

THE RIVER PLAN NORTH REACH

PROPOSED PLAN

OCTOBER 28, 2008



VOLUME 1A: PROPOSED RIVER PLAN/NORTH REACH POLICIES, OBJECTIVES, AND RECOMMENDATIONS



ACKNOWLEDGEMENTS

Portland City Council

Tom Potter, Mayor, Commissioner-in-charge; Sam Adams, Commissioner; Nick Fish, Commissioner; Randy Leonard, Commissioner; Dan Saltzman, Commissioner

Portland Planning Commission

Don Hanson, President; Amy Cortese, Vice President; Michelle Rudd, Vice President; André Baugh; Catherine Ciarlo; Lai-Lani Ovalles; Howard Shapiro; Jill Sherman; Irma Valdez

River Plan Committee

Don Hanson, Chair; Brian Campbell, Vice Chair (through 8/07); Pauline Anderson; Jason Graf; Bob Naito; Melissa Powers; Greg Wolley; Krystyna Wolniakowski

Portland Bureau of Planning

Executive Team

Gil Kelley, Planning Director; Brian Campbell, Principal Planner; Eric Engstrom, Principal Planner

River Plan / North Reach Project Team

Sallie Edmunds, Project Manager; Shannon Buono; Arianne Sperry; Steve Kountz; Diane Hale

Working Harbor Reinvestment Strategy

Steve Dotterrer, Principal Planner; Steve Kountz, Project Manager; Arianne Sperry

Willamette River Natural Resource Inventory and Economic, Social, Environment, and Energy Analysis

Roberta Jortner, Project Manager; Mindy Brooks

Other Contributors

Deborah Stein; Rodney Jennings; Phil Nameny; Jessica Richman; Joan Hamilton; Rick Bastasch; Michael Montgomery; Al Burns; Brad Leech
Technical Services: Gary Odenthal; Kevin Martin; Ralph Sanders; Carmen Piekarski

Previous River Team Members

Principal Planners: Joe Zehnder; Cary Pinard
Planners: Matt Lustig; Diane Sullivan; Marguerite Feuersanger; Barbara Hart; Julia Gisler; Grant Morehead
Interns: Peter Ovington; Sarah Selden; Joanne Daunt

Consultants

Steve Durrant, Alta Planning + Design
James Pettinari, University of Oregon Architecture Department
Dennis Canty, Evergreen Funding Consultants
David Munro, Darlene Siegel, Tetra Tech

Special thanks to the many property owners, community groups, interested individuals, and City bureau and other agency staff who participated in the process, and whose comments have contributed to this document.

RIVER PLAN / NORTH REACH VOLUMES

| | |
|--|--|
| <p>VOLUME 1: PROPOSED RIVER PLAN / NORTH REACH</p> <p>Volume 1A: Policies, Objectives and Recommendations <i>This document describes the project background, policy context and recommendations to address Economic Prosperity, Watershed Health, Access, Riverfront Communities, and Working with our Partners.</i></p> <p>Volume 1B: Code Amendments and Zoning Maps <i>This volume contains amendments to the comprehensive plan, zoning code, and other City titles, and zoning maps.</i></p> | <p>Available in print</p> <p>Available in print</p> |
| <p>VOLUME 2: ECONOMIC PROSPERITY BACKGROUND INFORMATION <i>This volume includes background information for some of the economic prosperity recommendations. For additional information please see the River Plan website.</i></p> | <p>Available on CD</p> |
| <p>VOLUME 3: WATERSHED HEALTH BACKGROUND INFORMATION</p> <p>Volume 3A: Willamette River Natural Resources Inventory: Riparian Corridors and Wildlife Habitat <i>This volume contains natural resource information for 13 resource sites in the North Reach</i></p> <p>Volume 3B: Willamette River Natural Resources Inventory: Riparian Corridors and Wildlife Habitat—Appendices <i>This volume contains five technical appendices to the Willamette River Natural Resource Inventory including a description of the methodology used to develop the inventory.</i></p> <p>Volume 3C: Economic, Social, Environmental and Energy Analysis and Recommendations for Riparian Corridors and Wildlife Habitat <i>This volume contains a State Land Use Planning Goal 5 required analysis of the tradeoffs associated with different levels of natural resource protection for the upland portions of the River Plan / North Reach planning area.</i></p> | <p>Available on CD</p> <p>Available on CD</p> <p>Available on CD</p> |
| <p>VOLUME 4: ACCESS BACKGROUND INFORMATION <i>This volume includes background information for the access related recommendations. For additional information please see the River Plan website.</i></p> | <p>Available on CD</p> |

Documents listed as available on CD can be ordered in print form. Please allow 7 days for printing.

TABLE OF CONTENTS

| | |
|---------------|---|
| SUMMARY | i |
|---------------|---|

I. INTRODUCTION

| | |
|---------------------------|---|
| A. Background | 1 |
| B. Planning Process | 9 |

II. THE PLAN

| | |
|---|----|
| A. Policies, Objectives and Recommendations | 13 |
| 1. Economic Prosperity | 14 |
| 2. Watershed Health | 26 |
| 3. Access | 37 |
| 4. Riverfront Communities | 43 |
| 5. Working with our Partners..... | 51 |
| B. Action Agenda..... | 59 |
| 1. Economic Prosperity | 60 |
| 2. Watershed Health | 63 |
| 3. Access | 65 |
| 4. Riverfront Communities | 66 |
| 5. Working with our Partners..... | 67 |

III. THE FUTURE OF THE NORTH REACH

| | |
|-----------------------------------|----|
| A. Swan Island/Lower Albina | 75 |
| B. North Beach | 77 |
| C. St Johns | 79 |
| D. Rivergate..... | 81 |
| E. The Confluence | 83 |
| F. Linnton Village..... | 85 |
| G. Wilbridge | 87 |
| H. Guild's Lake | 89 |

APPENDICES

| | |
|--|---------------|
| A. Ordinance..... | to be drafted |
| B. Outreach Log..... | 92 |
| C. Funding Options | 102 |
| D. Related Publications and Documents..... | 106 |

MAPS AND ILLUSTRATIONS

MAPS

| | |
|--|-----|
| Map 1: Existing Overlay Zones | 108 |
| Map 2: Proposed Overlay Zones | 111 |
| Map 3: Working Harbor Industries and Infrastructure | 114 |
| Map 4: Economic Prosperity – Proposed Zoning and Investments | 116 |
| Map 5: Natural Resource Inventory – Riparian / Wildlife Habitat Combined Ranks..... | 118 |
| Map 6: Watershed Health – Proposed Overlay Zones and Potential Restoration Sites..... | 120 |
| Map 7: Existing Willamette Greenway Trail and Bicycle Network | 122 |
| Map 8: Access – Proposed Willamette Greenway Trail and Viewpoints | 124 |
| Map 9: Linnton Existing and Proposed Zoning | 126 |
| Map 10: St. Johns Existing and Proposed Zoning | 128 |
| Map 11: Recommended Studies and Investments (also see Section II.B. Action Agenda) | 130 |

ILLUSTRATIONS

| | |
|--|----|
| Illustration 1: The Future of the North Reach | 71 |
| Illustration 2: The Future of Swan Island/Lower Albina | 76 |
| Illustration 3: The Future of North Beach..... | 78 |
| Illustration 4: The Future of St Johns..... | 80 |
| Illustration 5: The Future of Rivergate | 81 |
| Illustration 6: The Future of the Confluence | 84 |
| Illustration 7: The Future of Linnton Village | 86 |
| Illustration 8: The Future of Wilbridge..... | 88 |
| Illustration 9: The Future of Guild’s Lake..... | 90 |

SHORTHAND REFERENCES

| | |
|----------------|---|
| ARARs | Applicable or Relevant and Appropriate Requirements |
| BDS | Bureau of Development Services |
| BES | Bureau of Environmental Services |
| c-overlay | Environmental Conservation Overlay Zone |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| Corps | U.S. Army Corps of Engineers |
| CWA | Clean Water Act |
| DEQ | Oregon Department of Environmental Quality |
| DSL | Oregon Department of State Lands |
| e-overlay | River Environmental Overlay Zone |
| EPA | U.S. Environmental Protection Agency |
| ESA | Endangered Species Act |
| ESEE Analysis | Environmental, Social, Economic and Energy Analysis |
| FEMA | Federal Emergency Management Agency |
| g-overlay | River General Overlay Zone |
| Harbor ReDI | Portland Harbor Redevelopment Initiative |
| i-overlay | River Industrial Overlay Zone |
| NEPA | National Environmental Policy Act |
| NOAA Fisheries | National Oceanic and Atmospheric Administration's National Marine Fisheries Service |
| NRDA | Natural Resource Damage Assessment |
| ODOT | Oregon Department of Transportation |
| OHWM | Ordinary high water mark |
| p-overlay | Environmental Protection Overlay Zone |
| Parks | Portland Parks and Recreation |
| PDC | Portland Development Commission |
| PDOT | Portland Office of Transportation |
| Planning | Portland Planning Bureau |
| Port | Port of Portland |
| r-overlay | River Recreational Overlay Zone |
| USFWS | U.S. Fish & Wildlife Service |
| WNRI | Willamette River Natural Resource Inventory |

SUMMARY

Background

The River Plan is a comprehensive, multi-objective plan for the land along the Willamette River. It will update and replace the 1987 Willamette Greenway Plan, zoning code, and design guidelines, which serves as Portland's compliance with State Planning Goal 15 (Willamette River Greenway). The new River Plan will help set the course for the next twenty years—guiding, inspiring and facilitating actions along the Willamette River.

The North Reach, the first stretch of the river to receive detailed planning, extends from the confluence with the Columbia River to roughly the Fremont Bridge. The planning process involved several levels of stakeholder and community involvement. The River Plan Committee provided guidance and a public forum for discussing issues and staff recommendations.



The majestic St. Johns Bridge soars above the North Reach of the Willamette River.

River Plan / North Reach Challenges and Recommendations

The River Plan / North Reach proposes a suite of new public investments, strategies, policies, and regulations to address challenges and build on opportunities along the river. Recommendations are grouped into five topic areas.

Economic Prosperity

Portland's working harbor is a west coast trade gateway and Oregon's largest seaport, where the state's primary shipping channel, interstate rail lines, highways, and petroleum pipeline infrastructure all come together. This vital resource is an important part of the region's economic prosperity. The working harbor supports nearly one third of the city's industrial land base and approximately 40,000 workers – through multiplier effects the working harbor supports about one in eight jobs in the metro region. Despite strong regional and City support for industrial development, the harbor faces challenges ranging from transportation and infrastructure needs, to regulatory uncertainty, to the concern that industrial land is at risk for conversion to other land uses.



Gunderson's barge launches are an exciting event on the working waterfront. (photo credit: Gunderson)

The River Plan addresses these challenges and bolsters economic prosperity in the harbor with the following recommendations:

- Strengthen land use regulations to protect the prime industrial land in the North Reach and support businesses that benefit from or need a riverfront location;
- Provide more predictability and flexibility for riverfront redevelopment and expansion; and
- Undertake public investments in infrastructure and land development to fuel private reinvestment in the working harbor.

Watershed Health

Located at the confluence of the Willamette and Columbia Rivers and along the Pacific Flyway, the North Reach is an important part of the region's ecological infrastructure. This stretch of river provides habitat for fish and wildlife and contains important vegetation such as the increasingly rare Oregon white oak. The current natural resources inventory that is used to inform development applications is over twenty years old and doesn't reflect existing conditions. In addition, the existing greenway requirements do not adequately protect resources or address recently adopted watershed health goals, objectives, and regulations.



The North Reach has few river banks with a soft riparian edge like this one. Migrating salmonids need places to rest on their travels to and from the ocean.

The River Plan addresses these challenges and helps realize watershed health goals with the following recommendations:



Have you visited your river lately? Cathedral Park is a popular river access point in the North Reach.

- Provide an updated inventory of natural resources in the North Reach to inform development and restoration activity;
- Establish regulations to strategically protect and conserve natural resources along the river and in adjacent upland areas; and
- Develop a restoration program that optimizes efforts to improve fish and wildlife habitat in the North Reach.

Access

Portlanders envision a vibrant Willamette waterfront where we can work and play. A key part of realizing this vision is to provide better access to and along the river for both recreation and transportation purposes. Much of the North Reach riverfront is occupied with industrial development that is incompatible with public access. However, there are opportunities to provide access in this constrained area that will enhance recreational resources and create valuable links in the regional transportation system.

The River Plan addresses these challenges and takes advantage of opportunities with the following recommendations:

- Designate a continuous trail along both sides of the river that will be developed over time, as an off-street path or along an existing street or railway;
- Develop additional viewpoints that facilitate greater appreciation of the natural landscape and working waterfront in the North Reach; and
- Improve vehicular, bicycle and pedestrian access to Swan Island.

Riverfront Communities

Portland's riverfront neighborhoods have enjoyed renewed popularity in recent years, generating stewardship and appreciation for our river. In the North Reach, bringing people and activity near the harbor industrial districts must be done carefully, as conflicts can arise when new residents experience the noise, lights, and hazards of industrial uses.

The River Plan addresses these challenges and encourages thriving riverfront communities with the following recommendations:

- Undertake actions in Linnton to encourage main street reinvestment and improve the vitality of the Linnton area;
- Implement follow-up actions to encourage the reuse of riverfront land near University of Portland;
- Reduce conflicts in the residential-industrial interface in the St. Johns / Cathedral Park area by limiting residential density in certain areas, establishing a noise abatement standard near industrial areas, and supporting the establishment of a whistle-free zone; and,
- Work with the City of Portland Noise Office to develop citywide policies and strategies regarding residential development in and near industrial and employment zones.

Working with Our Partners

The river's edge is important for the regional economy, provides important fish and wildlife habitat, and is critical for maintaining the health of the river and the watershed. In addition, it's a desirable location for transportation, recreation, and residential living. Therefore there are many stakeholders—our regulatory, community, and tribal partners—with an interest in what happens at the river's edge. With so many interests to consider, regulation and decision-making can be lengthy and complicated. Communication, coordination, education, and organization amongst North Reach stakeholders can be improved.

The River Plan addresses these challenges and improves how we work with our partners through the following recommendations:

- Implement process improvements to create a coordinated multi-jurisdictional permitting process;
- Provide clear guidance for contaminated site cleanup and develop materials and strategies to help applicants through the cleanup process;
- Improve communication with our tribal partners; and,
- Develop programs that ensure continued education and outreach on North Reach issues.



The River Plan aims to improve communication and coordination with the many stakeholders that have an interest in the future of the river.

I. INTRODUCTION

The Willamette River is central to Portland's history, landscape, economy, and culture—it is both literally and figuratively at the heart of our city. Originally our *raison d'être*, today the Willamette still serves as a gateway to global commerce and provides the setting for a world-class port. Recreational opportunities abound in and near its waters, earning it the title of our “front yard.” The river and its banks also provide a home for fish and wildlife and connect us with nature in the midst of a thriving city.

Much is demanded of the river and its adjacent lands. River frontage is a scarce and increasingly valuable resource and multiple interests compete for its use. Today the Willamette River faces great challenges: toxic sediments in the river have resulted in a Superfund designation for the Portland Harbor; upland sites are contaminated as a result of past industrial practices; Chinook, Coho and Chum salmon and Steelhead trout have been listed as threatened under the federal Endangered Species Act; Portland's riverfront industrial areas are experiencing constraints on growth in the face of global competition; demand is growing for riverfront parks and recreational facilities; and access to the river from nearby neighborhoods is difficult or even impossible in many locations.

The River Plan is a comprehensive effort to meet these manifold challenges. With the River Renaissance Vision setting the goals and the River Renaissance Strategy providing the framework, it is clear that now is the time for a new plan for the future of the land along the Willamette River. This is no small undertaking—the implications of the decisions made in this plan will affect the river, the adjacent land and the city as a whole, for generations to come. But with great challenge comes great opportunity, and the River Plan has the potential to chart a new course for the next twenty years that ensures the Willamette remains our jewel and our city's most valuable economic, environmental, and social asset.

While the River Plan / North Reach will go a long way toward addressing the challenges in the North Reach, additional steps to support the environment, economy, access to the river and riverfront communities will be taken as part of other efforts such as the cleanup of the Portland Harbor superfund site, compensation for contaminant-related damages under the Natural Resources Damages Assessment process and other important initiatives.



Looking north, sky and water converge. Forest Park and the Linnton community extend along the river's western shore.

A. BACKGROUND

WHAT IS THE RIVER PLAN?

The River Plan is the first update to the Willamette Greenway Plan in more than twenty years. First crafted in 1979 to serve as Portland's compliance with Statewide Planning Goal 15 (Willamette River Greenway), the most recent update of the Willamette Greenway Plan was adopted by the Portland City Council in 1987. The River Plan will guide, inspire and facilitate actions along the Willamette River and replace the current Willamette Greenway Plan.

PLANNING BY RIVER REACH

The River Plan is being carried out in phases, each focusing on a different stretch of the Willamette River: the North, Central, and South Reaches. The reaches are interrelated but distinct, and phasing allows planning to focus on the unique issues facing each reach. The reaches are characterized in the River Concept (2006):

North Reach: Portland's Working Waterfront

The North Reach will continue to provide Oregon with access to global markets and support the region's economy as a West Coast distribution hub and a heavy industrial area. Environmental cleanup, recreational access, and watershed health actions will contribute to the harbor's long-term vitality.

Central Reach: The Region's Gathering Place

The Central Reach will continue to be a highly urban, regional center with a waterfront that is the city's main civic space and a regional attraction. Access to the river and public use of the waterfront will improve through new development and transportation improvements, eventually including changes to Interstate 5.

South Reach: Neighborhoods and Natural Areas

The South Reach will provide unique fish and wildlife habitat, parks and trails in the center of the city, easily reached from established neighborhoods.

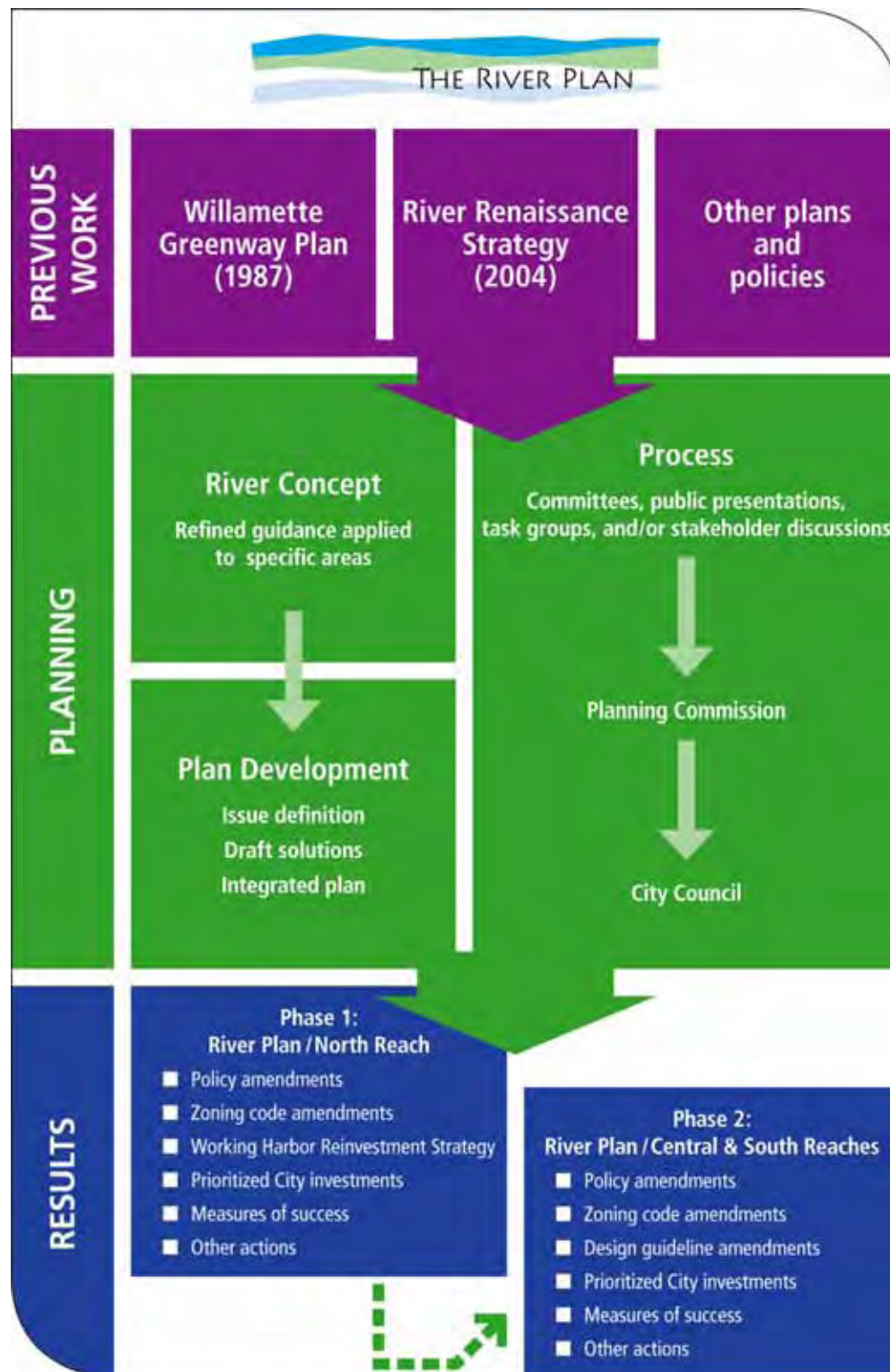
River Plan Reaches



The North Reach, extending from the Broadway Bridge north to the confluence with the Columbia River, is the first to receive detailed planning and is the focus of this document. Planning for the Central and South Reaches will follow.

The Willamette River is a complex system. The River Plan recognizes that the tools used to guide development along the river should respond to the unique conditions found in each reach. Thus, strategies and solutions applied in the North Reach, Portland's working harbor, may not all be appropriate for use in the Central and South Reaches.

River Plan Process Chart



PLANNING AND POLICY CONTEXT

State Policies

The update of the Greenway Plan must comply with Oregon's Statewide Planning Goals. The primary goal that applies to the River Plan is Goal 15 but other goals also apply. These goals are listed below:

Primary Goal

Goal 15: Willamette River Greenway

Other Important Goals

- Goal 1: Public Involvement
- Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces
- Goal 6: Air, Water and Land Resources Quality
- Goal 7: Areas Subject to Natural Hazards
- Goal 8: Recreational Needs
- Goal 9: Economic Development
- Goal 12: Transportation
- Goal 14: Urbanization

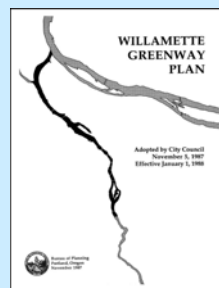
Regional Policies

Metro's Urban Growth Management Functional Plan (UGMFP) provides jurisdictions with tools to meet Metro's long-range growth management plan, the 2040 Growth Concept. The River Plan must comply with the UGMFP including regulations related to water quality (Title 3), fish and wildlife habitat conservation (Title 13), and industry and employment (Title 4).

City Policies

Numerous City policy documents provide direction for the River Plan, including the Comprehensive Plan, the existing Willamette Greenway Plan, the Transportation System Plan, and several neighborhood plans. There are also many documents that provide guidance but are non-binding City policy. These include the River Concept, the River Renaissance Vision and Strategy, the Portland Watershed Management Plan, and a variety of City Council resolutions. Some of the policy direction in these latter documents will become binding through City Council adoption of the River Plan and associated updates to the Comprehensive Plan.

Comprehensive Plan (1980) - The Comprehensive Plan is Portland's primary planning policy document, intended to guide development and redevelopment of the city for the next twenty years. Implementation of the



The 1987 Willamette Greenway Plan is currently implemented through the Greenway Overlay zones (33.440), the Willamette Greenway Design Guidelines, and the greenway trail designation. The five greenway overlay zones—River General (g), River Recreational (r), River Industrial (i), River Natural (n), and River Water Quality (q)—are applied along the river. (See Map 1: *Existing Overlay Zones*).

Existing greenway regulations are intended to maintain existing natural riverbank, reestablish vegetative cover on and near the riverbank, and protect and improve water quality. The regulations utilize a set of development standards and discretionary review to achieve this purpose. In most cases, development in the greenway must go through greenway review.

Greenway standards require development to be set back from the riverbank (25 feet outside the q-overlay; 50-200 feet inside the q-overlay) and landscaping to be planted within and riverward of the setback. The greenway setback does not apply to development that is river-dependent or river-related in order to facilitate use of the river for waterborne transportation purposes.

Greenway review criteria and design guidelines focus on conserving and enhancing the natural riverbank, reducing detrimental impacts to ranked wildlife habitat, and reducing significant loss of biological productivity in the river. Alternatives analyses and mitigation for unavoidable impacts are only required in the q-overlay.

The i-overlay applies exclusively in the North Reach. Uses in the i-overlay must be river-dependent or river-related.

Willamette Greenway Plan is one of the Comprehensive Plan policies (2.7). Updates to Portland's 1980 Comprehensive Plan and the 1988 Central City Plan are currently underway. This project is called The Portland Plan. Amendments to the Comprehensive Plan made as part of the River Plan will be incorporated into The Portland Plan.

Willamette Greenway Plan (1987) - The Willamette Greenway Plan fulfills the requirements of Statewide Planning Goal 15, Willamette River Greenway. The purpose of Goal 15 is "to protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway." The primary objectives of the 1987 Willamette Greenway Plan (abridged) are to:

1. Restore the Willamette River and its banks as a central axis and focus for the City, its neighborhoods and residents
2. Increase public access to and along the Willamette River
3. Conserve and enhance the remaining natural riverbanks and riparian habitat along the river
4. Provide an attractive quality environment along the Willamette River
5. Maintain the economic viability of Portland's maritime shipping facilities based on the overall economic importance of deep-channel shipping to Portland's and Oregon's economy
6. Reserve land within the Greenway for river-dependent and river-related recreational uses
7. Meet the statutory requirements of Statewide Planning Goal 15

The River Plan will replace the Willamette Greenway Plan.

River Renaissance Vision (2001) and River Renaissance Strategy (2004)

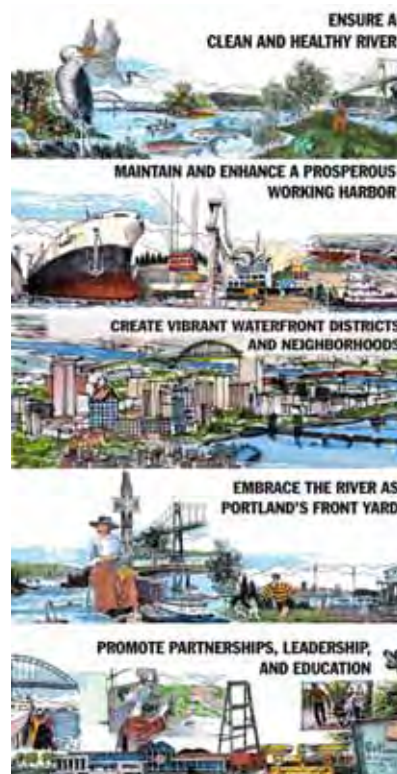
- In March 2001, the Portland City Council endorsed the River Renaissance Vision, a document that articulates a set of goals and aspirations for a revitalized river. The Vision includes five mutually supportive and interrelated themes that proclaim Portland's aspirations to:

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

In December 2004, the Portland City Council adopted the River Renaissance Strategy to lead the City toward the future outlined in the River Renaissance Vision. The Strategy serves as the City's blueprint for river-related activities and investments by establishing policy guidance, progress measures, and an action agenda.

The River Concept (2006) - The River Concept was endorsed by the Portland City Council in April 2006 as a guiding document for the River Plan. The River Concept synthesizes river-related planning over the last decade from adopted documents as well as recent policy discussions and actions, including:

- River Renaissance Vision (2001) & Strategy (2004)
- McCormick & Baxter Reuse Assessment (2001)
- Willamette Greenway Trail Feasibility Study (2002)
- North Portland Regional Trails and Greenways: Connecting Neighborhoods to Nature (2003)
- Guild's Lake Industrial Sanctuary Plan District (2003)
- Swan Island Trails Action Plan (2003)
- Strategy for Recreation, Parks, Trails, Open Spaces (2004)
- Willamette Industrial Urban Renewal Area (2004)
- St. Johns / Lombard Plan (2004)
- Port of Portland Marine Terminals Master Plan (2005)
- Portland Watershed Management Plan (2005)
- Freight Master Plan (2006)
- Linnton Hillside and Village Studies (2006)



WHY UPDATE THE 1987 GREENWAY PLAN WITH A NEW RIVER PLAN / NORTH REACH?

Much has changed in the two decades since the adoption of the 1987 Willamette Greenway Plan, motivating and informing development of a new River Plan. The following issues reflect the changing physical, regulatory, legal and economic landscape, as well as an evolving public perception of the river's role in shaping the community.

Federal issues

- A 1994 U.S. Supreme Court case, *Dolan v. City of Tigard*, involving Tigard's trail requirements, provided for enhanced property rights protections. Governments must now ensure that required dedications are related to the proposed development and proportional to the impacts of the proposed development.
- Willamette River spring Chinook salmon and Steelhead trout were listed as threatened under the Endangered Species Act in the late 1990s and Coho and Columbia River Chum salmon were added in 2005. The Act prohibits harming these species or their habitat and calls for actions to restore populations to sustainable levels. Pacific lamprey is currently under review for listing.
- The river sediments within a 6.2 mile stretch of the North Reach were designated the Portland Harbor Superfund site in 2000. An intense study is underway to determine levels and locations of contamination, best clean-up methods, and parties to be held responsible for clean up costs. Uncertainty regarding the outcome of the investigation, assignment of liability and assessment of past damages to natural resources has left many properties in the North Reach vacant or underutilized, despite the demand for harbor area sites.
- The 2002 U.S. Maritime Transportation Security Act, developed as part of homeland security protections, requires river-dependent industries that receive vessels that are of a certain size, carry certain substances, or that travel internationally to establish facility security plans. These plans often restrict public access to and near these regulated facilities.



Cleanup is necessary to facilitate redevelopment and to maintain a prosperous working harbor.

State and regional issues

- Metro adopted Titles 3 and 13 in 1998 and 2005, respectively. These titles require local governments to reduce flood and landslide hazards, control soil erosion, protect water quality, and protect, conserve, and restore riparian corridors and wildlife habitat. The areas subject to these titles include those inundated in 1996.
- Development pressure and the expansion of the central city into former industrial areas has led to concerns about the integrity of riverfront industrial districts and the overall supply of industrial land in the region. In 2002 Metro added approximately 4,000 industrial acres to the urban growth boundary to accommodate the projected regional growth over the next 20 years and updated Title 4 to protect existing industrial land. The update designated most of the North Reach as a Regionally Significant Industrial Area and called for additional regulations to protect other industrial and employment lands.

- In 2006 the state Land Conservation and Development Commission updated the Statewide Planning Goal 9 rule to require communities to have an adequate supply of employment land to meet growth expected in 20 years.

City issues

- The zoning code regulations and approval criteria that implement the Willamette Greenway Plan are over 20 years old and only minor amendments have occurred over time.
- The adopted natural resource inventory for the Willamette River is over 20 years old and out of date. Many of the natural resource areas that Metro and the City identified as being significant contributors to watershed health are currently not protected.
- The City of Portland endorsed the River Renaissance Vision in 2001, calling for a revitalized Willamette River.
- The City of Portland adopted the Portland Watershed Management Plan in 2005 that established new watershed health principles and goals for the City of Portland. The goals are to improve water quality, hydrologic functions and fish and wildlife habitat and populations.
- The plan for the St. Johns community was adopted by City Council in 2004 but noise from the industrial area remains an issue of concern to area residents.
- Plans for the Linnton Hillside and Linnton Village were developed in 2004 but only the Linnton Hillside plan was adopted by City Council. The Linnton community remains dissatisfied with plans and actions to improve the waterfront in the Linnton waterfront.
- The City currently implements balanced cut and fill (flood storage compensation) regulations as required by Metro. In certain cases, property owners have found it difficult to meet this requirement. Some also question the value of this requirement in such a large river system that is highly regulated by dams.

Interjurisdictional issues

- The City's greenway regulations currently apply to development above and below the ordinary high water mark (OHWM). State and federal agencies also regulate below the OHWM. Some believe that the City's regulations overlap with the state and federal requirements below the OHWM. Others disagree and cite the City's broader interest and authority in this area.
- The cleanup of contaminated land and river sediments are regulated by the Oregon Department of Environmental Quality (DEQ) and the US Environmental Protection Agency (EPA). Cleanups under DEQ oversight must meet the City's requirements but do not have to follow the City's process. However, since the City's regulations do not provide clear guidance for cleanup of these sites, it is difficult for applicants to meet the requirements. In other cases, City requirements can conflict with Federal and State regulations.



Interjurisdictional coordination will provide a venue for early information sharing and collaborative problem-solving between the applicant and regulatory agencies.

RIVER PLAN / NORTH REACH PROJECT OBJECTIVES

River Plan staff developed the following River Plan project objectives based on the issues identified above.

1. **Work with property owners, the public, stakeholders and agency staff** to develop solutions that optimize the River Renaissance goals.
2. Develop strategies to improve the physical and regulatory conditions for **river-dependent industry**.
3. Develop a flexible program that protects, conserves, and restores **natural resource** functions and improves **watershed health** in the North Reach.
4. Refine the **trail and viewpoint** system along the Willamette River to improve access. Update the trail code to address nexus and rough proportionality as required by the U.S. Supreme Court Dolan v. City of Tigard decision.
5. Develop flexible approaches to address **balanced cut and fill** regulations.
6. Develop standards and other approaches to facilitate cleanup and redevelopment of **contaminated sites**.
7. Improve **permit coordination** among City, state and federal agencies for contaminated sites and situations that require permits from multiple jurisdictions.
8. Develop example **designs** to guide and inspire the integration of industry, watershed health, and river access along the Willamette River. Include riverbank designs that provide habitat and allow full maritime industrial operations, sensitively designed trails in natural areas, and trails that can be integrated into industrial areas.
9. Develop **tools and training materials** to help staff and applicants **implement** the adopted River Plan / North Reach.



Planning staff engaged North Reach stakeholders to discuss the Natural Resource Inventory and develop solutions that optimize River Renaissance goals.

B. PLANNING PROCESS

The North Reach Planning process involved several levels of stakeholder and community involvement. A citizen advisory group, the River Plan Committee, served as a sounding board and provided guidance throughout the planning process; stakeholder task groups and other small groups met to discuss specific topics and issues; design consultants participated in a site design workshop that allowed staff and others to visualize potential River Plan improvements; harbor area industry leaders identified opportunities and constraints and prioritized investments; and other outreach events involved the wider North Reach community.

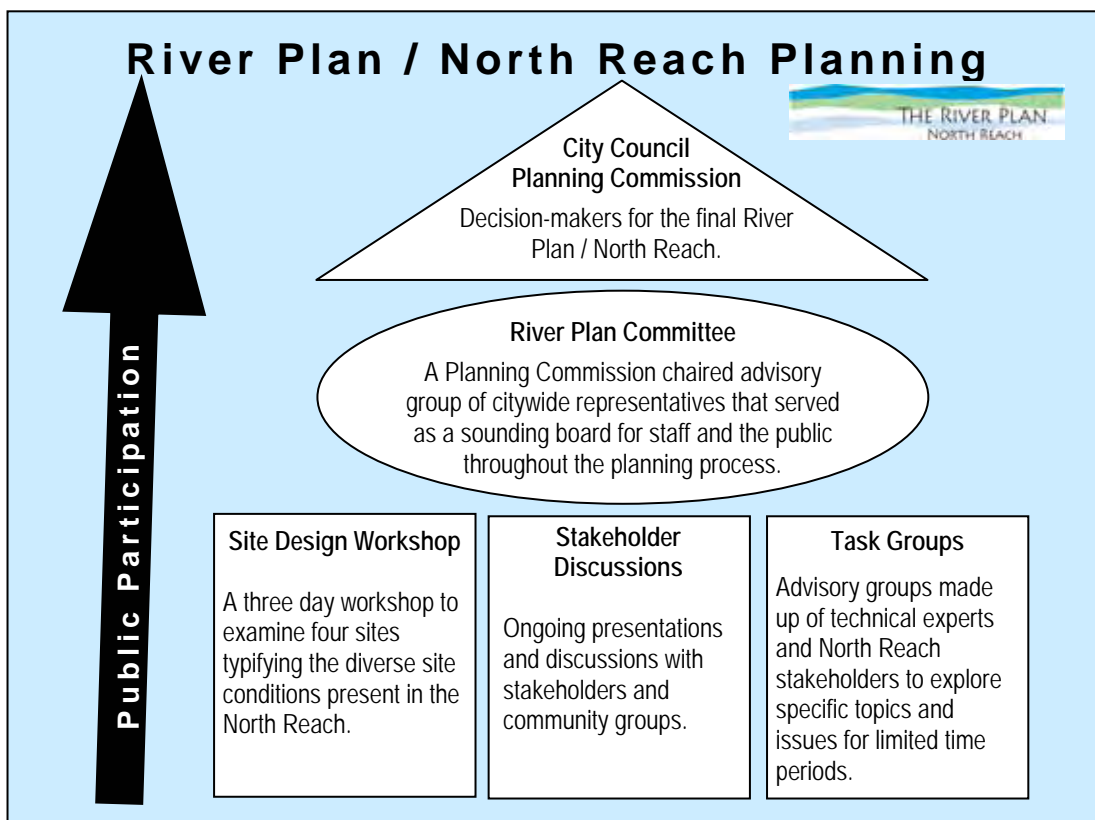
The River Plan Committee

The River Plan Committee is a voluntary citizen advisory group chaired by a member of the Portland Planning Commission. Members of the River Plan Committee were selected through a series of discussions with neighborhood and business leaders, community groups actively involved in river issues, City Council offices, bureau directors, and planning commissioners.

The Committee met throughout the development of the River Plan / North Reach to review progress and provide guidance to the River Plan project team. The meetings also served as a public forum for discussing issues and proposals during the planning process. The River Plan Committee heard comments on the River Plan / North Reach Discussion Draft and provided staff with recommendations to further refine the Plan.



The River Plan Committee provided guidance to the River Plan project team.



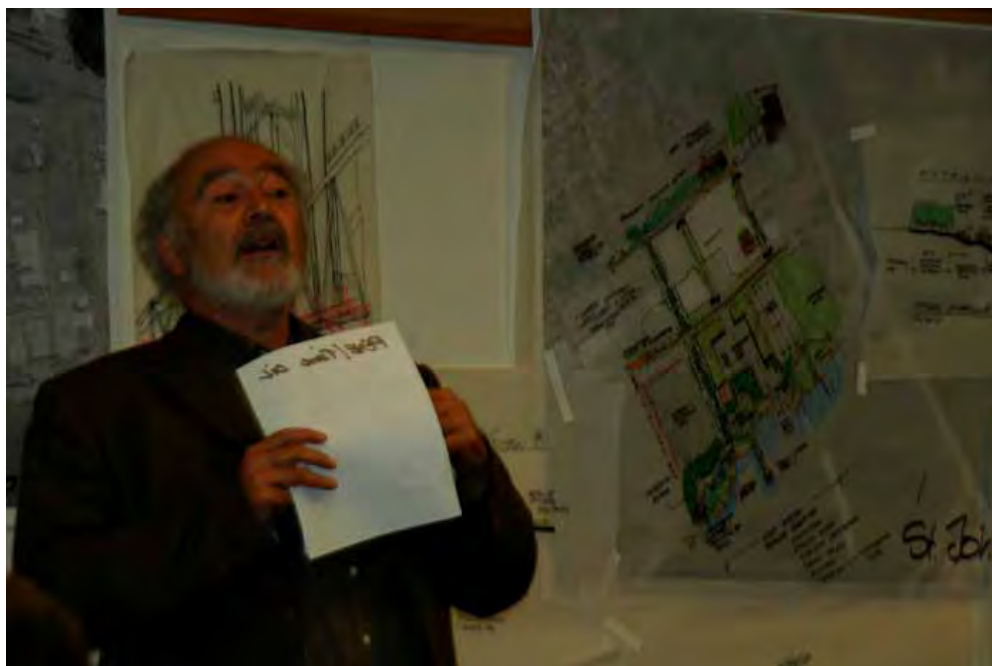
Task Groups

In order to examine specific River Plan / North Reach issues, staff convened topical task groups comprised of stakeholders and subject matter experts. Task groups met for a limited duration to discuss a specific issue and provide guidance to project staff. Task groups were not required to reach consensus. The work of each task group generally culminated in the presentation of a staff proposal of recommendations related to the topic to the River Plan Committee. The following Task Groups were convened during the North Reach planning process:

- Contaminated Sites
- Greenway Trail Alignment
- Industrial Development and Natural Resource Integration
- Mitigation/Conservation Banks
- Riverbank Design and Inter-jurisdictional Permitting
- River Industrial Zoning
- Watershed Health
- Water Recreation

Site Design Workshop

The City hosted a site design workshop in the fall of 2006. This workshop explored development scenarios on private and publicly-owned industrial properties in the North Reach. Design and development experts, property owners, and agency staff met to craft and critique concepts for the future expansion of industrial sites. The sites chosen for the workshop presented typical North Reach development challenges (e.g., capacity for industrial land development, reuse of contaminated sites, protection and restoration of natural resources, public access for trail and river use, riverbank design, permitting, encroachment by competing land uses). The sites presented a variety of natural and developed conditions and offered the opportunity for staff to consider the interrelationship of regulations and potential designs. Some of the designs that emerged from the workshop are used in this plan to illustrate various recommendations.



University of Oregon Architecture Professor James Pettinari presents the results of the site design workshops.

Working Harbor Reinvestment Strategy

Interviews and focus groups were conducted with 60 harbor area industry leaders to inquire about their expansion plans, industrial location advantages and constraints of the North Reach, and business priorities for public investments. Additional analyses conducted include: an examination of development constraints on vacant sites; the refinement of a 2030 employment forecast; a study of district infrastructure needs, including transportation, water, sanitary sewer, and stormwater systems; and development of a methodology for determining which investments are economic development priorities. The analyses resulted in a set of conclusions and a program of recommended investments (See Sections II.A.1: *Economic Prosperity* and II.B.1: *Action Agenda*).



The Harbor Reinvestment Strategy interviewed business representatives to find out their priorities for public investments.

Willamette River Natural Resource Inventory

The Willamette River Natural Resource Inventory (WRNRI) is part of a citywide project to revise and update existing information regarding natural resources (e.g. trees, streams and wildlife habitat) in Portland. The project builds on existing natural resource inventories and Metro's regional inventory of riparian corridors and wildlife habitat. The Willamette River Natural Resource Inventory project uses recent scientific information and data about riparian and upland resources to create resource maps. Key resource features are identified and ecosystem functions they provide are evaluated and ranked for relative quantity and quality. Natural resource features include rivers, streams, wetlands, floodplains, vegetation, topography, and special habitat areas. Planning staff worked with Metro, state and federal agencies, City bureaus, technical experts, and stakeholders while developing the inventory. Staff also conducted numerous site visits.

The Willamette River Natural Resource Inventory report for the North Reach includes natural resource descriptions and maps depicting the relative quality of riparian corridors and wildlife habitat in the North Reach. (See Volume 3A: *Willamette River Natural Resource Inventory: Riparian Corridors and Wildlife Habitat* and Volume 3B: *Willamette River Natural Resource Inventory: Riparian Corridors and Wildlife Habitat – Appendices*.)

Stakeholder Discussions

At key points in the planning process, River Plan staff conducted additional outreach activities designed to provide information or solicit comments from community members. Staff presented progress reports at neighborhood and business association meetings and held open houses. For a detailed list of outreach activities, please see Appendix B: *Outreach Log*.

Mailings

Each month, River Plan staff sent out an email newsletter providing notice of River Plan Committee meetings, Task Group meetings and other information of potential interest to North Reach stakeholders. On two occasions staff mailed informational postcards to all property owners and businesses in the North Reach, and other interested parties to inform them about the project and upcoming events and to build the email and mailing list.

II. THE PLAN

This chapter includes:

Policies, Objectives and Recommendation: Recommendations for the North Reach are grouped into five topic areas: Economic Prosperity; Watershed Health; Access; Riverfront Communities and Working with Our Partners. Each section begins with a brief overview of the topic and includes the relevant policy guidance from the River Renaissance Strategy and the River Concept as well as the relevant River Plan objectives. Recommendations address each of the objectives, and in most cases are accompanied by a map. Volume 1B: *Code Amendments and Zoning Maps* provides the regulatory tools that will help to implement the Plan.

Action Agenda: This section lists specific studies, investments and other actions recommended for the North Reach.



A shady spot along the shore reveals a river view framed by the St. Johns Bridge.

A. POLICIES, OBJECTIVES AND RECOMMENDATIONS

The Comprehensive Plan is Portland's primary planning policy document. There are several Comprehensive Plan goals and policies that could be amended to further support recommendations contained in the River Plan/North Reach but only one change is recommended. Policy 2.7 Willamette River Greenway is out of date and needs to be amended to establish the broadly supported River Renaissance goals and unique direction for each of the three reaches as binding city policy.

While the River Renaissance goals can be mutually compatible, in practice, it is not always possible to achieve multiple goals on every site. The River Plan / North Reach approach is to facilitate appropriate integration of the goals throughout the whole of the North Reach.



The river in the North Reach is in high demand by a diverse set of stakeholders, and therefore requires careful planning.

Policy 2.7 The Willamette River

Adopt and implement a new River Plan for the Willamette River and adjacent lands that:

- Ensures a clean and healthy river for fish, wildlife, and people;
- Maintains and enhances the city's prosperous working harbor;
- Embraces the river and its banks as Portland's front yard;
- Creates vibrant waterfront districts and neighborhoods;
- Promotes partnerships, leadership and education; and
- Establishes different objectives for the three reaches of the river.

Continue to implement the 1987 Willamette Greenway Plan for the South and Central Reaches until the revised River Plan is adopted.

Objectives:

The North Reach is Portland's Working Waterfront. The North Reach will continue to provide Oregon with access to global markets and support the region's economy as a West Coast distribution hub and a heavy industrial area. Environmental cleanup, recreational access, and watershed health actions will contribute to the harbor's long-term vitality.

The Central Reach is the Region's Gathering Place. The Central Reach will continue to be a highly urban, regional center with a waterfront that serves as the city's main civic space and as a regional attraction. Access to the river and public use of the waterfront will improve through new development and transportation improvements, eventually including changes to Interstate 5.

The South Reach is Neighborhoods and Natural Areas. The South Reach will provide unique fish and wildlife habitat, parks and trails in the center of the city, easily reached from established neighborhoods.

1. ECONOMIC PROSPERITY

As part of Portland's working harbor, the North Reach is a unique and irreplaceable freight transportation hub: the intersection of Oregon's primary marine, rail, road, and pipeline infrastructure. The hub supports heavy industry clusters in marine and rail transportation, energy, construction, and metals and equipment. See *What is the working harbor?* for more information.

In 1980, Portland adopted its pioneering "industrial sanctuary" policy, recognizing the value of preserving industrial land and retaining family wage jobs near the labor force and existing transportation facilities. Since that time, the Portland region has enjoyed modest growth in manufacturing employment even as it has declined on the national level.

Today, despite Portland's supportive zoning, the harbor's older industrial districts face many challenges, including aging infrastructure, tightening land supply, contaminated soil and sediment, competitive pressures from changing global market conditions, and other constraints that limit industrial retention, expansion and development.

The River Plan, following in the direction of the River Renaissance Vision, reinforces the importance of the harbor as a critical economic engine for the city by recommending stronger protections for our industrial land supply, more regulatory certainty and flexibility for businesses, and public investment in harbor infrastructure.

The River Renaissance Vision also recognizes that a truly prosperous harbor is one where the waterfront serves many functions. Our economic and environmental futures are inextricably linked, so a healthy watershed benefits us all. Similarly, industrial workers may commute by bicycle or enjoy a lunch break overlooking the river, so including park and trail facilities as employee amenities and transportation routes can be smart business practices.

Evrz Oregon Steel, a part of the harbor's metals and equipment cluster, added a new pipe mill in 2006. (photo credit: Evraz Oregon Steel)



What is the working harbor?

The working harbor is the region's largest heavy industrial area, characterized by facilities like marine terminals, rail yards, petroleum tank farms, steel mills, and heavy equipment manufacturing. Map 3: *Working Harbor Industries and Infrastructure* depicts the geography of the working harbor as well as the firms that are dependent on its infrastructure.

Geographically, the working harbor consists of the industrial districts adjacent to Portland's deepwater channel: Northwest, Linnton, Lower Albina, Swan Island, and Rivergate. Despite political boundaries, the working harbor's economic functions and advantages also extend to the adjacent Port of Vancouver.

The working harbor is a west coast trade gateway and Oregon's largest seaport due to its unique location where the state's primary shipping channel, interstate rail lines and highways, and petroleum pipeline infrastructure all come together.

The working harbor contains over 5,500 acres of industrial land—or nearly one third of the city's industrial land base. The harbor includes over 40,000 workers and 900 private sector businesses, and through multiplier effects supports about one in eight jobs in the metro region.

The working harbor has a high concentration of traded sector firms. These are firms that compete in national and international markets, bring income into a region, and tend to drive a regional economy. Industry has also built up competitive advantages in the harbor's heavy industrial land use pattern, skilled labor pool, and fixed capital investments.

POLICY GUIDANCE

The River Renaissance Strategy provides the following policy guidance related to economic prosperity:

- Stimulate Portland's competitiveness and growth as a major West Coast marine port and distribution and industrial center. Affirm and advance the critical role that the harbor and its industries and businesses play in the economy and quality of life of Portland and the Columbia and Willamette River basins.
- Invest in maritime, rail, air, and truck infrastructure improvements and demand management measures that improve freight mobility, provide adequate capacity to meet expected growth, and develop seamless connections among these modes.
- Protect and enhance the industrial land supply, economic health and distribution-hub functions of the working harbor and Columbia Corridor industrial districts and ensure river access for river-related and river-dependent industry.
- Facilitate industrial redevelopment, particularly on brownfield sites, through public investments and collaboration of public and private partners.
- Improve the transparency, predictability, and timeliness of regulatory systems, while encouraging innovation.
- Promote environmentally beneficial industrial operations and facility planning through a combination of incentives, technical assistance, and regulations.



Reserving industrial riverfront land in Portland's harbor for river-dependent uses like Advanced American Construction is an important policy goal in the North Reach.

The River Concept provides the following guidance related to economic prosperity:

- Retention of harbor industrial land will be coordinated with transportation and economic development investments to capitalize on this unique location at the convergence of Oregon's primary rail, road, water, and pipeline infrastructure.
- The industrial riverfront will remain primarily in industrial sanctuary uses that are dependent on, or benefit from, a riverfront location.
- Brownfields and unoccupied sites will be recycled into productive use through public and private investment and partnerships while pursuing polluter liability for cleanup costs. In the harbor area, these uses will be predominately industrial.
- The City will strive to make its regulations flexible, streamlined, and cost-effective and work with other agencies to simplify the overall river related regulatory process.
- The St. Johns neighborhood and nearby industrial areas will become more compatible through the improved site and building design of residential development, voluntary "good neighbor" practices, and new infrastructure projects. These actions will help alleviate light and noise conflicts.
- The River Concept also has guidance that describes how Portland Harbor industries and districts will be kept globally competitive through public-private partnerships created as part of a harbor reinvestment strategy and that public investments in infrastructure and port terminals will be strategically coordinated to stimulate industrial reinvestment and expansion in the harbor districts. It also mentions the role that urban renewal will play in stimulating industrial investment, although currently, the future of the Willamette Industrial Urban Renewal Area is unclear.

Protecting Industrial Lands: Guild's Lake Industrial Sanctuary Plan (2001)

Planning for the Guild's Lake area began in the late 1990s in response to development proposals for large format retail in the northwest industrial district. The Northwest Sanctuary Working Group (SWG) was formed by the Northwest Industrial Neighborhood Association and three adjacent neighborhoods—Northwest District Association, Linnton Neighborhood Association, and the Pearl District Neighborhood Association. The SWG discussions provided the foundation for the Guild's Lake Industrial Sanctuary Plan, which:

- Preserves land for long-term industrial use,
- Prevents incursion of incompatible non-industrial uses,
- Provides for the preservation and enhancement of transportation infrastructure that supports industrial operations,
- Provides more certainty for existing and potential industrial firms, and
- Helps the city and the region achieve employment goals.

The implementation strategies utilized in the plan include the following:

- Additional approval criteria for quasi-judicial Comprehensive Plan map amendments from industrial designations to nonindustrial designations within the Guild's Lake Industrial Sanctuary
- Prohibition on household living, commercial outdoor recreation, and major event entertainment land uses in the IH and IG zones and self-service storage in the IH zone
- Limitations on the size and number of retail and office uses that support industrial businesses and employees in the Guild's Lake Industrial Sanctuary
- Limitations on the floor area of accessory or headquarters office uses allowed in conjunction with industrial uses.

These strategies apply within the Guild's Lake Industrial Sanctuary Plan District, which stretches up to the St. Johns Bridge.

OBJECTIVES AND RECOMMENDATIONS

The following objectives and recommendations address established policy guidance and respond to North Reach issues:

1. Continue to support river-dependent and river-related uses and the industrial land supply in the working harbor as a long term public resource.
2. Improve regulations to increase predictability and flexibility for industrial redevelopment and expansion.
3. Implement the Working Harbor Reinvestment Strategy to fuel private reinvestment through coordinated public investments in harbor infrastructure and land development.

OBJECTIVE 1. Continue to support river-dependent and river-related uses and the industrial land supply in the working harbor as a long term public resource.

Portland's industrial sanctuary zoning reinforces the economic functions of the working harbor by limiting incompatible land uses that could inhibit growth and reinvestment in the industrial district. Additionally, the 1987 Willamette Greenway Plan established the river industrial overlay zone (i-overlay), which further reinforces the specialized economic functions of the harbor area by reserving most of the finite industrial land supply along the deepwater navigation channel for river-dependent and river-related uses.

One question the River Plan addresses is how industrial land policy and zoning should be updated in the North Reach. The River Plan's recommendations generally uphold the existing policies, taking into account the critical role the harbor plays as Oregon's main seaport and distribution hub and the long-term market opportunity, competitive advantage, and economic priority of maritime shipping and river-dependent manufacturing for the state and the region. Additionally, the River Plan recommendations recognize the long-term investments that have been made in specialized harbor infrastructure that would be difficult or cost-prohibitive to relocate or replicate elsewhere. In order to take advantage of the existing infrastructure, the adjacent land must be available for related uses.

Recommendations

- Limit conversion of prime industrial land in

the working harbor by prohibiting quasi-judicial Comprehensive Plan map amendments. Map 4: *Economic Prosperity – Proposed Zoning & Investments* for area of application.

- Retain the i-overlay as a tool to reserve riverfront industrial land for those uses that are river-dependent or river-related.
- Modify the boundaries of the i-overlay to more accurately capture sites with river access and reflect river-dependent development patterns. See Map 4: *Economic Prosperity – Proposed Zoning and Investments* for proposed i-overlay boundaries.
- Ensure that riverfront parcels cannot be divided in a way that eliminates the requirement that the use be river-dependent or river-related.



Schnitzer Steel takes advantage of the infrastructure available in the working harbor.

OBJECTIVE 2. Improve regulations to increase predictability and flexibility for industrial redevelopment and expansion

The water's edge is a fascinating place where myriad activities take place every day: cargo is loaded and unloaded, fish rest out of the current on their journey upstream, and people commute to work by foot or bicycle. This valuable asset is a finite resource and critical not only for the health of our region's economic engine but for the health of the watershed and the ecosystem.

The City of Portland has a stake in ensuring that development along the river occurs in a thoughtful, low-impact manner through regulations that are clear, predictable, and flexible. The River Plan recommendations and new zoning code are designed with this goal in mind. The recommendations in this section highlight a few selected zoning code changes and other actions that give property owners more predictability as well as flexibility and that are not called out elsewhere in the plan.

Key Code Amendment Recommendations

- Amend the definition of river-related to specify two additional examples: uses that shift between utilization of rail and marine loading infrastructure on sites with marine loading infrastructure; and certain beneficial accessory businesses on sites in predominantly river-dependent or other river-related use.
- Clarify the land use review criterion that is applied when a property owner asks to establish a non-river-dependent use on a riverfront site. Add reference to physical characteristics of the site that render river-dependent or river-related uses infeasible.
- In the i-overlay, eliminate the greenway setback from top of bank that currently applies to all development that is not river-dependent or river-related. Rely on the river environmental overlay zone to regulate the location of development near the riverbank.

For more details on these proposals, see Volume 1B: *Code Amendments and Zoning Maps*.

Balanced Cut and Fill

The City of Portland requires balanced cut and fill in areas the Federal Emergency Management Agency designates as the 100-year floodplain and the February 1996 flood inundation area to preserve capacity for water flow and flood storage. The City of Portland's regulation is in compliance with Title 3 of Metro's Urban Growth Management Functional Plan.

In the North Reach of the Willamette River, the land available to achieve excavation requirements is very limited because of the density of industrial development. River Plan staff has heard from property owners and regulators alike that the current balanced cut and fill regulation is rigid and stringent and can make development very difficult on some sites. The River Plan's recommendations protect flood storage capacity while reducing the regulatory burden on North Reach properties.

Recommendations

- Include a mechanism in the River Plan's restoration site program (see Section II.A.2: *Watershed Health*) that facilitates property owners paying a fee in-lieu and having their required excavation completed off-site on one of the North Reach restoration sites.
- Over the next two years, scope, secure funding for, and conduct a hydraulic and hydrologic analysis for the Lower Willamette River that would investigate how filling in the floodplain affects the volume of water that must be discharged during a flood and the rise in base flood elevation. The purpose of the analysis would be to determine how sensitive flood rise is to filling in the floodplain and which fill factors have the greatest impact in order to inform a discussion of the potential implications of modifying balanced cut and fill requirements in the Lower Willamette.



Many industrial businesses lack room to expand as the harbor districts approach buildout.

OBJECTIVE 3. Implement the Working Harbor Reinvestment Strategy to fuel private reinvestment through coordinated public investments in harbor infrastructure and land development.

The Working Harbor Reinvestment Strategy is a 10-year program of public investments to be made by the City of Portland, Portland Development Commission (PDC), and Port of Portland (Port). The reinvestment strategy was developed to address two primary objectives. The first is to establish a public-private partnership that leverages private industrial reinvestment and supports competitiveness in the harbor industrial districts through public investments in land (brownfield redevelopment, port terminals, and urban renewal), infrastructure (roads, rail, channel, water, sanitary sewer, and stormwater), and workforce. The second objective is to support intergovernmental coordination by the City, Port, and PDC and identify economic development priorities among the broad range of potential local government investments in these districts.

Phase 1 of the reinvestment strategy work program included interviews with a cross-section of harbor area industry leaders regarding their investment priorities. Phases 2 and 3 included an analysis of development constraints on vacant sites; refinement of a 2030 employment forecast; an analysis of district infrastructure needs, including transportation, water, sanitary sewer, and stormwater systems; and development of a methodology for determining which investments were economic development priorities. The analyses resulted in a set of conclusions and a program of recommended investments. The conclusions of the Working Harbor Reinvestment Strategy are described on the following pages. The program of public investments in harbor infrastructure and land development can be found in Section II.B.1: *Action Agenda*.¹



The Working Harbor Reinvestment Strategy will prioritize public investments to encourage industrial reinvestment in the working harbor.

¹ For more information about the Working Harbor Reinvestment Strategy analysis, please view the final report and appendices on the River Plan website.

Harbor Reinvestment Strategy Conclusions

1. The working harbor has a healthy climate of private investment that takes advantage of its distinctive industrial assets.

- **Continuing industrial investment** - Manufacturing was the highest growth sector of the Portland metro economy from 2003 to 2005, generating two-year GDP (gross domestic product) growth of 39 percent and fueling recovery from the 2001 recession. The working harbor is one of the dynamic locations of that growth. Industry has invested about \$440 million on 36 harbor area sites since 2004, including Evraz Oregon Steel Mills, UPS, U.S. Barge, Schnitzer Steel, Canpotex, Union Pacific, and Columbia Sportswear.
- **Unique industrial location** - Low industrial vacancy rates confirm that close-in industrial locations are widely preferred in this region, unlike many other cities. Industry leaders report that multimodal transportation access for freight is the working harbor's unique ongoing geographic advantage. As shown in Map 3: *Working Harbor Industries and Infrastructure*, most of the land in the diverse harbor industrial districts is used by industries that need marine, rail or pipeline access (46 marine loading sites, 92 rail shippers, and 10 petroleum terminals).
- **Using land more intensively** – Responding to the tightening land market in the working harbor, industry is expanding creatively on less land. Examples include investment in moving more inventory faster, 24-7 operations, expanding onto a group of nearby sites when one larger site is not available, and developing on constrained brownfields.
- **Long-term growth forecast** – Employment in the working harbor is projected to grow by 5,800 jobs between 2005 and 2015 and an estimated 800 acres will be affected by development or redevelopment.

2. Local government is generally meeting its essential investment role in the growth capacity and productivity of the working harbor, with some exceptions.

- **Constraints in older districts** – Interviews with harbor area industry leaders have identified many area deficiencies that could constrain significant industrial investments, particularly rail and road congestion bottlenecks and tightening land supply.
- **Ample infrastructure capacity overall, with exceptions** – The working harbor is generally an area of ample, high capacity infrastructure. Project studies have modeled the area's infrastructure needs and found that existing street, water, sanitary sewer, and stormwater systems are adequate to meet forecasted growth, except for a few deficiencies that can be addressed by planned improvements and a few recommended new projects (See Section II.B.1: *Action Agenda*). The area's overcommitted freight rail system and concentration of unoccupied brownfields are notable exceptions that warrant further analysis and strategic investment.
- **Broad public investment program underway** – Identified deficiencies and planned investments exceed available budgets, but most of the economic development priority projects are expected to be funded in the next 10 years. The economic development priority infrastructure improvements that are currently planned for the working harbor are estimated to cost approximately \$586 million, including approximately \$441 million in projects that are expected to be funded in the next 10 years (See Section II.B.1: *Action Agenda*).

Harbor Reinvestment Strategy Conclusions, continued

- **Workforce development needs being addressed by other organizations** – Hiring industrial workers at the low- and mid skill level has been a challenge for many growing firms and large employers with retiring workers. In the short term, workforce development efforts are responding at many levels outside of local government, including state employment and training agencies, community colleges, school districts, industrial associations, social service organizations, and temporary services.

| Workforce development investment in Region 2 (Multnomah and Washington Counties), fiscal year 2005-06 | | |
|---|---|-----------------------|
| <i>Provider type (80 providers)</i> | <i>Largest programs</i> | <i>FY05-06 Budget</i> |
| Community colleges (PCC, MHCC) | Professional & technical education (\$25.8 million); TANF/JOB programs (\$18.8 million) | \$80 million |
| State & local government (DHS, OED, BHCD, Counties) | Childcare and state-provided core services; local governments typically pass funds to providers | \$39 million |
| Non-profit & private providers (WSI, local one stops, labor & industry partners) | Difficult to categorize; does not include \$13 million to provide apprenticeships; WSI programs* (\$16.1 million) | \$29 million |
| Public school districts (PPS, WIA youth providers, Perkins) | Perkins and workforce focused curriculum; Benson HS (workforce focused high school) had total budget of \$8.4 million | \$2.3 million |
| Total in FY 2005-06 | | \$150 million |
| Source: ECONorthwest for WSI (WorkSystems, Inc.), April 2007 | | |
| * WSI Employer Workforce Training Funds awarded to nine working harbor businesses have totaled \$846,000 (2004-07). | | |

3. Economic development priorities that build growth capacity and competitive advantages can be identified among capital projects in traded sector districts like the working harbor.

- **Economic development priorities in traded sectors** – The Regional and Oregon Business plans (2006, 2007) focus attention on traded sector clusters as the priority for economic development efforts. Traded sector firms compete in national and international markets, bring income into regions, and tend to drive regional economies. Clusters are specializations of regional economies, such as high tech and metals manufacturing. Districts with high concentrations of traded sector and regional service businesses, such as Portland's working harbor, Columbia Corridor, and Central City, represent priority locations for economic development.
- **Industry priorities in transportation and land** – Asked to rank public investments from a hypothetical \$100 budget to support industrial investment, interviews with 60 area industry leaders allocated on average \$39 to transportation, \$24 to land development, \$14 to utilities, \$14 to workforce, and 8 to other investments.
- **Project selection criteria** - Project consultants applied the following economic development prioritization criteria for selecting projects: project costs/developable acre served; whether the project was identified as a business priority in the business interviews; whether the project improves access to large (20+ acre) vacant sites; and whether the project improves interregional access (regional and priority truck streets, regional rail, or marine infrastructure).

Recommendations

- **Invest in the capital improvements identified as short-term economic development priorities in Section II.B.1: *Action Agenda*, by 2018 or as otherwise recommended.** The City, PDC, and the Port of Portland will work together to apply urban renewal and other funding sources to implement these projects and advance economic development in the working harbor. The highest priority projects, based on economic development ranking criteria, are:
 - Widen I-5 to six lanes at Delta Park
 - Increase the capacity of the I-5 crossing over the Columbia River
 - Improve signals at Yeon and US 30
 - Improve signals at Going Street and Interstate
 - Replace the weight restricted bridge at Going Street
 - Replace the weight restricted bridge at Lombard/Burgard
 - Upgrade the Kenton Rail Line
- **Conduct studies and develop strategies by 2013 to respond to identified deficiencies that are not addressed by currently planned improvements or programs.**

A. *Brownfield Redevelopment*

As Portland nears buildout on vacant lands annexed in recent decades, brownfields are becoming an increasingly important share of our land supply for employment growth. Additionally, productive reuse of the hundreds of Portland brownfields is integral to the region's compact development goals. The Brownfield / Greenfield Cost Comparison Study (2003) evaluated industrial development feasibility on sites in the region and found that the high costs of investigation and cleanup gave greenfield sites a competitive advantage over brownfields and also found a significant financial gap in brownfield redevelopment feasibility without public intervention. Ultimately, achieving industrial redevelopment of brownfields may require incentives from government at the state and federal level as well as local initiatives.

i. *Implement Harbor ReDI (Harbor Redevelopment Initiative)*

See *Harbor ReDI* for more information.

ii. *Develop strategies to address citywide industrial brownfields issues*

Citywide, industrial brownfield redevelopment issues continue to lack adequate funding and programmatic responses. Many sites are financially infeasible (upside-down), are small sites with complex constraints, or have high transaction costs for investors who are new to brownfield redevelopment. Currently the City's Brownfield Program focuses on commercial areas and does not have adequate funding to address larger industrial sites.

Harbor ReDI

PDC is leading an initiative that will develop strategies and tools to overcome barriers to the redevelopment of brownfields adjacent to the Portland Harbor Superfund Site, building on the recommendations of the Site Technical Assistance for Municipalities Program (STAMP) project conducted with the National Brownfields Association. Harbor ReDI intends to develop ways to overcome the challenges presented by in-water liability and bring brownfields back into productive use prior to the U.S. Environmental Protection Agency's issuance of the Record of Decision for the Portland Harbor Superfund site. It is envisioned that Harbor ReDI will assist the City in achieving some of its objectives related to cleanup of contaminated sites discussed in Section II.A.5: *Working with Our Partners*.

B. Rail Funding and Service

Interviews with harbor industry leaders indicate that rail system improvements are the most pressing investments needed to maintain the working harbor's competitiveness as a seaport and heavy industrial center, but growth in rail demand nationally is outpacing the ability of capital-intensive private railroads to expand capacity in the Portland region.

i. Develop a strategy for securing funding for freight rail improvements in the Portland Triangle.

The Portland Office of Transportation (PDOT) should take the lead in convening a committee aimed at developing a strategy to secure freight rail funding for the region. The strategy should include designating a lead agency to continue work on these issues.

ConnectOregon funding administered by the Oregon Department of Transportation (ODOT) is the primary current public source for freight rail funding, but this statewide program does not match the scale of capacity needs in the Portland Triangle rail hub area, especially given the dispersed needs and financial challenges of Oregon's short line rail system. The Ports of Portland and Vancouver and Metro through the Regional Transportation Plan are also making substantial rail investments, but these investments are focused on the specific needs of marine terminal tenants. Finally, the Regional Transportation Plan has allocated limited funding to freight rail relative to other modes, focusing on Port-led projects and neighborhood livability (Cathedral Park Whistle Free Zone). Alternative freight rail funding sources aimed at regional economic competitiveness are needed to address short-term and long-term capacity needs in the Portland Triangle.

Because rail service statewide is affected by congestion in the Portland Triangle, the rail infrastructure in the working harbor is a statewide or even national concern. The congested tracks are primarily in the city of Portland, though, making it unclear which agency should take the lead role in developing a strategy for securing adequate funding. Many agencies, including PDOT, the Port, Metro, and ODOT, have an interest in rail issues in the Portland Triangle, but none have a clear responsibility to invest in the infrastructure. The PDC and Bureau of Planning also have potential planning and implementation roles.

ii. Prepare a small shipper rail strategy.

Develop a strategy to maintain and improve access to the rail system for the nearly 100 smaller shippers in the working harbor. The strategy could include tools such as third party switching, new reload facilities, and favorable short line leasing.



A strategy is needed to find the funding to make investments in rail capacity in the Portland Triangle.

Understanding Railroad Terms

Portland Triangle: a general name for the triangle defined by the cities of Vancouver, Troutdale, and Clackamas and the critical rail infrastructure, including junctions and yards, contained within it

Third party switching: a neutral entity manages the switching of trains between lines owned by different operators in order to maximize efficiency

Reload facilities: cargo is transferred between rail, truck, or marine modes at these facilities

Short line leasing: the Class I railroads (e.g. Union Pacific, BNSF) give the short line rail companies (e.g. Portland & Western) access to their rail lines to provide service to smaller shippers

iii. Investigate the feasibility of adding a new regional rail yard.

Identify potential sites for a new regional rail yard to help accommodate anticipated growth and relieve congestion and constraints at Albina Yard.

C. Transportation Funding Gap

Over 70 transportation projects are planned in response to the deficiencies identified in harbor area business interviews, but potential funding sources are identified for only 21 of these projects. The primary transportation funding model of gas tax revenues is not keeping pace with transportation needs as the city grows. Long-term improvements to the current transportation funding model are needed to more efficiently meet transportation demand and consider economic competitiveness in funding allocation, not only for City projects but also for regional (Metro) and state (ODOT) projects.

D. Site Access and Circulation Improvements

Create a funding source for relatively small projects that address freight deficiencies or improve industrial site access and circulation. Examples of recommended improvements to consider:

- Conduct a local circulation study in the Northwest Industrial District to develop strategies for improving access between NW Yeon Avenue and NW Front Avenue in the vicinity of NW Nicolai Street.
- Evaluate the potential for an advance warning system on NW Front Avenue to divert traffic during train crossings.
- Conduct a local circulation study in the Linnton area to evaluate the potential for combining accesses and improving safety on St. Helens Road / US 30.
- Evaluate the cost-benefit of City acquisition and improvement of Time Oil Road.
- Evaluate the feasibility of extending NW 26th Avenue south of NW Yeon Avenue to improve access to properties in that area.
- Evaluate the feasibility of extending N Bradford Street through the T-4 property to connect with N Terminal Road.

E. Stormwater Rates Study

Evaluate alternatives and recommend a stormwater rate structure for large-site industrial areas to more accurately reflect payment for City services used. Current rate assumptions are inconsistent with typical conditions in industrial areas, where 56 percent of land is on sites 20 acres or larger, a high share of stormwater is retained on-site, and streets cover a relatively small share of land.



Funding for critical transportation projects like the Lombard overcrossing is needed to maintain the health of our industrial districts. (photo credit: Port of Portland)

TRACKING PROGRESS AND MEASURING RESULTS

The following measures are recommended to track the progress in implementing the River Plan / North Reach. These measures are currently being tracked in the annual State of the River Report.

| Measurement | Indicator |
|--|---|
| Increase in maritime tonnage of goods handled in the working harbor | Cargo handled in short tons |
| Increase in private capital investment in the working harbor and Columbia Corridor industrial areas, especially in cleanup sites | Total value in buildings in each harbor industrial district |
| Job growth in regional target industries and the manufacturing sector generally within the working harbor and Columbia Corridor industrial areas | Increase in target industry jobs |



One measure of a prosperous harbor is the tons of maritime cargo that is handled every year.

2. WATERSHED HEALTH

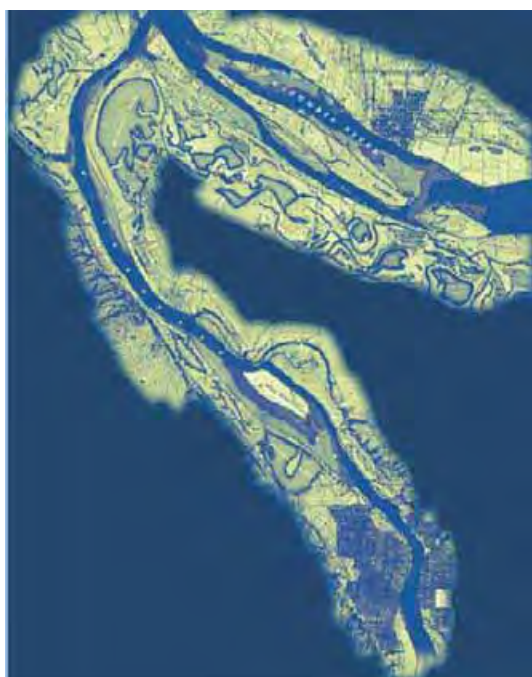
Located at the confluence of the Willamette and the Columbia Rivers and along the Pacific Flyway, the North Reach is a primary component of the region's ecological infrastructure which includes the Ridgefield Wildlife Refuge and Vancouver Lake Lowlands, Sandy River basin, Sauvie Island and the Tualatin Mountains. This stretch of river provides habitat connectivity among diverse wetland, riparian and upland resource areas such as Smith and Bybee Wetlands, Oaks Bottom, Ross Island, and Forest Park. These natural areas act as a primary movement corridor for approximately 200 bird species, many of which are experiencing significant long-term decline, and provide breeding habitat for neo-tropical migratory songbirds. Shallow water areas and beaches are used by threatened species of salmon for resting and rearing as they migrate to and from their tributary spawning grounds.



Bald eagles and American Peregrine Falcons live in the North Reach.

Rising steeply on the east bank of the Willamette River, the Willamette Bluff is a unique geologic artifact of the Lake Missoula floods that occurred 15,000 years ago. In North Portland this steep, sloped bluff parallels the River from the Fremont Bridge northwest to the St. Johns neighborhood. The escarpment was once covered with Oregon white oak and Pacific madrone woodlands, and native grasslands; now only small remnants remain. The Willamette Bluff offers the best opportunity in the City for the long term restoration of oak and madrone woodland habitat.

However, as Portland has developed and prospered, residential, commercial and industrial development has resulted in habitat loss and fragmentation and the alteration of natural systems as shown in the maps comparing 1888 and 2007 below. Floodplains and wetlands have been filled, streams diverted and portions of the riverbank hardened to facilitate the economic growth of the harbor. As a by-product of this development, harmful industrial compounds from adjacent upland properties have entered the Willamette. Oils, metals and other chemicals have been transported into the river via stormwater run-off from city streets and other substances from riverside



1888 Lower Willamette and Columbia River Confluence



2007 Lower Willamette and Columbia River Confluence

Goals for Watershed Health

In 2005 City Council adopted the Portland Watershed Management Plan, outlining a comprehensive approach for improving Portland's watershed conditions. The Plan established four main watershed health goals for the City of Portland:

- **Hydrology:** Move toward flow conditions to protect and improve watershed and stream health, channel functions, public health and safety and to support native species such as salmonids.
- **Physical Habitat:** Protect, enhance and restore aquatic and terrestrial habitat conditions to support key ecological functions and improved productivity, diversity, capacity and distribution of native fish and wildlife populations and biological communities.
- **Water Quality:** Protect and improve surface water and groundwater quality to protect public health and support native fish and wildlife populations and biological communities.
- **Biological Communities:** Protect, enhance, manage and restore native aquatic and terrestrial species and biological communities to improve and maintain biodiversity in Portland's watersheds.

The Plan recommends actions to advance stormwater management, revegetation, aquatic and terrestrial enhancement, protection and policy, operations and maintenance, and education, involvement and stewardship strategies.

The Willamette River Natural Resource Inventory and proposed protections for natural resources in the North Reach reflect the science and ecological principles that provide the basis for the Portland Watershed Management Plan

canopy in Portland to enhance neighborhood livability, provide habitat for wildlife, and improve air quality.

The River Concept provides the following guidance related to watershed health.

- Riverfront and watershed actions achieved through public and private investments will improve water quality.
- Opportunities to protect, conserve, and restore fish and wildlife habitat, including streams, wetlands, riparian areas, and upland vegetation will be explored and implemented through public and private actions. Mitigation required of public and private parties will improve habitat functions.
- Innovative riverbank treatments and plantings that enable active, economically viable industrial uses and enhance fish and wildlife habitat will be achieved through public and private investment.
- Actions that contribute to water quality and watershed protection and restoration will be proactively pursued by the City.

properties along the full length of the river. As a result, water quality has declined and soils, groundwater and sediments in and along the river are contaminated with metals, polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenols (PCBs), pesticides, herbicides and dioxin/ furans. Currently, the lower Willamette River does not meet state water quality standards for bacteria, temperature, metals and other toxins and a six mile stretch of the North Reach was listed on the National Priorities List as the Portland Harbor Superfund Site in December 2000. A remedial investigation and feasibility study has been underway since 2001.

Nevertheless, the remaining natural resources in the North Reach are important and do merit conservation, enhancement and restoration to improve water quality, hydrologic functions and fish and wildlife habitat.

POLICY GUIDANCE

The River Renaissance Strategy provides the following policy guidance related to watershed health:

- As Portland grows, transform redevelopment and infrastructure projects into opportunities to improve watershed conditions through creative building and site design and use of innovative materials and techniques.
- Promote low impact development principles that emulate natural water flow, minimize land disturbance, and incorporate natural landscape features into the built environment through education, incentives, and regulation.
- Establish ecologically viable corridors for migratory fish and birds and other wildlife through habitat protection and restoration.
- Protect and restore a healthy and diverse tree

WATERSHED HEALTH OBJECTIVES AND RECOMMENDATIONS

The following objectives address established policy guidance and respond to North Reach issues:

1. Update the Willamette River Natural Resources Inventory for the North Reach.
2. Develop and invest in actions that:
 - a. Conserve, protect, and restore remaining significant natural resource values and functions, including hydrology and water quality, and habitat viability and biodiversity.
 - b. Improve habitat connectivity along the river and the Willamette bluff, and between important habitat sites within and near the North Reach.
 - c. Acquire important habitat areas.
 - d. Inspire low-impact industrial development designs.
 - e. Include strategies to preserve and increase tree canopy in the North Reach and to protect rare native oaks and madrones.
 - f. Advance the City's compliance with regional, state, and federal regulatory obligations.
 - g. Help to recover species listed under the Endangered Species Act and to prevent further species listings.



Willamette Cove's beaches and forest provide important fish and wildlife habitat.

OBJECTIVE 1. Update the Willamette River Natural Resources Inventory for the North Reach

Both the River Renaissance Strategy and the Portland Watershed Management Plan call for the City's natural resource inventories to be updated. The inventory for the Willamette River is over 20 years old. To help inform the River Plan process, an updated natural resource inventory for the Willamette River was produced to document the location, extent and relative condition of existing natural resources in the North Reach (See Map 5: *Natural Resource Inventory – Riparian / Wildlife Habitat Combined Ranks* and Volume 3A : *Willamette River Natural Resource Inventory: Riparian Corridors and Wildlife Habitat*). The updated inventory builds upon the science and approach Metro used to develop the Regional Inventory of Significant Riparian Corridors and Wildlife Habitat, adopted as part of Metro's Title 13 Nature in Neighborhoods program. The WNRI assesses the extent, condition and functionality of riparian corridors and wildlife habitat in the North Reach.



Large wood accumulates on the beach at McCarthy Park on Swan Island, creating pools, cover and an inviting riparian edge.

Roughly 1,300 acres of land in the North Reach receive a high, medium, or low rank in the inventory for their important contribution to riparian corridor and wildlife habitat functions. An additional 2,200 acres of open water and beaches also receive a high rank. There are 21 Special Habitat Areas in the North Reach that contain or support critical habitats and species at risk, including native oaks, wetlands, and bottomland forest, as well as bridges that provide habitat for Peregrine Falcons. This information, along with inventory information about plant

communities, wildlife populations, pollution and other impacts to the river and the landscape, has helped to inform the River Plan. The inventory also provides the basis for the new river environmental overlay zone and refinements to existing environmental overlay zones by identifying resources that are currently contributing to water quality, hydrology, and fish and wildlife habitat.

Recommendations

- **Adopt the updated Willamette River Natural Resource Inventory: Riparian Corridors and Wildlife Habitat** (See Volume 3A: *Willamette River Natural Resource Inventory: Riparian Corridors and Wildlife Habitat* and Volume 3B: *Willamette River Natural Resource Inventory: Riparian Corridors and Wildlife Habitat - Appendices*)
- **Establish mechanisms to keep the inventory up to date**
As resources allow, maintain GIS data using current aerial photographs, LiDAR and other information sources. Make the updated natural resource maps accessible to Portland residents online. Once the natural resource inventory methodology is adopted, explore opportunities to update the natural resource feature and functional ranking maps administratively rather than through infrequent legislative processes.

OBJECTIVE 2. Develop and invest in actions that:

- a. Conserve, protect, and restore remaining significant natural resource values and functions, including hydrology and water quality, and habitat viability and biodiversity.
- b. Improve habitat connectivity along the river and the Willamette bluff and between important habitat sites within and near the North Reach.
- c. Acquire important habitat areas.
- d. Inspire low-impact and eco-industrial site and development designs.
- e. Develop strategies to preserve and increase tree canopy in the North Reach and to protect rare native oak and madrone trees.
- f. Advance the City's compliance with regional, state, and federal regulatory obligations.
- g. Help to recover species listed under the Endangered Species Act and to prevent further species listings.

Recommendations

- **Apply a new river environmental overlay zone to high and medium ranked natural resources within the boundaries of the river overlay zones.**



The proposed river environmental overlay zone will conserve natural resources on sites like the Linnton beach.

The City has dual goals for the riverfront in the North Reach: to support river-dependent and river-related uses and to conserve and restore fish and wildlife habitat and maintain and improve riparian habitat connectivity. Achieving natural resource protection within a heavily developed industrial area is no small endeavor especially when development located on riverfront sites is required to use the river. Due to the importance of maritime shipping to the state and local economy, imposing limitations on the amount of land that can be developed can be counter productive to economic development. In addition, much of the vacant land is contaminated and increasing development costs and process uncertainties can be a barrier to cleanup

and redevelopment of those sites. This makes the environmental zoning approaches used elsewhere in the city more challenging to apply in the North Reach. Given these circumstances, a new e-overlay specific to the North Reach is proposed as a way to maintain and improve riparian and upland habitat connectivity along the river. This will be critically important to avoid further deterioration of watershed health as businesses continue to expand and redevelop in the North Reach. The additional regulations will apply to high and medium ranked resources as identified by the WNRI. The high and medium ranked resources are primarily rivers, streams, wetlands and adjacent woody vegetation, vegetated flood areas, vegetated riverbanks and important wildlife habitats and corridors. (See Map 6: *Watershed Health – Proposed Overlay Zones and Potential Restoration Sites*).

The purpose of the e-overlay and associated regulations is to conserve these existing high and medium ranked natural resource values and functions as industrial development occurs. The proposal does not apply the e-overlay to portions of riverbank that are currently in river-dependent use or that are hardened and without vegetation. These areas rank low in the WNRI. Additionally, the e-overlay is not applied to flood areas that are mostly developed and where the only existing natural resource function is water storage during flood events. The flood area will continue to be subject to balanced cut and fill regulations. Application of the e-overlay will encourage innovations in low impact development to expand both economic and natural resource functions as these sites develop.

Some development-related activities, such as normal repair and maintenance, will be exempt from the regulations. Development that is not exempt will either meet development standards or undergo a discretionary land use review. Standards for specific development activities are included in Volume 1B: *Code Amendments and Zoning Maps*. Mitigation will be required for most development in the e-overlay.

The approval criteria applied during discretionary land use reviews focus on minimizing detrimental impacts to natural resources and functions within the e-overlay. An alternatives analysis will be mandatory and mitigation will be required to compensate for unavoidable impacts. During the course of a review, an applicant will have the opportunity to provide updated site assessment data pertaining to the natural features. This information may be used to supplement and update the City's inventory data and to inform the review process and decision. It may be determined that on-site mitigation is not practicable. In that case, the applicant will have the option of conducting mitigation at another approved site or paying a fee that will be directed to the River Restoration Fund. The fee will be based on an average cost to conduct the required mitigation at an off-site location, plus a management fee. For example, if the applicant is proposing to add riprap to the riverbank, and on-site mitigation is deemed infeasible, the off-site mitigation fee would be based on the cost to enhance the same amount of bank at an off-site location.

City of Portland Environmental Overlay Zones

The City of Portland's environmental overlay zones protect resources and functional values that have been identified by the City as providing benefits to the public. The environmental regulations encourage flexibility and innovation in site planning and provide for development that is carefully designed to be sensitive to the site's protected resources. The environmental regulations fulfill the requirements of Statewide Planning Goal 5 and also help carry out the City's Comprehensive Plan policies and objectives. These regulations also help meet other City, regional, state, and federal goals and regulations.

The **environmental protection overlay zone (p-overlay)** provides the highest level of protection to the most important resources and functional values. These resources and functional values are identified and assigned value in the WRNI and Economic, Social, Environmental, and Energy (ESEE) analysis for each specific study area. Development will be approved in the environmental protection zone only in rare and unusual circumstances.

The **environmental conservation overlay zone (c-overlay)** conserves important resources and functional values in areas where the resources and functional values can be protected while allowing environmentally sensitive urban development.

The environmental overlay zones are sometimes casually referred to as "e-zones", but they should not be confused with the **river environmental overlay zone**.

- **Apply the City's existing environmental conservation (c-overlay) and environmental protection (p-overlay) overlay zones to natural resources outside of the boundaries of the river overlay zones.**

In the North Reach significant natural resources also exist in areas outside the river overlay zones in the areas regulated by Statewide Planning Goal 5. These resources also provide important ecological functions including stream water conveyance, stormwater filtering, and habitat connectivity. The steep slopes of the east-side Willamette bluff provide a unique vegetated habitat corridor that extends from Pier and Chimney Park to the Fremont Bridge. The corridor contains rare native oak and madrone trees that provide important habitat for migratory birds and other species. Other natural resources outside the boundaries of the river overlay zones include wetlands and tributary streams flowing from Forest Park to the river, and other large vegetated areas. Significant resources are documented in Volume 3A: *Willamette River Natural Resource Inventor: Riparian Corridors and Wildlife Habitat*.

An evaluation of potential programs to protect natural resources located outside the river overlay zones is presented in Volume 3C: *Economic, Social, Environment and Energy Analysis and Recommendations for Riparian Corridors and Wildlife Habitat* (ESEE analysis). The ESEE analysis is required to comply with Statewide Planning Goal 5. The purpose of the analysis is to evaluate the tradeoffs associated with different levels of natural resource protection. The ESEE analysis is qualitative and relative in nature, and is not required nor intended to be a quantitative benefit-cost assessment. Rather, the ESEE analysis is meant to identify the general implications and tradeoffs associated with the program choices.

The River Plan / North Reach recommends applying the c-overlay or p-overlay to natural resources where the ESEE decision is to limit development. These recommendations are shown on Map 6: *Watershed Health – Proposed Overlay Zones and Potential Restoration Sites* and on the zoning maps (See Volume 1B: *Code Amendments and Zoning Maps*). The environmental overlay zones will require proposed development to meet standards or undergo discretionary review to avoid, minimize, or mitigate impacts on significant resources. Like the e-overlay, the environmental conservation and protection overlay zones specify certain activities that are exempt from the regulations.



Balch Cove is a candidate site for Portland's River Restoration Program. Enhancing shallow water habitat will provide an off-channel refuge for salmon.

■ Establish a River Restoration Program

A key component of the overall River Plan / North Reach is the development and operation of a River Restoration Program. This program will acquire, restore and manage in perpetuity, key sites for long term public benefits such as fish and wildlife habitat, water quality, and flood storage.

During the planning process, stakeholders engaged in the development of a conceptual landscape plan for the North Reach identified restoration opportunities along the river. City staff refined the selection of opportunity sites in coordination with state and federal agencies. The proposed list of restoration sites is provided in Section II.B.2: *Action Agenda* and is illustrated on Map 6: *Watershed Health – Proposed Overlay Zones and Potential Restoration Sites*. These restoration sites include property owned by the City of Portland and Metro, as well as sites in the North Reach that may be acquired from willing property owners. Additional opportunity sites may be identified in the future.

Program funding will come from numerous sources. One source will be revenue generated from a fee assessed at 1% of project value that will apply to development proposals within the river overlay zones. This percentage may need to be revisited once a revenue estimate is completed. Another source will be development related mitigation. In certain circumstances applicants will be allowed to pay a fee in lieu of mitigation for unavoidable impacts to natural resources within the e-overlay. This could come from public investments in watershed health, grants from state and federal programs and foundations, and possibly from private sector restoration bankers, among others.

The restoration program will be structured to also accommodate mitigation required by state and federal agencies, and compensation for past damages determined by the Portland Harbor Natural Resource Trustees through the Natural Resource Damage Assessment (NRDA) process.

A range of management options are under consideration, including sole City ownership and management, management by the City in partnership with a for-profit entity, and management by the City in cooperation with a team of local and state agencies and non-profit entities. Accounting methods under consideration follow accepted methods used by state and federal agencies to assess natural resource values and determine appropriate compensation for impacts to those values. The accounting system will track mitigation resulting from City requirements and those required by others.

Natural Resource Damage Assessment (NRDA)

According to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), commonly referred to as “superfund”, and the Oil Pollution Act of 1990, parties determined to be responsible for releases of hazardous substances are liable for the cleanup cost and compensation for injury to natural resources as a result of those releases.

The Portland Harbor Natural Resource Trustee Council (Trustees) is comprised of three agencies: NOAA Fisheries, US Fish & Wildlife Service, and the Oregon Department of Fish and Wildlife; and the Confederated Tribes of the Warm Springs Reservation of Oregon, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Grand Ronde Community of Oregon, Confederated Tribes of Siletz Indians of Oregon, Nez Perce Tribe, and the Confederated Tribes and Bands of the Yakama Nation. The Trustees are authorized to conduct studies within the Portland Harbor Superfund Site to identify the extent of natural resource injuries, the best methods for restoring those resources, and the type and amount of restoration required.

This compensation process may take the form of a natural resource damage assessment (NRDA) in which the Trustees seek a legal claim for damages and request compensation for public trust resources damaged or lost. This compensation must be used to restore, replace or acquire resources equivalent to those lost or damaged. The Trustees have initiated the NRDA process and are currently establishing the injury and assessing potential damages.

According to the January, 2007 Trustees report, *Preassessment Screen for the Portland Harbor Superfund Site*:

“... it is evident that the direction of the remedial investigation/ feasibility study is not toward full restoration of likely injuries, and will not address lost services of resources which have been ongoing since the enactment of CERCLA. Thus, additional restoration, replacement, and rehabilitation of natural resources will ultimately be necessary.”

The restoration sites will be prioritized based on a number of factors once the restoration program is operational. The prioritization criteria include: the potential for ecological improvements; the cost of restoration; the extent of contamination; the cost and complexity of cleanup; and the willingness of the property owner to participate in the program. Restoration sites located on private property will be purchased outright or acquired through a conservation easement from willing owners as opportunities and funding become available.

A consultant is currently on contract to help develop the River Restoration Program but additional work will be needed to finalize program details. Further program development is contingent on a general fund allocation by the City. Until the 1 percent development fee and other sources have generated enough revenue to support the program, additional City funding will also be needed.

- **Develop strategies to help increase tree canopy in the North.**

An important City policy is to increase tree canopy citywide. Trees provide a number of ecosystem services including protecting air and water quality, regulating the flow of stormwater, sequestering carbon that contributes to global warming, and supplying important habitats. Portland's Urban Forestry Management Plan calls for increasing the tree canopy in the urban area and has set tree canopy targets for all types of land uses, including a 15 percent coverage target in commercial and industrial areas and 35-40 percent coverage in residential areas.



Native Oregon white oaks ascend the steep slope along Willamette Bluff.

The River Plan / North Reach will help sustain tree canopy in the North Reach through the establishment of the e-overlay, the c-overlay and the p-overlay. The North Reach draft code proposes standards to guide the removal and replacement of trees in the river environmental overlay zone. Other existing citywide regulations will continue to apply to the North Reach including standards to preserve or mitigate for trees in conjunction with land divisions and new single family development. In addition, the Planning Bureau is currently leading the Citywide Tree Policy Review and Regulatory Improvement Project to clarify, simplify and provide a consistent and effective regulatory framework. It is recommended that this effort identify and establish, as appropriate, additional mechanisms to maintain and enhance tree canopy, including tools to protect and restore native oak, madrone, and other

significant trees. Other City strategies that will improve the urban forest include the Grey-to-Green initiative and the BES Watershed Revegetation Program.

- **Develop regulations for the application of pesticides and herbicides in the river overlay zones**

The application of herbicides currently requires greenway review. Typically, conditions of approval require that the use of herbicides be in compliance with Portland Parks and Recreation's Integrated Pest Management Strategy (IPM), and specifically with Policy 19 which addresses pest management along waterways. The goal of the IMP is to manage pests and the environment so as to balance cost, benefits, public health, and the environment.

Policy 19 provides guidelines and limitations regarding maintenance methods and materials that can be used within 25 feet of a waterway (including the Willamette River). For example: pesticide delivery within this area must be carried out by hand with directed, low volume, single wand sprayers, wiping, daubing and painting equipment, injections systems, or drop spreaders; the list of pesticides that can be used near a waterway are limited; and, application of pesticides is not allowed when the wind is blowing faster than 5 miles per hour or when the winds could carry the product to the waterway.

However, Policy 19 is not clear enough to use to develop a standard for which herbicides are allowed to be used in and near water bodies. This standard could be developed through the River Plan / South Reach or River Plan / Central Reach and then amendments proposed for the River Plan / North Reach.

- **Submit the River Plan to advance compliance with Metro Title 3 and Title 13 and other state and federal mandates**

The River Plan is intended to serve as a mechanism to meet regional natural resource mandates for the area adjacent to the Willamette River in the North Reach and will be submitted to Metro as a component of the City's program to continue to comply with Title 3 (Water Quality) and comply with Title 13 (Nature in Neighborhoods) of the Regional Urban Growth Management Functional Plan.

Metro allows local jurisdictions to submit area-specific "district plans" to comply with Title 13. The City intends the River Plan/ North Reach to serve as a "district plan" for that area. This approach will allow the City to address the unique characteristics of the North Reach in meeting Title 13 regional requirements to protect, conserve, and restore significant riparian corridors and wildlife habitat. The River Plan / North Reach establishes mechanisms to protect, conserve and restore much of the Title 13 Habitat Conservation Areas. The WNRI has been updated to reflect current information and local conditions. The River Plan program has been carefully designed to balance goals and objectives for North Reach economic prosperity and watershed health. As such, the program meets the intent of Title 13 but proposes some refinements for the North Reach as follows:

- The City will not apply the e-overlay to non-vegetated, hardened river banks in the North Reach (e.g. seawalls, riprap). This approach will facilitate development in already impacted areas with high economic development value and potential.
- The City will apply regulations to conserve the relatively high and medium functioning natural resources located on the marine terminal sites that Metro exempted from Title 13 requirements. The City's program will exempt certain types of development activities rather than exempting specific uses or sites. For non-exempt development, the proposed regulations will allow development that meets

Stormwater Management in Portland

Impervious surfaces increase stormwater runoff rates during rainfall events, disrupting the natural hydrologic cycle, eroding stream channels and preventing groundwater recharge. Parking lots, roadways and rooftops increase the pollution levels and temperature of stormwater that is transported to streams, rivers, and groundwater.

In 1972, Congress passed the Clean Water Act which prohibits the discharge of pollutants into waters of the United States unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Large cities such as Portland must obtain an NPDES permit for their municipal separate storm sewer system discharges. Compliance requires establishment of a comprehensive stormwater management program, including controls on post-development stormwater runoff and source controls for industrial facilities that contribute substantial pollutant loading to the system.

Portland established a regulatory program in 1999, which includes water quality and flow control design standards for onsite stormwater management facilities. The program focuses on low-impact development practices, structural source control devices, and maintenance and operational best management practices (BMPs) designed to improve stormwater quality, all of which are published in the City of Portland **Stormwater Management Plan** and **Stormwater Management Manual**.

The manual responds to these regulatory mandates by providing stormwater management principles and techniques that help preserve or mimic the natural hydrologic cycle, minimize sewer system problems, and improve water quality. The manual provides developers and design professionals with specific requirements for reducing the impacts of stormwater from new development and redevelopment.

As each development and redevelopment project meets the requirements of the manual, it contributes to citywide watershed health improvement goals.



standards. Development that cannot meet standards will be required to avoid adversely affecting the resources if practicable and to mitigate for unavoidable impacts.

- The City will apply the e-overlay, c-overlay or p-overlay to some high and medium ranked upland natural resources that are not addressed by Title 13 requirements.
- The City will implement an ambitious off-site restoration program that will enhance ecological conditions at specific sites along the river.

In addition, the River Plan/ North Reach will contribute toward compliance with the Clean Water Act. Provisions to conserve and restore natural resource functions will help the City meet best management requirements as outlined in the City's Municipal Stormwater Plan and NPDES permit. City stormwater policy and the City Stormwater Management Manual encourage sustainable stormwater strategies. Provisions that encourage preservation of vegetation along the river, tributaries, and wetlands will also help the City achieve its obligation to meet Total Maximum Daily Load requirements for temperature established by the Oregon Department of Environmental Quality.

The River Plan/ North Reach also furthers work prompted by the Endangered Species Act. By setting aside habitat to be restored and protected in perpetuity and by developing provisions to conserve remaining habitat, the River Plan/ North Reach may help restore listed species as well as other species that are in decline.

▪ **Inspire low-impact and eco-industrial site and development designs**

Low impact and eco-industrial site design are development approaches that aim to reduce impacts to natural resources and systems. These strategies include:

- Using the development site more efficiently by locating development to avoid or minimize impacts to natural resources (e.g. riverbanks, wetlands).
- Incorporating energy efficient materials (e.g. highly reflective roof coatings, passive cooling systems).
- Utilizing alternative energy systems (e.g. geothermal, solar).
- Implementing stormwater management strategies which mimic the natural hydrologic cycle through on-site retention and filtration (e.g. greenroofs, rain gardens, permeable surfaces and bioswales).

These elements can be achieved through both regulatory and non-regulatory measures including partnerships, incentives, grants and technical assistance. Future actions to implement this recommendation could include a design handbook for the Willamette River or amendments to the Environmental Handbook.



Ford's Rouge Center truck plant in Dearborn, Michigan includes a 10-acre ecoroof.



American Honda in Gresham incorporates a highly reflective roof, rainwater harvesting and passive air conditioning systems.

TRACKING PROGRESS AND MEASURING RESULTS

The following measures are recommended to track the progress in implementing the River Plan / North Reach. Some of these are currently being tracked in the annual State of the River Report (indicated by *) or by the Portland Watershed Management Plan, while others are newly recommended measures. New measures may require additional data collection, analysis, and funding and therefore may not be tracked in initial years.

| Measurement | Indicator |
|---|---|
| Healthier populations of native fish and wildlife that use the river and streams for rearing, migration and year-round habitat* | Change in percentage of stream sites rated as severely impaired, marginally impaired, or acceptable for fish habitat using an index of biotic integrity every 3-5 years, abundance and spatial distribution of spawners and juvenile salmonids per mile; growth rates of juvenile salmonids; ratio of non-native to native aquatic species. |
| Annual water quality improvements in monitored streams* | Change in water quality at DEQ monitoring sites in the North Reach (Willamette River, Columbia Slough, Swan Island Channel) |
| Increase the area and improve the quality of natural resources in the North Reach, including native vegetation on the bluffs and river banks, and tree canopy throughout the project area | <ul style="list-style-type: none"> ▪ Acres of resource area by habitat type acquired and restored ▪ Acres of resource area by habitat type conserved or protected ▪ Acres/lineal feet of vegetation (natural forest, woodland, shrub, grassland) that increases habitat corridor connectivity ▪ Ratio of vegetated to non vegetated river banks ▪ Feet of tributary streams daylighted ▪ Acres increase in tree canopy ▪ Width and quality of vegetated riparian corridors ▪ Acres of floodplain enhanced or restored |



River Plan recommendations will forward watershed health goals, including restoring fish and wildlife habitat in the North Reach.

3. ACCESS

Ever since the decision was made to turn Harbor Drive into Tom McCall Waterfront Park, Portlanders have had a vision that the Willamette River can be a place of civic pride—an inviting front yard where we can play, greet our neighbors, and show off our home to visitors. We look forward to vibrant waterfront districts and neighborhoods throughout the city that celebrate the river as our chief economic, environmental, and social asset. Paramount to this goal is improved access to, along, and across the river.

In the North Reach, access is especially limited where river-dependent industrial activities are concentrated at the river's edge. Yet North Portlanders yearn for the ability to walk and bike to the river from their neighborhoods and commute to work using riverfront trails. They want to be able to swim and boat in Portland's harbor, and take in the river's riches—both the manmade and natural treasures—from a new perspective. Access to the river is also a critical component in maintaining a prosperous working harbor with a safe and robust transportation network to and from North Reach industrial districts.

Creating new ways to access the Willamette River in the North Reach yields a unique set of challenges but also offers rare opportunities. Trails and open spaces must be located and designed to ensure a safe experience for users and security for nearby businesses. These amenities can benefit harbor area businesses and employees and give Portland's citizens a glimpse of the bustle of the working waterfront, fostering greater understanding of and appreciation for the industrial districts that are a key part of our city's economic engine.

The Willamette River Greenway Trail is an important link in the regional trail network, the 40-Mile Loop Trail, and the City's transportation system; the un-built segments in the North Reach represent a major gap in the system. Though many portions of the working harbor are highly constrained by the dense industrial development along the water's edge, the River Plan envisions new ways to get to and use the Willamette River.

As we make progress toward this vision, we find that creating opportunities to play, relax, exercise, and commute near the river enhances our quality of life, increases economic prosperity, and connects us to the river that has been Portland's lifeblood. These same amenities pay other dividends by strengthening Portland's reputation as a sustainable city and increasing the economic benefits offered by tourism.

POLICY GUIDANCE

The River Renaissance Strategy provides the following policy guidance related to access:

- Expand, preserve, and enhance an interconnected system of parks, trails, and open spaces along the Willamette River.
- Provide ample, safe connections for pedestrians and bicyclists between neighborhoods and the water's edge.
- Using a variety of tools, develop a continuous trail over time along both sides of the Willamette River that complements the existing and planned riverfront uses and recognizes the vital contribution that river-



Portlanders take advantage of recreational opportunities in and along the river.

proximate industrial uses make to Portland's economy.

- Create a variety of settings to accommodate a diverse range of river-related recreational opportunities.
- Expand opportunities for boating, fishing, swimming, and other in-water recreational activities. Incorporate public art, viewpoints, and educational displays about Portland's history, natural environment, and harbor economy into the design of the trail and open space system.
- Consider the history and special qualities of the Willamette and Columbia Rivers when designing buildings, streets, landscaping, parks, and public art in waterfront districts.
- Create and enhance community gathering places near the Willamette and Columbia Rivers, such as parks, residential districts, or retail districts.



The greenway trail on Swan Island provides river access and views of Portland's working harbor.

The River Concept provides the following guidance related to access:

- The St. Johns waterfront, south of Cathedral Park, will become a dynamic mixed-use district with new residential, employment and commercial development, open spaces, recreational opportunities, trail connections, and pedestrian friendly streets. This riverfront area will need to coexist with rail operations.
- New investment on the Linnton waterfront will add to activity, access to the waterfront, and the community's economic base.
- The riverfront between the University of Portland and Cathedral Park has the potential to develop into two continuous miles of greenway trail, campus activity, natural habitat, parks, viewpoints, and water recreation opportunities through public and private actions.
- A bikeway and pedestrian system will continue through the North Reach using off-street trails, on-street bicycle lanes, and sidewalks. In addition, a new bike and pedestrian path will be constructed connecting the east and west sides of the river utilizing the existing St. Johns Bridge, the railroad bridge, or a new bridge crossing the Willamette.
- Access from North Portland neighborhoods to McCarthy Park on Swan Island and the greenway trail will be improved with the development of the Waud Bluff Trail and other potential trail connections down the bluff.
- The confluence of the Columbia and Willamette rivers will continue to serve as a regional natural area with abundant recreation opportunities on Sauvie Island, Kelley Point Park, and the Columbia Slough.
- Those entering Portland by ship or boat from the Columbia River will experience the economic vitality of Portland's front yard through the working harbor. They will view the success of the harbor, marine industries, ships, well maintained docks, cranes, and rail lines.
- The River Concept also provides guidance related to transportation improvements on Swan Island: Transportation improvements to North Going Street and a secondary access route will enhance capacity to accommodate increased freight movement in the district. Other transportation investments to expand employee travel choices and reduce single occupancy vehicle trips to the area will help protect roadway capacity for freight movement.

OBJECTIVES AND RECOMMENDATIONS

The following objectives and recommendations address established policy guidance and respond to North Reach issues:

1. Designate a continuous Willamette River Greenway trail along both sides of the river that will be developed over time using a variety of tools.
2. Identify new Willamette River Greenway viewpoints with the aim of increasing appreciation of the natural and economic assets of the North Reach.
3. Improve vehicular, bicycle and pedestrian access to Swan Island.
4. Encourage water-based recreation on certain sites by continuing the requirement that primary uses be river-dependent recreational uses.

OBJECTIVE 1. Designate a continuous Willamette River Greenway trail along both sides of the river that will be developed over time using a variety of tools

The alignment of the proposed Willamette River Greenway Trail is based on the following principles:

1. The Willamette River Greenway Trail can provide public access to the Willamette River, improve circulation within and between neighborhoods, reduce vehicle congestion, and provide a safe alternative transportation route that is attractive to a variety of users.
2. Where the land is being preserved for river-dependent industrial uses, a trail along the riverfront is generally not feasible. While River Renaissance envisions the integration of trails with a variety of land uses along the riverfront, current security issues, and the levels and types of river-dependent uses in much of the North Reach, preclude realizing that vision.
3. Where the land is not being preserved for river-dependent industrial uses, a trail can be feasible.
4. Where an industrial area is rail-dependent, a trail near the rail line can be feasible if there is adequate space and user safety issues can be addressed.
5. If conditions in the North Reach change over time and the City policies regarding preserving land for river-dependent activities change, then the possibility of a riverfront trail in the North Reach should be revisited.
6. Trails in natural resource areas can be feasible if they are located and designed in an ecologically-sensitive manner to prevent adverse impacts on natural resource values and functions. Public access should be avoided in and around ecologically-sensitive sites. Unavoidable detrimental impacts should be mitigated. Education and outreach efforts through partnerships with neighborhood groups should emphasize the unintended impacts on resource areas from human and domestic animal use.



The BNSF Railroad Bridge offers a potential rail with trail linking Portland's east and west sides for both commuting and recreational pursuits.

Recommendations

- Modify the location of the public recreational trail symbols on the zoning maps to correspond with the near-term Willamette River Greenway Trail alignment shown on Map 8: *Access – Proposed Trails and Viewpoints*.
- Amend the zoning code to require evaluation of the rough proportionality of trail requirements (see Volume 1B: *Code Amendments and Zoning Maps*, for more information).
- Portland Office of Transportation (PDOT) should include all segments of the near-term Willamette River Greenway Trail alignment shown on Map 8: *Access – Proposed Trails and Viewpoints* in the Transportation System Plan, Bicycle Master Plan, and Pedestrian Master Plan during the next scheduled update of each plan.
- PDOT and Portland Parks and Recreation (Parks) should work with Metro to ensure that all segments of the Willamette River Greenway Trail alignment shown on Map 8: *Access – Proposed Trails and Viewpoints* are included in the Regional Trail Plan.
- PDOT and Parks should conduct additional feasibility studies to evaluate the long-term trail alignments shown on Map 8: *Access – Proposed Trails and Viewpoints*. The long-term alignments include the rail-with-trail proposals along the Portland & Western rail corridor parallel to St. Helens Road/Hwy 30 and the BNSF Railroad Bridge-5.1.
- Planning, the Bureau of Development Services (BDS), PDOT, and Parks should work collaboratively to address citywide trail alignment and trail development issues. Many of these issues are beyond the scope of the River Plan. The issues include the location and alignment of the citywide on- and off-street trail network, the designation of the trail network as a transportation facility, recreation facility or both, and the use of the recreational trail designation on the zoning maps.
- Planning, BDS, PDOT and Parks should work collaboratively to develop, and City Council should fund, a strategy for acquiring and constructing un-built segments of the citywide trail network that will not be acquired or constructed as a result of private development. One idea to consider is allowing a reduction in required parking in exchange for a contribution to go toward trail construction.
- Parks should develop trail design guidelines for various trail conditions including trails in natural areas. This project should also explore use of on-the-ground wayfinding.



The greenway trail will provide access between the University of Portland and Cathedral Park.

OBJECTIVE 2. Identify new Willamette River Greenway viewpoints with the aim of increasing appreciation of the natural and economic assets of the North Reach



A potential viewpoint overlooking Mock's Crest and Swan Island to Forest Park.

Viewpoints allow the public to see the river and the working harbor even when public access to the water's edge is not feasible. In addition to the nine viewpoints that were identified in the 1987 Willamette Greenway Plan (See Map 7: *Existing Willamette Greenway Trail and Bicycle Network*), the River Plan has identified four additional viewpoints in the North Reach (See Map 8: *Access – Proposed Willamette Greenway Trail and Viewpoints*).

Recommendation:

- The City of Portland and Metro should work with property owners and local groups to acquire easements and develop identified viewpoints in conjunction with development of the Willamette River Greenway Trail.

OBJECTIVE 3. Improve vehicular, bicycle and pedestrian access to Swan Island.

Swan Island is an important and successful industrial and employment district. Thousands of employees commute to and from the district each day. Currently, the Going Street Bridge is the only way to access Swan Island. Portland Parks and Recreation is working to construct a bicycle and pedestrian connection from Willamette Boulevard to N. Basin Avenue on Swan Island via Waud Bluff. This connection will include a pedestrian bridge over the Union Pacific railroad tracks. The River Plan recommends that additional connections to Swan Island be explored.

Recommendations:

- PDOT should explore ways to provide additional vehicular, bicycle and pedestrian access to Swan Island through the Lower Albina industrial area. This work should build on the potential alternatives identified in the Swan Island/Lower Albina Transportation Feasibility Study conducted for the River Plan.
- Portland Parks and Recreation should explore when and how to construct the Mock's Crest Trail. This will provide an additional needed pedestrian connection to Swan Island.

OBJECTIVE 4. Encourage water-based recreation on certain sites by continuing the requirement that primary uses be river-dependent recreational uses

The River Plan / North Reach maintains the application of the River Recreational overlay (r-overlay) zone as a means to encourage river-dependent and river-related recreational uses that provide a variety of types of public access to and along the Willamette River and enhance the river's natural and scenic qualities. (See Volume 1B: *Code Amendments and Zoning Maps*).



Cathedral Park will provide improved access for motorized and non-motorized water recreation.

Recommendation:

- Retain the River Recreational overlay zone (r-overlay) on Kelley Point Park, Cathedral Park, and the boat ramp in the Swan Island lagoon to encourage water-based recreation on these sites.
- Complete the Cathedral Park Master Plan and implement the final design.

TRACKING PROGRESS AND MEASURING RESULTS

The following measures are recommended to track the progress in implementing the River Plan / North Reach. These measures are currently being tracked in the annual State of the River Report.

| Measurement | Indicator |
|--|--|
| Increase in the linear feet of off-street Willamette River Greenway Trail segments on both sides of the Willamette River | Linear feet of trail added |
| Improved watercraft access to and from the City's parkland | Improvements completed or planned at existing facilities |

4. RIVERFRONT COMMUNITIES

For 10,000 years, humans have been coming to the river to fish, trade, and live. In the beginning, we looked to the river as a source of sustenance and depended on it for survival. It is only in this last century that we began to turn our backs on the Willamette. We built a seawall, highways, and other structures between our riverfront districts and the river. Though the river was still vital for river-dependent industry in the working harbor, for most Portlanders, the Willamette became an obstacle to cross over, not a jewel to treasure and celebrate.

Over the last few decades, we have once again turned our focus to the riverfront. Riverfront districts and neighborhoods have enjoyed a renewed popularity for living, working, dining, shopping, and recreating. The renaissance of these districts has been a boon for the river in many ways. When flourishing waterfront communities bring more people down to the water's edge, we are inspired to be stewards of our natural environment and we see first-hand how we all depend on the economic engine of our harbor industrial districts.

Yet bringing people and activity near our riverfront industrial districts must be done carefully. Conflicts can arise when new residents experience the noise, lights, and hazards of industrial uses. Intentional design, thoughtful development, and good industrial practices can allow adjacent industrial and residential areas to thrive. Strategies include geographic, structural, and vegetative buffers; insulation and other construction techniques; infrastructure improvements; operational changes; and good neighbor agreements. Vegetative buffers, in particular, are a beautiful way to improve the residential-industrial interface that offer many other benefits, as well. In addition to cleaning the air and providing habitat for birds and other wildlife, trees can block light from nearby properties as well as dampen sound: The U.S. Department of Agriculture reports that a 100-foot wide and 45-foot tall patch of trees can reduce noise levels by 50 percent (1998).



Riverfront locations are highly desirable. With careful planning, we can optimize the use of the river's edge and encourage flourishing industrial, natural, and residential communities.

RIVERFRONT COMMUNITIES POLICY GUIDANCE

The River Renaissance Strategy provides the following policy guidance related to waterfront districts and neighborhoods:

- Create and enhance community gathering places near the Willamette and Columbia Rivers, such as parks, residential districts, or retail districts.
- Maintain and enhance the buffers (riverine bluffs, major roadways, and mixed employment areas) that frame these industrial districts and separate them from other land uses, in order to prevent the loss of industrial land and to reduce impacts on adjacent neighborhoods.
- Act to enhance the Willamette River as Portland's centerpiece by shaping the city's urban form, industrial development, environmental health, public spaces, river communities, and neighborhoods.
- Consider the history and special qualities of the Willamette and Columbia Rivers when designing buildings, landscaping, streets, parks, and public art in waterfront districts.
- Acknowledge and support the important role that existing floating home moorages, marinas, water-related business, and recreation play in the vitality of Portland's waterscape.

The River Concept provides the following guidance related to waterfront districts and neighborhoods:

- The St. Johns neighborhood and nearby industrial areas will become more compatible through the improved site and building design of residential development, voluntary "good neighbor" practices, and new infrastructure projects. These actions will help alleviate light and noise conflicts.
- The St. Johns waterfront, south of Cathedral Park, will become a dynamic mixed-use district with new residential, employment and commercial development, open spaces, recreational opportunities, trail connections, and pedestrian friendly streets. This riverfront area will need to coexist with rail operations.
- New investment on the Linnton waterfront will add to activity, access to the waterfront, and the community's economic base.



The Linnton community is nestled between the mountains and the river. New investment at the old plywood mill site will add activity to the waterfront.

OBJECTIVES AND RECOMMENDATIONS

The following objectives and recommendations address established policy guidance and respond to North Reach issues:

1. Improve livability in the Linnton community.
2. Improve livability in the St. Johns / Cathedral Park area.
3. Encourage the reuse of riverfront land near University of Portland.
4. Address noise concerns citywide between industrial and employment operations and residential development.

OBJECTIVE 1. Improve livability in the Linnton community.

The community of Linnton was once a thriving town with three plywood mills, two newspapers, its own jail and police, and 17 daily passenger trains. Over time fires, the Great Depression, and a declining freight rail business dealt blows to the town's prosperity. In the 1960s, St. Helens Road was widened from two to four lanes and the buildings on the west side of the highway were demolished. The school and railroad depot were closed in the 1970s.

Today, the citizens of Linnton look forward to a revitalization of their community. The neighborhood has built a community center and boasts a committed and active neighborhood association. Despite the neighborhood's efforts, recent planning for the community has not resulted in lasting actions (see *Previous Planning in Linnton*). The River Plan aims to implement some of the actions outlined in this past planning work, encourage reinvestment in the Linnton main street, and recommend further actions to shape the future of Linnton's industrial waterfront.

Recommendations

- Rezone a portion of the commercial district along St. Helens Road from General Commercial (CG) to Commercial Storefront (CG). This will encourage pedestrian-oriented, main street style development in Linnton.
- Work with the Linnton community to develop an action program to improve the vitality of the Linnton village, including identifying and recruiting appropriate industrial uses that are compatible with existing nearby residences. This action program should be consistent with the City Council decision described in *Previous Planning in Linnton*.
- Work with Portland Development Commission to designate the main street portion of the commercial district on St. Helens Road as a storefront improvement target area to make it eligible for storefront improvement grants.
- Work with the Office of Transportation to find funding to analyze the potential for developing a whistle-free zone on the rail line through Linnton.



Also see Linnton-related recommendations in Section II.B: *Action Agenda* and Section III.F: *Linnton Village*.

The Linnton Community Center shows the potential for developing a more pedestrian-friendly main street along St. Helens Road.

Previous Planning in Linnton

In the 1990s, the Linnton Neighborhood Association embarked on a neighborhood planning process that spanned seven years. The City of Portland assisted with the planning early on and then the neighborhood worked on it independently. The Linnton Neighborhood Plan includes zoning proposals and action items related to transportation, public safety, housing and other land uses, parks, historic preservation, the environment, and other topics. The plan expresses the neighborhood's desire to develop a non-auto oriented commercial and residential district with nearby residential development that preserves the unique hillside character of Linnton. When the plan was completed in 2000, the neighborhood requested that the City of Portland take the next steps to get the plan officially adopted by City Council.

The City followed up on this work by launching the Linnton Village and Hillside Studies in the spring of 2004 to address two of the major issues in the Linnton Neighborhood Plan: the creation of a waterfront 'Linnton Village' and the residential densities on the hillside. The two studies were developed through a single planning process, but a separate report was published for each study.

The Linnton Hillside study reduced Comprehensive Plan densities to equal zoning densities, added minimum lot sizes for multiple lots in single ownerships, rezoned all City and Metro-owned properties in Forest Park to open space, and maintained heavy industrial zoning in Fairmont and Willbridge. The Hillside Study was adopted by City Council in May 2006.

The Linnton Village Study investigated the possibilities for redeveloping the Linnton waterfront, exploring six land use scenarios that all included a job-intensive, light industrial employment district on the waterfront with limited work/live residential development as part of that land use mix. The scenarios also included open space, river access, and riverbank restoration.

In the fall of 2005 the Planning Commission requested that staff conduct additional work to determine the feasibility of the development scenarios. Consultants determined that none of the scenarios were feasible at current market rates without public subsidy unless the area could support high priced units.

In the spring of 2006 staff proposed two options for Planning Commission consideration: retain industrial use of the site or designate the site for redevelopment as a new waterfront residential area. Planning Commission voted 6-3 to open up the site for potential mixed use development by changing the Comprehensive Plan map but not the zoning.

Planning Commission's recommendation was rejected by City Council in August 2006. Mayor Tom Potter moved that Council should not accept the Planning Commission report and also that "no further action be taken to pursue changing the Comprehensive Plan designation or zoning for the area in Linnton between the railroad and the river." The vote was 3-2 in favor of Mayor Potter's motion.

OBJECTIVE 2. Improve livability in the St. Johns / Cathedral Park area.

The St. Johns / Cathedral Park community has a rich history that began when James John settled there and began a ferry service in 1852. When the rail line was extended to St. Johns from Portland in 1902, riverfront industry took off and the community grew along with it. The completion of the historic St. Johns Bridge in 1931 further spurred development on the peninsula. Today, the St. Johns / Cathedral Park community boasts thriving residential neighborhoods adjacent to successful harbor industrial districts.

The St. Johns / Lombard Plan (see *Previous Planning in St. Johns*) identified a riverfront area south of the St. Johns Bridge that will transition over time from industrial use to a vibrant, mixed-use area. The plan did not address issues in the area known as Baltimore Woods to the north of the St. Johns Bridge, where residential uses continue to be built in the employment area adjacent to the riverfront industrial sanctuary. Neighbors and industrial property owners alike agree that buffers are needed between residential and industrial development and would like to see actions to reduce complaints related to industrial impacts such as noise.

Recommendations

- Limit the establishment of residential uses in the General Employment 2 zone along N. Decatur Street by limiting residential density and in some cases prohibiting residential development. See Volume 1B: *Code Amendments and Zoning Maps*, for more information.
- Add a provision to the St. Johns Plan District requiring new residential structures within 500 feet of an industrial zone, an employment zone, or a rail line to meet an enhanced insulation requirement. See Volume 1B: *Code Amendments and Zoning Maps*, for more information.
- Work with the Portland Office of Transportation to find funding for the improvements needed to establish a whistle-free zone in Cathedral Park. Work with Parks to ensure that its recommendations for Cathedral Park consider the whistle-free zone requirements.



Residential development near the Toyota facility at Terminal 4 increases the likelihood that the operation will receive complaints about light and noise.

Previous Planning in St. Johns

The planning process for the St. Johns town center and Lombard main street was initiated in 2001 as a cooperative effort by the community and the City of Portland. Adopted by City Council in 2004, the St. Johns / Lombard Plan focuses on land use and transportation issues while identifying strategies, actions and future planning efforts that can create a more livable and economically viable town center and main street that serve the surrounding neighborhood.

The St. Johns / Lombard Plan provided:

- Amendments to the Comprehensive Plan and zoning code and maps designed to
 - Create distinctive, identifiable places for pedestrian-oriented retailing, neighborhood-scale retail and mixed use, and areas that accommodate automobiles.
 - Provide places for additional housing and mixed-use development in downtown St. Johns, near the river, and along the main street to help support community-serving businesses and further the plan's housing goals.
 - Improve the design quality of new development around the St. Johns town center to build upon the existing small town character of the community, and strengthen its relationship with the Willamette River.
 - Retain places for employment and industrial land uses that contribute to the regional economy and provide jobs.
- Balanced transportation improvements designed to improve circulation and safety of pedestrians, bicyclists, vehicles, and transit users. The improvements emphasize a better pedestrian environment, while facilitating traffic flow and freight movement in a way that furthers the area's livability.
- A series of ongoing and future actions to strengthen economic development, environmental quality, community amenities, and the sense of history, community, and identity already evident in the area.
- A recommendation for subsequent planning efforts to evaluate environmental resources and development patterns and potential near the Willamette River.

Previous planning work in St. Johns has focused on how to improve freight routes between the St. Johns Bridge and the industrial districts and Interstate 5 while reducing the impact on the town center.



OBJECTIVE 3. Encourage the reuse of riverfront land near University of Portland.

The McCormick & Baxter site was used as a wood treatment facility from 1941 to 1991, when the McCormick & Baxter Creosoting Company ceased operations. In 1994, the site was placed on the National Priorities List as a Superfund site. During the remedial investigation and feasibility study, the City of Portland coordinated a reuse assessment for the site under contract with the U.S. Environmental Protection Agency. Completed in 2001, the assessment process engaged a broad range of stakeholders and the public to consider the best uses for the site. After analyzing four reuse scenarios, the final report found that the site's access limitations made industrial use infeasible and that commercial or office uses would generate too much traffic in the neighboring residential streets. Park, athletic field, and open space uses were found to be the most consistent with the reuse criteria developed by the study.

The results of the McCormick & Baxter Reuse Assessment: Final Report (2001) were used by the Oregon Department of Environmental Quality to choose the cleanup design for the site. The final remedy includes an impermeable cap that renders most of the site infeasible for development.

In recent years the University of Portland has signaled its intention to purchase the neighboring Triangle Park riverfront property down the bluff from its current campus. The University of Portland is currently pursuing a Comprehensive Plan map amendment to take the Triangle Park property out of Industrial Sanctuary. The university has also indicated an interest in purchasing the adjacent McCormick & Baxter property to use for athletic fields. Such a use is compatible with the cleanup remedy and with the results of the reuse assessment.

Recommendations

- Conduct an economic opportunities analysis to compare industrial and employment land supply with projected demand as required by Statewide Planning Goal 9. If appropriate, change the Comprehensive Plan designation for the McCormick & Baxter property from Industrial Sanctuary to Central Employment and the base zone from Heavy Industrial to Central Employment.



The University of Portland is in the process of acquiring the vacant brownfield in the foreground. Beyond is the former McCormick & Baxter Superfund site, now capped, revegetated, and ready for reuse.

OBJECTIVE 4. Address noise concerns citywide between industrial and employment operations and residential development.

As Portland grows, it is increasingly important that our land be used efficiently. In some areas, this can mean that residences are built nearer to sources of noise. The resulting conflict can be detrimental to both uses. Maintaining viable industrial and employment land inside the city is critical for our future prosperity. At the same time, we are now beginning to recognize that exposure to prolonged and excessive noise can cause significant detrimental health effects analogous to those caused by air pollution. Noise concerns arising from conflicting uses are an issue in many Portland communities and should be addressed on a citywide level.

Recommendation

- Work with the City of Portland Noise Office to further develop citywide policies and strategies regarding residential development in and near industrial and employment zones. Examine the potential for educating new residents in and near industrial and employment zones by requiring purchasers of residential property to sign a noise easement when property changes hands acknowledging that the allowed sound levels are higher than that in a residential or commercial zone.

TRACKING PROGRESS AND MEASURING RESULTS

The following measures are recommended to track the progress in implementing the River Plan / North Reach. These are currently being tracked in the annual State of the River Report.

| Measurement | Indicator |
|--|--|
| An increasing number of residents, workers, and shoppers perceive that waterfront commercial and residential districts are enjoyable places to live, work, and visit. | Percent of Portlanders reporting at least one visit to the Willamette River in the City of Portland Citizen Survey |
| More private and public development activities contribute directly and indirectly to the vibrancy of the waterfront as a place for public use and enjoyment as well as development and investment. | Dollars of investment within the river overlay zones as recorded in City building permits |

As the River Plan's recommendations are implemented, more Portlanders will perceive waterfront districts to be enjoyable places to live, work, and visit.



5. WORKING WITH OUR PARTNERS

The river's edge is important for the regional economy, provides important fish and wildlife habitat, and is critical for maintaining the health of the river and the watershed. In addition, it's a desirable location for transportation, recreation, and residential living. The River Plan aims to optimize the use of this finite resource by working with stakeholders – our regulatory, community, and tribal partners – to help preserve the valuable assets in the North Reach, optimize the use of the riverfront, and implement the recommendations in the River Plan.

Our regulatory partners are the local, state, and federal agencies that provide oversight at the water's edge, working to protect, conserve, and restore the physical, chemical and biological integrity of the river as well as to protect the use of the river for navigation and recreation. For more information about the roles of these agencies, please see *Federal, State, and Local Regulations at the River's Edge*.

Some projects that take place below the Ordinary High Water Mark (OHWM) or that occur as part of a contaminated site cleanup fall under the authority of multiple jurisdictions, resulting in a complicated and lengthy set of permitting processes. The recommendations in this section are intended to improve the overall regulatory process while ensuring the regulations address City interests and policies, including goals for watershed health, access, and economic prosperity.

Our community partners include North Reach property owners, business representatives, advocacy groups, neighborhood associations, and interested citizens. River Plan recommendations in this section are designed to encourage continued education, organization, and discussion around North Reach issues.

Our tribal partners include the Native peoples who called the shores of the Willamette River home for thousands of years. Today there are few established relationships between the City of Portland and the tribal nations; the River Plan recommends improving those lines of communication.

Native Peoples of the Willamette Valley

The Willamette (Walama) and Columbia rivers served as both highways and supermarkets for Native peoples, with a flourishing trade that supported villages throughout the basin and beyond. As settlers came to the Willamette Valley, conflicts erupted. After years of war, a treaty was finally reached in 1855 that set aside land for reservations and gave entire ownership of the Willamette Valley to the United States. It also reserved tribal rights to fish "at usual and accustomed grounds and stations," to erect fish-processing sheds for drying their catch, and to hunt, gather, and graze livestock on unenclosed lands. Today, Portland boasts the ninth largest Native American population in the United States, and their connection to the river continues to endure.



This 1841 engraving shows a Chinookan or Clackamas man fishing at Willamette Falls. (credit: University of Washington)

Federal, State, and Local Regulations at the River's Edge*

Federal authority regulating activities below the OHWM derives from Section 10 of the 1899 Rivers and Harbors Act (RHA) and Section 404 of the 1972 Amendments to the Federal Water Pollution Control Act (Clean Water Act). The **U.S. Army Corps of Engineers (Corps)** is charged with administering these laws.

Section 10 RHA regulates and protects the navigable capacity of waters of the United States and requires a permit for all activities in navigable waters, including navigational dredging or any other type of excavation or fill up to the OHWM.

The purpose of Section 404 is to protect, conserve, restore and maintain the physical, chemical and biological integrity of the waters of the United States. Under Section 404 all proposed work that consists of the discharge of fill material or disposal of dredged material into waters of the United States is regulated and requires a permit.

During the Corps permitting process for these two regulations, the agency is required by the 1970 National Environmental Policy Act (NEPA) to coordinate with other federal agencies to ensure compliance with applicable federal regulations such as the Endangered Species Act (ESA). To do so, the Corps initiates a consultation process with the **National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS)** and/or the **U.S. Fish & Wildlife Service (USFWS)** if the permit authorization may affect a listed endangered or threatened species, or may adversely modify or degrade designated critical habitat.

The State of Oregon owns the tidelands and the bed and banks of navigable waterways in most cases. Property owners must obtain a lease or other form of authorization from the **Oregon Department of State Lands (DSL)** to undertake a variety of activities on state-owned submerged and submersible land, including industrial and/or commercial docks and other structures. Wharfing and other government functions are exempt from DSL proprietary authority, though wharves must be registered with DSL. In addition, DSL regulates removal and fill in waters of the state through the 1967 Removal-Fill Law to protect public navigation as well as fishery and recreational uses of the waters of the state.

The **City of Portland** regulates characteristics of development such as land use, site coverage, building height, landscaping, and natural resource conservation through its zoning code. Other sections of city code cover aspects such as erosion, balanced cut and fill, and stormwater management. In addition, the City of Portland has historically considered the social, economic, historical, recreational and scenic benefits and impacts of development along the river's edge through Greenway review.

**Also see Federal Regulation of Contaminated Sites and State Regulation of Contaminated Sites*

POLICY GUIDANCE

The River Renaissance Strategy provides the following relevant policy guidance:

- Improve the transparency, predictability, and timeliness of regulatory systems, while encouraging innovation.

The River Concept provides the following relevant guidance:

- The City will strive to make its regulations flexible, streamlined, and cost-effective and work with other agencies to simplify the overall river related regulatory process.
- Contaminated sites will be cleaned up to protect human health and the environment, and restoration projects will reestablish natural functions.
- Relationships that foster positive change will be developed among Tribal governments, property owners, businesses and business associations, neighborhood associations, environmental groups, recreational groups, cultural organizations, the Port of Portland, the University of Portland, and state and federal agencies.

OBJECTIVES AND RECOMMENDATIONS

The following objectives and recommendations address established policy guidance and respond to North Reach issues:

1. Improve regulatory efficiency for all activities below the OHWM.
2. Work more closely with other regulatory agencies to facilitate contaminated site cleanup.
3. Improve communications between the City of Portland and Native Americans.
4. Develop programs and partnerships that ensure continued education and outreach on North Reach issues

OBJECTIVE 1. Improve regulatory efficiency for all activities below the OHWM.

Ordinary High Water Mark

The U.S. Army Corps of Engineers (Corps) generally relies on one or more physical indicators to determine the OHWM at a given location, described as "*that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area.*"

Oregon Statute defines the Ordinary High Water Line as "*that line on the bank or shore to which the high water ordinarily rises annually in season*" and includes a list of field indicators similar to the Corps'.

The riverbank and water below the OHWM is regulated by the City, state and federal government. Throughout the planning process, industrial stakeholders have suggested that the City's review of development below the OHWM is duplicative of state and federal evaluations, leading to differing determinations, lengthening the overall permitting process, and resulting in costly project redesign. These stakeholders believe that a City land use review should not be required for proposals below the OHWM because of the potential for City review to result in conflicting or duplicative requirements.

Members of the environmental community and staff from several City bureaus believe that such a change would limit the City's ability to influence project design, to minimize impacts to all affected fish and wildlife, and to increase public benefits such as protection of the watershed. They suggest that eliminating City review of development proposals below the OHWM would not allow the City to address environmental interests and goals that go above and beyond state and federal agency mandates. These

City interests include:

- Protecting properly functioning habitat conditions. To this end, the City limits detrimental impacts to natural resource functions identified in the City's adopted natural resource inventories
- Protecting riparian and wildlife functions and species beyond those that the state and federal agencies protect (e.g. non-listed species)
- Assisting in the recovery of threatened and endangered species
- Ensuring that adequate mitigation is provided to compensate for unavoidable impacts to resource functions
- Ensuring that approved in-water development is consistent with City land use plans and zoning and does not affect the desired use of the upland portion of the site



The Ordinary High Water Mark is a regulatory reference line that is frequently used to determine whether a project will be regulated by State and Federal agencies.

Beyond the City's interests outlined above, development that occurs below the OHWM usually has impacts, or is physically attached to, development above the OHWM. It would be extraordinarily difficult to limit the City's review to only the portion of the development that occurs above the OHWM. Additionally, City development review staff have extensive knowledge of local conditions and circumstances that state and federal agencies may not have or do not consider. For these reasons, the River Plan recommends the City continue to review development proposals that have impacts below the OHWM, but also suggests process improvements to improve regulatory efficiency for such proposals.

Recommendations

- **Create an optional Enhanced Permit Coordination process** for projects in the Portland Harbor that require approval from city, state and federal resource agencies. This would involve a City/State/Federal coordination process that provides private applicants with the option of participating in a facilitated multi-jurisdictional pre-application meeting and permit coordination process. This pilot process is being created to provide a venue for early information sharing and collaborative problem-solving between the applicant and regulatory agencies.
- **Create a new position at BDS specializing in industrial issues, including interjurisdictional permitting and cleanup of contaminated sites.** This position could be in the BDS process manager section.
- **Assign a BES staff person to act as a scientific consultant to BDS as needed during the City river review process.** This will be especially important for reviews below ordinary high water. This service should be formalized through an inter-bureau agreement as needed. Funding should be allocated to BES for the additional staff needed to perform these duties.
- **Ensure that the City's River Review land use decisions and conditions of approval do not conflict with or duplicate decisions made by the Department of State Lands, National Oceanic and Atmospheric Administration's National Marine Fisheries Service, or the U.S. Army Corps of Engineers.** See Volume 1B: *Code Amendments and Zoning Maps* for specific language.

OBJECTIVE 2. Work more closely with other regulatory agencies to facilitate contaminated site cleanup.

Historically, the working harbor has been the backbone of Portland commerce and is home to much of the heavy industry that has helped Portland thrive. However, contamination from industrial activities as well as other sources has polluted many sites along the Willamette River as well as the sediments in the riverbed itself.

Contamination is a difficult problem for the City of Portland, property owners along the Willamette River, and the community as a whole. Concerns about potential liability and the risks posed by contamination mean that many properties will likely remain vacant or underutilized until the Record of Decision is issued for the Portland Harbor Superfund site.

The River Plan code amendments provide clear guidance for cleanup activities and go a long way toward reducing regulatory barriers to cleanup in the North Reach (for more detail see Volume 1B: *Code Amendments and Zoning Maps*). The recommendations below aim to improve coordination among the City, DEQ, and EPA on cleanup matters while achieving cleanup solutions that meet the City's goals for the river and its adjacent lands.

Recommendations

- **Create a guidance document that clearly states the City's substantive requirements for cleanup activities** and helps applicants understand the new River overlay zone regulations and processes. Work with DEQ to distribute the document to potentially responsible parties as early as possible in the cleanup process.
- **Provide the new River Plan, zoning code, zoning maps, and other relevant regulations and policies to the EPA** to ensure that the EPA knows and can take into account the City's goals for the land along the Willamette River during design of the Portland Harbor Superfund cleanup.

Portland Harbor Superfund Site

A stretch of the North Reach that includes the area from the Oregon Steel site at River Mile 2 to the Fremont Bridge at River Mile 11 was added to the list of National Priorities List of Superfund sites in December of 2000. Although the Oregon Department of Environmental Quality (DEQ) generally regulates the cleanup of contaminated sites in Oregon, a Memorandum of Understanding specifies that for the Portland Harbor Superfund site, the U.S. Environmental Protection Agency (EPA) leads the in-water investigation and cleanup and DEQ leads upland cleanup and source control actions. Ultimately, the EPA will issue the Record of Decision that explains which cleanup alternatives will be used to clean up the site.

Federal Regulation of Contaminated Sites

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, provides broad federal authority for the EPA to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment.

EPA Cleanup Process

Cleanup actions conducted under federal CERCLA legislation are required to comply only with federal and state laws that are determined to be Applicable or Relevant and Appropriate Requirements (ARARs).

EPA selects the final remedy based on its overall goal to protect human health and the environment and compliance with ARARs. However, the agency also considers long-term effectiveness and permanence, reduction of toxicity, mobility or volume through treatment, short-term effectiveness, implementability, cost, and state and community acceptance. In addition, EPA has a preference for the treatment or removal of "principle threats."

- **Bureau of Development Services should work with DEQ to develop best practices for City involvement in the cleanup process.** If necessary, a formal agreement or Memorandum of Understanding should be created. DEQ should notify the City of cleanups early in the process and prior to the start of construction. For complex cleanups, DEQ should consult with the City before the cleanup alternatives are determined and analyzed.
- **Bureau of Development Services should continue to review and comment on cleanup actions under DEQ and EPA oversight during the review periods they provide.** Additional funding and staff time should be allocated for commenting on cleanup activities.
- **Bureau of Environmental Services should continue soliciting and coordinating City comments on the EPA-led Portland Harbor Superfund cleanup.**

State Regulation of Contaminated Sites

The **Oregon Revised Statutes (ORS) 465.200 – 465.545 and 465.900** give authority to enforce and oversee contaminated site cleanups and to issue a No Further Action determination (NFA).

DEQ Cleanup Process

ORS 465.315(3) allows cleanups that are conducted under DEQ oversight to waive the procedural aspects of state and local regulations. As long as the responsible parties meet the substantive requirements of the regulations, they need not undergo review or apply for state or local permits. The party performing the cleanup must notify the local agency of the procedural requirements that are waived, and pay any applicable fees.

When choosing a remedial design, DEQ assesses whether it is protective of public health, safety, welfare, and the environment. In many cases, DEQ also evaluates effectiveness, implementability, long-term reliability, implementation risk, and reasonableness of cost, as well as the ability of a proposed remedy to treat hot spots of contamination. When contamination does not qualify as a hot spot under cleanup law, there is a preference for choosing the least expensive cleanup option that will protect human health and the environment.



Groundwater monitoring wells measure contaminant levels at Arkema.

OBJECTIVE 3. Improve communications between the City of Portland and Native Americans.

The Portland area has the ninth largest Native American population in the United States. As individuals and as tribes these Native peoples celebrate their heritage and are contributing members of the Portland community. While communication with individuals may be done in an informal manner, respectful communications with tribal governments must follow a government to government protocol.

Recommendation

- Develop a Portland City government protocol for communicating with tribal governments.

OBJECTIVE 4. Develop programs and partnerships that ensure continued education and outreach on North Reach issues

Looking toward the future, more work is needed to maintain the valuable resources of North Reach districts, habitats, and communities. Developing an infrastructure of organizations and programs designed to continue advocating for North Reach investments and reaching out to and educating the broader community will help maintain the momentum of the work that has begun through the River Plan process.

Recommendations

- The City of Portland's River Renaissance program should work with other agencies and organizations to establish a Lower Willamette Watershed Council. Watershed councils are locally-organized, non-regulatory groups that represent the interests in the watershed. They are established by local governments to protect and enhance the condition of the local watershed and engage in partnerships, education, stewardship and restoration activities. Watershed councils can be an important source of funding for restoration projects and are able to secure funding through grant programs sponsored by the Oregon Watershed Enhancement Board (OWEB) and other organizations. A Lower Willamette Watershed Council can help improve the health of the river by working with willing partners in the North Reach.
- The City of Portland's River Renaissance program should work with other agencies and organizations to establish and maintain an education initiative designed to inform Portlanders about the working harbor, natural areas, and riverfront neighborhoods of the North Reach. The education initiative could include:
 - Self-guided tours where individuals could see historic riverfront communities, natural features, and the working harbor in a single walk.
 - Tours of businesses and other events designed to acquaint interested citizens with North Reach industries and communities.



Touring the Toyota facility at Terminal 4 promotes an understanding of the needs and benefits of industrial operations in the North Reach.

- Exhibits showcasing industrial products and processes, Port operations, recreational opportunities, restoration efforts in natural areas, community projects, and current and future infrastructure investments.
- Business employee programs designed to raise awareness of actions they can take to be good neighbors

TRACKING PROGRESS AND MEASURING RESULTS

The following new measures are recommended to track progress in implementing the River Plan / North Reach. These measures may require additional data collection, analysis, and funding and therefore may not be tracked in initial years.

| Measurement | Indicator |
|---|---|
| The time-to-decision for permits requiring approval of multiple agencies decreases. | <ul style="list-style-type: none"> ▪ Number of cooperative agreements between the City of Portland and its federal, state and regional partners ▪ Change in median time required to complete reviews for Willamette River development permits |
| Cleanup of and reinvestment in contaminated sites | <ul style="list-style-type: none"> ▪ Number of brownfield sites in the working harbor that receive No Further Action designation by DEQ ▪ Number of brownfield sites that are redeveloped for industrial use in the working harbor. |



The River Plan aims to reduce permitting time for projects like the new sheet pile wall at the BP facility.

B. ACTION AGENDA

The following section contains specific recommendations for the North Reach grouped into five sections: Economic Prosperity, Watershed Health, Access, Riverfront Communities and Working with our Partners. (See Appendix E: *Code Amendments and Zoning Maps*, for regulatory recommendations.)



A crew team traverses the Willamette in front of Freightliner's headquarters.

1. ECONOMIC PROSPERITY

| <i>Map #</i> | <i>Project (TSP#)</i> | <i>Improvement</i> | <i>Cost (\$M)*</i> | <i>Funding**</i> |
|----------------|---|--|--------------------|-----------------------|
| Highway | | | 103 | |
| H1 | I-5 Delta Park (30023) | Widen to 6 lanes | 73 | Funded |
| H2 | I-5 at I-84 to Greeley (20067) | Acquire R/W and preliminary engineering to widen, modernize freeway and ramps, improve area access | 30 | RTP Priority, 2018-25 |
| H3 | I-5 Columbia River Crossing (30020) | Local share of Alternatives Analysis currently underway | TBD | 1 |
| Streets | | | 86.3 | |
| S1 | Yeon/US 30 (Nicolai to St Johns Bridge) ITS (60023) | Interconnect signals and install CCTV and variable message signs. | 0.885 | RTP Priority 2008-17 |
| S2 | Going (Interstate-Swan Island) ITS (expand 30015) | Interconnect signals; install CCTV cameras, message signs, and "smart" signal to better allocate green time. | 0.95 | RTP Priority 2008-17 |
| S3 | Lombard/St. Louis/Ivanhoe Improvements (30057, 30071) | Realign intersections to reinforce truck movements on truck streets, improve traffic, pedestrian circulation. | 1.51 | Funded, MTIP |
| S4 | Widen Lombard (T-6 to Rivergate) (30036) | Widen N Lombard Street, add signal at Ramsey Boulevard | 34.5 | Funded |
| S5 | Columbia Blvd (I-205 - Burgard) ITS (30008) | Install CCTV and changeable message signs at intersections | 0.42 | RTP Priority 2008-17 |
| S6 | Rivergate ITS (30072) | Add intelligent transportation system equipment and connect to ODOT's highway communication systems | 0.48 | RTP Priority 2008-17 |
| S7 | Burgard Road-Lombard Street Improvements (30080) | Widen to two lanes with center turn lane, bike lanes, and sidewalks | 17.2 | RTP Priority, 2008-17 |
| S8 | Leadbetter Road Extension (30031) | Street extension and rail over crossing (Marine Drive loop) | 11.2 | Funded |
| S9 | Columbia Blvd / N Portland Rd (30070) | Improve intersection to reinforce truck street movements and minimize neighborhood cut-through | 0.7 | 1 |
| S10 | US 30 access in Willbridge area (expand 60018, 60018) | Construct an additional BNSF rail crossing connection between Front Avenue and Highway 30 near the closed Balboa crossing. | 16.5 | 1 |
| S11 | Going/Greeley Climbing Lane, Interchange (30016) | Redesign Going/Greeley interchange, construct climbing lane on Going. | 2 | 1 |
| Bridge | | | 184.0 | |
| B1 | Going Street at Swan Island (30013) | Retrofit weight restricted bridge over UPRR. | 4 | RTP Priority 2008-17 |
| B2 | Lombard at Burgard (30068) | Replace weight restricted bridge. | 24.9 | Funded |
| B3 | Denver Viaduct (30010) | Reconstruct viaduct to improve truck access to I-5 (Delta Park Phase 2 project). | 46 | RTP Priority 2008-17 |
| B4 | Lombard Street at Columbia Slough (30067) | Strengthen bridge and add sidewalks and bike lanes. | 9.8 | Constrained, 2008-17 |
| B5 | West Hayden Crossing (30053) | Construct a new bridge to Hayden Island. | 99.3 | RTP Priority 2008-17 |

| <i>Map #</i> | <i>Project (TSP#)</i> | <i>Improvement</i> | <i>Cost (\$M)*</i> | <i>Funding**</i> |
|---------------|---|---|--------------------|-----------------------|
| B6 | North Willamette Crossing Study (2004 RTP#4016) | Increase priority in Regional Transportation Plan to study need for new US 30 to Rivergate bridge. | TBD | Priority |
| Marine | | | 152.6 | |
| M1 | Columbia River Channel (10002) | Deepen the river channel to serve larger container ships | 150.6 | Funded |
| M2 | Willamette River Channel | Maintenance dredging as recommended in Dredge Materials Management Plan. | 2 | Funded, FY2009 budget |
| Rail | | | 257.6 | |
| R1 | Kenton Line Upgrade (40085) | Upgrade to double track, new sidings. | 25.4 | 3 |
| R2 | Vancouver Yard Bypass | Construct bypass track on west side of Vancouver Yard and W 39th bridge. | 115 | funded, WDOT |
| R3 | Ramsey Rail Complex (30064) | Construct up to four tracks and one mainline to improve bottlenecks and increase storage capacity. | 20.6 | Funded |
| R4 | Marine Drive (Rivergate W) Crossing, Phase 2 (30039) | Construct grade-separated rail crossing at Rivergate West entrance | 13.6 | RTP Priority, 2018-25 |
| R5 | Penn Junction Realignment and Overcrossing (expand 30055) | Grade separation, track realignment, double-tracking, and signal upgrades to improve capacity. | 26 | 2 |
| R6 | UP Line Connection (Brooklyn Line - Graham Line) (20093) | Add rail connection between the Brooklyn and Graham Lines to increase rail capacity. | 15 | 1 |
| R7 | N Portland Junction Rail (30065) | Accommodate higher rail speeds | 9.2 | 2 |
| R8 | South Rivergate Yard (30047) | Expand railroad yard to increase T-5 bulk capacity (Phase 1) | 7.09 | 1 |
| R9 | Terminal 5 Unit Rail Loop #4 (30078) | Construct two additional loop tracks to increase rail storage capacity. | 2.8 | 1 |
| R10 | BNSF Line at Columbia Bridge Track Improvements (30063) | Improve rail track conditions on approaches to Columbia River rail bridge to increase track speeds. | 8 | 2 |
| R11 | UP Line Upgrade, Albina to E Portland (expand 20094) | Upgrade track to increase north-south speeds, extend to Willsburg Jct. | 8.8 | 1 |
| R12 | Barnes to T-4 track (30062) | New dedicated track for T4 through Barnes Yard | 1 | 1 |
| R13 | Cathedral Park Whistle Free Zone | Create controlled rail crossings to improve neighborhood livability and enable T-4 expansion. | 5.1 | RTP Priority, 2008-17 |
| Water | | | 7.3 | |
| W1 | Burgard Loop Water Main | Add 12" water main along Simmons Rd or 16" water main along Burgard Road | 0.55 | Priority*** |
| W2 | Linnton Parallel Main | Extend parallel main as needed for site development | 6.75 | As needed |

| <i>Map #</i> | <i>Project (TSP#)</i> | <i>Improvement</i> | <i>Cost (\$M)*</i> | <i>Funding**</i> |
|--|---|--|-----------------------------|------------------|
| Sanitary Sewer and Stormwater | | | 14.0 | |
| SS1 | Shipyards Pump Station | Increase capacity of Shipyards Pump Station near Burgard Rd. | 2.7 | 2010-2014 |
| SS2 | Marine Drive Pump Station | Upgrade mechanical & electrical equipment, increase capacity to meet current & future demand. Project is in the final design phase. | 0.42 | 2008-2012 |
| SS3 | Oregonian Pump Station | Upgrade old mechanical & electrical equipment, increase capacity to meet current & future demand. | 0.3 | 2010-2014 |
| SS4 | Lombard Pump Station | Install second electrical feed and control equipment. | 0.46 | 2008-2012 |
| SS5 | NW Neighborhoods Balch CSO Support Projects | Repair and replace old pipes and provide new capacity in combined system that will bring flows to the Balch CSO Consolidation Conduit (BCC). | 8.6 | 2008-2012 |
| SS6 | Guilds Lake Pump Station | Install second electrical feed and control equipment, address impacts of Portsmouth Forcemain on downstream discharge. | 0.5 | 2008-2012 |
| SS7 | Mocks Bottom Pump Station | Upgrade old mechanical & electrical equipment, increase capacity to meet current & future demand. Project is in final design phase. | 1 | 2008-2012 |
| SS8 | Portland Harbor Superfund | Investigation, remediation to meet City/Port obligations | TBD | Priority |
| Total Project Costs (except regional projects, i.e., highways, Vancouver Yard) | | | | \$586.8 |
| * Estimated project costs (\$millions in 2007) from Draft Regional Transportation Plan, December 2007 and Portland Freight Master Plan. | | | | |
| ** "Constrained" identifies projects recommended on the Regional Transportation Plan financially constrained project list, which are expected to be funded in the timeframe shown. Numbers represent Freight Master Plan (2006) funding priority, and do not reflect the economic development ranking criteria that elevate the priority of some of the projects listed above, such as Kenton Line upgrade (R1). | | | | |
| *** Track opportunities to combine project with Burgard Street improvement (TSP#30080). | | | | |
| Additional Economic Prosperity Actions | | | | |
| <i>Recommendation</i> | | <i>Lead City Bureau</i> | <i>Timeline</i> | |
| Conduct a hydraulic/ hydrologic analysis evaluating implications of eliminating balanced cut and fill requirements | | Planning and BES | Start within 2 years | |
| Develop a strategy to improve freight rail funding and service | | tbd | tbd | |
| Implement the Harbor ReDI (Harbor Redevelopment Initiative) to facilitate brownfield development along the Portland harbor. | | PDC | Complete within 1 – 5 years | |
| Prepare a small shipper rail strategy | | tbd | tbd | |
| Investigate the feasibility of adding a regional rail yard | | tbd | tbd | |
| Secure long-term transportation funding for upgrades, modifications, improvements to street, rail, shipping facilities. | | Transportation | tbd | |
| Develop a funding source for small access and circulation studies that address freight deficiencies or improve site access and circulation | | Transportation | tbd | |
| Evaluate alternatives and recommend a stormwater rate structure for large-site industrial areas | | BES | tbd | |

2. WATERSHED HEALTH

Potential Restoration Sites

| Map # | Area | Potential Project | Owner | Lead City Bureau | Contamination | |
|-------|------------------------------|---|---------|------------------|---------------|---------|
| | | | | | Water/Bank | Land |
| RS1 | Kelley Point Park | Add large woody debris and boulders, revegetate with native species. Possibly excavate to increase amount of area inundated and frequency of inundation. | City | PPR, BES | | 1 |
| RS2 | South Rivergate Corridor | Enhance wetlands, revegetate below powerlines and increase wildlife connectivity. Acquire easement or property as necessary. | Port | BES | 2 | 1 |
| RS3 | Crown Cork/ Baltimore Woods | Maintain and enhance existing oak habitat, remove invasive species along the bluff. Acquire easement or property as necessary. | Private | BES | unknown | unknown |
| RS4 | Mar Com property | Create wetland habitat where conditions allow, treat stormwater outfall with swale outside of habitat area, improve riverbanks, revegetate. Acquire easement or property as necessary. | Private | BES | 3 | 2-3 |
| RS5 | Willamette Cove | Create off-channel habitat, remove riprap, recreate shallow water habitat and floodplain, revegetate. | Metro | BES, PPR | 3 | 1 |
| RS6 | Triangle Park property | Expand shallow water habitat, regrade riverbanks, add complexity with wood and boulders, revegetate. Acquire easement or property as necessary. | Private | BES | 3 | 2-3 |
| RS7 | Mock's Crest | Maintain and enhance oak habitat, remove invasive species. | City | BES | 1 | 1 |
| RS8 | Swan Island Lagoon | Treat stormwater from boat launch excavate to increase inundation area and frequency of inundation, increase large wood, revegetate and improve banks. | City | BES | 3 | 2-3 |
| RS9 | Sauvie Island properties | Lay back riverbanks, regrade or relocate levee to increase inundation area and frequency of inundation. Add large wood, remove invasives. Acquire easement or property as necessary. | Private | BES | 1 | 1 |
| RS10 | Harborton Wetlands | Remove berm to re-establish off-channel connection to the river, possibly redirect Miller Creek to intersect this off-channel area, remove invasive species and revegetate with native species, lay back riverbank, place large wood, add riparian vegetation. Acquire easement or property as necessary. | Private | BES | 2 | 1 |
| RS11 | Owens Corning | Increase structural diversity in floodplain and riparian areas, add large wood, lay back riverbank, recreate off-channel habitat and seasonal stream from Forest Park. Acquire easement or property as necessary. | Private | BES | 2 | 2 |
| RS12 | Linnton Beach | Daylight stream mouths; create off-channel habitat fed by seasonal streams and provide connectivity, improve riverbanks, remove invasives and revegetate with native species. Acquire easement or property as necessary. | Private | BES | 2-3 | 2 |
| RS13 | Linnton Plywood Stream mouth | | | | | |

| Map # | Area | Potential Project | Owner | Lead City Bureau | Contamination | |
|--|---|--|----------------------|------------------|------------------------------|-------------------|
| | | | | | Water/ Bank | Land |
| RS14 | Transloader International | Daylight stream, revegetate stream mouth to create fish refugia at confluence area. Acquire easement or property as necessary. | Private | BES | 2 | 2 |
| RS15 | Doane Creek | Daylight part of creek, establish passage under Front Avenue, enhance connectivity to Forest Park, create off-channel wetland. Acquire easement or property as necessary. | Private | BES | Creek 3 | South of bridge 4 |
| RS16 | Saltzman Creek | Enhance confluence. Excavate and lay back steepened banks to increase shallow water habitat, revegetate banks and creek mouth. Acquire easement or property as necessary. | Private | BES | 3+ | 3+ |
| RS17 | Balch Cove | Daylight creek mouth, add sand and gravel to create a confluence pool for refugia, improve and revegetate banks, add large woody debris, improve stormwater management. Acquire easement or property as necessary. | City | BES | 3 | unknown |
| RS18 | Terminal 1Cove | Remove docks, lay back riverbanks, add large wood and create off-channel shallow water habitat. | City | BES | 2 | unknown |
| RS19 | Swan Island Beaches | Excavate to increase floodplain and flood storage, increase shallow water habitat, remove riprap, add riparian vegetation. | Port | BES | In-water 3; Bank 2 | unknown |
| RS20 | Columbia Slough Confluence Project | Anchor large wood in-stream and along banks; enhance emergent, scrub-shrub and riparian wetland plant communities; add structural features to enhance the habitat for priority wildlife species. | City | PPR, BES | unknown | unknown |
| Contamination Rankings These rankings were developed by staff from EPA, DEQ, and City of Portland in a meeting on April 11, 2008. | | | | | | |
| 1 | Minimal or no known contamination; inexpensive cleanup will likely occur in the short-term; cleanup may not be necessary prior to acquisition / restoration; remedy will not limit restoration; no concern about contamination from adjacent properties entering site | | | | | |
| 2 | Extent of contamination may necessitate cleanup prior to acquisition / restoration; cleanup is likely in the short-term; limited concern about contamination from adjacent properties entering site | | | | | |
| 3 | Significant contamination will require extensive cleanup prior to acquisition / restoration; cleanup is likely only in the long-term; and / or concern about contamination from adjacent properties entering site | | | | | |
| 4 | Significant contamination will require extensive cleanup; cleanup is likely only in the long-term; and / or cleanup remedy will limit or eliminate restoration potential of site; and / or concern about contamination from adjacent properties entering site | | | | | |
| Additional Watershed Health Actions | | | | | | |
| Recommendation | | | Lead City Bureau | | Timeline | |
| Adopt the updated Willamette River Natural Resource Inventory and establish mechanisms for updates. | | | Planning and BES | | Adopt with plan, and ongoing | |
| Develop strategies to help increase tree canopy in the North Reach | | | Planning, BES, Parks | | Ongoing | |
| Develop a River Restoration Program for the North Reach funded by development fees, the City's general fund and other sources. | | | BES and Planning | | Complete within 1 year | |
| Coordinate with Trustees on use of City restoration sites to accommodate NRDA compensation (includes development of accounting procedures) | | | Planning and BES | | Ongoing | |
| Submit River Plan to advance compliance with Metro Title 3 and 13, as well as State and Federal mandates | | | Planning | | Upon plan adoption. | |
| Inspire low impact and eco industrial design through development of designs suitable for the North Reach. | | | Planning | | Start within 2 years | |

| 3. ACCESS | | | | |
|--|---|--|-------------------------|-----------------|
| <i>Map #</i> | <i>Area</i> | <i>Project</i> | <i>Lead City Bureau</i> | <i>Timeline</i> |
| A1 | Chimney Park and Pier Park | Design and develop a Columbia Boulevard crossing, a Lombard Street crossing, and an overpass at Chimney Park to connect the trail system | PDOT, Parks | tbd |
| A2 | Lombard Blvd to Cathedral Park | Design and implement trail improvements and viewpoint. Develop a bike boulevard. | PDOT, Parks | tbd |
| A3 | Willamette Cove to BES Water Lab | Acquire easements and design and develop trail and viewpoint | PDOT, Parks | tbd |
| A4 | Waud Bluff | Continue restoration and design and implementation of trail improvements | Parks | underway |
| A5 | Mocks Crest Trail | Explore when and how to construct this trail. | Parks | tbd |
| A6 | River Street | Acquire site, and design and develop viewpoint | Parks | tbd |
| A7 | Nicolai Street | Design and construct rail-to-trail improvement | PDOT | tbd |
| A8 | Railroad Bridge | Conduct feasibility studies to evaluate rail-with-trail proposals on the BNSF Railroad Bridge | PDOT, Parks | tbd |
| A9 | Study rail-with-trail to Linnton and the City limits | Conduct feasibility studies to evaluate rail-with-trail proposals adjacent to the Portland and Western rail corridor | PDOT, Parks | tbd |
| A10 | Linnton Beach Spur Trail | Design trail improvements and viewpoint, and acquire easement | Parks | tbd |
| A11 | NW Front Ave between 107th Avenue & 112 th | Conduct feasibility studies to evaluate rail-with-trail proposals adjacent to the Portland and Western rail corridor | PDOT, Parks | tbd |
| A12 | Between Swan Island and Lower Albina | Explore ways to provide additional vehicular, bicycle and pedestrian access to Swan Island through the Lower Albina industrial area building on the potential alternatives identified in the Swan Island/Lower Albina Transportation | PDOT | tbd |
| A13 | Cathedral Park | Complete master plan; implement final design. | Parks | underway |
| Additional Access Actions | | | | |
| <i>Recommendation</i> | | <i>Lead City Bureau</i> | <i>Timeline</i> | |
| Address citywide trail issues, including the alignment, designation in the TSP, designation on zoning maps and develop a strategy for funding and constructing unbuilt segments. | | Planning, BDS, Parks, Transportation | Start within 2 years | |
| Work with Metro to include all segments of the planned Willamette Greenway Trail alignment in the Regional Trail Plan | | Planning and Parks | tbd | |
| Develop trail guidelines for various trail conditions including trails in natural areas. This project should also explore use of on-the-ground wayfinding. | | Parks | Within 1 year | |
| Work with Metro and property owners to acquire easements and develop viewpoints. In conjunction with development of the trail. | | Parks | Ongoing | |
| Consider including all segments of the near term trail alignment in the TSP, Bicycle Master Plan and Pedestrian Master Plan during the next scheduled update | | Transportation | tbd | |

| 4. RIVERFRONT COMMUNITIES | | | | |
|---|------------------------------|--|-------------------------|----------------------|
| <i>Map #</i> | <i>Area</i> | <i>Project</i> | <i>Lead City Bureau</i> | <i>Timeline</i> |
| RC1 | Linnton | Work with the Linnton community to develop an action program to improve the vitality of the Linnton village, including identifying and recruiting appropriate industrial uses that are compatible with existing nearby residences. | Planning | Start within 1 year |
| | | Work with Portland Development Commission to designate the main street portion of the commercial district on St. Helens Road as a storefront improvement target area to make it eligible for storefront improvement grants. | Planning | Start within 1 year |
| | | Work with Office of Transportation to find funding to analyze the potential for developing a whistle-free zone on the rail line through Linnton. | Planning | Start within 2 years |
| RC2 | Cathedral Park and St. Johns | Work with the Office of Transportation to find funding for the improvements needed to establish a whistle-free zone in Cathedral Park. Work with Parks to ensure that its recommendations for Cathedral Park consider the whistle-free zone requirements. | Planning | Start within 1 year |
| RC3 | North Beach | Conduct an economic opportunities analysis to compare industrial and employment land supply with projected demand as required by Statewide Planning Goal 9. If appropriate, change the Comprehensive Plan designation for the McCormick & Baxter property from Industrial Sanctuary to Central Employment and the base zone from Heavy Industrial to Central Employment. | Planning | Start within 1 year |
| Additional Riverfront Communities Actions | | | | |
| <i>Recommendation</i> | | <i>Lead City Bureau</i> | <i>Timeline</i> | |
| Work with the City of Portland Noise Office to further develop citywide policies regarding residential development in and near industrial and employment zones. | | Planning | Start within 2 years | |

| 5. WORKING WITH OUR PARTNERS | | |
|---|--|---------------------|
| Recommendation | Lead City Bureau | Timeline |
| Create an optional Enhanced Permit Coordination pilot process for projects in the Portland Harbor that require approval from city, state and federal resource agencies. | BDS and BES | Start within 1 year |
| Create a new position at BDS specializing in industrial issues, interjurisdictional permitting and clean-up of contaminated sites. | BDS | Start within 1 year |
| Assign a staffperson at BES to act as a scientific consultant to BDS as needed during the City river review process. This service should be formalized through an inter-bureau agreement as needed. | BES, BDS | Start within 1 year |
| Create a guidance document that clearly states the City's substantive requirements for cleanup activities. Work with DEQ to distribute the document. | Planning | Within 1 year |
| Work with DEQ to establish best practices of communication and consultations for clean-ups. | BDS | Within 1 year |
| Continue to comment on DEQ and EPA cleanup activities. Allocate additional funding as needed. | BDS, BES | ongoing |
| Provide the River Plan and other city policy and code documents to the EPA and DEQ to inform them of City goals and standards for the Willamette River during preparation for the Superfund clean-up. | Planning, BES | Upon plan adoption. |
| Continue soliciting and coordinating City comments on the Portland Harbor Superfund cleanup activities | BES | ongoing |
| Develop a Portland City government protocol for communicating with Tribal governments. | tbd | Within 1 year |
| Work with other agencies and organizations to establish a Lower Willamette Watershed Council. | River Renaissance, BES | tbd |
| Work with other agencies and organizations to establish and maintain an education initiative focused on the North Reach Neighborhoods. | River Renaissance, other city agencies | tbd |



The Action Agenda will get the North Reach moving in the right direction.

III. THE FUTURE OF THE NORTH REACH

The future of the North Reach as envisioned by the River Plan / North Reach is described and illustrated on the following pages. First, a two-page drawing of the North Reach illustrates the long terms results of the recommendations and actions detailed in the plan. Descriptions and illustrations of specific subareas follow (e.g. St. Johns, Rivergate). The associated table summarizes priority investments related to economic development, trail alignment, and protection, conservation or restoration of natural areas. The subareas are listed from south to north on the east side of the Willamette River and then from north to south on the west side of the river.

- Swan Island/Lower Albina
- North Beach
- St. Johns
- Rivergate
- The Confluence
- Linnton Village
- Wilbridge
- Guild's Lake



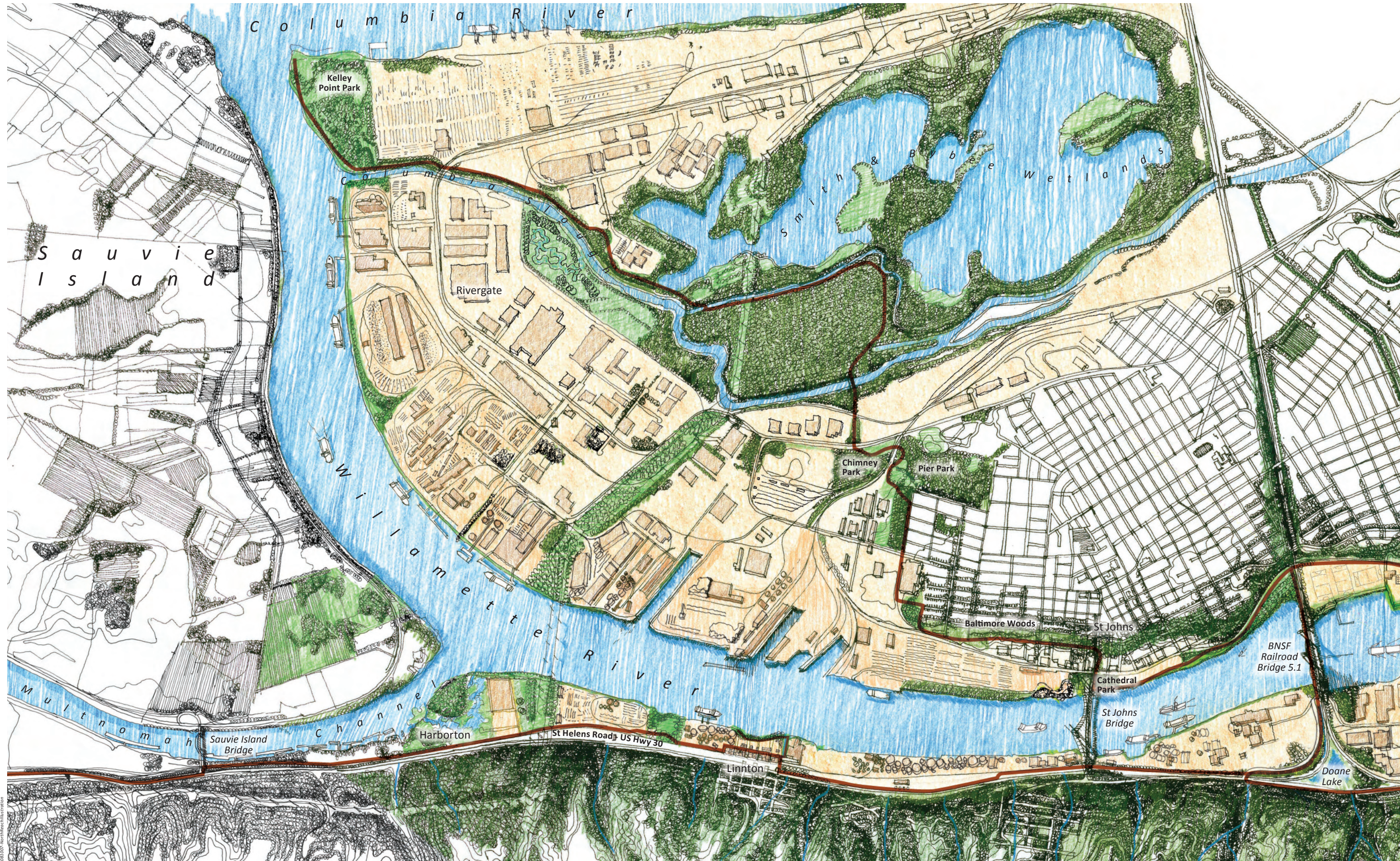
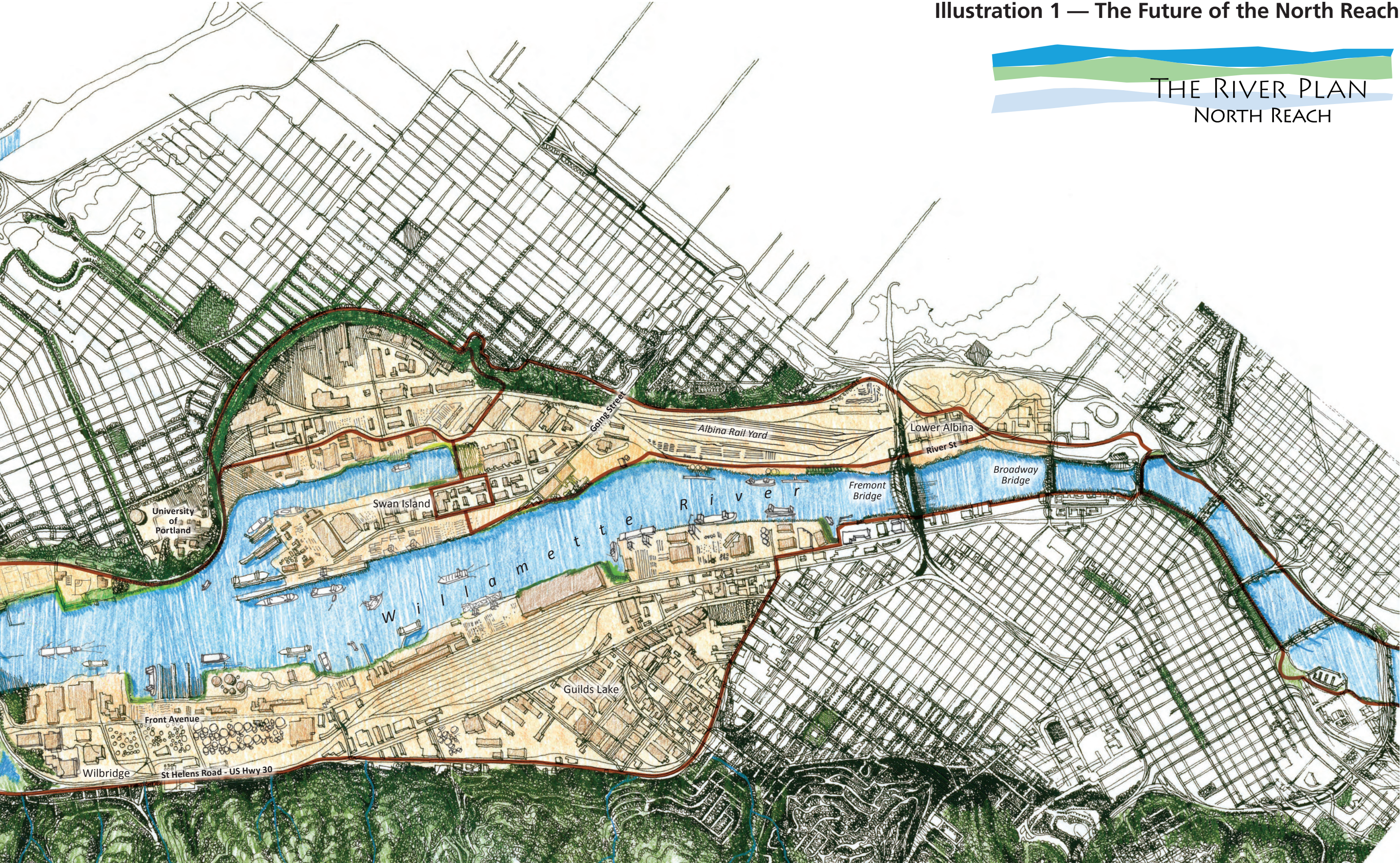


Illustration 1 — The Future of the North Reach

THE RIVER PLAN
NORTH REACH





Peeking through the vegetation provides an interesting glimpse of the working waterfront across the river.

SWAN ISLAND / LOWER ALBINA

This heavy industrial district provides jobs for thousands of Portlanders. It will continue to serve as a hub for rail and truck distribution and rail/marine-dependent manufacturing due to its proximity to Interstate 5 and markets in the central city. A series of investments in the district will improve the efficiency of freight movement, reduce traffic congestion, increase safety, provide trail and recreational access, and improve wildlife habitat. Improvements to North Going Street will keep freight moving and meet existing and future demand in this vibrant industrial district.

A multi modal transportation connection may be built to improve connectivity between Swan Island and the Lower Albina industrial area. The new connection will increase commuting options for Swan Island employees and increase options for moving freight to and from Swan Island and Lower Albina.

McCarthy Park and the Swan Island lagoon will continue to be important points of access to the river. McCarthy Park provides beach access and a light watercraft launch while the boat ramp at the Swan Island lagoon provides a launching and docking area for larger boats. McCarthy Park will continue to be a destination for great views of Gunderson's barge launching events and other working harbor activities. Additional parkland may be acquired to provide options for this underserved area.

The steep, vegetated slopes of Willamette Bluff will be conserved and a viewpoint developed at the Mocks Crest trailhead. The riparian vegetation, floodplain, and wetlands at the end of the Swan Island lagoon will be restored to provide improved habitat and flood storage capacity. The area will become an important refuge for birds and other wildlife, as well as a destination for employees and those using the Willamette River Greenway Trail.



Swan Island is an important hub for rail and truck distribution and rail/marine dependent manufacturing.

SWAN ISLAND / LOWER ALBINA ACTIONS AND INVESTMENTS

The following actions and investments are recommended for this area. For more information see Section II.B: Action Agenda and Map 11: Recommended Studies and Investments.

| Location | Project |
|---|--|
| Mock's Crest | Maintain and enhance oak habitat, remove invasive species |
| Swan Island Lagoon | Treat stormwater from boat launch excavate to increase inundation area and frequency of inundation, increase large wood, revegetate and improve banks. |
| Swan Island Beaches | Excavate to increase floodplain and flood storage, increase shallow water habitat, remove riprap, add riparian vegetation |
| Mocks Crest Trail | Design and implement trail improvements |
| Waud Bluff | Continue restoration. Design and implement trail improvements |
| River Street | Design and develop viewpoint |
| Swan Island to Lower Albina | Explore ways to provide additional vehicular, bicycle and pedestrian access to Swan Island through the Lower Albina industrial area. |
| Going Street at Swan Island | Retrofit weight restricted bridge over Union Pacific Railroad. |
| Going Street/ Greeley Avenue Intersection | Provide intelligent transportation system improvements (e.g. signal timing) to reduce congestion |
| Mocks Bottom Pump Station | Upgrade mechanical and electrical equipment, increase capacity to meet current & future demand (project is in the final design phase) |

Illustration 2: The Future of Swan Island / Lower Albina



NORTH BEACH

The North Beach area from Swan Island to St. Johns will undergo a major transformation from vacant contaminated brownfields to a new waterfront district that emphasizes natural areas and recreational opportunities along the river.

The University of Portland will expand down to the river with sports fields and an environmental science field laboratory. The riverbank in this area will be protected and enhanced to improve watershed health functions and will include a habitat-friendly viewpoint, allowing students and residents to enjoy the river.

As these formerly contaminated riverfront properties redevelop, a new Willamette River Greenway Trail connection will provide access from the University of Portland through Willamette Cove to Cathedral Park, the St. Johns neighborhood and beyond. This trail will coexist with the railroad that connects Portland's industrial areas to their markets nationwide.

Inspired by the trail adjacent to Portland's Steel Bridge, a new cross river trail will be explored over time in partnership with BNSF on the Railroad Bridge 5.1.

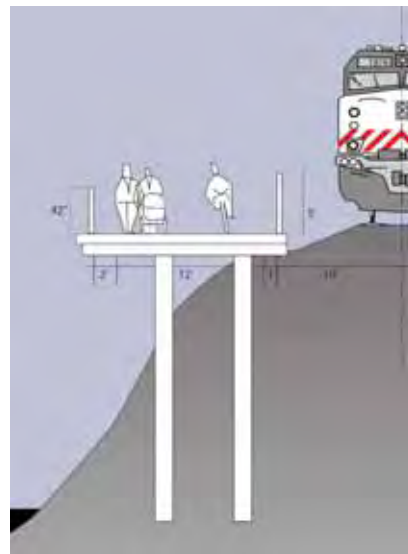
Willamette Cove, one of North Portland's natural gems, and the Triangle Park site, will be cleaned up and restored to provide high quality fish and wildlife habitat. Bluff habitat will be conserved and enhanced. An ecologically-sensitive trail will allow Portlanders to experience, yet minimize disturbance to, these restored areas.



A conceptual drawing developed during the Site Design Workshops depicts a trail along the BNSF Railroad Bridge.



A trail could be built between the railroad and the Willamette River below the University of Portland using a boardwalk structure shown on the illustration to the right.



NORTH BEACH AREA ACTIONS AND INVESTMENTS

The following actions and investments are recommended for this area. For more information see Section II.B: Action Agenda and Map 11: Recommended Studies and Investments.

| Location | Project |
|----------------------------------|--|
| Willamette Cove to BES Water Lab | Acquire easements and design and develop trail & viewpoint |
| Triangle Park property | Expand shallow water habitat, regrade riverbanks, add complexity with wood and boulders, revegetate |
| Willamette Cove | Create off-channel habitat, remove riprap, recreate shallow water habitat and floodplain, revegetate |

Illustration 3: The Future of North Beach



ST. JOHNS

The St. Johns riverfront will continue to evolve into a thriving, dynamic center. Cathedral Park, with its stunning views and popular festivals, will grow as a neighborhood focal point as a result of improvements made following Park's master planning process. The Willamette River Greenway Trail will connect Cathedral Park to Pier Park through Baltimore Woods. A new viewpoint will be developed along with a new crossing at Lombard Street. Improved signage will facilitate movement through this vibrant neighborhood.

Conflicts between rail operations and residential livability will be mitigated through development of a new whistle-free zone, sound insulation and conservation of trees to help reduce the noise impacts. Safe railroad crossings will be installed so that trains can pass through more efficiently and quietly, improving livability in this growing mixed use neighborhood and facilitating the continued expansion of Toyota's operations at Terminal 4.

Restoration activities at Cathedral Park will improve riparian functions and connections to upland wildlife habitat. The riverbank between Cathedral Park and the Toyota facility on the expanded Terminal 4 site may be acquired and restored to improve habitat for fish and wildlife.

Remaining patches of native oaks and surrounding undeveloped lands along the Willamette Greenway Trail alignment will be conserved and restored to provide wildlife habitat connectivity and a buffer between the industrial area near the river and the residential neighborhood to the east. Undeveloped properties above the Port's Terminal 4, including the remnant patch of native Oregon white oaks will be acquired and restored as they become available to provide upland habitat for birds and other wildlife species.

Curb extensions and crossing medians will make it safer for pedestrians to access the St. Johns waterfront.

Improvements to freight routes from industrial districts to the St. Johns Bridge will allow safer and more efficient transport of goods while reducing the impacts of trucks on the town center and adjacent neighborhoods.



Cathedral Park, located beneath the St. Johns Bridge, provides recreational access to the river, fish and wildlife habitat, and the cool sounds of jazz in the summer.

ST. JOHNS AREA ACTIONS AND INVESTMENTS

The following actions and investments are recommended for this area. For more information see Section II.B: Action Agenda and Map 11: Recommended Studies and Investments.

| Location | Project |
|---|--|
| Lombard Street / St. Louis Avenue/ Ivanhoe Street | Realign intersections to reinforce truck movements on truck streets, improve traffic, pedestrian circulation |
| Lombard Street/ Burgard Road | Replace weight restricted bridge and widen to two lanes with center turn lane, bike lanes, and sidewalks |
| Crown Cork/ Baltimore Woods | Maintain and enhance existing oak habitat, remove invasive species along the bluff, acquire property if necessary. |
| Mar Com waterfront | Create wetland habitat where conditions allow, treat stormwater outfall with swale outside of habitat area, improve riverbanks, revegetate. Acquire easement or property as necessary. |
| Cathedral Park Vicinity | Create whistle free zone zone, control rail crossings to improve neighborhood livability and enable T-4 expansion |
| Chimney Park/ Pier Park | Design and develop a Columbia Boulevard crossing, a Lombard Street crossing and an overpass at Chimney Park to connect the trail system |
| Lombard Street/ Decatur Street | Design and implement trail improvements and viewpoint |
| Decatur Street/ Cathedral Park | Develop a bike boulevard and trail improvements |
| Cathedral Park | Continue master planning and implement final design. |

Illustration 4: The Future of St. Johns



RIVERGATE

The Rivergate district will remain Oregon's primary gateway for international trade, with expansive industrial sites and optimal marine and rail service to support distribution centers for rail/marine-dependent manufacturing. A series of high priority public investments in this critical infrastructure system will ensure continued industrial growth and reinvestment, including replacement of the weight-restricted Burgard Bridge, Kenton rail line double-tracking, I-5 widening at Delta Park, and the new bridge crossing the Columbia River. Improvements on N. St. Louis and Ivanhoe will improve truck movements through St. Johns, and the long-term need for a new bridge linking the industrial areas on the east and west sides of the Willamette River will also be evaluated.

The Willamette River Greenway Trail alignment continues from Pier Park to Chimney Park, then into the Smith & Bybee Wetlands natural area. From there it follows the Columbia Slough into Kelley Point Park.

The South Rivergate Corridor provides significant hydrologic and water quality functions and is an important wildlife habitat corridor. It will be enhanced and protected to provide habitat for sensitive species such as the western pond turtle and to ensure continued connection from Smith & Bybee Wetlands to Forest Park and beyond. Vegetated riverbanks and beaches will be conserved as important fish and wildlife habitat. Cleanup of harbor sediments and upland contamination will continue and will facilitate river-dependent uses interspersed with restored habitat.

Illustration 5: The Future of Rivergate





The ships at Terminal 6 on the Columbia River bring container cargo in from all over the world.

RIVERGATE AREA ACTIONS AND INVESTMENTS

The following actions and investments are recommended for this area. For more information see Section II.B: Action Agenda and Map 11: Recommended Studies and Investments.

| Location | Project |
|---|---|
| Shipyards Pump Station | Increase capacity of Shipyards Pump Station near Burgard Road |
| Marine Drive Pump Station | Upgrade mechanical and electrical equipment, increase capacity to meet current and future demand (project is in the final design phase) |
| Lombard Pump Station | Install second electrical feed and control equipment. |
| Lombard Street (T-6 to Rivergate Blvd.) | Widen Lombard Street, add signal at Ramsey Boulevard |
| Rivergate | Provide intelligent transportation system improvements (e.g. signal timing) to reduce congestion |
| Burgard Road/ Lombard Street | Widen to two lanes with center turn lane, bike lanes, and sidewalks |
| Leadbetter Road | Street extension and rail over crossing (Marine Drive loop) |
| Burgard Loop Water Main | Add 12" water main along Simmons Road or 16" water main along Burgard Road |
| Lombard Street/ Columbia Slough | Strengthen bridge and add sidewalks and bike lanes. |
| North Willamette Crossing Study | Increase priority in Regional Transportation Plan to study the need for a new bridge connecting Hwy 30 to Rivergate. |
| Kenton Line Upgrade | Upgrade to double track, new sidings. |
| Ramsey Rail Complex | Construct up to four tracks and one mainline to improve bottlenecks and increase storage capacity |
| South Rivergate Yard | Expand railroad yard to increase Terminal 5 bulk capacity (phase 1) |
| T-5 Unit Rail Loop #4 | Construct two additional loop tracks to increase storage capacity |
| South Rivergate Corridor | Enhance wetlands, revegetate below powerlines and increase wildlife habitat connectivity |

THE CONFLUENCE

The area where the Willamette River meets the Columbia River, the Columbia Slough, Miller Creek, and the Multnomah Channel will continue to be a regionally-significant area for fish and wildlife habitat and river recreation. This confluence area is also one of Portland's economic gateways to the world. Large ships, tankers and barges pass through this area transporting materials and products between Willamette River cities, eastern Oregon grain terminals and world markets.

Harborton Wetlands, a significant riverine area, will be protected and restored as a critical link in the wildlife corridor that connects Forest Park with Smith & Bybee Wetlands. Miller Creek will be restored to allow fish to access spawning grounds in Forest Park streams. The riparian and upland habitat in Kelley Point Park and along the Columbia Slough will also be enhanced to improve fish and wildlife habitat.

Rural Sauvie Island, outside Portland's Urban Growth Boundary, provides a mix of wildlife habitat and working farms. Some riverfront land on Sauvie Island will be restored by enhancing wetlands or reconnecting the floodplain to the river to allow seasonal flooding when agreements with property owners and agencies are established.

Kelley Point Park will continue to provide opportunities for recreational access on and near the water. It is here, also, that the Willamette Greenway Trail terminates at a viewpoint where Portland's two great rivers come together.



The confluence of the Willamette River with Multnomah Channel is an important habitat area for fish and wildlife. To the left is Harborton Wetlands and to the right, Sauvie Island.

THE CONFLUENCE AREA ACTIONS AND INVESTMENTS

The following actions and investments are recommended for this area. For more information see Section II.B: Action Agenda and Map 11: Recommended Studies and Investments.

| Location | Project |
|------------------------------------|---|
| Kelley Point Park | Add large woody debris and boulders, revegetate with native species. Possibly excavate to increase amount of area inundated and frequency of inundation. |
| Sauvie Island properties | Lay back riverbanks, regrade or relocate levee to increase inundation area and frequency of inundation. Add large wood, remove invasives. Acquire easement or property as necessary. |
| Harborton Wetlands | Remove berm to re-establish off-channel connection to the river, possibly redirect Miller Creek to intersect this off-channel area, remove invasive species and revegetate with native species, lay back riverbank, place large wood, add riparian vegetation. Acquire easement or property as necessary. |
| Owens Corning | Increase structural diversity in floodplain and riparian areas, add large wood, lay back bank, recreate off-channel habitat and seasonal stream from Forest Park. Acquire easement or property as necessary. |
| Willamette River Channel | Maintenance dredging as recommended in Dredge Materials Management Plan |
| Columbia Slough Confluence Project | Anchor large wood in-stream and along banks; enhance emergent, scrub-shrub and riparian wetland plant communities; add structural features to enhance the habitat for priority wildlife species. |

Illustration 6: The Future of the Confluence Area



LINNTON VILLAGE

The Linnton Village will become a thriving community with a new revitalized storefront along St. Helens Road and other improvements. New investment at the Linnton Plywood site will revitalize the waterfront and provide new jobs for Portlanders. If needed, a water main will be extended to ensure that new river-dependent industrial uses can operate safely.

The Linnton beach will be protected and transformed into high quality fish and wildlife habitat. Opportunities exist to daylight nearby streams at their confluences with the river to provide off-channel resting areas for fish. The Linnton community will be important partners in the stewardship of these protected natural areas.

Pedestrian and bicycle access through Linnton will be improved as the Willamette River Greenway Trail is upgraded. The trail is envisioned as a two-way bicycle and pedestrian path along the east side of NW St. Helens Road/ Hwy 30. In some areas this trail will run along the edge of the right-of-way, in other locations it will run along the Portland and Western railroad track as a rail-with-trail. The trail will also loop through Linnton along Front Avenue with a spur that leads to a viewpoint offering vistas of the majestic St Johns Bridge and the bustling activities of the Port of Portland. In addition, a soft surface trail along the Linnton Beach will provide access to the river.



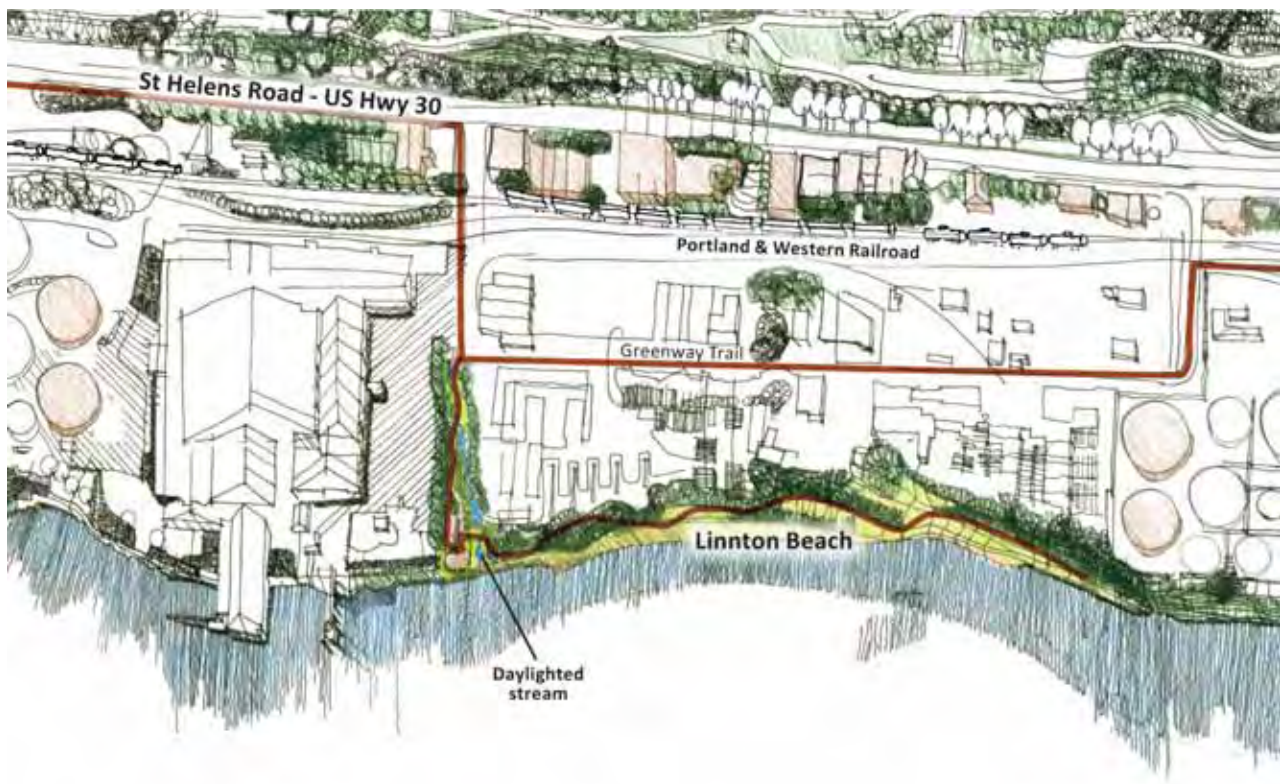
The Linnton waterfront is a great opportunity to provide habitat for fish and wildlife as well as riverfront access for the community.

LINTON VILLAGE AREA ACTIONS AND INVESTMENTS

The following actions and investments are recommended for this area. For more information see Section II.B: Action Agenda and Map 11: Recommended Studies and Investments.

| Location | Project |
|---------------------------------------|--|
| Linnton Parallel Water Main | Extend parallel water main as needed for site development |
| Linnton Beach | Acquire easement and design spur trail improvements and viewpoint |
| BNSF Railroad Bridge to NW Marina Way | Conduct feasibility studies to evaluate rail-with-trail proposals adjacent to the Portland and Western rail corridor. Acquire easement if necessary. |
| Linnton Beach Linnton Plywood | Daylight stream mouths, create off-channel habitat fed by seasonal streams and provide connectivity, improve riverbanks, remove invasives and revegetate with native species |
| St Helens Road | Revitalize St Helens Road as a main street though the use of storefront grants and other tools. |

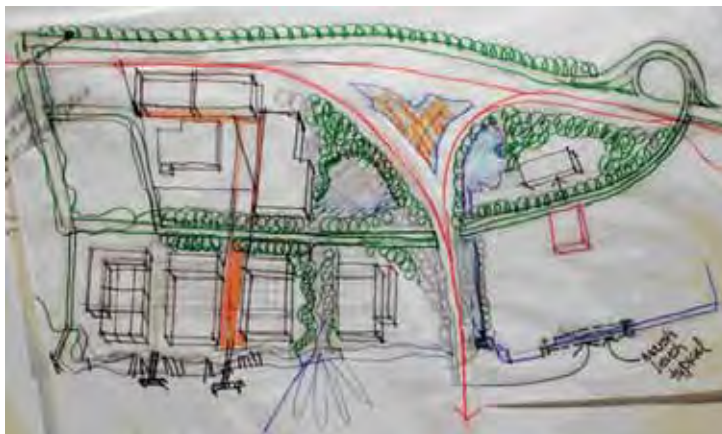
Illustration 7: The Future of the Linnton Village



WILBRIDGE

This heavy industrial district will continue to be a hub for fuel distribution and serve diverse manufacturing facilities. Wilbridge is the terminus of the Olympic Pipeline and the entry point for the majority of petroleum fuel used in Oregon. The district has a unique network of harbor, pipeline, rail, and truck infrastructure that supports heavy industrial facilities.

Transportation improvements, including a possible extension of Front Avenue, will accommodate increased freight movement and provide an additional access to Hwy 30 for many riverfront businesses. Urban renewal resources will help a portion of this area become more competitive with undeveloped suburban sites.



A conceptual design developed during the site design workshops depicts redevelopment at Arkema and an extension of Front Avenue to US 30.

Cleanup of harbor sediments and upland contamination will continue and will result in continued river-dependent uses interspersed with restored high quality habitat. Redevelopment of particularly challenging sites will be assisted by the Harbor ReDI Program and new state and federal Brownfield development incentives.



The petroleum cluster is a critical element of the harbor's industrial economy.

A new bridge trail connecting the east and west sides of the river may be developed in partnership with BNSF Railroad to increase the connectivity of Portland's bicycle and pedestrian transportation system. This trail will connect the existing bike lane on St Helens Road/ Hwy 30 with the new trail on the east side to provide a quick bicycle commute between north and northwest Portland.

North Doane Lake, Doane Creek, and abutting upland areas provide significant habitat and will be conserved and restored to increase connectivity between Forest Park and the river. The confluences of the Willamette River with Saltzman Creek and Doane Creek will be enhanced to provide important refugia for fish and wildlife.

WILBRIDGE AREA ACTIONS AND INVESTMENTS

The following actions and investments are recommended for this area. For more information see Section II.B: Action Agenda and Map 11: Recommended Studies and Investments.

| Location | Project |
|---------------------------------|---|
| US 30 access in Willbridge area | Construct an additional BNSF rail crossing connection between Front Avenue and Highway 30 near the closed Balboa crossing. |
| Railroad Bridge | Conduct a feasibility study to evaluate rail-with-trail proposals on the BNSF Railroad Bridge |
| Rail-with-Trail to Linnton | Conduct a feasibility study to evaluate rail-with-trail proposals adjacent to the Portland and Western rail corridor |
| Transloader International | Daylight stream, revegetate stream mouth to create fish refugia at confluence area. Acquire easement or property as necessary. |
| Doane Creek | Daylight part of creek, establish passage under Front Avenue to enhance connectivity to Forest Park, create off-channel wetland |
| Mouth of Saltzman Creek | Enhance confluence. Excavate and lay back steepened banks to increase shallow water habitat, revegetate banks and creek mouth. Acquire easement or property as necessary. |
| Guild's Lake Pump Station | Install second electrical feed and control equipment, address impacts of Portsmouth Forcemain on downstream discharge |
| Portland Harbor Superfund | Investigation, remediation and restoration for past damages to natural resources. |

Illustration 8: The Future of Wilbridge



GUILD'S LAKE

This heavy industrial district will continue to have the most diverse mix of manufacturing and distribution uses in the city, with advantageous rail and marine access and proximity to markets in the central city. An expansive network of harbor, rail, pipeline, and truck infrastructure will accommodate increased freight movement as transportation improvements occur. Signal improvements at NW Yeon Avenue and Hwy 30 are a high priority investment in this district to reduce congestion and support economic development. In addition to supporting the existing metals, transportation equipment, and distribution sectors, the City's business recruitment efforts will stimulate the creation of a "circular economy," in which the wastes of one business are reused as inputs by another. The growth of these and other sustainable industries, such as renewable energy, green construction, and local and organic food products, will contribute to the region's economic and environmental health.

Marine loading and mooring will remain an important feature of the riverfront landscape. Cleanup of harbor sediments and upland contamination will continue and will facilitate river-dependent uses interspersed with restored habitat. Vegetated riverbanks and beaches will be conserved and restored as important fish and wildlife habitat.

Sustainable stormwater management techniques will help address sanitary system capacity issues and help improve water quality.



Guild's Lake is home to an interconnected infrastructure network with the convergence of harbor, rail, pipeline, and highway.

GUILD'S LAKE AREA ACTIONS AND INVESTMENTS

The following actions and investments are recommended for this area. For more information see Section II.B: Action Agenda and Map 11: Recommended Studies and Investments.

| Location | Project |
|--|---|
| NW Neighborhoods Balch CSO Consolidation Conduit | Repair and replace old pipes and provide new capacity in a combined system that will bring adequate flows to the Balch CSO Consolidation Conduit |
| Balch Cove | Daylight creek mouth, add sand and gravel to create a confluence pool for refugia, improve and revegetate riverbanks, add large woody debris, improve stormwater management |
| Terminal 1 North Cove | Remove docks, lay back riverbanks, add large wood and create off-channel shallow water habitat. |
| Nicolai Street | Design and construct rail-to-trail improvement for the abandoned rail line |
| Yeon Avenue/ US 30 (Nicolai Street to St Johns Bridge) | Interconnect signals and install CCTV and variable message signs |

Illustration 9: The Future of Guild's Lake



III. APPENDICES

- A. Ordinance *(to be drafted)*
- B. Outreach Log
- C. Funding Options
- D. Related Publications and Documents



The beach at Kelley Point Park offers a unique perspective of the container cranes at Terminal 6.

APPENDIX B: OUTREACH LOG

Outreach conducted by the River Plan project team is outlined in the table below. The summary references community presentations, stakeholder meetings, task group and committee meetings, events, and mailings carried out during development of the River Concept and River Plan / North Reach. In addition to the events and meetings listed below, the project team distributed announcements and updates through various electronic formats and maintained a monthly e-newsletter, *River Plan News*. The number in attendance is in addition to planning staff listed.

| Date | Organization / Event | Planning Staff | Attendance | Noticed in River Plan News |
|----------|--|--|------------|----------------------------|
| 08/02/05 | United States Coast Guard | Sallie Edmunds et al. | 12 | |
| 08/23/05 | Friends of the North Portland Greenway Trail (npGREENWAY) | Diane Sullivan | 5 | |
| 09/07/05 | River Plan Committee | Joe Zehnder, Edmunds, Sullivan, Steve Kountz, Barbara Hart, Joanne Daunt | 7 | |
| 09/18/05 | St. Johns Bridge Celebration / Rededication | Peter Ovington | 125 | |
| 10/12/05 | Swan Island Business Association | Edmunds, Marguerite Feuersanger | 11 | |
| 10/13/05 | River Plan Committee | Kelley, Edmunds, Sullivan, Daunt, Hart, Joan Hamilton | 15 | |
| 10/18/05 | Southwest Neighborhoods Inc. (SWNI) | Edmunds, Daunt | 8 | |
| 10/20/05 | River and Industrial Economic Advisory Group | Edmunds, Kountz, Sullivan | 8 | |
| 10/24/05 | University Park Neighborhood Association | Sullivan, Feuersanger | 12 | |
| 10/24/05 | Citywide Land Use Group | Edmunds, Ovington | 12 | |
| 10/25/05 | Watershed Plan Open House - Bureau of Environmental Services (BES) | Edmunds, Ovington | 10 | |
| 11/01/05 | Central Eastside Industrial Council | Zehnder, Edmunds | 12 | |
| 11/03/05 | Portland Freight Committee | Kountz, Edmunds | 25 | |
| 11/03/05 | City Club Growth Management & Environment Committee | Edmunds, Hart, Deborah Stein, Michael Montgomery | 9 | |
| 11/07/05 | Trail Alignment Task Group | Edmunds, Sullivan | 9 | X |
| 11/08/05 | NW Industrial Neighborhood Association (NINA) | Edmunds, Kountz | 18 | |
| 11/08/05 | Waterfront Organizations of Oregon (WOOO) | Sullivan, Ovington | 20 | |
| 11/08/05 | Friends of Cathedral Park | Edmunds, Julia Gisler | 25 | |
| 11/09/05 | Portland Marine Dealers Association | Edmunds, Ovington | 6 | |
| 11/14/05 | Eliot Neighborhood Association | Sullivan, Ovington | 15 | |
| 11/14/05 | St. Johns Neighborhood Association | Edmunds | 25 | |
| 11/14/05 | Trail Alignment Task Group | Edmunds, Zehnder, Sullivan | 10 | |
| 11/15/05 | River Renaissance Brownbag | Edmunds, Ovington | 15 | |
| 11/15/05 | River Plan Committee | Zehnder, Edmunds, Sullivan, Stein, Ovington, Kountz, Hamilton | 12 | X |
| 11/21/05 | Southeast Uplift Land Use & Transportation Committee | Sullivan | 15 | |
| 11/21/05 | Trail Alignment Task Group | Edmunds, Feuersanger | 9 | |

| Date | Organization / Event | Planning Staff | Attendance | Noticed in River Plan News |
|-------------|--|---|------------|----------------------------|
| 12/12/05 | River Plan Committee | Zehnder, Edmunds, Feuersanger, Ovington, Kountz, Hamilton | 8 | X |
| 12/05/05 | Trail Alignment Task Group | Edmunds, Feuersanger | 9 | |
| 01/06-04/06 | Interviews with harbor industries | Kountz, Arianne Sperry | 60 | |
| 01/17/06 | River Plan Committee | Edmunds, Feuersanger, Kountz, Stein, Ovington, Sperry, Hamilton | 17 | X |
| 01/19/06 | Port of Portland | Edmunds, Kountz, Stein | 5 | |
| 01/31/06 | npGREENWAY | Feuersanger | 25 | |
| 02/15/06 | Central Eastside Industrial Council | Edmunds, Sperry | 3 | |
| 02/07/06 | Waterfront Organizations of Oregon | Edmunds, Ovington | 3 | |
| 02/14/06 | River Renaissance Brownbag Event | Kountz, Edmunds | 12 | X |
| 02/14/06 | River & Industrial Economic Advisory Group (RIEAG) | Edmunds | 20 | X |
| 02/14/06 | Oregon State Marine Board | Edmunds, Kip Wadden (Parks) | 4 | |
| 02/16/06 | Citywide Parks Team | Feuersanger | 30 | |
| 02/17/06 | Willamette Riverkeeper | Edmunds, Stein, Ovington | 2 | |
| 02/21/06 | River Plan Committee | Roberta Jortner, Stein, Mindy Brooks, Edmunds, Hamilton, Ovington, Kountz | 12 | X |
| 02/23/06 | Audubon Society of Portland | Edmunds, Stein | 2 | |
| 02/23/06 | River Concept Open House | Edmunds, Ovington, Stein, Kountz, Sperry, Feuersanger | 20 | X |
| 03/07/06 | Central Eastside Industrial Council | Edmunds | 12 | |
| 03/16/06 | Sauvie Island Boosters | Edmunds, Sperry | 12 | |
| 03/20/06 | Greenway Code Interview with the Port | Edmunds, Rodney Jennings | 5 | |
| 03/21/06 | River Plan Committee | Edmunds, Gisler, Jortner, Christina Scarzello, Sperry, Stein, Hamilton | 13 | X |
| 03/27/06 | Greenway Code Interview with Peter Fry | Edmunds, Jennings | 1 | |
| 04/03/06 | Greenway Code Interview with Tim Brooks | Edmunds, Jennings | 1 | |
| 04/12/06 | Bureau of Planning staff | Edmunds, Sperry | 50 | |
| 04/18/06 | River Plan Committee | Edmunds, Brooks, Kountz, Montgomery, Scarzello, Sperry, Hamilton | 15 | X |
| 04/19/06 | Bank Design & Permitting Task Group | Edmunds, Gisler, Sperry | 9 | X |
| 04/20/06 | Port of Portland Forum | Edmunds, Sperry | 15 | |
| 04/27/06 | Watershed Health Task Group | Stein, Edmunds | 17 | X |

| Date | Organization / Event | Planning Staff | Attendance | Noticed in River Plan News |
|----------|---|---|------------|----------------------------|
| 05/03/06 | Greenway Code Interview with Portland Development Commission | Edmunds, Jennings | 4 | |
| 05/05/06 | Greenway Code Interview with Schnitzer Steel | Edmunds, Jennings | 4 | |
| 05/09/06 | Water Recreation Task Group | Edmunds, Sarah Selden, Wadden | 9 | X |
| 05/10/06 | Bank Design & Permitting Task Group | Edmunds, Gisler, Sperry, Jennings | 10 | X |
| 05/16/06 | River Plan Committee | Edmunds, Stein, Brooks, Kountz, Sperry, Matt Lustig, Selden, Hamilton | 8 | X |
| 05/18/06 | RIEAG Meeting – Harbor Reinvestment Strategy | Kountz | 20 | |
| 05/18/06 | BES East Side Big Pipe Open House | Edmunds, Sperry, Selden | 50 | |
| 05/23/06 | Water Recreation Task Group | Edmunds, Selden, Wadden | 8 | |
| 05/30/06 | Watershed Health Task Group | Stein, Edmunds | 17 | X |
| 06/06/06 | Water Recreation Task Group | Edmunds, Selden, Wadden | 6 | X |
| 06/07/06 | Commercial Real Estate Economic Coalition | Kountz | 12 | |
| 06/07/06 | Bank Design & Permitting Task Group | Edmunds, Gisler, Lustig | 7 | |
| 06/09/06 | Kenton Neighborhood Association | Sperry | 100 | |
| 06/13/06 | Willamette Technical Advisory Committee | Edmunds, Kountz, Sperry, Selden | 17 | X |
| 06/20/06 | Watershed Health Task Group | Stein, Edmunds | 21 | X |
| 06/20/06 | Harbor Reinvestment Strategy Interviews | Kountz, Sperry | 60 | |
| 07/12/06 | Trail Alignment Task Group | Feuersanger, Edmunds, Selden | 17 | X |
| 07/18/06 | Watershed Health Task Group | Stein, Edmunds | 22 | X |
| 07/19/06 | Bank Design & Permitting Task Group | Edmunds, Sperry, Lustig | 10 | X |
| 07/26/06 | Bank Design & Permitting Task Group | Edmunds, Lustig | 10 | |
| 08/15/06 | River Plan Committee | Edmunds, team | 20 | X |
| 08/16/06 | Willamette Industrial Urban Renewal Area Task Force | Edmunds, Kountz | 25 | X |
| 08/17/06 | RIEAG Meeting – Update on trails and watershed health | Edmunds, Kountz, Stein, Feuersanger | 20 | X |
| 08/30/06 | Freightliner Bike to Work kickoff– Presentation on Trail Proposal | Feuersanger | 20 | |
| 09/12/06 | Watershed Health Task Group | Stein, Edmunds, Shannon Buono | 18 | X |
| 09/13/06 | Site Design interview with Todd Spencer site owners | Sperry, Edmunds | 2 | |
| 09/13/06 | Site Design interview with Siltronic | Sperry, Edmunds, Stein | 3 | |
| 09/15/06 | Site Design interview with Fire Bureau | Sperry, Edmunds, Stein | 2 | |
| 09/13/06 | NW Front Avenue Business and property owners | Feuersanger, Edmunds, Zehnder | 20 | |
| 09/14/06 | Greenway Code Interviews with North Reach Land Use Chairs | Jennings, Sperry, Feuersanger | 5 | |
| 09/15/06 | Brownfields Conference Presentation on the Working Harbor Reinvestment Strategy | Kountz | 40 | |
| 09/19/06 | City of Portland Streamlining Committee | Edmunds, Kountz, Stein, Sperry, Lustig | 10 | X |

| Date | Organization / Event | Planning Staff | Attendance | Noticed in River Plan News |
|----------------------|---|---|------------|----------------------------|
| 09/19/06 | River Renaissance Brown Bag | Edmunds, Kountz, Stein, Feuersanger, Sperry, Lustig, Selden | 11 | X |
| 09/19/06 | River Plan Committee | Edmunds, Kountz, Stein, Feuersanger, Sperry, Lustig, Selden | 9 | X |
| 09/20/06 | Site Design interview with Sause Brothers | Edmunds, Sperry, Stein | 1 | |
| 09/21/06 | Working Waterfront Coalition | Edmunds, Kountz, Gil Kelley | 27 | |
| 09/22/06 | Site Design interview with ESCO Corp. | Edmunds, Sperry, Stein | 1 | |
| 09/26/06 | Willamette River Boat Tour | Edmunds, Kountz, Stein, Sperry, Selden | 101 | X |
| 09/28/06 | Waterfront Conference Presentation | Edmunds, Kelley, Montgomery | 85 | X |
| 10/03/06 | Site Design interview with Portland General Electric | Edmunds, Sperry, Stein | 2 | |
| 10/04/06 | Willamette Technical Advisory Committee | Edmunds, Kountz, Stein, Feuersanger, Sperry, Selden | 14 | X |
| 10/10/06 | Site design interview with Port of Portland | Edmunds, Sperry, Stein | 1 | |
| 10/13/06 | Site Design interview with Time Oil | Edmunds, Sperry, Stein | 1 | |
| 10/17/06 | NOAA Fisheries | Edmunds, Sperry, Stein, Zehnder | 2 | |
| 10/17/06 | River Plan Committee | Edmunds, Selden, Sperry, Lustig, Stein, Feuersanger | 13 | X |
| 10/17/06 | Site Design interview with Larry Cowlshaw | Edmunds, Sperry | 1 | |
| 10/17/06 | Watershed Health Task Group | Stein, Edmunds, Buono | 18 | X |
| 10/18/06 | Bureau of Planning staff | Edmunds | 40 | |
| 10/24/06 | Site Design Workshop public viewing | Edmunds, Sperry, Stein | 22 | X |
| 10/25/06 | Site Design Workshop public viewing | Edmunds, Sperry, Stein | 30 | X |
| 11/15/06 | Linnton Trail Alignment | Edmunds, Feuersanger, Buono | 2 | |
| 11/30/06 | Contaminated Sites Task Group | Sperry, Edmunds, Lustig | 13 | X |
| 12/11/06 | Contaminated Sites Task Group | Sperry, Edmunds, Lustig | 11 | X |
| 12/15/06 | Swan Island Tour | Buono | 14 | |
| 12/18/06 | Port of Portland | Edmunds, Kountz, Stein, Zehnder, Kelley | 4 | |
| 12/21/06 | RIEAG Meeting with Contaminated Sites discussion | Edmunds, Sperry, Kountz | 20 | |
| 01/05/07 | Natural Resources Management Team | Stein | 10 | |
| 01/11/07 | Willamette Technical Advisory Group | Edmunds, Kountz, Sperry | 9 | |
| 01/11/07 | Contaminated Sites Task Group | Sperry, Edmunds, Buono, Selden | 11 | X |
| 01/12/07 | Siltronic Corporation | Edmunds, Sperry | 2 | |
| 01/22/07 | Linnton re: Trail Alignment | Edmunds, Buono | 2 | |
| 01/25/07 | Contaminated Sites Task Group | Sperry, Buono, Stein, Lustig | 11 | |
| 01/27/07 01/28/07 | River Renaissance booth with River Plan materials at Tram Opening | Darcy Cronin | 150 | |
| 02/06/07 | St. Johns Budget Workshop / Community Fair | Sperry, Cronin | 15 | |
| 02/06/07 | River Renaissance Management team | Edmunds and Stein | 5 | |
| 02/08/07 | Contaminated Sites Task Group Subcommittee | Sperry, Buono, Lustig | 5 | |

| Date | Organization / Event | Planning Staff | Attendance | Noticed in River Plan News |
|----------|---|---|------------|----------------------------|
| 02/14/07 | Port of Portland | Edmunds, Kountz, Stein, Zehnder, Kelley | 4 | |
| 02/15/07 | Contaminated Sites Task Group Subcommittee | Sperry, Buono, Lustig | 4 | |
| 02/15/07 | npGREENWAY | Buono | 30 | |
| 02/20/07 | River Plan / North Reach Open House | Edmunds, Sperry, Stein, Buono | 3 | X |
| 02/20/07 | River Plan Committee | Edmunds, Sperry, Lustig, Stein, Buono, | 16 | X |
| 02/21/07 | Metro | Edmunds and Stein | 2 | |
| 02/21/07 | Trail Task Group | Buono, Edmunds, Sperry | 10 | X |
| 02/22/07 | Contamination Sites Task Group | Sperry, Buono, Edmunds | 8 | X |
| 03/15/07 | RIEAG | Edmunds, Sperry, Buono, Kountz, Cary Pinard | 15 | |
| 03/20/07 | River Industrial Task Group | Kountz, Buono, Edmunds, Pinard | 9 | X |
| 03/22/07 | Mitigation & Conservation Banks Task Group | Lustig, Buono and Edmunds | 7 | X |
| 03/22/07 | Contamination Sites Task Group | Sperry, Buono, Edmunds | 8 | X |
| 03/28/07 | Superfund | Edmunds and team | 5 | |
| 04/03/07 | River Industrial Task Group | Kountz, Buono, Edmunds, Pinard | 11 | |
| 04/03/07 | Linnton Action Team | Stein | 21 | |
| 04/05/07 | Portland Freight Committee | Edmunds and Kountz | 35 | |
| 04/05/07 | Port of Portland | Edmunds, Kountz, Pinard, Kelley | 4 | |
| 04/09/07 | Mitigation/Conservation Bank Task Group | Lustig, Buono and Edmunds | 11 | |
| 04/17/07 | Linnton | Edmunds and Buono | 3 | |
| 04/18/07 | American Planning Association National Conference: Planning for Working Harbors | Kountz | 30 | |
| 04/24/07 | River Industrial Task Group | Kountz, Buono, Edmunds, Pinard | 10 | X |
| 04/26/07 | Mitigation/Conservation Bank Task Group | Lustig, Buono, Edmunds | 8 | X |
| 05/02/07 | Linnton Neighborhood Association | Edmunds, Buono | 15 | |
| 05/08/05 | River Industrial Zoning Task Group | Kountz, Edmunds, Pinard, Buono | 14 | X |
| 05/08/07 | Linnton Action Team | Stein, Buono, Edmunds | 19 | |
| 05/09/07 | Portland State University North Reach / Port T-4 Student Tour | Lustig, Buono, Edmunds, Sperry, Kountz | 32 | |
| 05/14/07 | Mitigation/Conservation Bank Task Group | Lustig, Buono, Edmunds | 8 | X |
| 05/14/07 | St. Johns Neighborhood Association | Lustig, Edmunds | 19 | |
| 05/15/07 | River Renaissance Brownbag: Planning for a prosperous working harbor | Kountz | 15 | |
| 05/15/07 | Overlook Neighborhood Association | Lustig, Buono | 14 | |
| 05/15/07 | River Plan Committee | Edmunds, Sperry, Buono, Stein, Lustig, Pinard, Kountz | 37 | X |
| 05/17/07 | RIEAG | Kountz, Sperry, Edmunds, Kelley | 12 | X |
| 05/23/07 | Columbia Corridor Association: Brownfields breakfast forum | Kountz | 40 | |
| 05/25/07 | npGREENWAY | Buono | 7 | |

| Date | Organization / Event | Planning Staff | Attendance | Noticed in River Plan News |
|----------|--|---|------------|----------------------------|
| 05/29/07 | Citywide Land Use Chairs | Lustig, Buono | 11 | |
| 06/05/07 | River Industrial Task Group | Edmunds, Grant Morehead, Kountz | 6 | |
| 06/06/07 | River Plan / North Reach Mailer to interested parties and all property owners in the N. Reach | | 3,400 | X |
| 06/07/07 | Portland Freight Committee: Harbor Transportation Needs Analysis | Kountz | 40 | |
| 06/07/07 | Mitigation/Conservation Bank Task Group | Lustig, Buono, Edmunds | 6 | |
| 06/12/07 | Linnton Action Team | Stein | 22 | |
| 06/18/07 | Metro Bond Measure Open House | Buono | 30 | |
| 06/19/07 | River Plan Committee | Edmunds, Kountz, Buono, Pinard, Lustig, Sperry, Jortner, Stein, Morehead | 30 | x |
| 06/21/07 | Advanced American Construction | Buono, Edmunds, Sperry | 4 | |
| 06/29/07 | Natural Resource Trustees | Edmunds, Lustig | 25 | |
| 07/10/07 | Linnton Action Team | Stein | 20 | |
| 07/18/07 | Metro Quarterly Trails Meeting | Buono | 50 | |
| 07/19/07 | T & G Trucking | Morehead, Sperry | 1 | |
| 07/23/07 | Coastal Zone Management Conference Presentation | Edmunds | 40 | |
| 07/24/07 | Willamette River Natural Resource Inventory (WNRI) Briefing | Edmunds, Kountz, Buono, Pinard, Lustig, Sperry, Jortner, Stein, Morehead | 10 | |
| 07/25/07 | Union Pacific Railroad | Buono, Edmunds | 4 | |
| 07/30/07 | Integration Task Group | Edmunds, Kountz, Buono, Pinard, Lustig, Sperry, Jortner, Stein, Morehead | 15 | X |
| 08/02/07 | Schnitzer Steel Tour | Buono, Sperry, Lustig, Kountz | 10 | |
| 08/07/07 | Metro | Edmunds, Sperry, Jortner | 3 | |
| 08/09/07 | Willamette River Boat Tour | Edmunds, Lustig, Pinard, Morehead | 115 | |
| 08/21/07 | WNRI @ River Renaissance Brownbag | Jortner | 22 | X |
| 08/21/07 | River Plan/North Reach Mailer to interested parties and all property owners in the North Reach | | 3,600 | X |
| 09/4/07 | Willamette River Boat Tour | Edmunds, Buono, Pinard, Brian Campbell, Lustig, Jortner, Sperry, Morehead | 43 | |
| 09/6/07 | WNRI briefing | Edmunds, Jortner, Sperry | 10 | |
| 09/12/07 | Integration Task Group | Edmunds, Kountz, Campbell, Morehead, Lustig, Sperry, Buono, Stein | 12 | X |
| 09/18/07 | River Plan Committee | Edmunds, Kountz, Campbell, Morehead, Lustig, Sperry, Buono | 18 | X |
| 09/27/07 | Working Harbor Reinvestment Strategy Open House | Kountz, Edmunds, Morehead, Sperry, Lustig | 6 | X |
| 09/29/07 | Portland Harbor Superfund Field Day | Sperry, Brooks, Rick Bastasch | 30 | |
| 10/05/07 | Integration Task Group | Edmunds, Campbell, Sperry, Morehead, Lustig, Buono, Stein | 9 | |

| Date | Organization / Event | Planning Staff | Attendance | Noticed in River Plan News |
|----------|---|---|------------|----------------------------|
| 10/16/07 | River Plan Committee | Edmunds, Campbell, Sperry, Morehead, Lustig, Buono, Stein, Jortner | 10 | X |
| 10/17/07 | Integration Task Group | Edmunds, Campbell, Sperry, Kountz, Morehead, Lustig, Buono, Stein, Jortner | 12 | X |
| 10/29/07 | Columbia Slough Watershed Council Board | Buono | 30 | |
| 11/05/07 | North Portland NA | Campbell, Kelley | 20 | |
| 11/20/07 | Jeff Joslin | Edmunds, Lustig | 3 | |
| 11/20/07 | Owens Corning | Edmunds, Lustig | 4 | |
| 11/15/07 | Integration Task Group | Edmunds, Campbell, Sperry, Morehead, Lustig, Buono, Jortner | 12 | X |
| 11/26/07 | Integration Task Group | Edmunds, Campbell, Sperry, Morehead, Lustig, Kountz, Buono, Brooks | 10 | X |
| 11/27/07 | Department of State Lands | Edmunds, Lustig, Buono | 1 | |
| 11/27/07 | U.S. Army Corps of Engineers | Edmunds, Campbell, Lustig | 1 | |
| 11/27/07 | Kinder Morgan/Certain Teed | Edmunds, Lustig | 7 | |
| 11/29/07 | Bureau Directors Briefing | Edmunds, Campbell, Kelley | 12 | |
| 12/11/07 | NINA | Edmunds, Campbell | 20 | |
| 12/11/07 | Friends of Baltimore Woods | Edmunds, Buono | 5 | |
| 12/19/07 | Integration Task Group | Edmunds, Campbell, Morehead, Sperry, Buono, Kountz, Lustig, Jortner | 10 | |
| 12/27/07 | Metro | Edmunds, Sperry | 2 | |
| 1/07/08 | Port of Portland | Edmunds, Campbell | 6 | |
| 01/10/08 | WNRI Technical Experts | Edmunds, Campbell, Jortner, Brooks | 12 | |
| 01/14/08 | Bureau of Development Services | Edmunds, Campbell | 2 | |
| 01/15/08 | River Plan Committee | Edmunds, Lustig, Sperry, Jortner, Bastasch, Campbell, Stein, Kountz, Buono, Brent Dorig | 20 | X |
| 01/16/08 | Willamette River Keeper | Edmunds, Buono | 1 | |
| 01/19/08 | Willamette Cove – Representative Tina Kotek | Sperry, Buono | 30-35 | |
| 01/29/08 | BES | Edmunds, Buono, Campbell, Lustig, Sperry, Dorig | 10 | |
| 01/31/08 | Integration Task Group | Edmunds, Campbell, Sperry, Buono, Brooks, Lustig, Dorig, Kountz, Jortner | 10 | X |
| 02/06/08 | npGREENWAY | Edmunds, Buono | 3 | |
| 02/14/08 | Port of Portland | Edmunds, Lustig, Campbell, Buono | 2 | |
| 02/20/08 | PGE | Edmunds, Campbell | 2 | |
| 02/21/08 | Andy Jansky | Edmunds, Lustig | 1 | |
| 02/26/08 | Port of Portland | Edmunds, Campbell | 4 | |
| 02/25/08 | Integration Task Group | Edmunds, Campbell, Sperry, Buono, Lustig, Dorig | 14 | X |

| Date | Organization / Event | Planning Staff | Attendance | Noticed in River Plan News |
|----------|--|---|------------|----------------------------|
| 03/12/08 | Portland Harbor CAG | Edmunds, Sperry | 25 | |
| 03/18/08 | Metro Greenspaces | Edmunds, Campbell | 1 | |
| 03/18/08 | Cable Huston | Edmunds, Campbell, Lustig, Jortner, Brooks | 5 | |
| 03/19/08 | Kinder Morgan | Edmunds, Buono | 3 | |
| 03/20/08 | Integration Task Group | Edmunds, Campbell, Lustig, Buono, Jortner, Brooks, Dorig, Diane Hale, Eric Engstrom, Kountz, Sperry | 15 | X |
| 03/21/08 | Integration Task Group | Edmunds, Campbell, Kelley, Lustig, Buono, Jortner, Brooks, Dorig, Hale, Sperry, Kountz, Engstrom | 20 | X |
| 04/01/08 | Port, PDC and BES | Edmunds, Kelley | 10 | |
| 04/11/08 | EPA, DEQ, NMFS and BES | Edmunds, Lustig, Buono, Sperry | 8 | |
| 04/14/08 | Portland Fire Chief | Kelley, Edmunds | 2 | |
| 04/16/08 | Trails and Natural Areas | Edmunds, Buono, Campbell | 7 | |
| 04/18/08 | Integration Task Group | Edmunds, Campbell, Lustig, Buono, Jortner, Hale, Sperry, Kountz, Engstrom | 15 | X |
| 05/01/08 | Integration Task Group | Edmunds, Campbell, Lustig, Buono, Jortner, Hale, Sperry, Engstrom | 14 | |
| 05/12/08 | Interjurisdictional meeting | Edmunds, Lustig, Buono, Sperry, Campbell | 8 | |
| 05/13/08 | Steve Pfeiffer | Edmunds, Campbell, Buono | 1 | |
| 05/20/08 | Streamlining Team | Edmunds, Buono, Lustig, Sperry, Campbell | 8 | |
| 05/22/08 | Bureau Directors | Edmunds, Kelley, Campbell | 10 | |
| 05/30/08 | Bluefield Holding | Edmunds, Lustig | 10 | |
| 06/05/08 | River Plan Committee | Edmunds, Campbell, Engstrom, Lustig, Buono, Sperry, Jortner, Hale, Stein, Kountz | 26 | X |
| 06/11/08 | University of Portland | Edmunds, Buono, Jortner, Brooks | 3 | |
| 06/18/08 | Audubon Society and Port of Portland | Edmunds, Buono, Engstrom, Lustig | 4 | |
| 06/18/08 | Doug Polk | Edmunds, Sperry | 1 | |
| 07/01/08 | Port of Portland | Edmunds, Kelley, Kountz | 4 | |
| 07/18/08 | Schnitzer Steel | Edmunds, Campbell | 2 | |
| 07/28/08 | Bank Design Workshop | Edmunds, Buono, Lustig, Sperry, Campbell | 11 | |
| 07/29/08 | Multnomah County | Edmunds, Buono | 10 | |
| 08/04/08 | Industrial Zoning Policy Community Meeting | Edmunds, Buono, Campbell, Lustig, Kountz, Sperry, Hale | 41 | X |
| 08/12/08 | Friends of Cathedral Park Neighborhood Association | Edmunds, Buono, Sperry | 11 | |
| 08/23/08 | Planning Commission Briefing (Nat. Resources and Economic Information) | Edmunds, Kountz, Jortner, Brooks, Hale | 20 | X |

| Date | Organization / Event | Planning Staff | Attendance | Noticed in River Plan News |
|----------|----------------------------------|---|------------|----------------------------|
| 08/31/08 | Riverfest | Edmunds, Brad Leech, Hale | 20 | X |
| 09/02/08 | Port of Portland | Edmunds, Kountz, Steve Dotterer, Kelley, Zehnder | 4 | |
| 09/04/08 | Portland Freight Committee | Kountz | 30 | |
| 09/04/08 | University of Portland | Edmunds, Campbell, Brooks | 5 | |
| 09/05/08 | Friends of Baltimore Woods | Edmunds, Buono, Sperry, Leech | 6 | |
| 09/09/08 | NINA | Montgomery, Kountz | 12 | |
| 09/16/08 | River Renaissance Brownbag | Edmunds, Sperry, Buono, Kountz, Bastasch, Leech, Hale | 26 | X |
| 09/18/08 | Linnton Neighborhood Association | Edmunds, Sperry | 2 | |
| 09/18/08 | Audubon Society | Edmunds, Buono | 1 | |
| 09/22/08 | Contaminated Sites Meeting | Edmunds, Sperry, Buono | 5 | |
| 09/23/08 | Planning Commission Briefing | Edmunds, Buono, Sperry, Engstrom, Hale | 9 | X |
| 09/24/08 | Columbia Corridor Presentation | Edmunds, Kountz, Sperry | 45 | |
| 09/30/08 | Paul Fishman | Edmunds, Buono, Campbell | 1 | |
| 10/02/08 | BES | Edmunds, Campbell, Engstrom | 4 | |
| 10/03/08 | Linnton Neighborhood Association | Edmunds, Campbell, Sperry | 2 | |
| 10/07/08 | Port of Portland | Edmunds, Campbell, Engstrom, Kountz | 4 | |
| 10/07/08 | Friends of Baltimore Woods | Edmunds, Buono, Sperry, Leech | 7 | |
| 10/15/08 | University of Portland | Edmunds, Buono, Campbell | 4 | |

Groups Contacted Via Email and/or Telephone

- Alliance of Portland Neigh. Business Assn's.
- Arbor Lodge Neighborhood Association
- Balch Creek Watershed Council
- Boise Neighborhood Association
- Brooklyn Action Corps
- Coalition for a Livable Future
- Columbia River Intertribal Fish Commission
- Corbett-Terwilliger Lair Hill Neigh. Association
- Downtown Neighborhood Association
- Fans of Fanno Creek
- Friends of Balch Creek
- Friends of Tryon Creek State Park
- Immigrant and Refugee Community Organization (IRCO)
- Institute for Tribal Government
- Johnson Creek Watershed Council
- Lower Albina Council
- Neighbors West / Northwest
- North Portland Business Association
- North Portland Neighborhood Services
- Northeast Coalition of Neighborhoods
- Northwest District Association
- Portland Parks Board
- Pearl District Neighborhood Association
- Portland Business Alliance
- St. Johns Business Boosters
- Sustainable Development Commission
- Tryon Creek Watershed Council

Media Coverage Referencing the River Plan / North Reach

- "River Plan Phase Nearing Finish" Daily Journal of Commerce (September, 2008)
- "Linnton Voice Silent in River Plan Draft" NW Examiner (July, 2008) – [Reprinted as "Linnton Rebuffs River Plan" St. Johns Sentinel (July, 2008)]
- "Unlikely Allies look to Restore Riverfront Land" Portland Tribune (March 14, 2008)
- "EPA Tries to set up Superfund Deal" Portland Tribune (November 6, 2007)
- "Group Calls for Pooling Brownfields" Portland Tribune (October 5, 2007)
- "Harbor Growth Stalls" Portland Tribune (August 28, 2007)
- "Competing River Visions Confound Group's Effort" Portland Tribune (August 7, 2007)
- "On Riverfront, Ecology and Economy Meet" The Daily Journal of Commerce (June 21, 2007)
- "Where's the Greenway" NW Examiner (April, 2007)
- "River Plan and Central Eastside" The Voice – A Publication of the Central Eastside Industrial Council (December, 2005)
- "The River Plan" Overlook Neighborhood Association Newsletter (November/ December, 2005)
- "On the Waterfront" St. Johns Sentinel (November, 2005)
- "SW News" Southwest Neighborhoods Inc. Newsletter (October, 2005)



Public outreach is a cornerstone of the River Plan / North Reach process



APPENDIX C. FUNDING OPTIONS

Possible Funding Sources for River Plan Recommended Investments

The River Plan recommends investments in five topic areas. Possible funding sources for these investments are included in the following table adapted from the River Renaissance Strategy (2005). Opportunities and limitations associated with each funding source are included.

| | SOURCE | USE OF THE FUNDING SOURCE | OPPORTUNITIES/ LIMITATIONS |
|-------|---|---|--|
| LOCAL | General Fund <i>Funds collected from property taxes.</i> | Planning, capital and restoration projects | General funds are discretionary and allocated by the City Council among competing needs. |
| | Utility Rates <i>Funds collected from sewer and water bills.</i> | Sanitary sewer, stormwater, environmental restoration, and pollution control services | <p>Funds generated from rates can only be used for actions that are directly related to the utility service.</p> <p>Limited public support for increasing Portland's sanitary/stormwater rates which are already among the highest in the country.</p> <p>Voluntary rounding up on utility bills has been identified as a funding strategy for the Grey to Green Street improvement project.</p> |
| | Urban Renewal Funds <i>Funds generated from tax increment financing in urban renewal areas.</i> | Urban renewal planning and projects | Can only be used in adequately funded urban renewal areas (URA) and only 15% of the city can be in an urban renewal area at any one time. Several URAs are expiring. In addition, the funds available through tax increment financing are diminishing. The only URA in the North Reach, the Willamette URA is not currently generating significant revenue. |
| | Systems Development Charges (SDCs) <i>Fees that reflect a share of the costs of increased demand on infrastructure from a particular development.</i> | Infrastructure planning and projects | <p>It varies where SDC funds can be spent depending on the type of SDC assessed. SDC funds must address impacts of new growth.</p> <p>Parks has instituted a new SDC to help provide park and recreation facilities as the City grows. Priorities are set forth in Parks' City Council adopted documents.</p> |
| | Portland Parks and Recreation Local share of Metro Natural Areas Bond Measure (2006) | Trail and park restoration projects | <p>Funding is budgeted for natural area and trail corridor acquisition and restoration within Parks' managed natural areas.</p> <p>The Willamette Greenway is an acquisition target area.</p> |
| | Local Improvement Districts (LIDs) <i>Voluntary assessment district funds.</i> | Infrastructure planning and projects | <p>LIDs can only be spent in certain areas.</p> <p>LIDs are a useful means of combining funding from a variety of sources with contributions (special assessments) from properties that receive special benefits from public improvements – typically abutting properties.</p> |

| | SOURCE | USE OF THE FUNDING SOURCE | OPPORTUNITIES/ LIMITATIONS |
|----------|--|--|---|
| LOCAL | New Market Tax Credits <i>Emerging program that the Portland Development Commission will use to help fund private, commercial projects that meet City goals.</i> | Projects that meet City goals | Available only to private developers. Availability of funds controlled by a private community investment bank. Must be used within specific geographic areas. Uses are limited to certain types of development: commercial, retail, industrial, owner-occupied housing. |
| | Transportation Related Funds <i>City street user fees, vehicle registration fees.</i> | Transportation projects (including green streets to manage stormwater) | Limited public support for fee increases. Street user fees require City Council approval. Vehicle registration fees require voter approval and may require state authorization. |
| | Other <i>Taxes, general obligation bonds and local option levies, reallocation of existing resources, Community Benefit Opportunity Grants, etc.</i> | Can be tailored to needed improvements | Limited public support for tax increases. General obligation bonds are not counted as part of the Measure 5 cap. The City has a fixed bonded capacity. Local option levies are counted as part of the Measure 5 cap and are limited to five years. |
| REGIONAL | Port of Portland | Freight infrastructure and Port property improvements; restoration and cleanup | |
| | Multnomah County | Willamette River bridges | County faces huge funding gap for bridges. |
| | Metropolitan Transportation Improvement Program (MTIP) | Regional transportation improvements | Funding for <i>Regional Transportation Plan</i> (RTP) priorities. Many River Plan investments are recommended for inclusion in the RTP. |
| | Metro 2006 Natural Areas Bond Acquisition Fund | Restoration projects, habitat acquisition, trail projects | The Willamette River Greenway is one of 27 regional target areas. |
| STATE | Department of Transportation Oregon Transportation Investment Act <i>Increase in gas taxes.</i> | Transportation projects | Limited to highways and bridges. Small likelihood of public support for gas tax increase at this time. |
| | ConnectOregon | Freight rail, marine and transit projects | Lottery funded, legislature authorized grant and loan program. Last authorized in 2007. Projects eligible for funding from State Highway Trust Fund are not eligible through ConnectOregon. |
| | Economic Development Grants and Loans | Economic development projects | |
| | Oregon Watershed Enhancement Board (OWEB) Land Acquisition & Restoration Fund Special Investment Partnership Grants | Acquisition and watershed restoration projects | 25% matching requirement. Funded by state lottery, salmon license plate revenue, federal grants and purchase of "salmon-friendly" power. |

| | SOURCE | USE OF THE FUNDING SOURCE | OPPORTUNITIES/ LIMITATIONS |
|---------|---|--|--|
| STATE | Governor's Fund for the Environment Administered by National Fish and Wildlife Foundation and U.S. Fish and Wildlife Service | Cleanup and restoration projects | Funded through criminal fines for environmental damages and public and private donations. |
| | Marine Board Facility Grant Program Clean Vessel Act Funds | Recreational boating facilities | 75% federal, 25% Marine Board match. |
| | Department of Parks and Recreation <i>Local Government & Recreational Trail Grants</i> | Trails and outdoor recreation projects | |
| | Taxes <i>Real estate transfer tax.</i> | Transportation and restoration projects | Requires legislative authorization. |
| FEDERAL | U.S. Army Corps of Engineers Water Resources Development Act (WRDA) 2007 Lower Willamette River Ecosystem Restoration Project. | Ecosystem restoration projects | Cost sharing grants. WRDA will contribute up to 50% of the planning and 75% of implementation costs associated with the projects. Restoration projects subject to cost benefit analysis. |
| | Bonneville Power Administration (BPA) Integrated Fish & Wildlife Program through the Northwest Power & Conservation Council | Natural resource restoration projects | Grants. 3 year funding cycles. Next authorizations for 2010-2012. |
| | Natural Resource Trustees [Natural Resources Damages Act (NRDA)] Under Superfund, the Natural Resource Trustees may require compensation for past damages to natural resource. | Restoration projects | Accounting systems must be in place to allow the City Restoration Program to accommodate Trustee required compensation. Complicated litigation environment may delay decision on compensation. |
| | NOAA National Marine Fisheries Service Pacific Coastal Salmon Recovery Fund; Administered by OWEB Community Based Restoration Program | Salmon and steelhead recovery projects | Community Based Restoration grants. 1:1 match requirement with non-federal funds. Funding proposals accepted every three years. |
| | Environmental Protection Agency National Watershed Initiative Target Grants | Research and restoration projects, infrastructure and cleanup | Funding priorities vary year to year. |
| | U.S. Fish and Wildlife Service Partners for Fish and Wildlife Program | Fish and wildlife habitat improvement projects | Partners with private landowners and NGO's on restoration projects benefiting listed species. |
| | U.S. Department of the Interior Land and Water Conservation Fund Administered by Oregon Department of Parks and Recreation | Acquisition of natural areas and development of public recreation facilities | Matching grants require 50% match for local governments. |

| | SOURCE | USE OF THE FUNDING SOURCE | OPPORTUNITIES/ LIMITATIONS |
|--------------------|--|---|--|
| FEDERAL | U.S. Department of Transportation <i>Transportation Equity Act-21.</i> | Transportation planning and construction projects | Funds can only be spent on projects that are identified on the <i>Transportation System Plan</i> and meet Metro's regional objectives. |
| PRIVATE/NON PROFIT | Property owners | Cost share for restoration and enhancement projects | |
| | Foundations Parks Foundation, National Fish and Wildlife Foundation, Bonneville Environmental Foundation, Meyer Memorial Trust and other private foundations. | Restoration projects, habitat acquisition and parks & recreational facilities | Meyer Memorial Trust has instituted a Willamette River Basin Restoration Initiative to leverage funding for restoration projects. The Trust may also support the development of an ecosystem services marketplace. |
| | Business partnerships and sponsorships | Examples include recreational facilities and trails | |
| | BES Re-vegetation Team and Property Owners | Restoration and enhancement projects | BES can contract with willing property owners. |
| | Entrepreneurial Mitigation Bankers and Ecosystem Services Providers Willamette Partnership and others. | Mitigation and restoration projects | It is uncertain if and when entrepreneurial bankers will enter the marketplace. |

APPENDIX D: RELATED PUBLICATIONS AND DOCUMENTS

The following documents include background material that informed the River Plan/ North Reach process and River Plan / North Reach publication. These and other related documents are available on the River Plan website at <http://www.portlandonline.com/riverplan>, unless otherwise noted. All documents were produced by Bureau of Planning staff, in collaboration with numerous individuals and organizations, unless otherwise noted.

Prior River Planning

- Willamette Greenway Plan (1987)
- Portland's Willamette River Atlas (2001)
- River Renaissance Vision (2001)
- River Renaissance Strategy (2004)
- Willamette River Conditions Report (2004)
- River Concept (2006)

Economic Prosperity

- Portland Harbor Industrial Lands Study – Parts One and Two (2003)
- Industrial Districts Atlas (2004)
- Draft Contaminated Sites Report & Recommendations (2007)
- River Industrial Zoning Background and Issues Report (2007)
- Business Interviews: Summary Report and Conclusions (2006)
- Working Harbor Reinvestment Strategy Infrastructure Analysis: Sewer System (2007 – City of Portland, Environmental Services); Transportation (2007 – City of Portland, Department of Transportation); Water System (2007 – City of Portland, Water Bureau)
- Working Harbor Reinvestment Strategy Final Report – Discussion Draft (2007)
- Balanced Cut and Fill Draft Recommendations (2007)
- Guilds Lake Industrial Sanctuary Plan (2001) (Planning Bureau website)

Watershed Health

- Watershed Health in the North Reach: Summary of Work in Progress (2006)
- Regulatory Improvement Issue Paper – Challenges, Criteria and Solution Concepts DRAFT (2006)
- Improving Watershed Functions through Potential Regulatory Improvements for the River Plan/North Reach Project DRAFT (2006)
- Watershed Health: Concepts to consider in the North Reach (2007)
- Mitigation & Conservation Banks Draft Report for River Plan Consideration (2007)

Access

- Rails-with-Trails Safety Memo (2007)
- North Reach Greenway Trail & Viewpoints: Revised Staff Proposal (2007)
- Water Recreation Proposal (2006)
- Issue Paper on Maritime Transportation Security Act (2006)

Riverfront Communities

- Linnton Village Study Proposed Plan (2005) (Planning Bureau library)
- Linnton Neighborhood Plan (2000) (Linnton Neighborhood Association – <http://www.linnton.com>)
- St. Johns / Lombard Plan (2004) (Planning Bureau website)
- McCormick & Baxter Site Reuse Assessment: Final Report (2001) (Planning Bureau website)
- North Portland Noise Study – Second Draft (2008) (City of Portland, Noise Office – <http://www.portlandonline.com>)

Site Design Workshop

- Site Design Workshop Description (2006)
- Site Design Workshop Context Map (2006)
- Site Design Workshop Results (2007)

Zoning Code

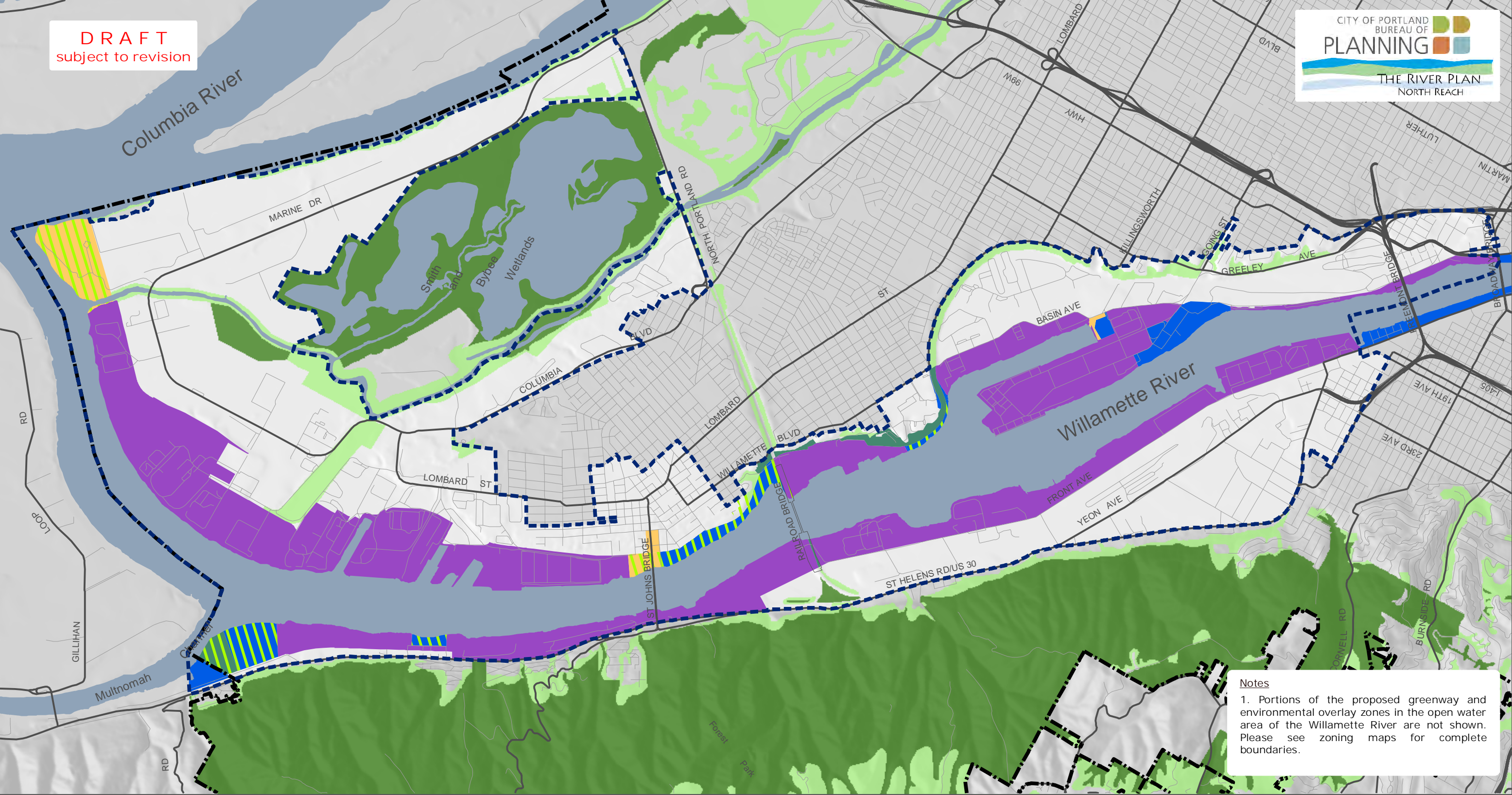
- Developing the River Plan/North Reach: A summary of Willamette Greenway Plan implementation issues & potential solutions (2007)
- Comments on Developing the Plan Document (2007)



DRAFT
subject to revision



Map #1: Existing Overlay Zones



Notes
1. Portions of the proposed greenway and environmental overlay zones in the open water area of the Willamette River are not shown. Please see zoning maps for complete boundaries.

legend

north reach boundary

Portland city boundary

environmental overlay zones

environmental protection (p)

greenway overlay zones

river industrial (i)

river general (g)

river natural (n)

river recreational (r)

river water quality (q)

October 28, 2008
City of Portland | Bureau of Planning | Geographic Information System
The information on the map was derived from digital data-bases on the City of Portland, Bureau of Planning GIS. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. However, notification of any errors will be appreciated.

River Plan / North Reach

Map #2:
Proposed Overlay Zones

Sheet #1 of 2

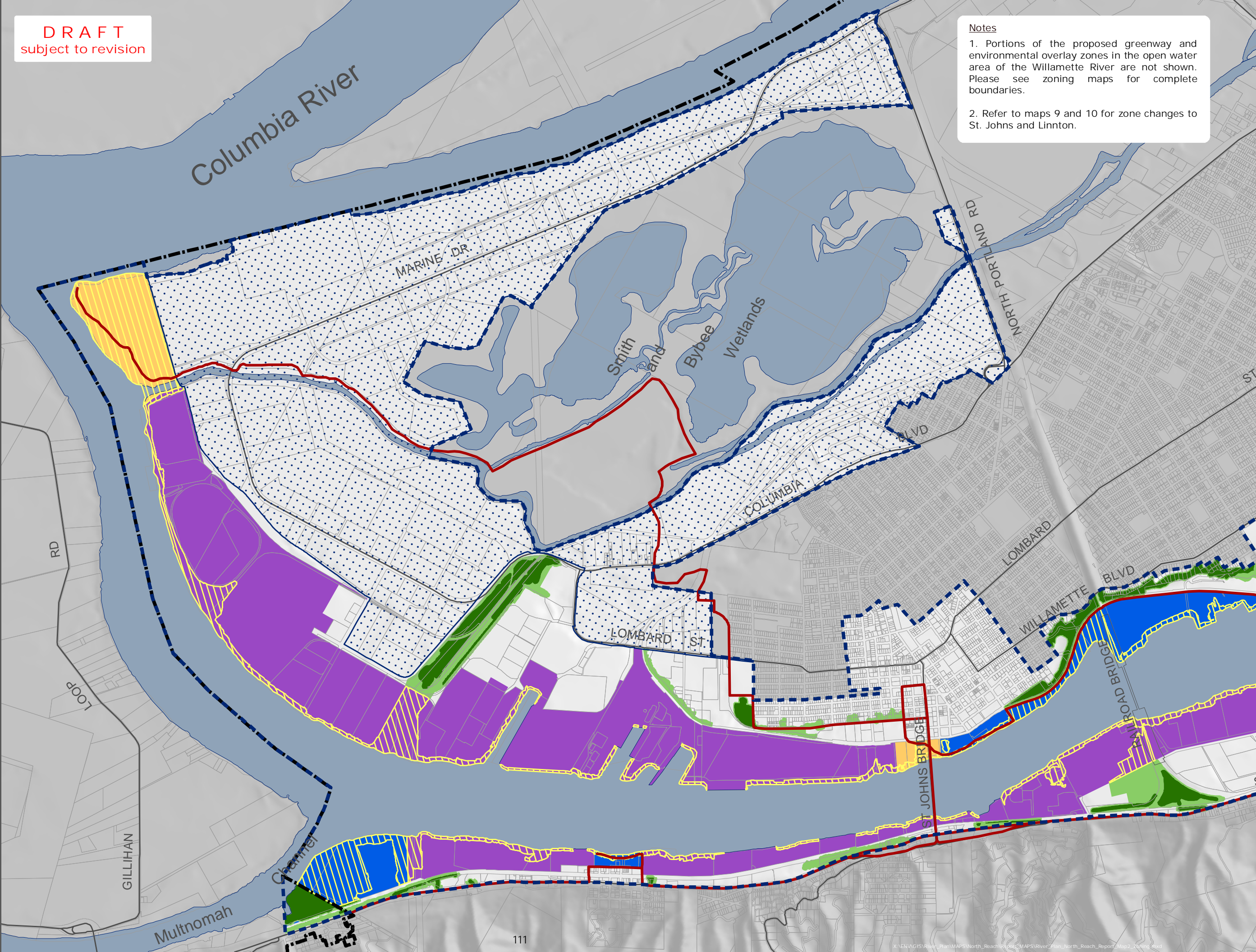
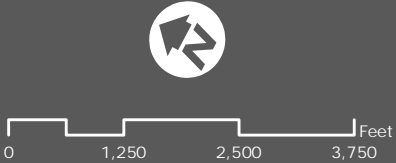
DRAFT
subject to revision

- Notes
1. Portions of the proposed greenway and environmental overlay zones in the open water area of the Willamette River are not shown. Please see zoning maps for complete boundaries.
 2. Refer to maps 9 and 10 for zone changes to St. Johns and Linnton.

- legend
- greenway overlay zones
- river environmental (e)
 - river industrial (i)
 - river recreational (r)
 - river general (g)
- environmental overlay zones
- environmental conservation (c)
 - environmental protection (p)
- areas not evaluated for overlay zone changes
- trail alignment
- north reach boundary
- Portland city boundary

October 28, 2008
City of Portland | Bureau of Planning
Geographic Information System

The information on the map was derived from digital data-bases on the City of Portland, Bureau of Planning GIS. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. However, notification of any errors will be appreciated.



DRAFT
subject to revision

River Plan / North Reach
Map #2:
Proposed Overlay Zones

Sheet #2 of 2

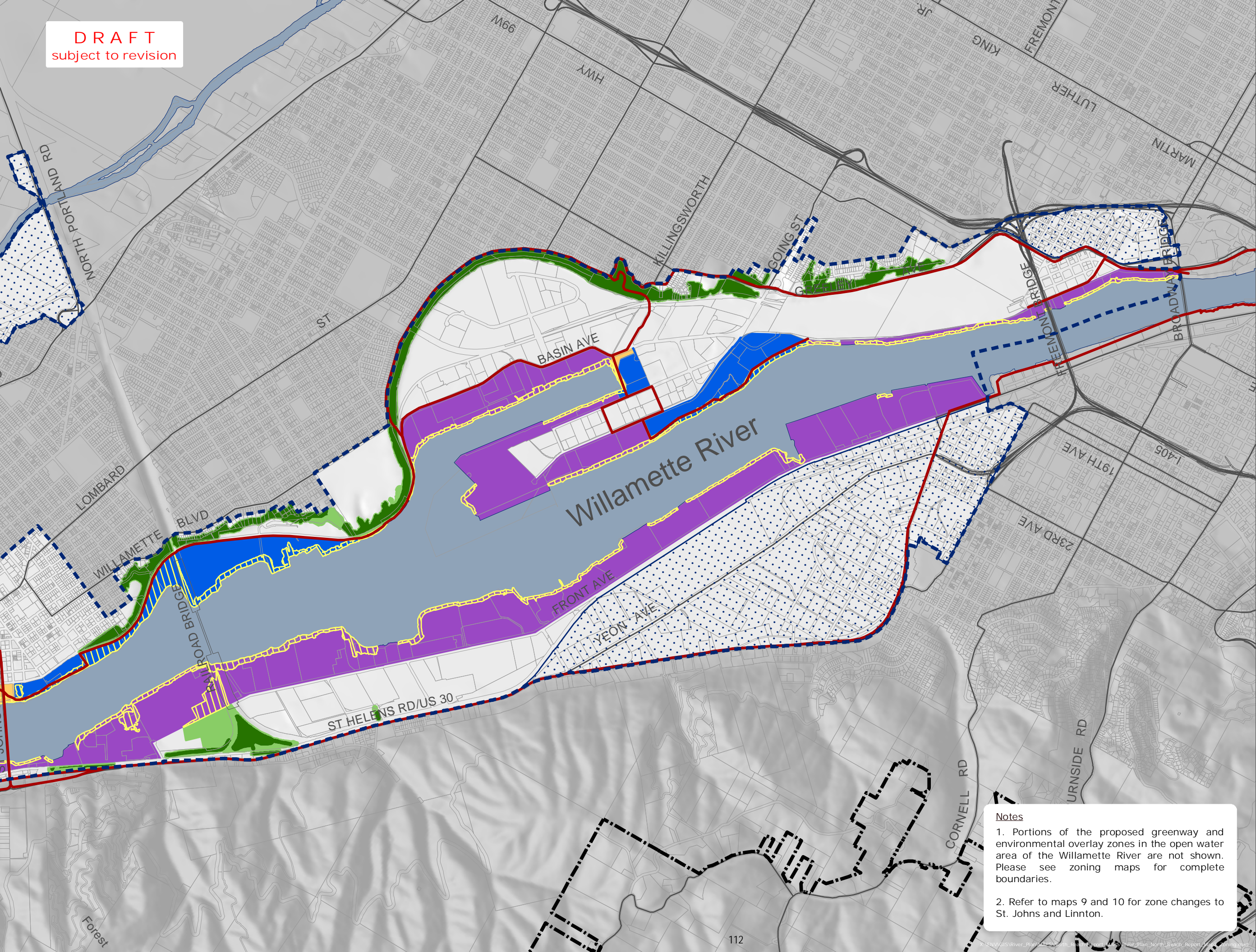
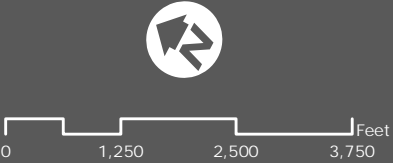
- Legend
- greenway overlay zones
- river environmental (e)
 - river industrial (i)
 - river recreational (r)
 - river general (g)
- environmental overlay zones
- environmental conservation (c)
 - environmental protection (p)
- areas not evaluated for overlay zone changes
- trail alignment
- north reach boundary
- Portland city boundary

October 28, 2008
City of Portland | Bureau of Planning
Geographic Information System

The information on the map was derived from digital data-bases on the City of Portland, Bureau of Planning GIS. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. However, notification of any errors will be appreciated.



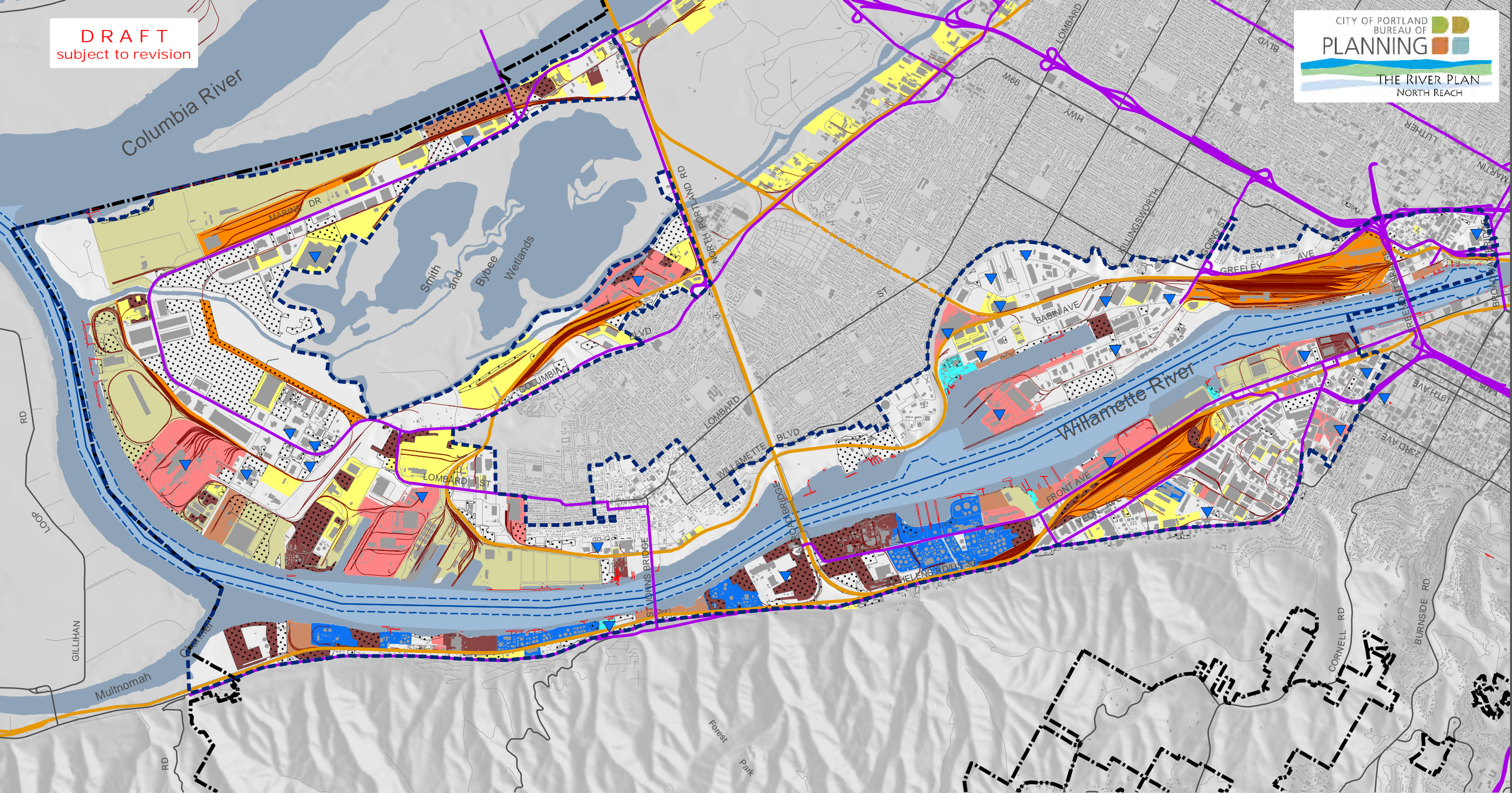
- Notes
1. Portions of the proposed greenway and environmental overlay zones in the open water area of the Willamette River are not shown. Please see zoning maps for complete boundaries.
 2. Refer to maps 9 and 10 for zone changes to St. Johns and Linnton.



DRAFT
subject to revision



Map #3: Portland Working Harbor Industries & Infrastructure



legend

- | | | | |
|---------------------------|---------------------------------------|---|--------------------|
| north reach boundary | truck streets for heavy freight [TSP] | vacant land (2004) | energy |
| Portland city boundary | docks | potentially contaminated underutilized site | heavy construction |
| railroad main line | vessel "highway" & turning basins | marine terminals, international cargo | vessel services |
| railroad main line tunnel | federal deep water navigation channel | metals & equipment manufacturing | rail yard facility |
| all other rail lines | major employers (250 or more) | | other rail users |
| building footprint | | | |

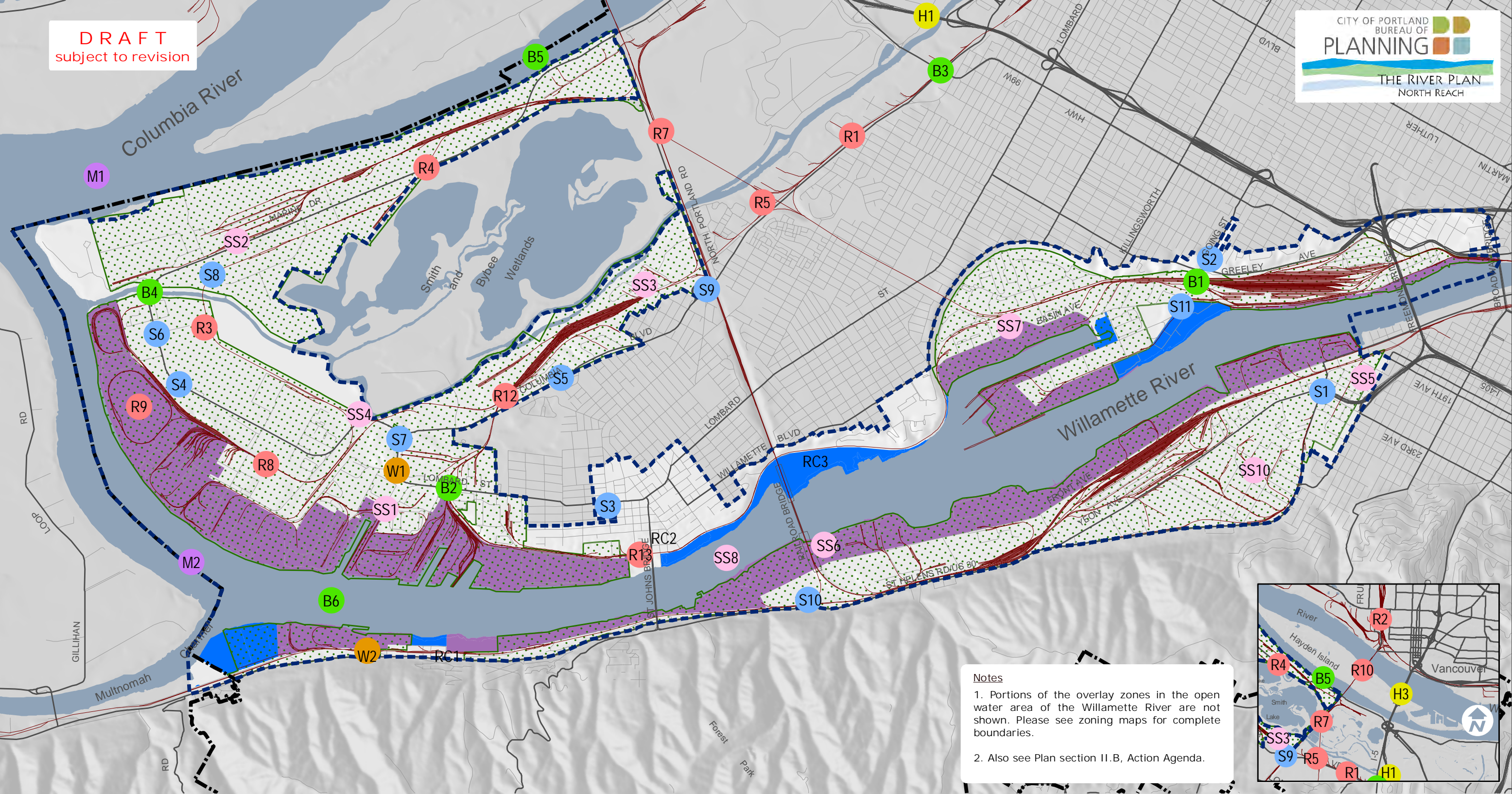
October 28, 2008

City of Portland | Bureau of Planning | Geographic Information System
The information on the map was derived from digital data-bases on the City of Portland, Bureau of Planning GIS. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. However, notification of any errors will be appreciated.



0 0.25 0.5 0.75 1 Miles

DRAFT
subject to revision



Notes

1. Portions of the overlay zones in the open water area of the Willamette River are not shown. Please see zoning maps for complete boundaries.

2. Also see Plan section II.B, Action Agenda.

legend

- | | | | | |
|-----------------------------------|--------------------------------------|-----------|------------------|-------------------|
| north reach boundary | prime industrial land retention area | H highway | M marine | SS sanitary sewer |
| Portland city boundary | | S street | R rail | |
| rail lines | | B bridge | W drinking water | |
| river industrial overlay zone (i) | | | | |
| river general overlay zone (g) | | | | |

October 28, 2008

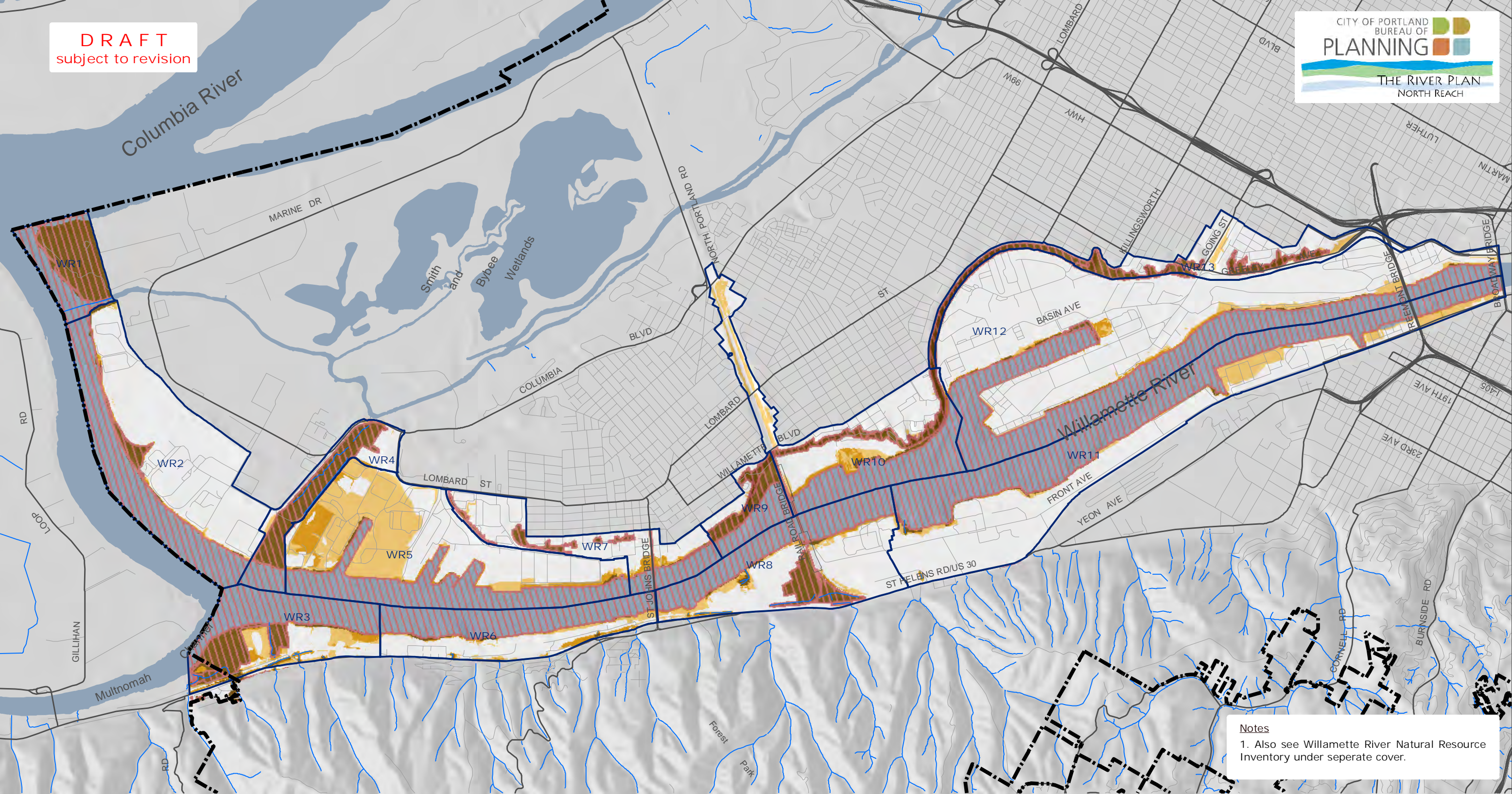
City of Portland | Bureau of Planning | Geographic Information System

The information on the map was derived from digital data-bases on the City of Portland, Bureau of Planning GIS. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. However, notification of any errors will be appreciated.



0 0.25 0.5 0.75 1 Miles

DRAFT
subject to revision



Notes
1. Also see Willamette River Natural Resource Inventory under separate cover.

legend

- | | |
|----------------------------------|---|
| Combined Relative Resource Value | special habitat areas (SHAs) |
| high value resources | surface stream |
| medium value resources | Willamette River (WR) north reach inventory sites |
| low value resources | Portland city boundary |

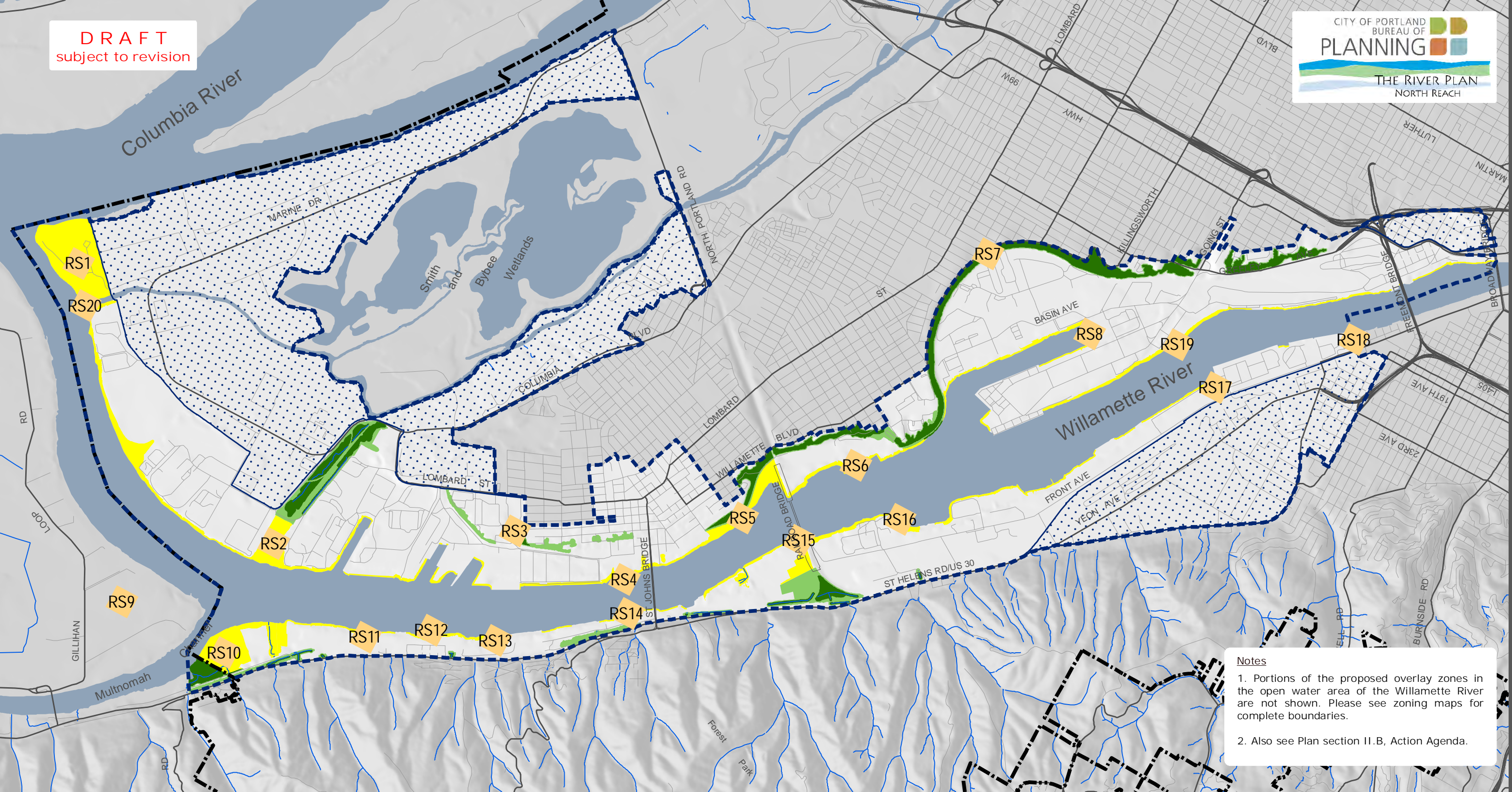
October 28, 2008
City of Portland | Bureau of Planning | Geographic Information System
The information on the map was derived from digital data-bases on the City of Portland, Bureau of Planning GIS. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. However, notification of any errors will be appreciated.



DRAFT
subject to revision



Map #6: Watershed Health -- Proposed Overlay Zones and Potential Restoration Sites



Notes

1. Portions of the proposed overlay zones in the open water area of the Willamette River are not shown. Please see zoning maps for complete boundaries.
2. Also see Plan section II.B, Action Agenda.

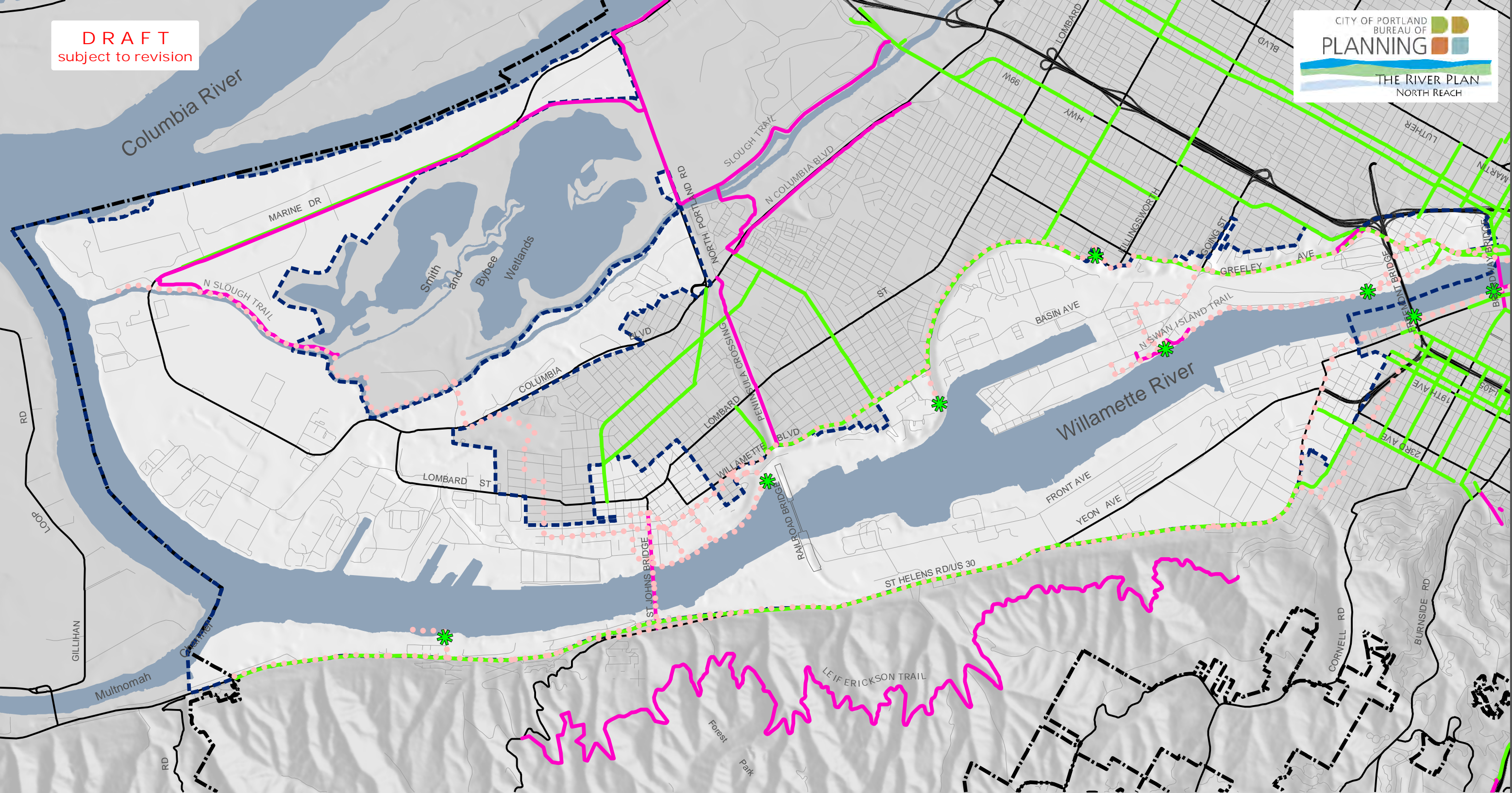
legend

- | | | |
|---|--|------------------------|
| river environmental overlay zone (e) | areas not evaluated for overlay zone changes | surface stream |
| environmental conservation overlay zone (c) | potential restoration sites | north reach boundary |
| environmental protection overlay zone (p) | | Portland city boundary |

October 28, 2008
City of Portland | Bureau of Planning | Geographic Information System
The information on the map was derived from digital data-bases on the City of Portland, Bureau of Planning GIS. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. However, notification of any errors will be appreciated.



DRAFT
subject to revision



legend

- north reach boundary
- Portland city boundary
- ✱ existing greenway viewpoint
- existing greenway trail designation

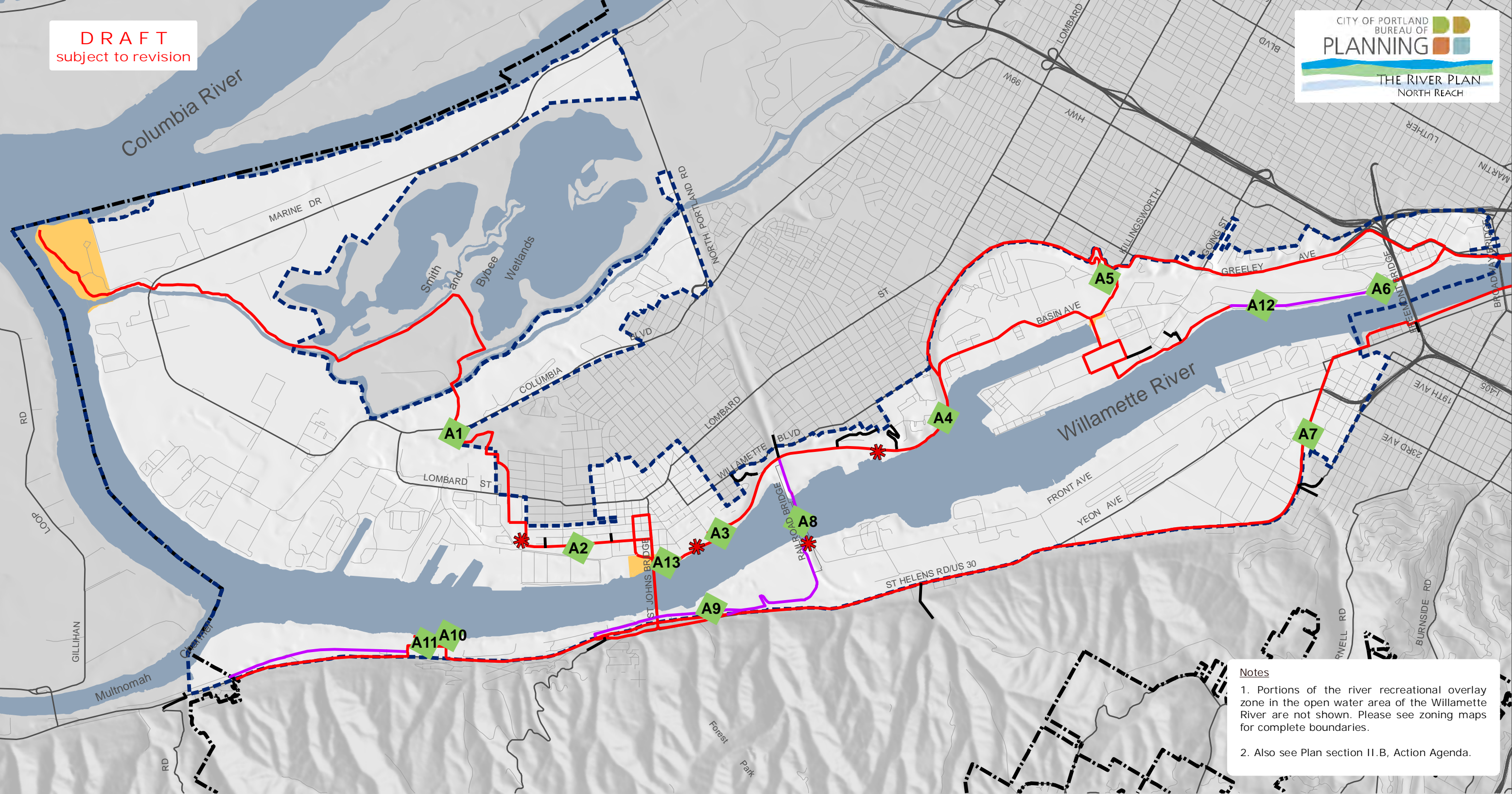
- existing bicycle facility
- existing on-street bicycle facility
- existing multi-use path

October 28, 2008
City of Portland | Bureau of Planning | Geographic Information System
The information on the map was derived from digital data-bases on the City of Portland, Bureau of Planning GIS. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. However, notification of any errors will be appreciated.



Map #7: Existing Willamette Greenway Trail and Bicycle Network

DRAFT
subject to revision



Notes

1. Portions of the river recreational overlay zone in the open water area of the Willamette River are not shown. Please see zoning maps for complete boundaries.
2. Also see Plan section II.B, Action Agenda.

legend

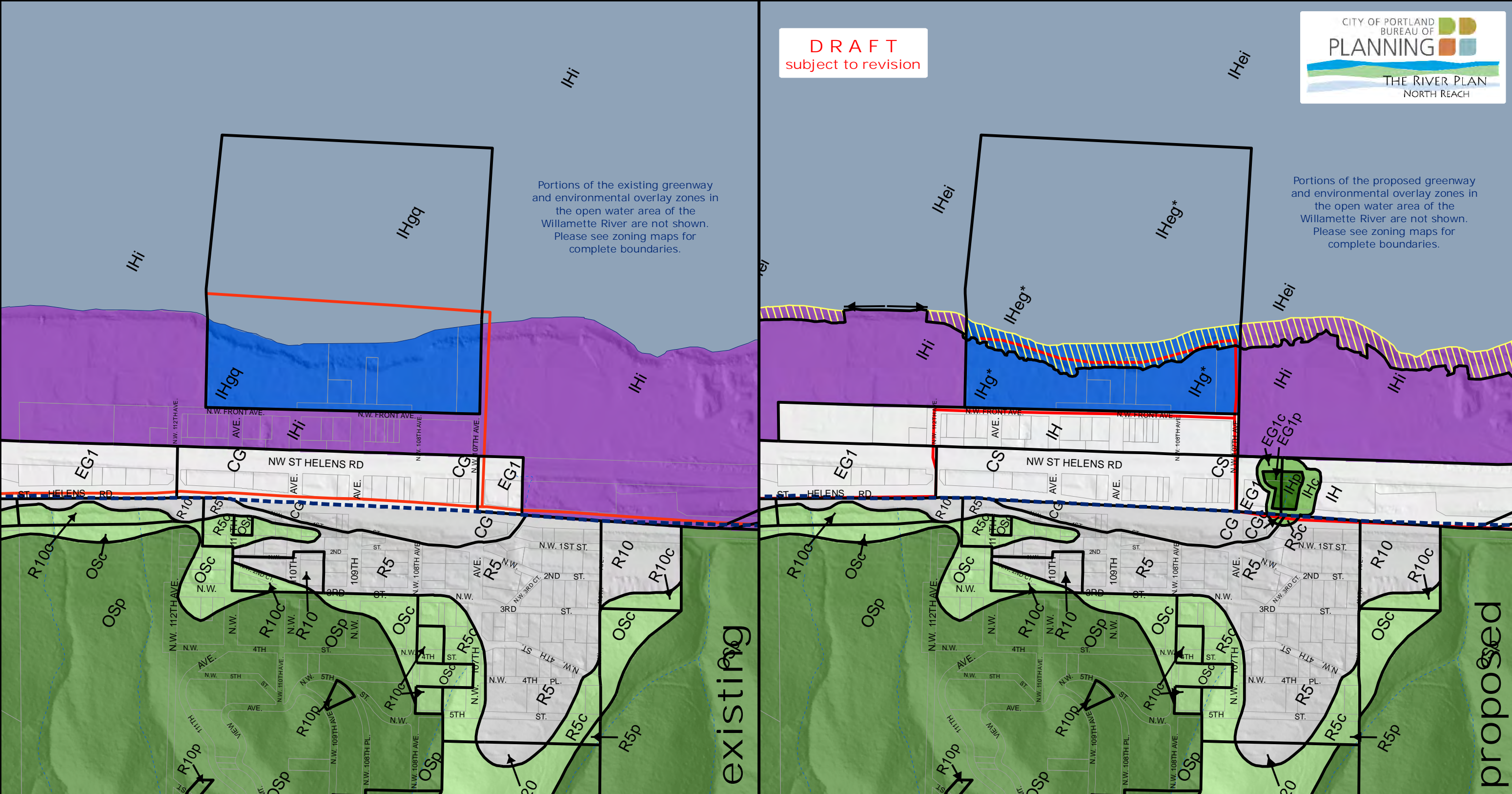
- north reach boundary
- Portland city boundary
- proposed additional greenway viewpoints
- river recreational overlay zone (r)
- trail access locations
- access studies and investments
- greenway trail alignment near-term greenway trail (zoning designation)
- long-term greenway trail (needs further feasibility study)

October 28, 2008
City of Portland | Bureau of Planning | Geographic Information System
The information on the map was derived from digital data-bases on the City of Portland, Bureau of Planning GIS. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. However, notification of any errors will be appreciated.





DRAFT
subject to revision



existing

proposed

legend

greenway overlay zones



river industrial (i)

river recreational (r)

river general (g)


environmental conservation (c)

environmental protection (p)

— zoning boundaries

--- surface stream

— greenway trail

north reach boundary

October 28, 2008

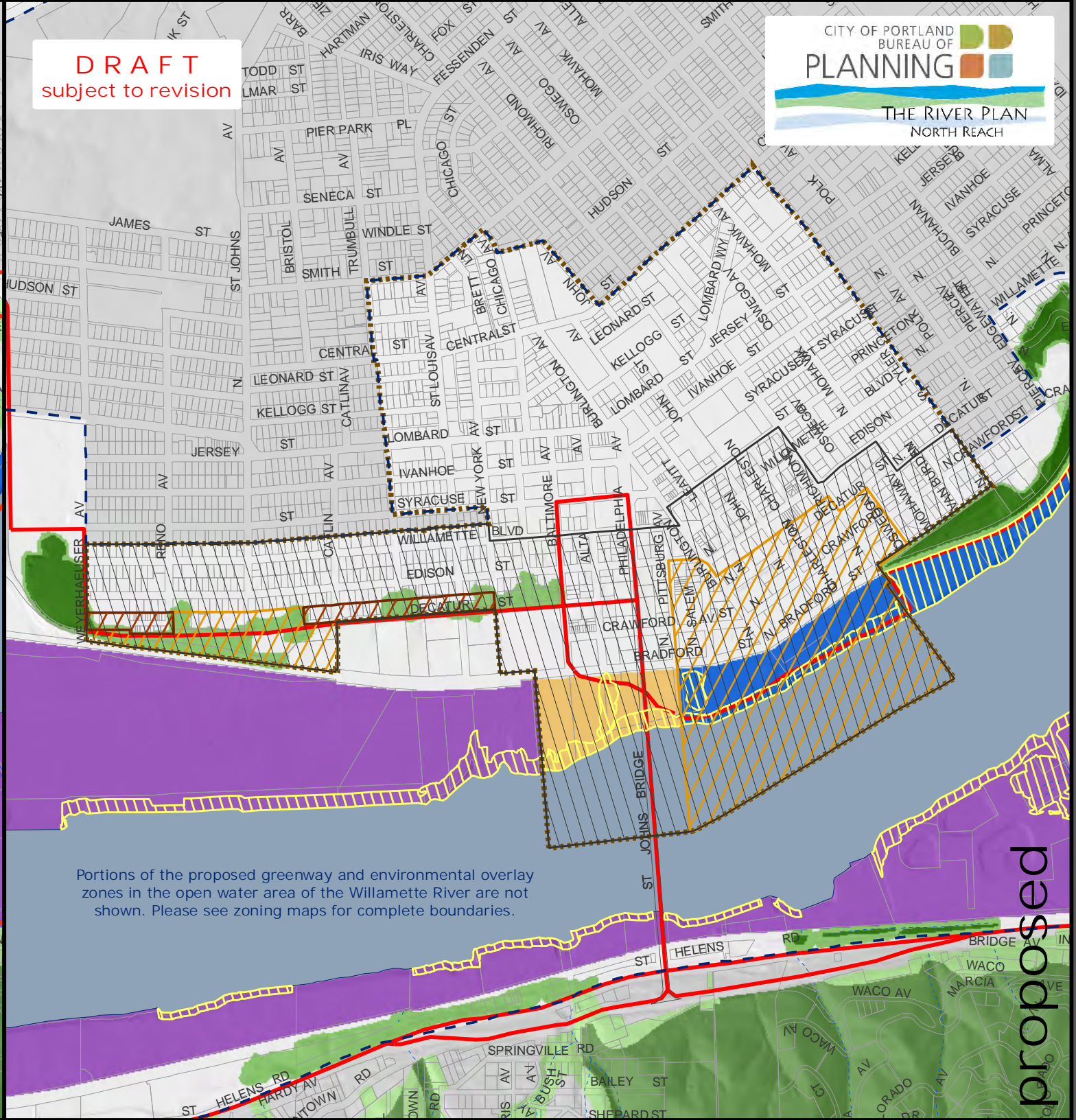
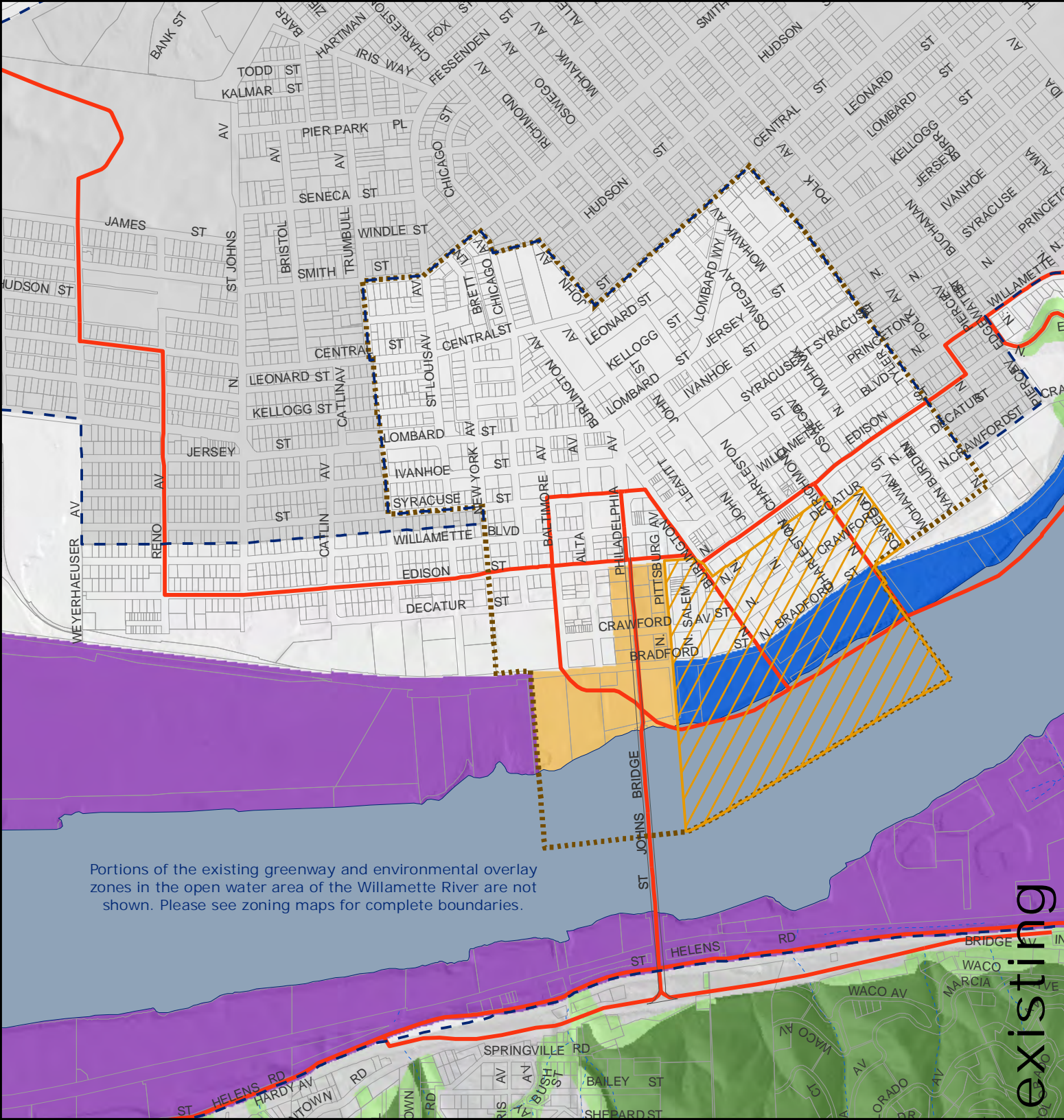
City of Portland | Bureau of Planning | Geographic Information System

The information on the map was derived from digital data-bases on the City of Portland, Bureau of Planning GIS. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. However, notification of any errors will be appreciated.





DRAFT
subject to revision



Portions of the existing greenway and environmental overlay zones in the open water area of the Willamette River are not shown. Please see zoning maps for complete boundaries.

Portions of the proposed greenway and environmental overlay zones in the open water area of the Willamette River are not shown. Please see zoning maps for complete boundaries.

legend

greenway overlay zones

- river environmental (e)
- river industrial (i)
- river recreational (r)
- river general (g)

environmental overlay zones

- environmental conservation (c)
- environmental protection (p)
- surface stream
- north reach boundary

plan district boundary

- subdistricts
- industrial noise impact area (proposed)
- greenway trail

October 28, 2008

City of Portland | Bureau of Planning | Geographic Information System
The information on the map was derived from digital data-bases on the City of Portland, Bureau of Planning GIS. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. However, notification of any errors will be appreciated.

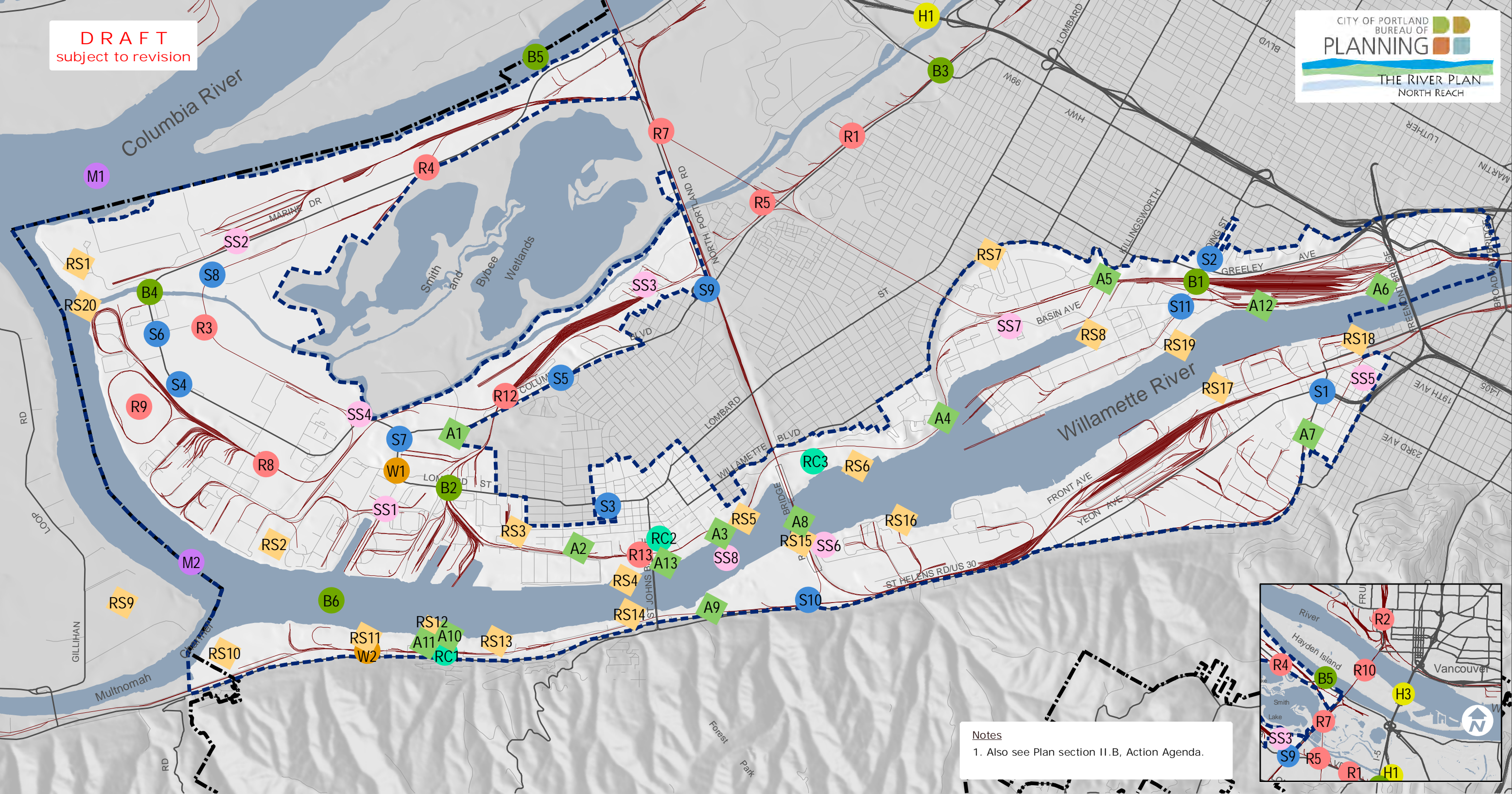


0 500 1,000 1,500 2,000 Feet

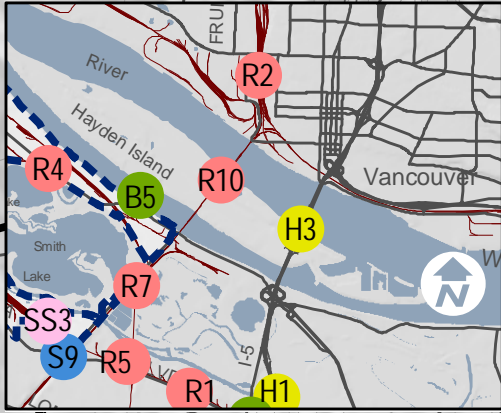
DRAFT
subject to revision



Map #11: Recommended Studies & Investments



Notes
1. Also see Plan section II.B, Action Agenda.



legend

north reach boundary

Portland city boundary

rail lines

RS restoration sites

A access

SS sanitary sewer

H highway

S street

B bridge

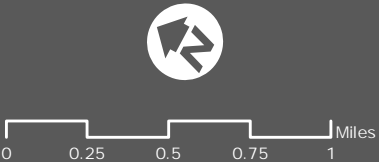
M marine

R rail

W drinking water

RC riverfront communities

October 28, 2008
City of Portland | Bureau of Planning | Geographic Information System
The information on the map was derived from digital data-bases on the City of Portland, Bureau of Planning GIS. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. However, notification of any errors will be appreciated.



RIVER PLAN / NORTH REACH ORGANIZATION

The River Plan / North Reach is organized into seven documents, as listed below. Volume 1 is available in printed form. The other volumes are available on CD or in print by special request.

VOLUME 1: PROPOSED RIVER PLAN / NORTH REACH

VOLUME 1A: Policies, objectives, and recommendations

VOLUME 1B: Code Amendments and Zoning Maps

VOLUME 2: ECONOMIC PROSPERITY BACKGROUND INFORMATION

VOLUME 3: WATERSHED HEALTH BACKGROUND INFORMATION

VOLUME 3A: Willamette River Natural Resources Inventory:
Riparian Corridors and Wildlife Habitat

VOLUME 3B: Willamette River Natural Resources Inventory:
Riparian Corridors and Wildlife Habitat - Appendices

VOLUME 3C: Economic, Social, Environmental and Energy Analysis and
Recommendations for Riparian Corridors and Wildlife Habitat

VOLUME 4: ACCESS BACKGROUND INFORMATION

Written Comments are due December 9, 2008 to:

Portland Planning Commission c/o Bureau of Planning

1900 SW 4th Avenue, Suite 7100

Portland, OR 97201

planningcommission@ci.portland.or.us

Fax: 503-823- 7800

RIVER PLAN / NORTH REACH EVENT SCHEDULE (All dates subject to change)

November 3, 2008 5:30 - 7:30 pm

Open House

BES Water Lab

6543 N Burlington Avenue

December 3, 2008 Noon - 1:30, 5:30 - 7:30 pm

Open House

Bureau of Planning

1900 SW 4th Avenue, Room 2500 B

December 9, 2008 6:00 - 10:00 pm

Planning Commission Public Hearing

January 13, 2008

**Planning Commission Public Hearing (if needed)
and Work Session**

February 10, 2009

Planning Commission Work Session

Spring 2009

City Council (meetings to be scheduled)

All Planning Commission Meetings will be held at 1900 SW 4th Ave., Room 2500 A.

riverplan@ci.portland.or.us

www.portlandonline.com/planning/riverplan

(503) 823-2281