Responses to Pedestrians and Dogs*. Wildlife Society Bulletin, 29(1):124-132. 2001

Whittaker, Doug and Richard L. Knight. Understanding Wildlife Responses to Humans. Wildlife Society Bulletin, 26(2): 312-317. 1998.

#### Environmental Planning for Wildlife

American Trails. *How Greenways Work; A Handbook on Ecology*. October 1997. Online at http://www.americantrails.org/resources/greenways/ NPS3Grnwy.html

Hellmund, Paul C. *Planning Trails with Wildlife in Mind; A Handbook for Trail Planners.* Colorado State Parks and Hellmund Associates. 1998.

Oregon Department of Fish and Wildlife. *Sensitive, Threatened and Endangered Vertebrates of Oregon.* 1991, Reprinted 1996.

#### Birds (in general)

Hennings, L.A. and W.D. Edge. *Riparian Bird Community Structure in Portland, Oregon: Habitat, Urbanization, and Spatial Scale Patterns.* The Condor, 105(2), pp. 288-302. 2003

Metro (unpublished data). Weekly bird count data for Smith and Bybee Wetlands Natural Area. 1996 to present.

Stephens, S.E., D.N. Koons, J.J. Rotella, and D.W. Willey. *Effects of Habitat Fragmentation on Avian Nesting Success: A Review of the Evidence of Multiple Spatial Scales.* Biological Conservation 115, pp. 101-110. 2003

#### **Bald Eagle**

U.S Fish and Wildlife Service: Oregon Fish and Wildlife Office. *Bald Eagle, Haliaeetus leucophalus, Endangered Species Fact Sheet.* 2004. Online at http://www.fws.gov/pacific/oregonfwo/EndSpp/FactsBirds/BaldEagle.htm

Washington Department of Fish and Wildlife. *Priority Habitat and Species Management Recommendations, Volume IV: Birds, Bald Eagle, Haliaeetus leucophalus.* Prepared by James W. Watson and Elizabeth A. Rodrick. 2001.

#### **Great Blue Heron**

Seattle Audubon Society. Online Guide to the Birds of Washington State, Great Blue Heron. 2004. Online at http://www.birdweb.org/birdweb/Species.asp? id=41

Washington Department of Fish and Wildlife. Priority Habitat and Species Management Recommendations, Volume IV: Birds, Great Blue Heron, Ardea herodias. Prepared by Timothy Quinn and Ruth Milner. 1991.

#### Willow Flycatcher

Altman, B., M. Boulay, S. Dowlan, D. Crannell, K. Russell, K. Beal, and J. Dillon. *Willow Flycatcher Nesting Ecology and Habitat Relationships in the Willamette Basin, Oregon.* Studies in Avian Biology 26, pp. 73-80. 2003.

Seattle Audubon Society. Online Guide to the Birds of Washington State, Willow Flycatcher. 2004. Online at http://www.birdweb.org/birdweb/Species.asp? id=283

## Painted Turtle

Baldwin E.A., M.N. Marchand, J.A. Litvaitis.. *Terrestrial Habitat Use by Nesting Painted Turtles in Landscapes with Different Levels of Fragmentation*. Northeastern Naturalist 11, pp. 41-48. 2004.

Clarke R. and A. Gruenig. *Painted Turtle (Chrysemys picta belli) Nest Site Enhancement and Monitoring Elizabeth Lake, Cranbrook, BC Progress Report.* Columbia Basin Fish and Wildlife Compensation Program. 2003.

Government of British Columbia. *Painted Turtle*. 2004. Online at http://wlapwww.gov.bc.ca/sir/fwh/wld/atlas/species/turtle.html

#### Bats

Perkins, J. Mark. A Bat Survey within the Boundaries of the Smith and Bybee Lakes Wildlife Area of the Portland Metropolitan Area. Baseline survey conducted for Metro. Summer 2003.

#### **STAFF REPORT**

IN CONSIDERATION OF RESOLUTION NO. 05-3592: FOR THE PURPOSE OF COUNCIL APPROVAL OF THE SMITH AND BYBEE WETLANDS NATURAL AREA TRAIL FEASIBILITY STUDY AND RECOMMENDATION OF A PREFERRED TRAIL ALIGNMENT

Date: December 1, 2005

Prepared by: Jane Hart

#### BACKGROUND

The Smith and Bybee Wetlands Natural Area encompasses approximately 2000 acres of wildlife habitat and is located near the confluence of the Columbia and Willamette Rivers in North Portland. The former St. Johns landfill occupies approximately 240 acres within the Natural Area boundary and is being transitioned to a natural meadow habitat. This regionally significant Natural Area is home to beavers, otters, osprey, bald eagles, herons, songbirds, turtles and other wildlife. The Natural Area is managed primarily for wildlife habitat protection and enhancement while providing appropriate passive recreational opportunities. Metro Council, the Port of Portland and the City of Portland own the majority of the Natural Area. Metro Council manages the Natural Area as well as landfill closure and monitoring operations.

For more than twenty years there has been a strong desire on the part of trail advocates, Metro Council and the City of Portland to connect the Smith and Bybee Wetlands Natural Area to nearby neighborhoods, parks and regional trails. This connection would complete a missing link in the regional trail system. The *Natural Resource Management Plan for the Smith and Bybee Lakes* (NMRP), adopted by Metro Council and incorporated into the City of Portland's Comprehensive Plan in 1990, identified a conceptual trail alignment through the Natural Area. The NMRP alignment would travel through the Ash Grove forest, along the east landfill perimeter road, and along the south shore of Smith Lake.

Since the NRMP was approved 15 years ago, a lot of changes have occurred within and around the Natural Area and along the NRMP trail alignment. Federally-listed endangered bald eagles and salmonid species and state-listed sensitive western painted turtles now reside along sections of the NRMP trail alignment and within the Natural Area; portions of the 40-Mile Loop trail have been completed in close proximity to the Natural Area; and new visitor facilities have been developed near the north shore of Smith Lake, including a canoe launch, trailhead and restrooms, and picnic shelter.

Years of discussion have not produced consensus among project partners on the best way to achieve access to and within key sectors of the Natural Area. Given the changes in existing conditions in and around the Natural Area, and the strongly held views among project partners, a trail feasibility study was requested by the Smith and Bybee Wetlands Management Committee, an initiative endorsed by the City of Portland and Metro Council President.

In September 2004, the Metro Council entered into an Intergovernmental Agreement (IGA) with the City of Portland. The IGA authorized activities related to funding and conducting a trail feasibility study and implementing trail improvements to be recommended by the Metro Council.

In June 2004, Metro Council and the City of Portland retained a professional planning firm, MacLeod Reckord, to conduct the trail feasibility study. The purpose of the trail feasibility study

was to present factual information and conduct an objective analysis of the trail alignments, and provide data for the decision on a recommend alignment to be made by the Metro Council.

The final draft of the Smith and Bybee Wetlands Natural Area Trail Feasibility Study represents the culmination of a 15-month study that included many public involvement opportunities. During the study process a Technical Working Group provided ongoing review of project information prepared by the consultant team. Project partners represented on the Technical Working Group included Portland Parks and Recreation, Smith and Bybee Wetlands Management Committee, Friends of Smith and Bybee Lakes, 40-Mile Loop Land Trust, the St. Johns Neighborhood Association and Metro. Interested citizens participated in the study process by attending a public meeting, a public tour, and stakeholder meetings; visiting the project website; and by submitting comment letters and e-mail.

#### ANALYSIS/INFORMATION

#### 1. Known Opposition

There is no known opposition to the technical accuracy of the Trail Feasibility Study. The Technical Working Group reached consensus that the content and analysis presented in the Trail Feasibility Study fairly represented the study process. Approximately 25 comment letters and e-mails were received during the public comment period for the draft Trail Feasibility Study and none of those letters took issue with the content or analysis presented in the draft Trail Feasibility Study.

However, members of the Technical Working Group and public did differ in their opinion regarding which trail alignment(s) should be developed. Opposition will exist to some of the "resolved" items in proposed Resolution 05-3592. A majority of the Technical Working Group (Smith and Bybee Wetlands Management Committee, Portland Parks and Recreation, Friends of Smith and Bybee Lakes and Metro) supported the South Slough trail alignment. A minority (the 40-Mile Loop Land Trust and St. Johns Neighborhood Association) preferred the South Lake Shore alignment. Overall, the public input closely mirrored the majority opinion of the Technical Working Group, in favor of the South Slough alignment. The differing opinions focused primarily on the importance of the quality of the user experience versus protection of the Natural Area habitat. This is the trade-off which Council will have to make in its consideration of Resolution 05-3592.

#### 2. Legal Antecedents

The Metro Council is party to two land use review decisions (LUR) with the City of Portland's Bureau of Development Services that relate to future trail development on the landfill and within the Natural Area. A January 27, 2000 Notice of Decision for Case File No. LUR 99-00579 EN pertains to dike repairs on the St. Johns landfill and includes a condition that Metro Council will pay for design, permitting and construction of trail segments that cross the landfill area, including a fair share of any landfill bridge across the slough. A January 10, 2003 Notice of Decision for Case File No. LU 02-113706 EN pertains to construction of the water control structure between Bybee and Smith Lakes and includes a condition that requires Metro Council to file appropriate documentation with the City after a decision is made about a trail alignment.

Metro Council entered into an Intergovernmental Agreement (No. 925992) with the City of Portland on September 29, 2004 regarding funding and conducting a trail feasibility study, and implementing Metro Council recommendations regarding trail development. The IGA states:

- 1) Metro Council will manage the consultant contract for the trail feasibility study.
- 2) Metro Council will pay for design, permitting and construction of any trail segment on the St. Johns landfill or within the Natural Area boundary.
- 3) If a new slough bridge is recommended, allocation of costs will be based on a method acceptable to both Metro Council and the City.
- 4) Metro Council and City will collaborate on implementing recommended alignments located outside the Natural Area boundary.

The following historic legislation also pertains to Resolution No. 05-3592:

- Ordinance No. 90-367 "Approval of Natural Resources Management Plan for Smith and Bybee Lakes" adopted November 8, 1990
- Resolution No. 92-1637 "For the Purpose of Considering Adoption of the Metropolitan Greenspaces Master Plan" adopted July 23, 1992.

### 3. Anticipated Effects

The Trail Feasibility Study provides an objective analysis of the trail alignments based on evaluation criteria that the Technical Working Group unanimously supported. The study describes the pros and cons related to the various trail segments and alignments vis a vis environmental impacts, safety, security and maintenance considerations, user experience, connectivity to nearby trails and neighborhoods, cost to design and build, and permit and approval requirements. The study intentionally does not recommend a preferred trail alignment for development, because that decision is one that the Metro Council must make.

Resolution 05-3592 as introduced by Councilors Bragdon and Burkholder would:

- 1) Accept / approve the technical accuracy of the Trail Feasibility Study.
- 2) Remove the South Lake Shore segment from further study.
- 3) Recommend South Slough Alignment as preferred alignment, while recognizing financial and practical obstacles, and request further analysis including:
  - Perform feasibility study for slough bridge.
  - If slough bridge determined too costly or infeasible, determine impact to development of Ash Grove segment.
  - If Ash Grove development would cause irreversible damage to old growth Ash trees consider 'no build' option.
  - Explore possibility of extending the South Slough segment beneath the North Portland Road bridge, through the Columbia Boulevard Waste Water Treatment Plant, to cross the Columbia Slough at the existing pedestrian bridge.
  - Begin negotiations with private property owners along South Slough segment.
  - Evaluate the South Slough alignment as a 'signature project' (capital project allowing access to existing publicly-owned natural area) for 2006 bond measure
- 4) Take immediate actions to develop neighborhood connection. These improvements would include improvements to the existing landfill bridge and perimeter roads, a railroad under crossing, Columbia Boulevard crossing, railroad overpass between Chimney and Pier Parks, improvements to existing bike lanes and intersections between Pier Park and Peninsula Crossing trail along either N. Smith St. or N. Fessenden St. (This

step might have to be reevaluated if staff finds that slough bridge, Ash Groves and South Slough segments are infeasible)

#### 4. Budget Impacts

Resolution 05-3592, as a document which is limited to designation of alignments for study (or, in the case of South Lake, not for study) and directs staff to do further assessment of alternatives, including cost, does not provide for funding for the project itself. Estimating the budgetary impacts is one of the things staff is directed to do by the resolution.

Meantime, as a rough forecast, the development of the South Slough alignment would be estimated to cost approximately \$7.6 million, not including private property easement acquisition costs (unavailable at time of the study) if willing sellers agree. Approximately \$280,000 was identified for North Portland Road bridge improvements, which may not be required if it is possible to run the trail through the Columbia Blvd. Waste Water Treatment Plant.

If the neighborhood connection and improvements to the existing landfill bridge and landfill perimeter roads were developed as a first phase, the cost would be approximately \$5.9 million. \$4.2 million of the \$5.9 million covers the cost to make improvements from Peninsula Crossing trail through the neighborhood, through Pier and Chimney Parks, across Columbia Boulevard and up to the south side of the existing landfill bridge.

It is assumed that Metro Council and project partners will seek funding for trail development. Possible funding sources to explore include Federal Transportation funding (MTIP), Oregon Parks and Recreation trails funding and a 2006 bond measure. Following Council's decision on a recommended alignment(s), the estimated annual maintenance of that alignment can be determined.

#### **RECOMMENDED ACTION**

Councilors Bragdon and Burkholder recommend passage of Resolution 05-3592. Options open to the Council on December 1 are: Adoption of the resolution Amendment of the resolution and then adoption Rejection of the resolution