# South Waterfront Greenway Development Plan

# Report to City Council on Phase 1 – Project Goals March 12, 2003







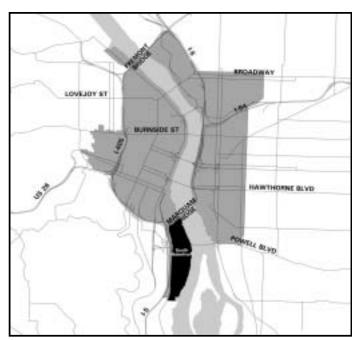
# Introduction

Throughout the development of the South Waterfront Plan, cohesive design and development of the greenway was a critical element. Significant effort by city staff and much of the public's input focused on achieving a new approach to the greenway standards and development in the South Waterfront district. The adopted plan's greenway and parks system is intended to enliven and beautify the district while the aspirations for the greenway reflect local commitment and efforts to revitalize the Willamette River as a healthy natural system and to create a top notch recreational resource and an inviting destination.

"As in the case of almost every complex work composed of varied units, economy, efficiency, symmetry and completeness are likely to be secured only when the system as a whole is planned comprehensively."

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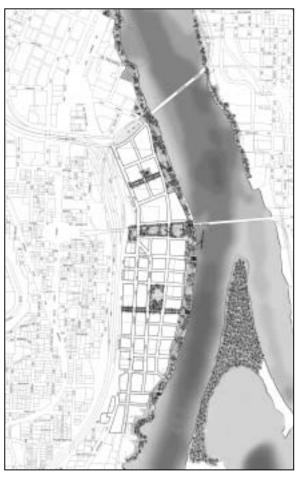
The City Council's adoption of the South Waterfront Plan established in Portland's *Zoning Code* prescriptive minimum standards for establishing and developing the greenway, including an average 100 foot greenway area, as measured from top of bank, on any individual property. However, the Council also wished to achieve an average 150 foot' greenway area with green extensions into the district. The Council desired to create an alternative method for the design and development of the greenway that would embrace a more holistic and integrated approach and encourage innovation, flexibility, public/private partnerships and design excellence. To this end, the Council included development of a "South Waterfront Greenway Design Coordination Plan" as an implementation action in the South Waterfront Plan and referenced the document in the adopted code as an alternative to the standards. To buttress the idea that this plan will provide a different blueprint for greenway development, it is now being called the "South Waterfront Greenway Development Plan."



The South Waterfront District, which is bounded by SW Macadam on the west, the Willamette River on the East, SW Bancroft on the south and the Marquam Bridge to the north, is part of Portland's Central City.

The South Waterfront greenway is one of the most exciting design opportunities in Portland today. The greenway has the potential to reflect our commitment to both a highdensity urban community and exemplary treatment of the Willamette River's natural resources. Bringing these two elements together is a stimulating design challenge that has very little precedent. Searching for examples of rivers that retain their natural edge environment and fit into the urban fabric as they flow through a city yields surprisingly little. To date, cities have built seawalls and riprap edges to protect against rivers and take advantage of rivers' visual and recreational qualities without consideration of their natural functions. This lack of precedent of integrating a river's natural resource value with people's interaction with it increases the sense that Portland can create something new and valuable in the South Waterfront District. This design effort is the next step in the City's commitment to enhance the livability of South Waterfront, to provide a harmonious relationship between people and the natural functions of the river, and to restore the river's fish and wildlife habitat – all through an exemplary greenway design.

# **River Renaissance and the South Waterfront Greenway**



Greenway and Parks Concept Map

River Renaissance is a community-wide effort to revitalize the Willamette River, its banks. and its tributaries throughout Portland. At its core is a vision that will integrate the natural, economic, urban, and recreational roles that make the Willamette River important to the region. A collaborative partnership of citizens, neighbors, businesses, community organizations, property owners, city bureaus, and governments will make the River Renaissance vision a reality. This partnership will translate the vision into a set of strategies, projects, and actions. River Renaissance encompasses new initiatives and efforts already underway, including the City of Portland's Clean River Plan, the Endangered Species Act Program, the update of the Willamette River Greenway Plan, urban renewal plans, and others. The South Waterfront District and its greenway offer a key opportunity to implement the River Renaissance vision.

The South Waterfront Plan embraces a commitment to the River Renaissance vision in its description of the greenway.

"The South Waterfront greenway is a physical expression of the City's River Renaissance vision, a vision that articulates Portland's desire for a sustainable future in which goals

for environmental, economic and social health are in harmony. The vision imagines a healthy Willamette River in which a natural river system thrives and coexists with prosperous industry and vibrant business districts and neighborhoods. As a newly redeveloping subdistrict of the Central City, South Waterfront presents an unprecedented opportunity to deliver on all these fronts.

The City, through the River Renaissance vision, has expressed a strong commitment to revitalize the Willamette River and its watersheds through five themes:

- *Ensure a clean and healthy river for fish, wildlife, and people.*
- Maintain and enhance a prosperous working harbor.
- Embrace the river as Portland's "front yard."
- Create vibrant waterfront districts and neighborhoods.
- Promote partnerships, leadership and education.

# **South Waterfront Greenway Development Plan**

The South Waterfront Plan described the Greenway Development Plan as follows:

"To achieve the highest quality greenway for South Waterfront, there is strong interest in designing the greenway as a unified whole with participation by all stakeholders. A 'greenway design coordination plan' is the preferred tool to provide consistent design quality and flexibility beyond what the Zoning Code can provide. For example, viewpoint, river access or focal points (such as public art or water features) can be planned with the whole South Waterfront greenway in mind – based on site characteristics and opportunities, rather than by ownership patterns. In addition, the plan can provide certainty over time for property owners, as well as efficient and coordinated permitting."

To undertake this effort the Portland Bureau of Parks and Recreation has prepared a Request for Proposals (RFP) that seeks a multidisciplinary design team. This report is referenced in the RFP to provide an overview of the project history, goals and context.

In the following sections, key considerations for the South Waterfront Greenway Development Plan are described. Some provide concepts that should be included in the plan's content, others describe a potential range of ideas that should be considered in creating the plan, while others

"Park systems, like other Large, complex and costly creations of human intelligence, should be carefully designed by trained designers."

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provide general direction for the plan development process. The first two sections look at the greenway from different but related perspectives. The first, Essential Themes, provides a framework of ideas that should be woven throughout the Greenway Development Plan. The second, Greenway Components, compartmentalizes what is actually an integrated system of places to describe elements important to each subarea. The final two sections describe the project public involvement and the plan's implementation.

## **Essential Themes**

The following concepts should be incorporated into the major themes of the Greenway Development Plan.

#### Context and Connections

South Waterfront is nestled between downtown Portland, some of Portland's oldest residential neighborhoods, and Ross Island. Its proximity to these destinations and environmental areas heightens the importance of completing and making apparent the links – physical, visual, historic, natural and psychological – between the greenway, the district and its surroundings. This is an important element in the Greenway Development Plan and encompasses a truly broad range of opportunities ranging from interpretive and directional signs to plant and building material choices

and the use of views. The planning context includes several challenging circumstances that affect greenway development in South Waterfront – the ESA listing of salmonid fish species and other federal regulations that have implications for permitting development, the presence of contaminated soils in some places, and the sensitivity of planning development on private land.

To address many of the river-related opportunities and challenges, Portland has adopted the River Renaissance Vision, which includes five themes. The Greenway

"Only recently has it begun to be realized what enormous advantages are gained by locating parks and parkways so as to take advantage of beautiful natural scenery."

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# **Report to City Council**

Development Plan should embrace these themes and bring them to fruition as much as possible. The theme "Ensure a clean and healthy river for fish, wildlife and people" has special resonance in South Waterfront. The lower Willamette watershed has been heavily urbanized and industrialized for decades and is heavily degraded relative to historical conditions. The South Waterfront greenway is close to some of the few remaining higher quality habitat remnants - Ross Island, Oaks Bottom, and Powers Marine Park. Opportunities should be sought to further enhance these elements through attention to such things as creation of off channel shallow water habitats, reconnection of the floodplain, creation of upland habitat, reintroduction of riparian vegetation and grading the bank to increase habitat area and flood storage.

Another aspect of the planning context is Portland's commitment to design excellence in its buildings and open spaces. The city has many distinguished parks and a growing network of urban trails. The Greenway Development Plan will set the stage for a unique contribution to Portland's urban and natural landscape and must show careful consideration in the quality of materials, strong contextual design, as well as site-specific design.

# The River, the Greenway Trail and the Urban Community

When thinking about the greenway, we can start at the river and continue to the bank, greenway trail and then to the adjacent development. Rather than thinking of these as distinct areas, they are a continuum. Where feasible, the greenway will be an integral riparian environment that respects and reflects the river, with places for views and use by people enjoying the river. The greenway will also include places where the river environment moves across the trail and into the development. Trees and riparian vegetation can be selected to reflect a natural river environment and as a design element to showcase the plant communities themselves. The feeling and sense of

the river is therefore drawn into the urban environment. In this regard, a key element of greenway design will be the influence of the river environment on the urban community edge.

# The Urban Community, the Greenway and the River

Similarly, urban elements will be incorporated into the greenway trail and contrasted with riparian vegetation. Design features that provide for people's movement through the greenway and toward the water's edge will include contemporary elements, in keeping



with the architecture of the adjacent development and South Waterfront District. The project's success will be based on an interdisciplinary approach that utilizes a compelling juxtaposition of art, urban design, architecture, landscape, history and a riparian environment. In addition, creative ways to incorporate existing built elements, such as gantry cranes, rail tracks, and pier and hardscape remnants from the district's industrial past, into the greenway design should be considered.

# The Linear Experience of the Greenway: Unity and Diversity

The sequential experiences for people moving north and south along the greenway trail is important. This segment of the trail system is over a mile in length and presents an opportunity for both unity and diversity of experiences. Unity may be expressed in planting design, such as a linear planting of trees like those found along the Dutch canals, or the rhythm of the plant palette, closing and opening to reveal the river. Grading design can achieve a flow of the ground plan. Site furnishings can achieve a sense of place through the design of lighting, benches and signage.



The diversity of experience is also important to trail users, and could range from the experience of a riparian woodland to a meadow-like opening with sweeping views of the river. People on wheels will be moving quickly through the greenway, so diversity can be accomplished by working with grading so that there is a rise and fall of the trail. Pedestrians will move more slowly and observe a higher level of detail and design complexity, including interesting plants, overlooks with views to the river and paths

directly to the water's edge. The split trail – one for wheels and one for feet – is unique in Portland and a creative response to the difference in these experiences is a key design opportunity. The diversity of the built environment, particularly as people move through a transition zone and into the dense urban neighborhood will also contribute to this experience. Careful treatment of the linear design, including both unifying elements and a diversity of experiences, will support a cohesive and interesting environment for trail uses.

Similarly, the protection of linear wildlife corridors is an integral part of natural area management in a highly fragmented, urban landscape. Wildlife corridors are critical because they increase the effective amount of habitat that is available for species, reconnecting pieces of isolated habitat and reducing the rate of wildlife extinction. This is especially important for migratory animals along riparian corridors and those with large home ranges, such as fish and birds. Preserving a functional corridor along the Willamette River will allow wildlife to migrate between large natural areas – Forest Park, Powers Marine Park, and Ross Island – which have become isolated from each other.

### The Edge Experience of the Greenway: Integration and Transition

The greenway can also be considered as a buffer between high-density development and the Willamette River and is part of an overall coordinated scheme for open spaces and parks in the South Waterfront District. In key places along the greenway the merging of these features, greenway and parks, needs to be visually and physically achieved. In other places the greenway will merge with dense urban development through "fingers of green" and green streets extending into the interior of the district. In yet other areas the greenway will act more like an edge between the urban and natural areas. All of these conditions need to be creatively and sensitively incorporated into the greenway design. In some places, special attention needs to be paid to communicating clear edges – between public and private spaces and to areas of environmental sensitivity – using methods other than "no trespassing" signs and fences.

#### Sustainability and Environmental Enhancement

Portland's strong commitment to sustainable development practices is evidenced by the adoption of "Sustainable City Principles" in November 1994. These principles should be evidenced in the Greenway Development Plan through such elements as stormwater management, plant and materials choices, and lighting. The South Waterfront Greenway Development Plan and the actual greenway development can provide a model for other Central City and riverfront areas to embrace the river's natural functions and integrate them with an intense urban setting.

The greenway can also be looked at as the last buffer between high-density development and the Willamette River, moderating stormwater flows and sediment and contaminant loads entering critical areas. Creative treatment of stormwater with swales and vegetated filters will improve water quality before it enters the river. Water quality features can be designed to both blend in

# **Report to City Council**

with the greenway landscape, as well as showcase native plants in this important function. Water quality elements can be located anywhere within the greenway and could range from seasonal water features with hardscape and art to wetland plantings with boardwalks over them. A coordinated approach can effectively contain and treat stormwater runoff from streets, parking lots and rooftops. Consideration of the opportunity to increase discharge of clean stormwater in the river's shallow areas can also help improve water



quality for fish. Innovative design of water quality features that are effective and complement the overall greenway aesthetics is a fundamental goal of the greenway design.

# Response to Opportunities

The existing condition of the riverbank throughout South Waterfront is far from a blank slate. There are numerous remnants of previous industrial and shipbuilding activities. There may be opportunities to reinterpret and reuse these remnants in creative ways. For example, the pilings in

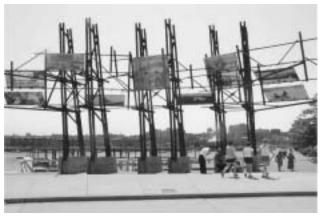
the river may be reused for platforms that get people out over the river or to anchor habitat features like root wads and boulders, without disturbing the river bottom with new construction. Similarly, there may be areas where the bank can be graded to a gentle slope providing visual or physical access to the water and improved shallow water habitat for fish. Finally, the greenway offers many viewpoints that can be opportunities to design resting places or places to catch a glimpse of the river and surrounding area.



The Greenway Development Plan will provide creative responses to these opportunities.

#### Importance of Art

The greenway is an opportunity to incorporate art in special places or in a sequential manner that unifies the trail experience. Or, the entire project itself could be conceived as an art project. Art may provide a link between our current culture and the history of the site as well as linking the river's natural functions with an urban environment. Art can also offer an element of fun or whimsy that appeals to children of all ages. It is anticipated that public funds used to construct the



greenway will contribute to the Art in Public Places program. The greenway design team will include art and artists to contribute to project excellence.

# Security and Maintenance

The greenway can be an asset or a liability. If the greenway is easy to secure and maintain, it will be an asset to the South Waterfront District. If design components are ill conceived, the greenway could prove to be a liability and a deterrent to the early success of creating this district. A related topic is the transition from public to private space and the need to communicate the level of desired permeability. Careful consideration of these aspects of design is essential to project success.

# **Components of the Greenway**

The following greenway components should be addressed in the South Waterfront Greenway Development Plan:

#### The River

The river itself is perhaps the most immutable and most changing aspect of the greenway experience. Becoming aware of its motion and rhythms can provide a moment of calm in an otherwise hectic urban environment. The changing water levels and colors, the reflections of sky and clouds, and the sounds of waterfowl attract our attention and reconnect us to nature. The historic role of the river to native peoples

"The most notable landscape feature that is conveniently accessible to the greater part of the population is obviously the river itself."

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and prior generations can connect us to our past. Looking at the greenway and the built environment is very different when we do it from the water's surface. An imaginative Greenway Development Plan can incorporate these special aspects of the river experience and reflect the multitude of uses and users that the river supports – as a natural resource, a transportation corridor for wildlife, people and goods, a recreational amenity, an educational opportunity, and a destination.

#### Riverbank

The riverbank is currently an edge condition that has been functional for industry, especially shipbuilding, for decades. Almost void of vegetation, there are many remnants of industry, such as concrete foundations, piles of asphalt and below ground contamination. (A recent geo-technical investigation found an entire truck beneath the surface near the riverbank.) The Greenway Development Plan provides an opportunity to create a vegetated edge that will, where feasible,



remember and improve the river's natural resource value, not nostalgically but functionally and aesthetically. The riverbank will be planted with native plants, either in natural plant communities or in a more contemporary design. Where appropriate, bank grading will provide a gentle slope that is more supportive of river health as well as allowing easy views to the water's edge. Where there are opportunities, in-water work to improve fish habitat will be created and integrated into the overall design of the greenway.

#### Functional Habitat

Careful treatment of the greenway design and the inclusion of in-water, near-shore, and bank grading features can provide essential opportunities to create and improve the functional habitat



for fish and wildlife. Creating as much connectivity of the habitat environments on this mile long stretch of the Willamette River is a key initial step. Landscaping and features that increase shading of the river's edge, that provide native vegetation as foraging and habitat opportunities, that increase shallow areas and the amount of natural structures (root wads and boulders) along the bank, and that create backwaters and off-channel areas can all contribute to habitat environments. Particular attention also needs to be paid to lighting and in-water structures, such as covered docks, that can detract from habitat values. The desire to provide access for people needs to be balanced with the need to limit human disturbance in sensitive upland habitat areas as well as in the water during sensitive fish migration periods (spring

and fall). Careful consideration of these kinds of approaches is crucial to the approvability of the greenway design by a variety of public agencies involved in permitting the development.

#### **Trail**

The trail is an important element for the district's employees and residents, and serves as a link for the City's overall system of trails and to the Central City. The split trail, separating wheels and pedestrians, increases safety and also enhances the respective experiences of trail users. The success of the split trail resides in the effective divider, which becomes a design element. It may be short and narrow, with a formal edge or planters, or it could be broad, with trees, shrubs and

groundcovers, and it could be a water quality facility. The trail width and materials will remain consistent, while the divider area may change over the length of the trail. The materials selected for the wheels trail will need to facilitate movement and safety. The pedestrian trail may consist of unit pavers, for permeability and to distinguish it from the wheels trail. Where pedestrians cross the wheels trail, the type of pedestrian pavement or other material, markers, way finding icons or landscape elements will alert trail users of a crossing.

# River Access and Water Taxis

Access to the water's edge is important for people. The Greenway Development Plan is a method whereby access points can be coordinated in a logical rhythm and spacing. Two access points may fall on one property and none on another, as the logic that develops will be based on river and bank conditions and people's movements, rather than property ownership. Three to five water access points along the greenway were discussed during the development of the South





Waterfront Plan and the Greenway Development Plan can examine the variety of elements that need to be considered in reaching a conclusion.

District boosters and transportation advocates have long promoted the idea of water taxi service to South Waterfront. Locating water taxi stops under bridges for legibility has been a key element of the idea, with a long-considered site being under or near the Ross Island Bridge. This is central to the district and close to Gibbs Street and the transportation hub of the district. The water taxi stop may be designed in conjunction with a public viewpoint, as this location has wonderful views of both Ross Island and Portland's skyline.

# Transitional/Activity Area

The adopted Zoning Code describes the kinds of uses and activities that are permissible where the built edge meets the greenway but can't address the desired "feel" to this important transition area. In some places, for example near housing, this space may be quiet and densely planted. In other places, for example near the planned retail streets, this space may be lively, active and have more hardscape materials. In places the transition zone my feel like it is an extension of the greenway and in others it will clearly be off limits to the public. Careful consideration of the intended uses on the land adjacent to the greenway will inform and influence the transition area.

# **Public Involvement and Decision Making**

To ensure community input as the greenway design is developed and refined, broad and varied public outreach is anticipated. General project information will be shared through a newsletter distributed electronically as well as by mail. The initial newsletter will be sent to postal carrier routes in the vicinity of the greenway, identified stakeholders and trail advocacy groups, and other interested individuals. Subsequent newsletters will be sent to anyone expressing an interest in the project. In addition, site signs will be posted to inform the public about the planning process and invite participation. Project information, schedule, design options, meeting notices and summaries will be posted on the Portland Parks & Recreation web site, along with opportunities to comment. Press releases will be sent to community and neighborhood newspapers/newsletters as well as to the traditional print and electronic media.

As planning moves forward, a series of interactive, educational activities will be offered to help people understand the project's myriad of constraints and opportunities. These may include bike tours, early-morning paddles, river tours, etc. At key points during the design process, there will be both formal and informal opportunities for the general public to review and comment on alternatives and specific design elements being considered, including two or three community open house events. In addition, project staff will be happy to provide updates at individual neighborhood association meetings upon request.

The Greenway Development Plan process will include several opportunities for general public comment and input as well as public information elements. Public involvement events will occur at critical junctures in the project. The first will occur when the exiting conditions analysis is complete and three alternative concepts for the greenway design have been developed. The public involvement at this stage will include an Open House to view materials that describe the alternatives and to interact with the consultant team. A survey, on which participants can record their thoughts and preferences, will be provided. The second opportunity will occur when the proposed South Waterfront Greenway Development Plan and detailed schematic design alternatives for the Central District are ready. Again, an Open House and response survey will be provided. In addition, four newsletters about the project will be prepared at strategic points in the process. Finally, the public will be invited to participate in the City Council review and adoption of the South Waterfront Greenway Development Plan.

# **Report to City Council**

A successful design process will have strong support and interest from the greenway property owners as this is key to the future implementation of the plan. Since this is a relatively small number of individuals or entities, the planning process can engage them closely in the design process and give careful consideration to their ideas and needs. This will be accomplished through individual meetings with the property owners throughout the planning process.

In addition to the efforts described above, two groups are expected to collaborate and provide leadership during the development of the plan. The Core Group is a city inter-bureau team that provided key collaboration on the South Waterfront Plan. This group will be reconvened to review the Greenway Development Plan and provide input to the Project Advisory Group. The Project Advisory Group, composed of nine stakeholders – three property owners, three community representatives and three bureau representatives – will consider the input of the Core Group and advise the Director of the Bureau of Parks and Recreation on the project.

Throughout the work of creating the Greenway Development Plan, the City's inter-bureau coordination for the River Renaissance process will be consulted, particularly for assistance in resolving difficult questions of balance and priority.

# **Greenway Implementation**

Funding the construction, operations, and maintenance of the South Waterfront greenway creates challenges and opportunities. The city, property owners, environmental advocates and other stakeholders will need to work together to achieve the aspiration of a first class greenway that benefits the district, the city, and the region as well as fish and wildlife. As an adjunct to and in

close collaboration with the Greenway Development Plan process, the Portland Development Commission (PDC) will lead an effort to examine implementation issues, including phasing, construction financing, and funds for operations and maintenance. While the work program for this Implementation Strategy is still being developed, it is expected that this effort will proceed in concert with the design work so that both pieces can inform the other. The process to develop and coordinate the work program for the Implementation Strategy will include inter-bureau collaboration and cooperation.

"The experience of the larger cities had been that by far the most satisfactory and profitabel results have been obtained by improving their parks as rappily as such difficult and complex work can wisely be effected...."

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While the South Waterfront Development Plan may not specifically include strategies to address the greenway

funding issues, methods for addressing the following elements should be prepared for the Council's consideration concurrent with consideration of the final plan.

### **Public Commitment**

The City is responsible for greenway improvements above the base improvements required in the *Zoning Code*. This includes funds for the South Waterfront Greenway Plan, trail improvements above those provided by the property owners, trail furnishings, access to the water, viewpoints and fish and wildlife habitat. The Greenway Development Plan is expected to establish the preferred design, locations, materials, plantings and other amenities for the greenway. For the Central District, the Greenway Development Plan will be further refined to the Design Development stage. The Greenway Development Plan should be accompanied by an examination of the variety of methods for funding these improvements; particularly those that are creative or have been successfully used in other cities.

# Leveraging Funds

The diverse aspiration for the South Waterfront greenway provides a unique opportunity to leverage funds from public and private sources. Collaborative efforts to capture federal funds and various grants are likely to be an essential element in the long-term implementation of the greenway. Creative approaches to this effort will be a needed and should be explored as part of the plan and implementation strategy and should be presented to Council in conjunction with the Greenway Development Plan.

# **Operation and Maintenance**

Sustaining the quality, beauty and safety of the South Waterfront Greenway is a critical issue for the city, the adjacent property owners and the users – humans, fish and wildlife. These issues need to be considered throughout the plan development to assure that the final design can be affordably operated and maintained. The Greenway Development Plan process needs to examine alternative ways to apportion and fund these ongoing costs and a preferred approach should be presented to City Council along with the final plan. The recommendation needs to consider the equitable balance of public and private benefit and possible sources of funds.

# **Conclusion and Recommendation**

The design of the greenway at this time has the potential to draw stakeholders together and create a design that works at the large, community-scale and also at the more detailed property scale. To do this, the design must reflect the importance of the health of the river as well as human enjoyment of the river. There are seldom opportunities to design the integration of urban environments with nature from a fundamentally new perspective – this is one of them.

The Bureau of Planning recommends that the Portland City Council accept this report and confirm that it identifies specific objectives for the greenway, including criteria for a successful outcome, and frames issues that need to be considered in developing the plan. In addition, Council's action endorses this report by reference as a foundation for the work to be described in a Request for Proposals being issued by the Parks Bureau for development of the South Waterfront Greenway Development Plan.