

THE RIVER PLAN
NORTH REACH

RECOMMENDED DRAFT

APRIL 2010



VOLUME 1A: POLICIES, OBJECTIVES, AND RECOMMENDATIONS



City of Portland Bureau of
Planning and Sustainability
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RIVER PLAN / NORTH REACH VOLUMES

VOLUME 1A: POLICIES, OBJECTIVES AND RECOMMENDATIONS

This volume describes the project background, policy context and recommendations to address Economic Prosperity, Watershed Health, Access, Riverfront Communities, and Working with our Partners. (Available in print)

VOLUME 1B: CODE AMENDMENTS AND ZONING MAPS

This volume contains amendments to the comprehensive plan, zoning code, and other City titles, and zoning maps. (Available in print)

VOLUME 2: ECONOMIC PROSPERITY BACKGROUND INFORMATION

This volume includes background information for some of the economic prosperity recommendations. For additional information please see the River Plan website. (Available on CD)

VOLUME 3A: NATURAL RESOURCES INVENTORY: RIPARIAN CORRIDORS AND WILDLIFE HABITAT

This volume contains natural resource information for 13 resource sites in the North Reach. (Available on CD)

VOLUME 3B: NATURAL RESOURCES INVENTORY: RIPARIAN CORRIDORS AND WILDLIFE HABITAT—APPENDICES

This volume contains five technical appendices to the Willamette River Natural Resource Inventory including a description of the methodology used to develop the inventory. (Available on CD)

VOLUME 3C: ECONOMIC, SOCIAL, ENVIRONMENTAL AND ENERGY ANALYSIS AND RECOMMENDATIONS FOR RIPARIAN CORRIDORS AND WILDLIFE HABITAT

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. (Available on CD)

VOLUME 4: ACCESS BACKGROUND INFORMATION

This volume includes background information for the access related recommendations. For additional information please see the River Plan website. (Available on CD)

VOLUME 5: ORDINANCE AND RESOLUTION

This volume includes the draft River Plan/ North Reach Ordinance and Resolution. (Available in print)

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

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SHORTHAND REFERENCES

ARARs	Applicable or Relevant and Appropriate Requirements
BDS	Bureau of Development Services
BES	Bureau of Environmental Services
BPS	Bureau of Planning and Sustainability
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
OHWR	Office of Healthy Working Rivers
p-overlay	Environmental Protection Overlay Zone
Parks	Portland Parks and Recreation
PDC	Portland Development Commission
PBOT	Portland Bureau of Transportation
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 that strives to balance jobs, natural resources, access to the river and livable communities. It will update and replace the 1987 Willamette Greenway Plan, zoning code, and design guidelines, which serve 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 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, supporting 40,000 workers and, through multiplier effects, about one in eight jobs in the metro region. The harbor faces challenges including transportation and infrastructure needs, regulatory uncertainty and the risk of 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:

- Protect prime industrial land in the North Reach by prohibiting quasi-judicial (case-by-case) Comprehensive Plan Map amendments;
- Retain the i-overlay zone as a tool to reserve riverfront land for those uses that are river-dependent or river-related;
- Refine the definition of river-related uses to allow more flexibility for industries that switch between primary reliance on river access and rail infrastructure;
- Ensure that riverfront parcels cannot be divided in a way that eliminates the requirement that the use be river-dependent or river-related;
- In the i-overlay, eliminate the greenway setback that currently applies to all development that is not river-dependent or river-related;
- Adopt standards to provide more streamlined permitting for certain industrial activities, including bulkheads, cargo conveyors, rail lines, utility lines and stormwater outfalls;
- Invest in public infrastructure and land development to fuel private reinvestment and create jobs in the working harbor;
- Allow North Reach property owners to pay a fee-in-lieu of mitigation for impacts to natural resources and for balanced cut and fill. The mitigation and excavation will occur on one of the River Plan's restoration/mitigation sites; and,
- Do not apply river environmental zoning to areas that are ranked low in the Natural Resource Inventory.



Over 17 million tons of marine cargo move through the Portland Harbor each year.

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.



Large wood provides habitat for fish and wildlife.

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

- Adopt an updated Natural Resource Inventory for the North Reach to inform development and restoration activities;
- Adopt a new river environmental overlay zone along the river to strategically protect and conserve natural resources and facilitate certain types of industrial development through standards;
- Develop a restoration program that includes the identification of restoration/mitigation sites that optimizes efforts to improve fish and wildlife habitat in the North Reach;

- Require mitigation for unavoidable impacts to natural resources. If the resources cannot be replaced on site, the applicant can purchase credits from a certified mitigation bank. The mitigation bank will restore resources on one of the River Plan's restoration/mitigation sites;
- Establish the starting point for the amount of mitigation due as the replacement cost of the affected natural resource. The mitigation cost could then be adjusted up or down depending on the relative resource value, the impact of the project design, the presence or absence of a time lag before the mitigation site has grown to maturity and the uniqueness of the resources on the impact site;
- Require every property in the North Reach to vegetate 15% of their site and provide an incentive to vegetate areas close to the river. If the vegetation cannot be accommodated on the site, a property developer can pay a fee-in-lieu and the River Restoration Program will use the funds to restore resources on one of the restoration/mitigation sites;
- Adopt refined conservation and protection overlay zone boundaries to protect and conserve natural resources outside of the river overlay zones;
- Retain the City's regulatory jurisdiction below ordinary high water and develop a more coordinated process for the federal, state and city review of activities and development in that area; and,
- Expand City review of dredging proposals to ensure protection of shallow water habitat.

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:

- Adopt a refined regulatory greenway trail alignment along both sides of the Willamette River. The trail will either be an off-street path or along an existing street or railway;
- Include an aspirational trail alignment in the River Plan policy document;
- Develop additional viewpoints that facilitate greater appreciation of the natural landscape and working waterfront in the North Reach; and,
- Establish an evaluation procedure to ensure that any trail related exaction is roughly proportional to the impacts of the proposed development before the exaction is required.



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

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:

- Adopt a suite of measures to reduce conflicts between industrial and residential development in the St Johns / Cathedral Park area, including a requirement for additional noise insulation in new residential structures and a recommendation to encourage the establishment of a whistle free zone;
- Improve the vitality of the Linnton neighborhood by rezoning a portion of St. Helens Road from CG to CS to encourage main street reinvestment;
- Work with the Linnton community to identify actions that will revitalize the neighborhood within the context of the August 2006 City Council decision on the Linnton Village Plan; and,
- Revitalize a long-vacant riverfront parcel adjacent to the University of Portland by rezoning it for university uses.

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 government 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:

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

- Implement process improvements to enhance permit coordination and reduce potential conflicts among City, state and federal agencies in their decision-making;
- Provide clear guidance for contaminated site cleanup and develop materials and strategies to help applicants through the cleanup process;
- Improve communication between the City and our tribal governments;
- Develop programs that ensure continued education and outreach on North Reach issues;
- Establish a mitigation bank certified for use by the US Army Corps of Engineers, the Department of State Lands and the City; and,
- Submit the River Plan including zoning code, zoning maps, and other relevant regulations and policies to the Environmental Protection Agency and the Department of Environmental Quality to be evaluated as Applicable or Relevant and Appropriate Requirements (ARARs) and To Be Considered (TBC) material for the Portland Harbor Superfund cleanup. This will ensure that the EPA knows and can take into account the City's goals during design of the Portland Harbor Superfund cleanup.

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 that 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 that balance jobs, natural resources, access and livability 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) as follows:

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.

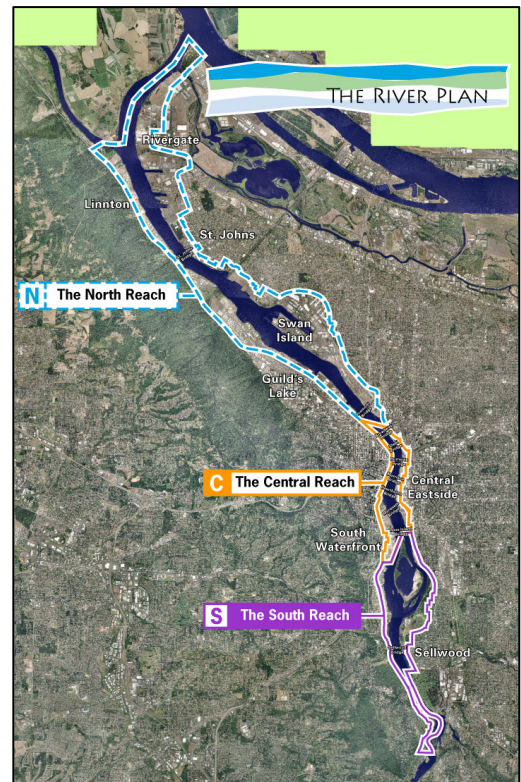
Central Reach: The Region's Gathering Place

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.

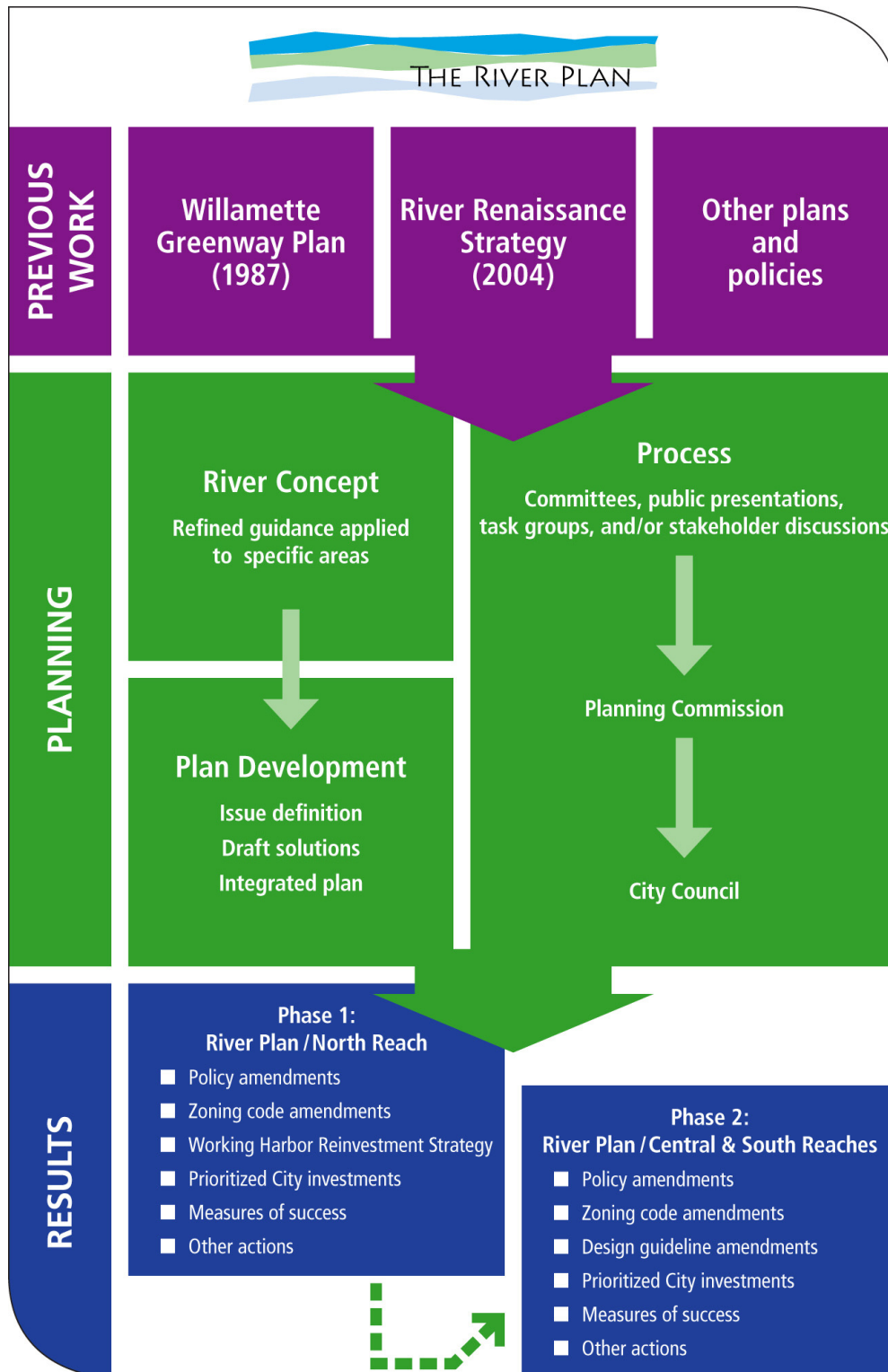
The River Plan Reaches



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 AND FEDERAL

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

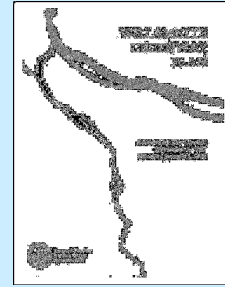
Other Important Goals

- 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

State and Federal Requirements

The City must comply with several state and federal regulatory requirements relating to water and stormwater resources. The City implements stormwater management programs through a permit issued by the Oregon Department of Environmental Quality (DEQ) under the federal Clean Water Act (CWA). The Phase I National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit requires the City to control stormwater pollutants to the maximum extent practicable. The Environmental Protection Agency has also approved Total Maximum Daily Load limitations under the Clean Water Act for the Willamette River and its tributaries.

The City must also respond to the Endangered Species Act (ESA). In the late 1990's after certain salmon species were listed as threatened, the Portland City Council passed resolutions that declared the City's intent to aid in salmon recovery and in the development of a salmon recovery plan (Resolutions 35715 and 35894). The ESA prohibits the "taking" (harming or harassing) of listed species and requires federal agencies to ensure their actions do not "jeopardize the continued existence of any [listed] species or result in the destruction or adverse modification of [critical] habitat." Since



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.

2005, the City has been working with the State, the National Marine Fisheries Service and others to develop a regional Lower Columbia River salmon recovery plan.

REGIONAL

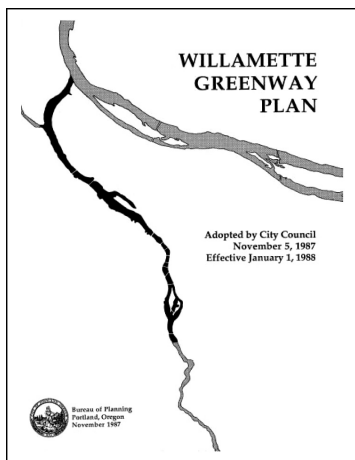
Metro's Urban Growth Management Functional Plan (UGMFP) provides jurisdictions with tools to meet Metro's long-range growth management plan, the 2040 Growth Concept. The River Plan must comply with the UGMFP regulations related to water quality (Title 3), fish and wildlife habitat conservation (Title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

CITY OF PORTLAND

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 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 as new plans for the North, Central and South Reaches are adopted.



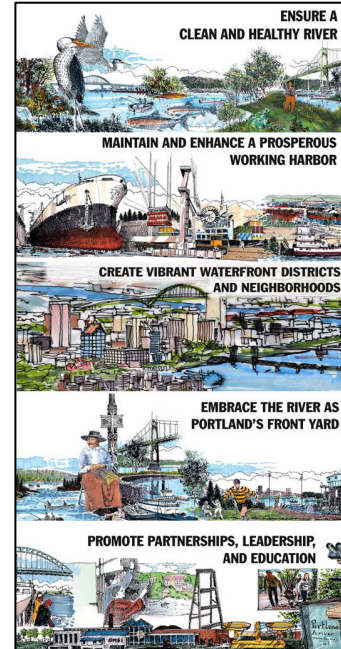
An autumn day in the North Reach.

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:

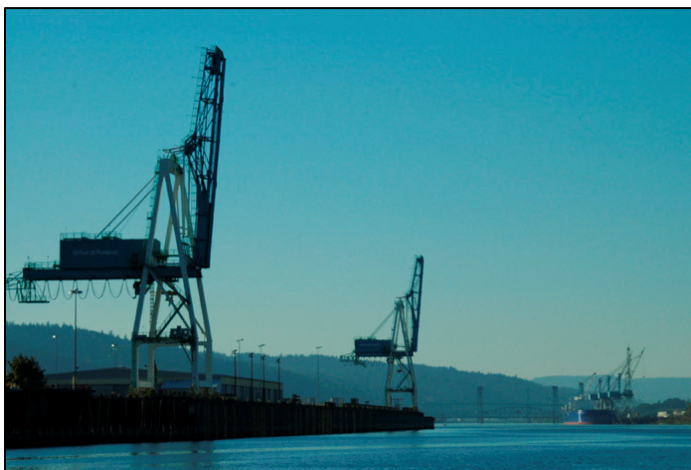
- River Renaissance Vision (2001) & Strategy (2004)
- McCormick & Baxter Reuse Assessment (2001)
- Willamette Greenway Trail Feasibility Study (2002)
- North Portland Regional Trails and Greenways: Connecting Neighborhoods to Nature (2003)
- Guild’s Lake Industrial Sanctuary Plan District (2003)
- Swan 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 Linnton.
- 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 DEQ to ask applicants to meet City 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 **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 River Plan / North Reach planning process involved research and investigation, general outreach, focused discussions with stakeholders and advisory groups and a decision making phase. This section outlines some of the key elements of the planning process.

RESEARCH AND INVESTIGATION

Working Harbor Reinvestment Strategy

Development of the Working Harbor Reinvestment Strategy included interviews and focus groups 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.B: *Economic Prosperity* and Appendix A: *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 the 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. BPS 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*.)

Developing the River Plan / North Reach: A summary of Willamette Greenway Plan implementation issues and potential solutions

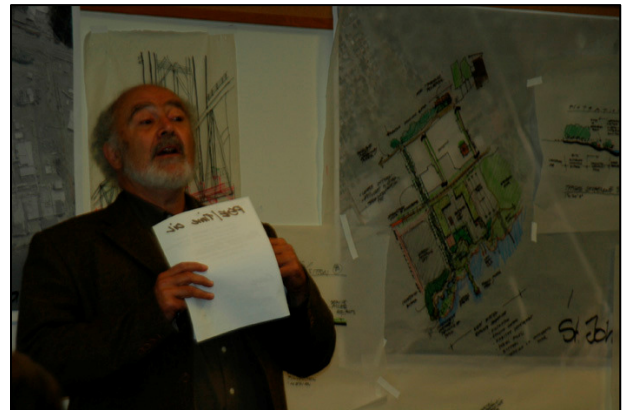
In February 2007 the City released a report that identified problems, inconsistencies and ambiguities in the Greenway Plan and its implementation tools--the greenway code, guidelines and procedures. The report also outlined potential solutions to address the issues. This report was developed after a series of interviews with applicants, consultants and staff from City state and federal agencies and a review of greenway cases.

Issue Papers

To begin to address the issues in the North Reach, City staff developed issue papers that clearly outlined the problems that needed to be solved. These issue papers also provided background information such as the policy and regulatory context, research that had been done, related issues or topics, any potential solutions that had already been identified, and posed key questions for a task group to discuss. These issue papers were posted on the website and served as starting points for task group discussions.

Site Design Workshop

The City hosted a site design workshop in the fall of 2006 that allowed staff and others to visualize potential River Plan improvements. 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 and permitting; and, 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.

GENERAL OUTREACH

Each month, River Plan staff sent out an email newsletter providing notice of River Plan Committee meetings, Task Group meetings, Planning Commission meetings and other information of potential interest to North Reach stakeholders. On several 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.

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, held open houses and met individually with property owners and other stakeholders to discuss specific issues. For a detailed list of outreach activities, please see Appendix B: *Outreach Log*.



River Plan staff held public open houses at key points in the process.

ADVISORY GROUPS

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 staff 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

Willamette Technical Advisors/Targeted Agency Meetings

Several interrelated City programs and planning initiatives joined together to convene City, regional, state and federal agency staff to serve as advisors. These programs and initiatives included the River Plan / North Reach, the Working Harbor Reinvestment Strategy, the Portland Watershed Management Plan and PDC's Brownfield Redevelopment Initiative (now called Harbor ReDI). The Willamette River Technical Advisors met several times to discuss topics of interest to each of the four projects.

In addition, River Plan staff met in more targeted meetings with City, regional, state and federal agency staff to discuss topics such as enhanced coordination below the Ordinary High Water Mark and the potential for establishing a mitigation bank in the North Reach.

The River Plan Committee

The River Plan Committee was a voluntary citizen advisory group chaired by Don Hanson, 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 Discussion Draft to review progress, provide guidance and serve as a sounding board for the River Plan project team. The meetings also served as a public forum for discussing issues. The River Plan Committee took formal public comments on the River Plan / North Reach Discussion Draft and provided staff with recommendations to further refine the Plan.

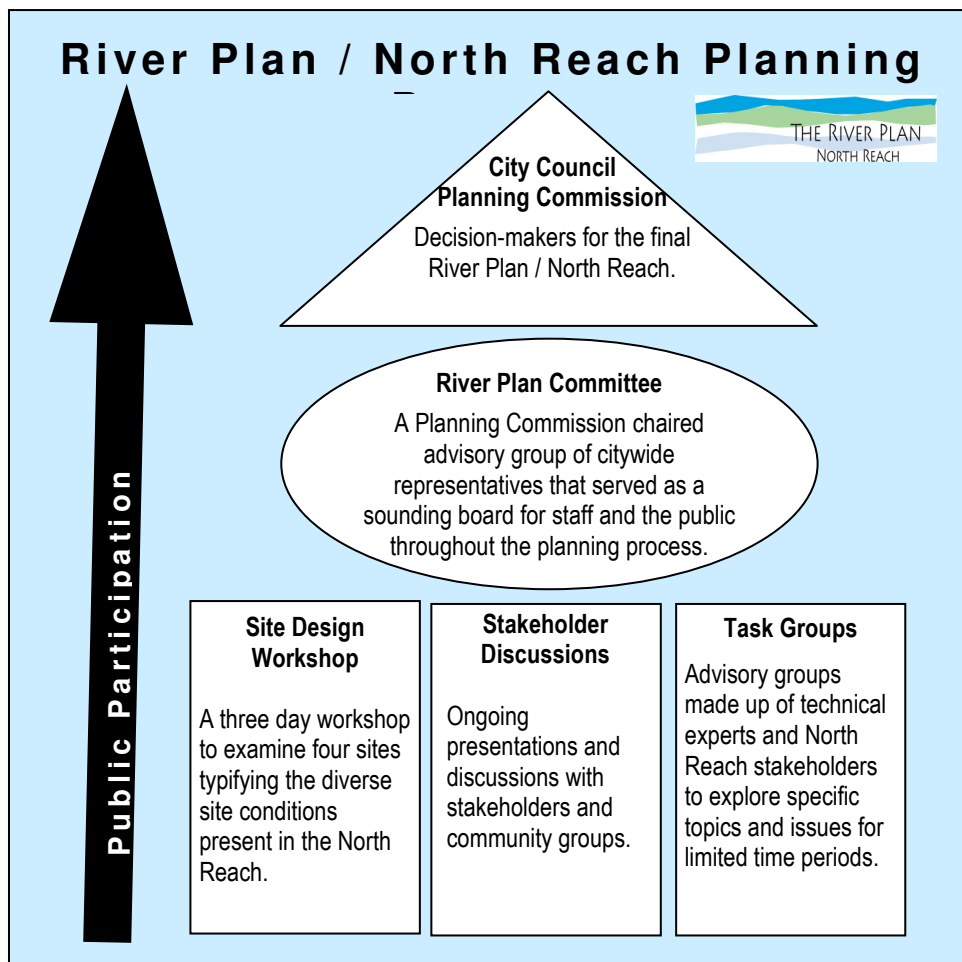


The River Plan Committee provided guidance to the River Plan project team.

DECISION MAKING

Planning Commission

Between August 2008 and June 2009 the Portland Planning Commission worked extensively with staff and the community to review and amend the River Plan / North Reach to address public comments. The Planning Commission held three briefings, five work sessions and three public hearings, and received over 130 comments through written and oral testimony. On June 23, 2009 Planning Commission voted to forward the River Plan / North Reach to City Council for consideration, recommending that staff continue to work on several implementation steps and brief the Planning Commission before the late 2009 City Council hearing.



II. POLICIES, OBJECTIVES AND RECOMMENDATIONS

This chapter includes the Policies, Objectives and Recommendations for the River Plan. These 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 located in the back of the document. Volume 1B: *Code Amendments and Zoning Maps* provides the regulatory tools that will help to implement the Plan.



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

A. COMPREHENSIVE PLAN POLICIES

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.

Comprehensive Plan 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 for those reaches is adopted.

Comprehensive Plan 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.

B. 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.

Evrax Oregon Steel, a part of the harbor's metals and equipment cluster, added a new pipe mill in 2006. (photo credit: Evrax 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 also has built in 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 such as 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 non-industrial 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 Overlay Zones & Action Items* 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 Overlay Zones & Action Items* 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.

Complying with State and Regional Requirements

In 2002, Metro updated Title 4 of their Urban Growth Management Functional Plan. One of the changes they made was to develop specific criteria to allow cities and counties to rezone small sites that were designated for Industrial or Employment uses but to require that zone changes for larger areas be reviewed as part of a legislative project that could consider the effects of the change in a broader context. In 2005 the State also required local jurisdictions to provide adequate industrial land to accommodate growth.

To comply with these requirements, the City revised its zoning code to require applicants requesting a change from an Industrial or Employment zoning designation to meet additional approval criteria and regulations. These changes were intended to prevent the displacement of industrial and employment uses and preserve land primarily for these uses. River Plan / North Reach further recommends that quasi-judicial (case-by-case) zone changes be prohibited on Regionally Significant Industrial Land in the North Reach.

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.

River – Related and River – Dependent Development

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.

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.C: *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 within the city of Portland.
- 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 Appendix A: *Action Agenda*.¹



The Working Harbor Reinvestment Strategy prioritized 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.

Working 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 Appendix A: *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 Appendix A: *Action Agenda*).



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

Working 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/JOBS 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 Appendix A: Action Agenda, by 2018 or as otherwise recommended.** The City, PDC, and the Port of Portland will work together to seek funding 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
 - 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) and develop strategies to address citywide industrial brownfields issues

Harbor ReDI is a project aimed at facilitating redevelopment on underutilized industrial land in the Portland Harbor. (See *Harbor ReDI* box for more information.)

Citywide, industrial brownfield redevelopment issues continue to lack adequate funding and programmatic responses. Many of these sites are upside-down which means that they will require more investment to become redevelopable than they are worth. Other sites are too small, have 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 industrial sites which are larger.

Harbor ReDI

The Portland Harbor Redevelopment Initiative (Harbor ReDI) is a PDC led economic development project aimed at facilitating industrial development on underutilized industrial land within Portland's working harbor. There are many sites sitting underutilized due to a broad range of challenges facing redevelopment including location within a Superfund site, exposure to upland and in-water cleanup liability, brownfield contamination, lack of alternative funding sources, and natural resource restoration.

The Harbor ReDI Steering Committee is composed of a coalition of experts from the various agencies and organizations whose work relates to these issues. This group is committed to working through the obstacles facing redevelopment of Portland Harbor's industrial lands to bring sites back into productive use.

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.

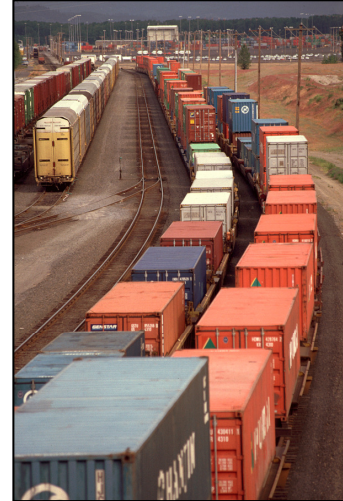
The Portland Bureau of Transportation (PBOT) should take the lead in convening a committee aimed at developing a strategy to secure freight rail funding for the region. The strategy should include designating a lead agency to continue work on these issues.

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 PBOT, 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 funding strategy is needed for rail capacity improvements 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.

F. Study the need for a new bridge from US 30 to Rivergate. This project is listed in the 2004 Regional Transportation Plan.



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

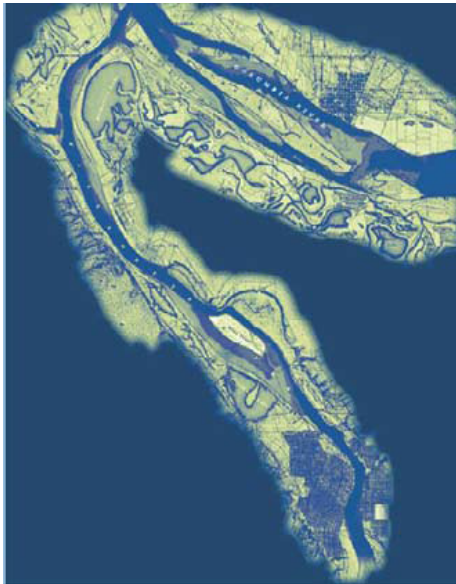
Located at the confluence of the Willamette and the Columbia Rivers and along the Pacific Flyway, the North Reach is a primary component of the region's ecological infrastructure which includes the Ridgefield Wildlife Refuge and Vancouver Lake Lowlands, Sandy River basin, Sauvie Island and the Tualatin 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 bluff was once covered with Oregon white oak and Pacific madrone woodlands, and native grasslands; now only small remnants of that original forest 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. The maps below illustrate the extent of alteration that occurred between 1888 and 2007. 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. 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), fertilizers, pesticides, herbicides and dioxin/ furans. Currently, the lower Willamette River does not meet state



1888 Lower Willamette and Columbia River Confluence



2007 Lower Willamette and Columbia River

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.

water quality standards for bacteria, temperature, metals or other toxins and a six mile stretch of the North Reach is listed on the National Priorities List as the Portland Harbor Superfund Site. The fall 2009 draft Portland Harbor Remedial Investigation Report takes an in-depth look at the nature and extent of contamination in a 10-mile stretch of the lower Willamette River, including surface and subsurface sediment, fish and shellfish tissue, surface water, groundwater, and storm water.

However impaired, watershed health in the North Reach is important. Natural resources merit protection, and remaining natural areas provide critically needed opportunities in the Lower Willamette for 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 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.

WATERSHED HEALTH OBJECTIVES AND RECOMMENDATIONS



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

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

1. Protect remaining significant natural resource areas, and the ecological and public health and safety functions they provide. Ensure that there is no further loss of the remaining resources and functions.
2. Restore watershed functionality within and directly adjacent to the North Reach, in order to improve conditions for fish and wildlife, improve watershed health, and protect public health and safety.

OBJECTIVE #1. Protect remaining significant natural resource areas and the ecological and public health and safety functions they provide. Ensure that there is no further loss of the remaining resources and functions.

Recommendations

- **Adopt the updated *Willamette River Natural Resource Inventory: Riparian Corridors and Wildlife Habitat* and establish a mechanism to keep the inventory up-to-date.** (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*)

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. 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 *Willamette River Natural Resource Inventory* (WNRI) assesses the extent, condition and functionality of riparian

Portland's Natural Resource Inventory Methodology

The City's Natural Resource Inventories form the basis for environmental zoning and certain elements of the existing Willamette Greenway Plan. The inventories are important elements of the City's long-term commitment to environmental stewardship and they play a part in the City's compliance with State Land Use Planning Goals 5, 6, 7 and 15.

Natural Resource feature data are the basic building blocks of Portland's natural resource inventories. The quality of the inventory reflects the quality of available data for streams, wetlands, floodplains, vegetation and topography. The Bureau of Planning and Sustainability produced new or revised data sets to increase the level of detail and improve the accuracy of the inventories. The City also developed two models to rank and map the relative quality of natural resources: the riparian corridor model and the wildlife habitat model. The City's inventory models are comprised of the same general mapping criteria as Metro's regional inventory, however the City has refined some of the criteria to reflect additional detail and local information. Riparian corridors are located along or near water bodies, and provide functions that directly influence the condition of the water body and the aquatic ecosystem it supports. Wildlife habitat resources consist of riparian and upland vegetation that provides food, shelter, cover, and nesting areas, for birds, mammals, amphibians, and reptiles.

corridors and wildlife habitat in the North Reach.

Roughly 1,300 acres of land in the North Reach receive a high, medium, or low rank in the inventory based on their contribution to riparian corridor and wildlife habitat functions. An additional 2,200 acres of open water and beaches receive a high rank. These areas are shown on *Map 5: Natural Resource Inventory – Riparian / Wildlife Habitat Combined Ranks*. 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.

As resources allow, BPS should maintain the inventory using GIS data, current aerial photographs, LiDAR and other information sources, and make the updated natural resource maps accessible online. Once the natural resource inventory methodology is adopted, BPS will explore opportunities to update maps administratively rather than through a legislative process.



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

National Wildlife Federation v. Federal Emergency Management Agency

In 2004 NWF sued FEMA challenging their national flood insurance program because FEMA had failed to consult with the federal scientists on whether the impact of the program would affect endangered species. The Court agreed that FEMA should have consulted with NOAA Fisheries on three aspects of the program—the 100-year floodplain mapping, the requirements for establishing the floodplain insurance programs, and the community rating system. FEMA went through the NOAA consultation process, and in October of 2008 NOAA determined that the FEMA program in the State of Washington not only jeopardizes the existence of ESA-listed fish and whales in Puget Sound, but also adversely modifies their critical habitat. NOAA also made suggestions for how to implement the FEMA program in a way that would not violate the ESA—the suggestions are called Reasonable and Prudent Alternatives (RPAs). The RPAs, generally focused on development in the floodplain, balanced cut and fill, stormwater management and floodplain restoration. Failure to implement the RPAs leaves FEMA and the participating communities liable and potentially subject to litigation and enforcement under the ESA.

What could this mean for Portland? While the case in Puget Sound is not directly applicable to Portland, environmental groups filed a similar lawsuit in Oregon in May, 2009. The federal courts in Oregon will soon be reviewing that case and it will likely have implications for Portland, however, Portland has several programs in place that address the issues in the NWF case. These include: Portland's Watershed Management Plan that has transformed many projects into floodplain restoration activities; Portland's Stormwater Management Manual that requires mitigation for the impacts of stormwater runoff; Portland's Grey to Green Initiative that will increase ecoroofs, greenstreets and street trees as a way to treat stormwater; Portland's balanced cut and fill regulations that require that fill in the floodplain be offset by an equal amount of excavation; and the River Plan's recommended mitigation bank that will also serve State and Federal agencies that regulate projects in the North Reach.

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

The City has multiple goals for the riverfront in the North Reach: to support river-dependent and river-related uses, to provide access to the river and to protect and restore natural resource functions including fish and wildlife habitat. 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, regulating development within natural areas must be done in a way that balances economic and environmental needs. 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 River Environmental overlay zone (e-overlay) is recommended as a way to maintain riparian and wildlife natural resources and habitat connectivity along the river. This will be critically important to avoid further deterioration of watershed health, and to protect public health and safety as businesses continue to expand and redevelop in the North Reach. The new e-overlay regulations will apply generally to high and medium ranked resources identified in the WNRI. The high and medium ranked resources are primarily the river, streams, wetlands and adjacent woody vegetation, vegetated flood areas, vegetated riverbanks, steep slopes, and important wildlife habitats and corridors. (See Map 6: *Watershed Health – Proposed Overlay Zones and Action Items*).



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

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, owners and operators of facilities that released 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 and Nez Perce Tribe. 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 assess damages from pollutants to public trust resources since December 11, 1980.

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 purpose of the e-overlay is to protect significant natural resource values and functions as development occurs. The proposed regulations will require developers to avoid, minimize, and/or mitigate for impacts to natural resources.

The plan does not apply the e-overlay to portions of riverbank that are currently in river-dependent industrial 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 will 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 will be used to inform the review process and decision. Off-site mitigation through an approved mitigation bank may be allowed when there are inadequate on-site mitigation opportunities.

- **Establish a mitigation bank for the North Reach.**

In order to provide the flexibility to conduct compensatory mitigation at an off-site location, and to ensure that the off-site locations are restored, maintained and managed in perpetuity, the City (and perhaps private entities) will establish a mitigation bank that will sell credits to applicants who are allowed to mitigate off site.

The mitigation bank(s) will use a science-based crediting and debiting system certified by the City to ensure that mitigation fully compensates for impacts to natural resources caused by development. This will help to ensure that no further loss of natural resource function is sustained in the North Reach.

The mitigation bank(s) will also be designed to accommodate mitigation required by state and federal agencies, and, if possible, accommodate restoration activities required by the Portland Harbor Natural Resource Trustees as compensation for past damages from contamination. Map #6: *Watershed Health – Proposed Overlay Zones and Action Items* identifies sites that can be included in the mitigation bank as off-site mitigation sites. However, Kelly Point Park and Cathedral Park can only be used for restoration by the City of Portland. Also see Appendix A: Action Agenda - Watershed Health for more information about these sites.

The City wants one or more mitigation banks to operate in the North Reach. A range of management options for mitigation banks include sole City ownership and management; management by the City in partnership with a for-profit entity; management by the City in cooperation with a team of local and state agencies and non-profit

What is the relationship between Portland Harbor Superfund and the River Plan / North Reach?

The Portland Harbor superfund study area is within the boundaries of the River Plan / North Reach, but the two programs have different authorities, implementation approaches, and goals. Superfund implements federal law and focuses on cleaning up contamination resulting from past actions or operations. The River Plan / North Reach is the City's land use plan for a geographic area that includes, but is larger than, the Portland Harbor Superfund Site. The River Plan implements state land use law and City policy for a range of development activities.

Both of the programs have a mitigation component but the mitigation is for different purposes. The NRDA part of the Superfund process requires mitigation for natural resource damages caused by *pollution*. The River Plan / North Reach requires mitigation for *development-related impacts* to ensure no net loss of habitat and vegetation to improve future conditions in the Willamette River. Mitigation required for one program cannot be used to comply with the other program.

The two programs will have complementary results because both ultimately will improve human health and the environment.

entities; and a private bank. Accounting methods under consideration for a City certified mitigation bank 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 separate from those required by others.

In Oregon and elsewhere in the country some mitigation sites include trails. The presence of a trail may reduce the natural resource function of the site and therefore result in fewer mitigation credits to sell, but that should not prevent inclusion of the trail or viewpoints in mitigation sites in the North Reach. If an entity chooses to develop a mitigation bank in an area that is designated for a regional trail (depicted as stars on the zoning map), the mitigation bank must account for the trail. However, the trail design and alignment should reflect sensitivity to natural resources.



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

- **Develop a mitigation bank certification process.**

Development of a mitigation bank is important to the implementation of the River Plan. The City will establish a certification process to ensure that banks operating in the North Reach can provide mitigation for the River Code. Any mitigation bank whether public or private will have to be certified by the City of Portland to provide credits for the River Plan.

- **Apply the City’s 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 affected by Statewide Planning Goal 5: Open Space, Scenic and Historic Areas and Natural Resources. These resources provide important watershed functions including stream water conveyance, stormwater filtering, and habitat connectivity. The steep slopes of the 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 Inventory: 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 Action Items* and on the recommended zoning maps. The environmental overlay zones are designed to protect significant natural resource areas and protect public health and safety by requiring that proposed development meet standards or undergo discretionary review to ensure that detrimental impacts on significant resources are avoided, minimized, and mitigated. Like the recommended e-overlay, the environmental conservation and protection overlay zones specify certain activities that are exempt from the regulations.

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

The application of herbicides within the greenway overlay zones 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 that can allow the application of pesticides or herbicides in and near water bodies. Such a standard could be developed as part of the River Plan / South Reach or River Plan / Central Reach.

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", which should not be confused with the new **river environmental overlay zone**.



Application of environmental zoning will aid in the preservation of upland wildlife habit.

- **Submit the River Plan to Metro for compliance with Titles 3 and 13, and present the River Plan to state and federal agencies as part of compliance with other 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. The River Plan will be submitted to Metro as a component of the City’s overall program to comply with Title 3 (Water Quality) and 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 for the River Plan/ North Reach to serve as a “district plan”. This approach allows the City to address the unique characteristics of the North Reach in meeting Title 13 regional requirements. 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 and proposes some refinements:

- Rather than exempt specific properties from the program, the City chose to 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 standards. Development that cannot meet standards will be required to avoid adversely affecting the resources if practicable and to mitigate for unavoidable

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. Runoff from parking lots, roadways and rooftops may 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. The permit requires establishment of a comprehensive stormwater management program, including controls on post-development stormwater runoff.

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.



impacts.

- The City will apply the e-overlay, c-overlay or p-overlay to high and medium ranked upland natural resources that are not addressed by Title 13 requirements.
- The City will implement an 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 require sustainable stormwater strategies where possible. Provisions that encourage preservation of vegetation along the river, tributaries, and wetlands will also contribute to achievement of benchmarks for temperature for the Total Maximum Daily Load program 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.



Swan Island Lagoon provides riparian habitat along the Willamette River.

OBJECTIVE #2. Enhance and restore watershed functionality within, and directly adjacent to the North Reach, in order to improve conditions for fish and wildlife, improve watershed health, and protect public health and safety.

Recommendations

- **Establish the River Restoration Program.**

A key component of the overall River Plan / North Reach is the establishment and implementation of a City program dedicated to natural resource restoration in the North Reach—the River Restoration Program. The mission of the program is to acquire, restore and manage in perpetuity, key sites for long term public benefits such as fish and wildlife habitat, water quality, and flood storage.

The key restoration sites that the program should focus on are shown on Map 6: *Watershed Health – Proposed Overlay Zones and Action Items*, and they are described in Appendix C: *Action Agenda*. The list of sites was developed during the River Plan process. North Reach stakeholders worked with River Plan staff to visualize a conceptual “landscape” plan for the North Reach, and as part of that work, the group identified restoration opportunity sites along the river and in the uplands. River Plan staff refined the list of sites in coordination with staff from the Bureau of Environmental Services and state and federal agencies.

River Plan staff have also developed rough estimates for site acquisition and restoration:

Acquisition:	\$39 - 103 million
Restoration:	\$144 million
Total:	\$183 - 247 million

Funding for the restoration program will come from numerous sources including fees in-lieu of meeting existing and proposed landscape and vegetation enhancement standards. Other revenue sources for program funding could include City investments in watershed health and grants from state and federal programs and foundations.

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 acquired from willing sellers as opportunities and funding become available. The list of sites shown in this plan should not be considered exhaustive. The River Restoration Program will evaluate additional opportunities for restoration where appropriate, and the program will be evaluated over time on its progress toward fulfillment of its mission.



A wetland in the Rivergate district provides habitat for sensitive species such as the western pond turtle.

▪ **Ensure enhancement of natural resource functionality through the application of a development standard aimed at increasing native vegetation in the North Reach.**

Enhancement and restoration of the natural conditions in the North Reach are goals of the River Plan, the River Concept, the River Renaissance Strategy, and Statewide Planning Goal 15. Enhancement of natural conditions is adopted City policy as part of the Willamette Greenway Plan, the Portland Watershed Management Plan, the Urban Forestry Management Plan and the Climate Action Plan. In response to these goals and policies, the City will apply a development standard that over time will result in 15 percent of the area in the River Overlay Zones being covered with native vegetation. This recommended development standard is similar to the greenway landscape standard that has been in place since 1987, however, it is more broadly applied to address concerns about the lack of adequate habitat in the North Reach.

This recommended development standard requires an applicant for a building or development permit to increase the amount of vegetative cover on their site or in the North Reach by choosing from among several options. These options include spending one percent of project value or \$200,000 (whichever is less) on planting vegetation, on an ecoroof or paying the City to plant vegetation on one of its river restoration sites.

The recommended vegetation standard is more flexible than the existing landscape standard because applicants for development permits will be able to comply with the requirement in a variety of ways:

- applicants will be able to count existing vegetation toward meeting the standard;
- new vegetation can be planted anywhere on the site rather than just within the greenway setback;
- the applicant will have the option to meet the standard by paying a fee-in-lieu of planting vegetation on-site.

The payment will be directed to the River Restoration Program.

The code also provides incentives for planting on the riverbank or in an environmental overlay zone.

- **Allow payment of fee-in-lieu of meeting the IG2 and EG2 minimum landscaped area standard.**

When development occurs in the General Industrial 2 and the General Employment 2 zones, applicants are required to show that 15 percent of the site is landscaped. Many of the industrial sites in the North Reach are constrained and meeting this standard can be difficult. The City will allow a payment in-lieu of meeting the standard. The payment will be directed to the River Restoration Program.

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



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

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 climate change, 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.

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 zones. 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 Bureau of Planning and Sustainability 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. When the Citywide Tree Project is adopted, additional regulations pertaining to maintaining or enhancing tree canopy may apply in the North Reach. Other City strategies that will improve the urban forest include the Grey-to-Green initiative and the BES Watershed Revegetation Program.

- **Create and promote low-impact and eco-industrial site and development designs for the Willamette River.**

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).



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

These elements can be achieved through both regulatory and non-regulatory measures including partnerships, incentives, grants and technical assistance. The Bureau of Planning and Sustainability, Development Services, and Environment Services and the Office of Healthy Working Rivers will compile examples of low impact developments suitable for use in the industrial North Reach.



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



Looking north from the University of Portland bluff.

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.



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

- 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-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 BNS&F 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 Greenway Trail, Viewpoints and Action Items*.
- 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).
- PBOT 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 Greenway Trail, Viewpoints and Action Items* are included in the Regional Trail Plan.
- PBOT and Parks should conduct additional feasibility studies to evaluate the long-term trail alignments shown on Map 8: *Access – Proposed Greenway Trail, Viewpoints and Action Items*. 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.



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

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 Greenway Trail and Bicycle Network*), the River Plan has identified four additional viewpoint locations in the North Reach (See Map 8: *Access – Proposed Greenway Trail, Viewpoints and Action Items*).



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

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

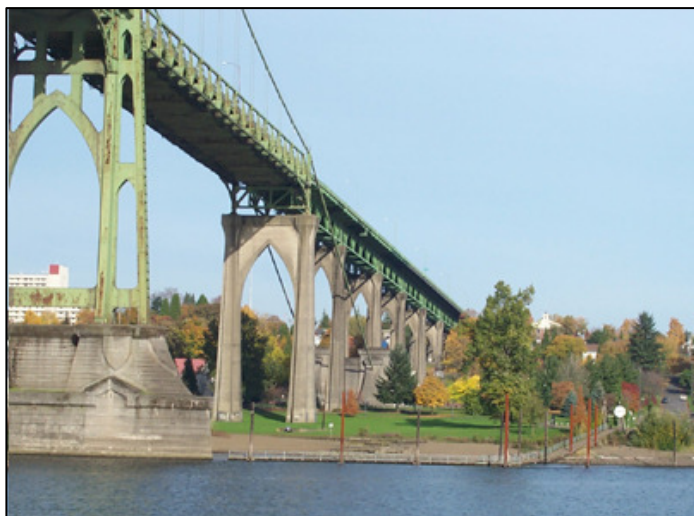
- PBOT should explore ways to provide additional vehicular, bicycle and pedestrian access to Swan Island through the Lower Albina industrial area. This work should build on the potential alternatives identified in the Swan Island/Lower Albina Transportation Feasibility Study (2009) conducted for the River Plan.
- Parks 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*).

Recommendations:

- 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.
- Implement the Cathedral Park Master Plan final design.



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

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 the 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 offers 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.

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 Storefront Commercial (CS). 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 establishing access to the river for the community as depicted on Map 2: Proposed Overlay Zones and 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 the Linnton Community to apply for a Portland Development Commission storefront improvement grant to help revitalize the main street portion of the commercial district on St. Helens Road.
- Work with the Bureau of Transportation to pursue funding to analyze the potential for developing a whistle-free zone on the rail line through Linnton.



Also see Linnton-related recommendations in Appendix A: *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

- Add a provision to the St. Johns Plan District requiring new residential structures and reconstruction to meet an enhanced insulation requirement when at least one additional dwelling unit will be added to a site within approximately 500 feet of an industrial zone, an employment zone, or a rail line. See Volume 1B: *Code Amendments and Zoning Maps*, for more information.
- Add a provision to the St. Johns Plan District requiring that an industrial impacts disclosure statement must be signed when new and substantially reconstructed residential structures with at least one additional dwelling unit will be added to a site in the Baltimore Woods Subdistrict. See Volume 1B: *Code Amendments and Zoning Maps*, for more information.
- Work with the Portland Bureau of Transportation and Port of Portland to pursue funding opportunities for the improvements needed to establish a whistle-free zone in Cathedral Park.



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.

The University of Portland purchased the neighboring Triangle Park riverfront property down the bluff from its current campus in 2009, and successfully pursued a Comprehensive Plan map amendment to take the Triangle Park property out of Industrial Sanctuary. The university is also pursuing the purchase of 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.

Recommendation

- Change the Comprehensive Plan designation for the McCormick & Baxter property from Industrial Sanctuary to Central Employment and the base zone from Heavy Industrial to General Employment.



The University of Portland recently purchased the vacant brownfield in the foreground. They are also interested in acquiring 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.

Recommendations

- 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.
- For residential uses in industrial and employment zones citywide, require that the use proposal be designed and developed so that housing is protected from potential nuisance impacts, including noise, lights and odor, coming from uses allowed by right in the zone and other employment and industrial zones within 1000 feet of the site. Also require that the proposal include site and building designs, a landscape plan, and a transportation plan that will limit to the maximum extent practicable any conflicts between residential, employment, and industrial uses. See Volume 1B: *Code Amendments and Zoning Maps*, for more information.

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.



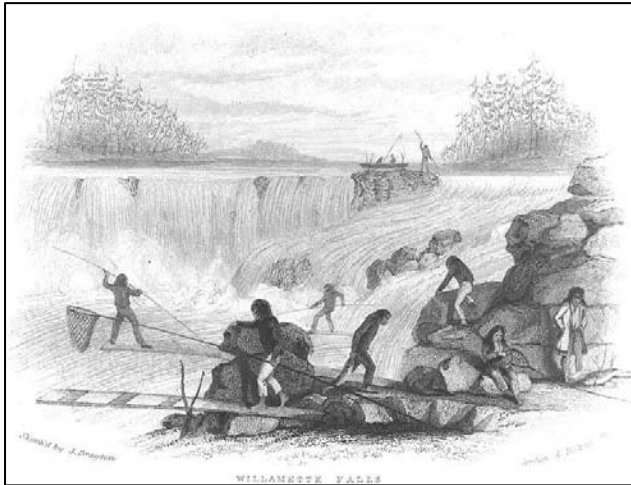
F. WORKING WITH OUR PARTNERS

The river's edge is critical to the regional economy, provides important fish and wildlife habitat, and is important 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 optimizes the use of this finite resource by working with stakeholders – our regulatory, community, and tribal government 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 regulate many activities 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. The recommendations in this section are intended to coordinate the regulatory processes 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, tribal governments, 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.



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

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 arose. Eventually, a treaty was signed with the tribal governments that set aside land for reservations and gave ownership of the Willamette Valley to the United States. In signing this treaty, tribal governments reserved customary rights such as to fish "at usual and accustomed grounds and stations," the right to erect fish-processing sheds for drying their catch, and to hunt, gather and graze livestock on unenclosed lands. Those connections to the Willamette River remain strong.

Today, Portland is home to the ninth largest Native American population in the United States, with residents coming from tribes across the country.

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 of the 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 of the Clean Water Act 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** (NOAA Fisheries) and/or the **U.S. Fish & Wildlife Service** (USFWS) if the permit authorization may affect an endangered or threatened species, or may adversely modify or degrade designated critical habitat. The Corps also coordinates with the State Department of Environmental Quality. DEQ reviews, conditions and certifies 404 permitted activities to ensure that they State's water quality objectives are properly met.

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, public boat ramps and other government functions are exempt from DSL permitting authority, though wharves must be registered with DSL. In addition, DSL regulates removal and fill in waters of the state in coordination with the Corps 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 tribal governments.
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. In fact, the City’s goals in reviewing development are broader than the regulatory mandate of the state and federal government.

Stakeholders from the environmental community and staff from several City bureaus believe that eliminating City review of development proposals below the OHWM would limit the City’s ability to influence project design and minimize impacts to all affected fish and wildlife, and would not allow the City to address environmental interests and overall watershed health goals adopted by City Council that go above and beyond state and federal agency mandates.

These City goals include:

- Protecting properly functioning habitat conditions. To this end, the City limits detrimental impacts to watershed functions identified in the City's adopted natural resource inventories and Portland Watershed Management Plan
- Protecting riparian and aquatic habitats 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
- Protecting and improving groundwater and surface water quality
- Supporting river-dependent industrial uses in the North Reach



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.

The City is interested in ensuring that development activities that occur below ordinary high water are reviewed in the context of City land use plans and the complete ecology of the area around the development site. City review ensures that the development will have the least detrimental impact on natural resources and functional values among all of the practicable alternatives, and that when development activities do occur, there is no net loss of resource function in the North Reach and that any lost resource function is fully replaced on the site or somewhere else in the North Reach.

The resources that the City cares about that occur below ordinary high water include open water, shallow water (0-20 feet), beaches, floodplain and flood areas, wetlands and ponds, and riparian vegetation.

- These resources: provide microclimate and shade function (regulate the temperature); provide stream flow moderation and water storage function; protect the river bank; control sediment, nutrients and pollution; keep the channel dynamic; provide food and organic inputs to the river; provide fish and wildlife habitat and habitat connectivity.
- While Federal and state regulations may nominally cover many of these resources, in practice their reviews only apply to discrete resources not all resources, and in limited circumstances. For example, state and federal regulators do not impose restrictions on floodplains that may be associated with an area below ordinary high water. These regulatory powers are delegated to the City. Only the City can connect those rules to impacts on fish, wildlife, overall watershed health and regional public safety, and represent the full suite of ecological interests. In addition, federal and state regulations and reviews are not proactive in preventing future threats or declines in watershed health, nor do they attempt to improve conditions. Rather they focus on preventing further degradation from existing conditions, usually for a limited site and for limited biological conditions.

Development can reduce the functionality of any facet of an area's natural resources (its ecology). A reduction in resource function will mean further loss of fish and wildlife species in the North Reach, and additional threats from natural hazards such as flooding and landslides. The City is interested in making sure that existing functionality remains in place as much as practicable and that lost resource function is fully replaced somewhere else on the site or somewhere else in the North Reach.

State and federal agencies focus more closely on biological systems, particularly listed species, and on jurisdictional habitats such as wetlands, and on navigation. All of these are evaluated against the development proposed at that time, but not the full context including the surrounding conditions, potential future development in the surrounding area or an applicant’s future development plans. It is site and project specific and not integrated or based on an ecological perspective. Like the City, they also require that development avoid impacts, minimize impacts when avoidance isn’t possible, and mitigate for lost resources. However, the extent to which the state or federal agencies will require an alternative design or an alternative location for the development can be limited by the species on which they focus. In the same way, mitigation will be limited to those features that the species use—which may not cover the full spectrum of resource functions and values listed above.

For example, an applicant may be able to make the case to the state and federal agencies that a particular dock and bank stabilization design does not affect salmon habitat, or that the impacts can be mitigated by improving salmon habitat somewhere else, even though the bank design includes rip rap (rocks) as stabilization, thereby eliminating an existing riparian area with significant habitat value. In this case, the City would want to see alternative locations that have less impact on the riparian area evaluated and that the mitigation plan includes mitigation for the lost riparian resources. In addition, the proposal may impact flood storage or channel dynamics, but the state and federal agencies may not ask for mitigation for those functions. The City will ensure that all functions are replaced in the North Reach.

In another example, the state and federal agencies may permit a development activity that reduces river access on a site. The state and federal agencies do not look at the impact a development may have on future use of the site for river-dependent or river-related activities. The City has an interest in ensuring that alternative locations or designs that preserve river access are evaluated and used if practicable.

The following table compares the interests of the state and federal agencies with the City interests in key areas of ecological function as it relates to permitting below the ordinary high water mark.

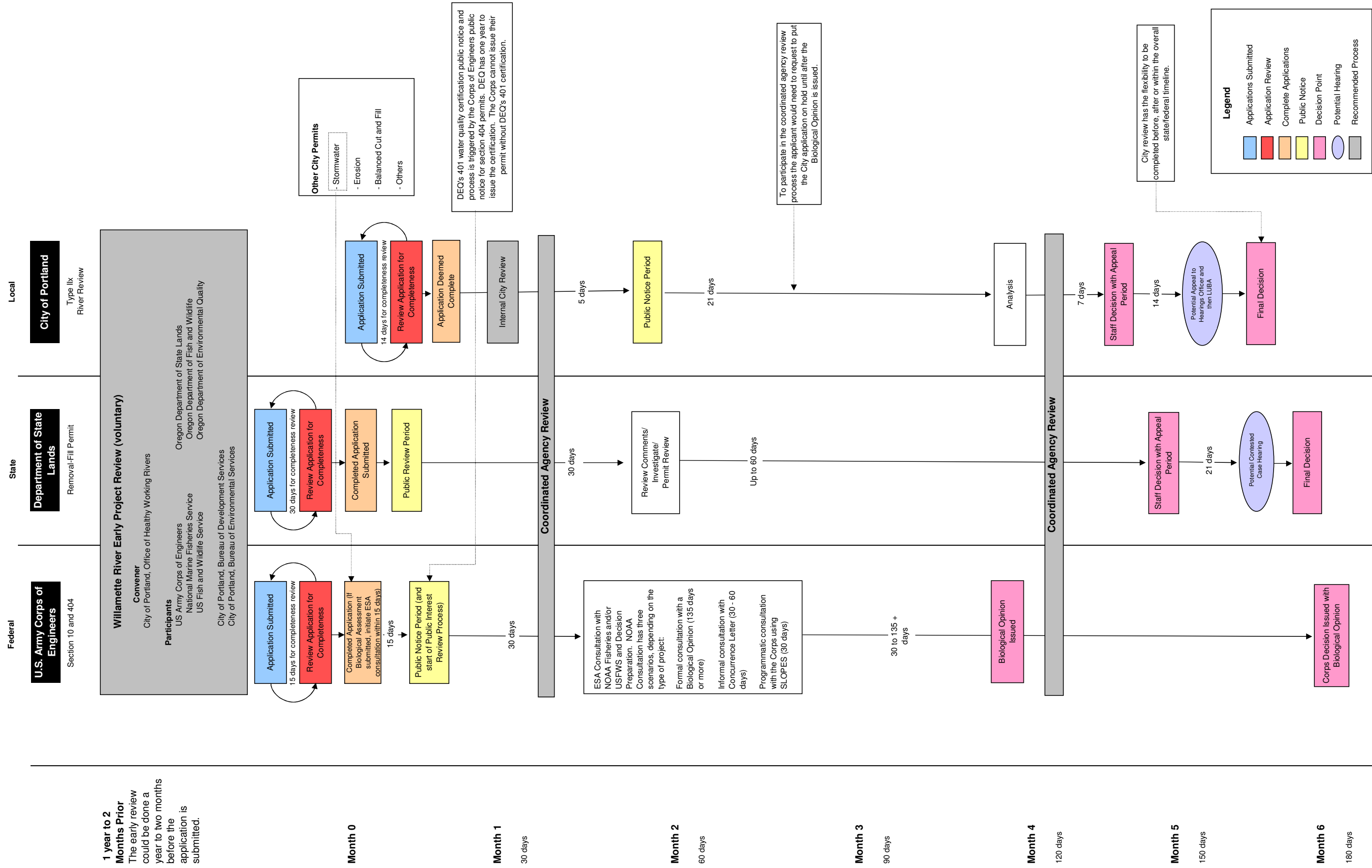
Ecological Function	State	Federal	City of Portland
fish/wildlife habitat	Focuses on wetlands and waters of the state with stronger focus on designated “essential fish habitat,” water quality, and contamination. Must provide for fish passage at all times.	Focuses on listed species and their specific habitat requirements, generally limited to designated “critical habitat.” Also looks at dredging in navigable waters and significant contamination issues.	Considers all native fish and wildlife species and their habitat requirements
bank functions	Considers removal and fill in a wetland or water of the state that may be connected to a stream/river bank, and in the context of contamination and clean up.	Addresses bank functions in context of designated critical habitat	Addresses bank functions in relation to a diversity of fish and wildlife species as well as other city goals such as flood protection, access.
riparian vegetation	Considers riparian vegetation only if there are state listed species (birds, mammals) on state lands, or as it relates to contamination containment.	Considers in-water impacts; the relationship between in-water and riparian areas is only considered relative to listed species in non-binding recovery plans.	Considers the relationship of impacts to riparian vegetation and in-water conditions/ how impacts in-water may affect riparian habitat, hydrologic function and wildlife connectivity

In addition, 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.

Flowchart 1

River Plan / North Reach Recommended Draft: Proposed Coordinated Review Process for Projects Below the Ordinary High Water Mark

Note: The timelines listed are legal maximums and are not meant to represent the time it would take to process any given permit application.



For all of these reasons, the River Plan recommends that 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 Willamette River Early Project Review 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 voluntary process is being created to provide a venue for early information sharing and collaborative problem-solving between the applicant and regulatory agencies.

Flowchart 1 shows the legal timeframes for the City/state federal permit review processes. It also identifies potential interagency coordination points.

- **Train BDS planners** assigned to Willamette River permitting to consider industrial issues, interjurisdictional permitting and clean-up of contaminated sites.
- **Assign and fund 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 could be formalized through an inter-bureau agreement as needed.
- **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.



Process improvement will improve regulatory efficiency for development proposals that have impacts below the OHWM.

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 an important issue 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*). Applicants for state-led cleanups are required to address the City's substantive requirements but do not have follow the City's review process. The recommendations below are designed 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** in accordance with Volume 1B: *Code Amendments and Zoning Maps* and helps applicants understand the new River overlay zone regulations and processes. Work with DEQ and EPA to distribute the document to potentially responsible parties as early as possible in the cleanup process.
- **Provide the River Plan / North Reach, zoning code, zoning maps, and other relevant regulations and policies to EPA and DEQ** to ensure that the agencies know, and can take into account, the City's goals for the land along the Willamette River during design of the Portland Harbor Superfund cleanup. **The City should work with DEQ to develop a clearly defined role for City involvement in the cleanup process.** If necessary, a formal agreement or

Portland Harbor Superfund Site

A stretch of the North Reach that includes the area between Sauvie Island at River Mile 1.9 and the Fremont Bridge at River Mile 11.8 was added to the 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 selects the remedy for 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 CERCLA are required to comply with federal and state laws that are determined to be Applicable or Relevant and Appropriate Requirements (ARARs). In addition, the Willamette Greenway or River Plan regulations developed under Statewide Planning Goal 15 can also be considered in implementing a CERCLA cleanup action as ARARs or To Be Considered (TBC) materials.

EPA selects the final remedy based on its overall goal to protect human health and the environment and compliance with ARARs or TBCs. 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.

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.**



Groundwater monitoring wells measure contaminant levels at a former pesticide manufacturing facility.

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.

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 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.

Stormwater evaluation and control are key components of DEQ's cleanup program in Portland Harbor. Under the Joint DEQ/EPA Source Control Strategy, site contaminants are evaluated to determine if they could leave the site via stormwater. Appropriate source control measures are implemented to prevent contaminants from leaving the site through stormwater runoff

OBJECTIVE 3. Improve communications between the City of Portland and tribal governments.

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

- **Increase the frequency and depth of communications with Native American people.**

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 and enhance the North Reach industrial 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 Office of Healthy Working Rivers should evaluate alternatives for significantly improving communication and collaboration among river-related local governments, agencies, organizations, industries and citizens in the Lower Willamette River.** These groups share common opportunities and challenges, toward improving the economic and ecological health of the lower river.
- **The City of Portland's Office of Healthy Working Rivers 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.
 - 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



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

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
Decrease in the time-to-decision for permits requiring approval of multiple agencies.	<ul style="list-style-type: none"> ▪ Change in median time required to complete reviews for Willamette River development permits
Increase in 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.

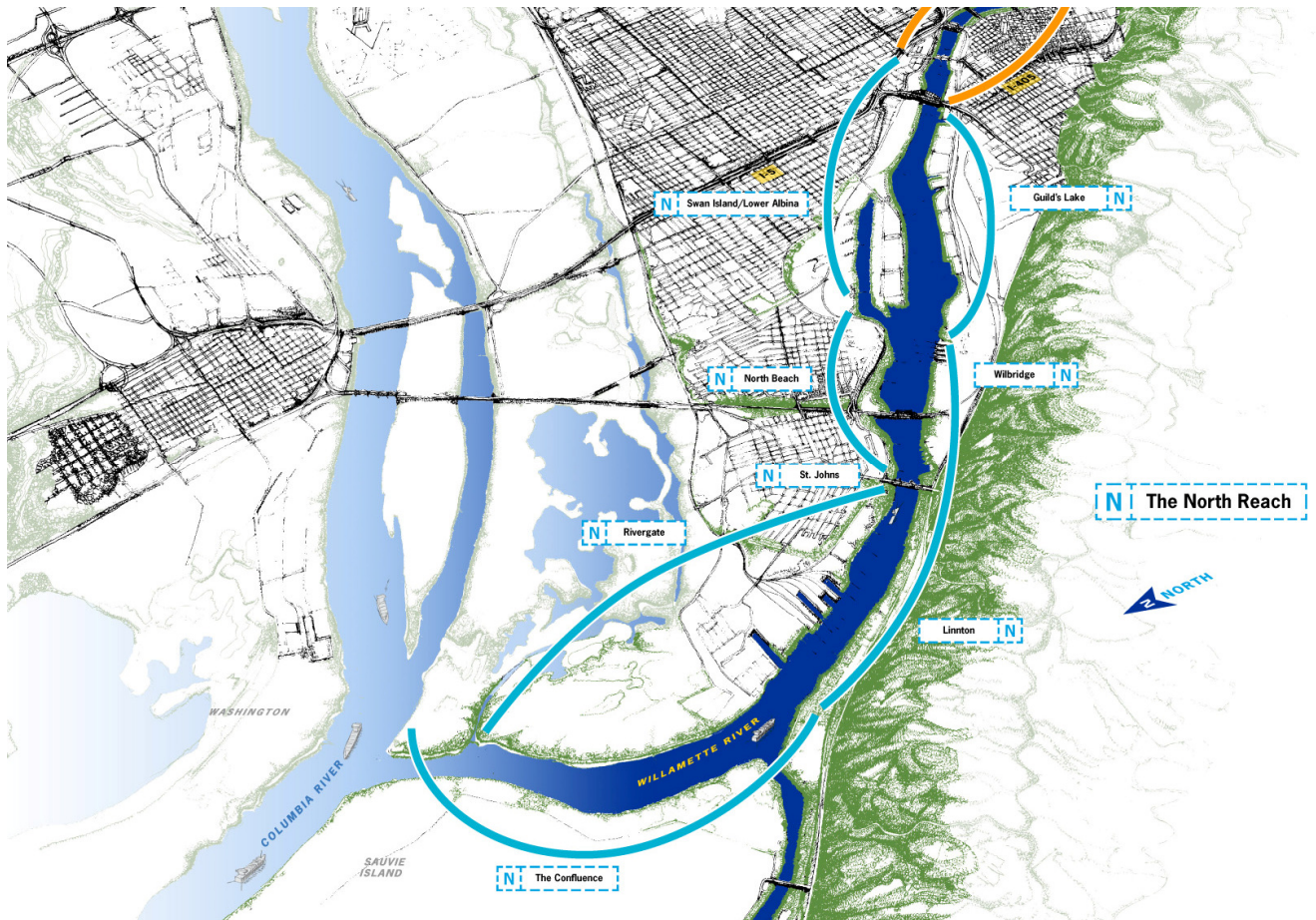


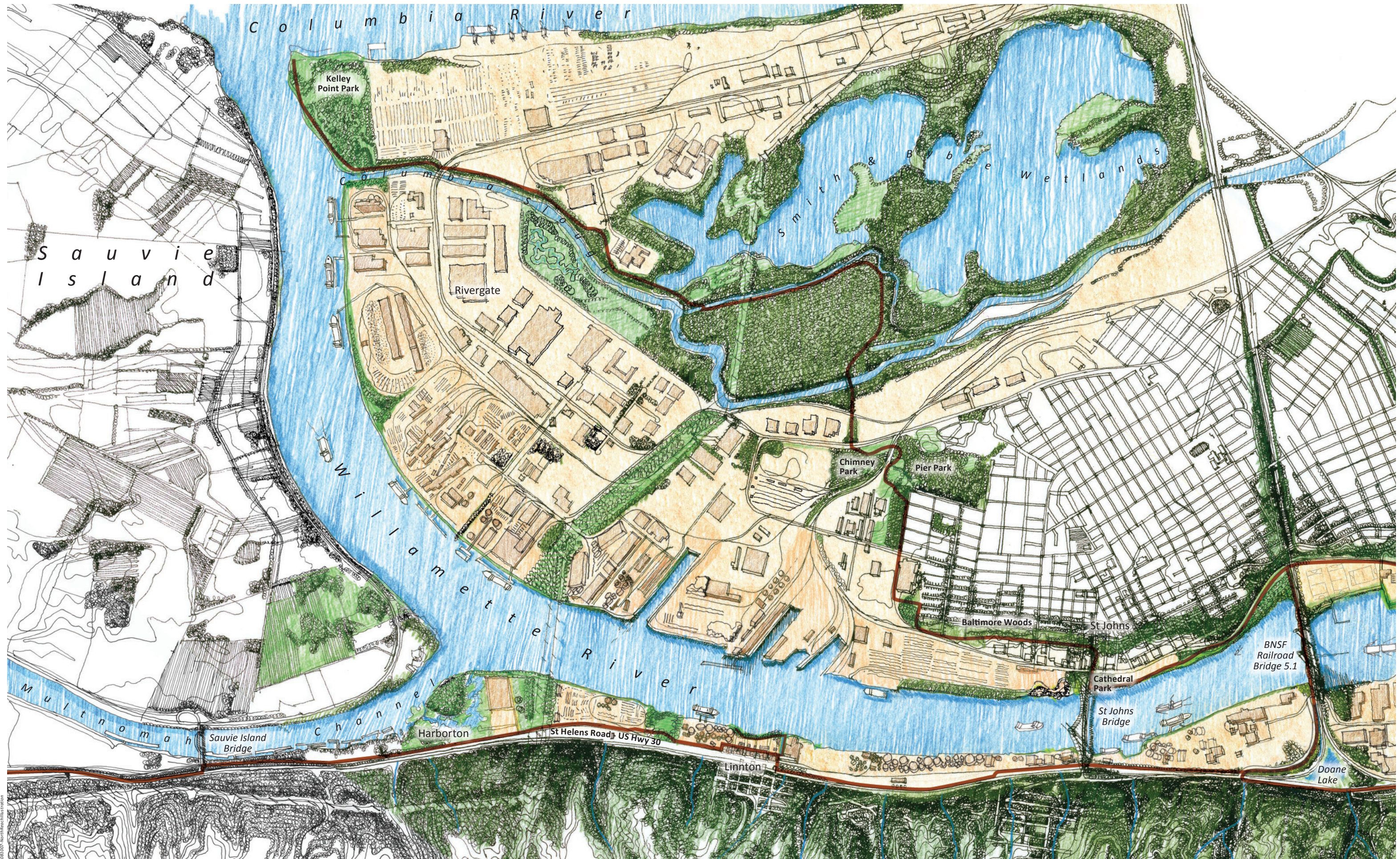
The River Plan aims to reduce permitting time for projects like the new sheet pile wall at the BP facility.

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 term results of the recommendations and actions detailed in the plan. Descriptions and illustrations of specific subareas follow (e.g., St. Johns, Rivergate). The associated tables summarize priority action items for that area. 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.

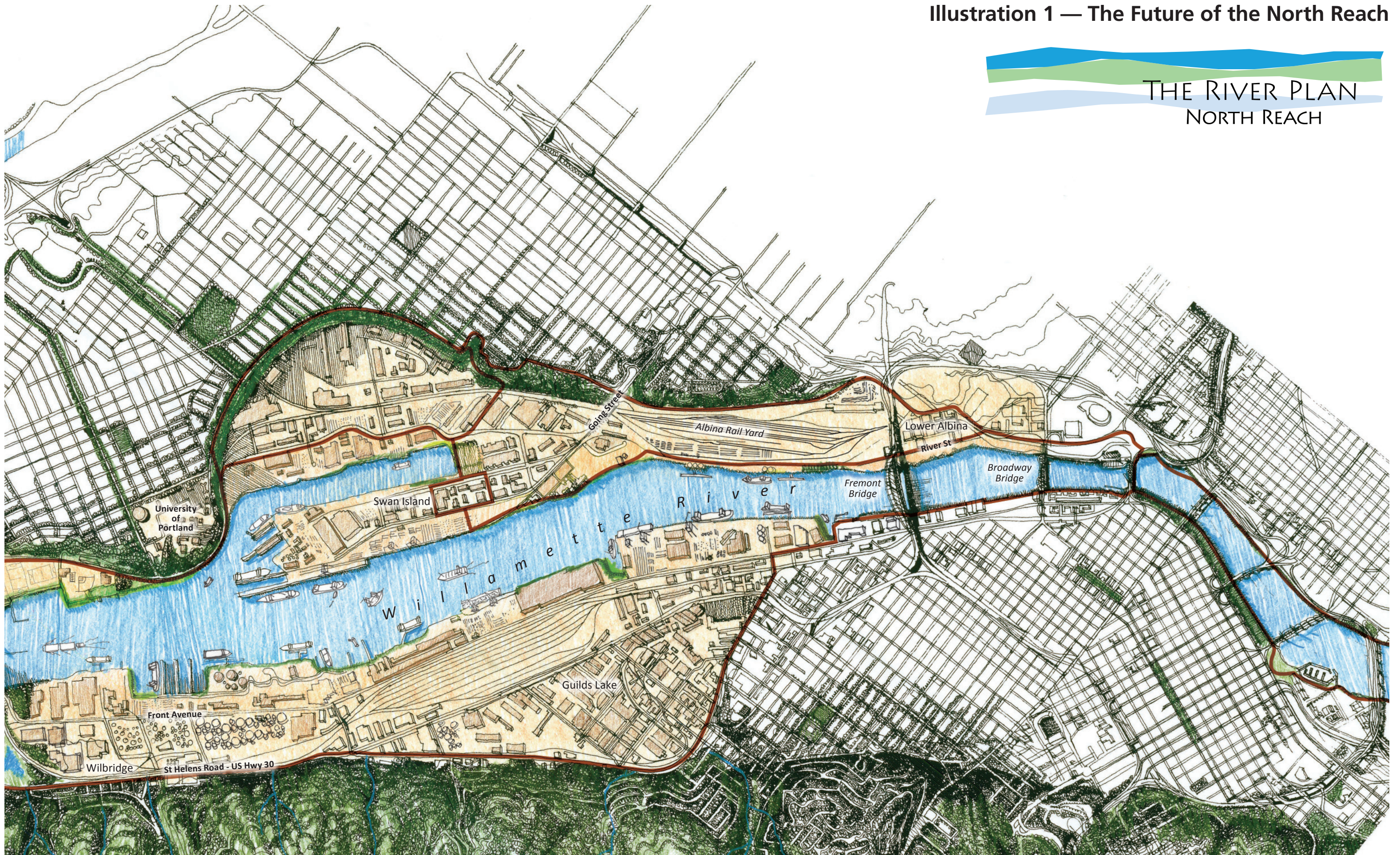
- Swan Island/Lower Albina
- North Beach
- St. Johns
- Rivergate
- The Confluence
- Linnton Village
- Wilbridge
- Guild's Lake







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.



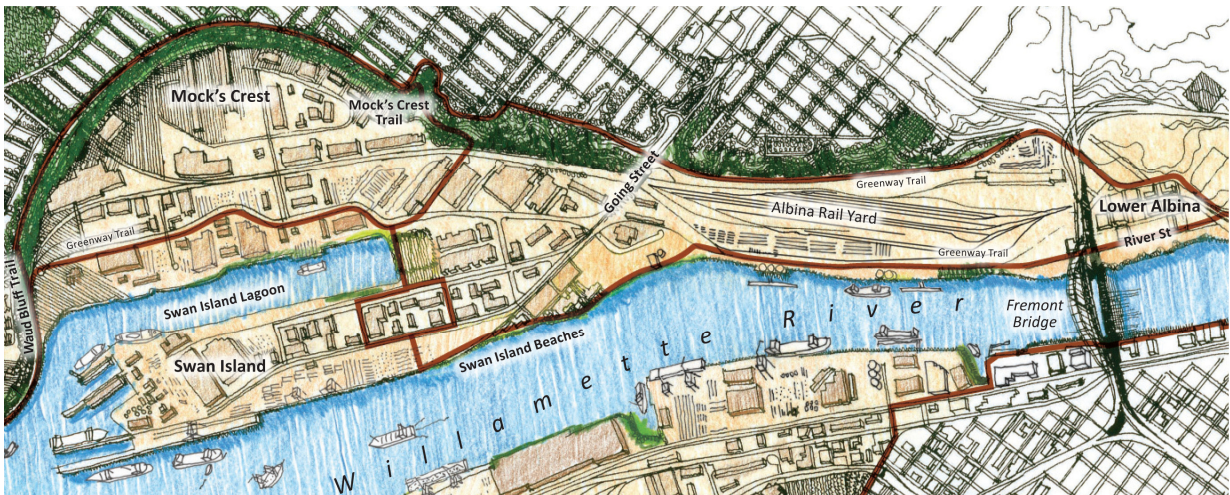
Swan Island is an important hub for rail and truck distribution and rail/marine dependent manufacturing.

SWAN ISLAND / LOWER ALBINA ACTION ITEMS

The following actions are recommended for this area. For more information see Appendix A: Action Agenda and Map 11: Recommended Action Items.

Project ID	Location	Project
S2	Going Street/ Greeley Avenue Intersection	Provide intelligent transportation system improvements (e.g. signal timing) to reduce congestion
S11	Going Street/Greeley Climbing Lane	Redesign Going/Greeley interchange, construct climbing lane on Going
B1	Going Street at Swan Island	Retrofit weight restricted bridge over Union Pacific Railroad
SS7	Mocks Bottom Pump Station	Upgrade mechanical and electrical equipment, increase capacity to meet current & future demand (project is in the final design phase)
RS9	Mock's Crest	Maintain and enhance oak habitat, remove invasive species
RS10	Swan Island Lagoon	Treat stormwater from boat launch excavate to increase inundation area and frequency of inundation, increase large wood, revegetate and improve banks
RS11	Swan Island Beaches	Remove riprap and add riparian vegetation
A9	Waud Bluff	Continue restoration. Design and implement trail improvements
A13	Mocks Crest Trail	Design and implement trail improvements
A14	Swan Island to Lower Albina	Explore ways to provide additional vehicular, bicycle and pedestrian access to Swan Island through the Lower Albina industrial area

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.

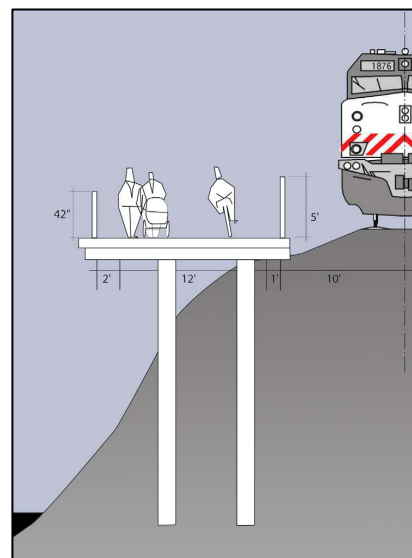
Willamette Cove, one of North Portland's natural gems, and the new University of Portland site will be cleaned up and restored to provide high quality fish and wildlife habitat. Bluff habitat will be conserved and enhanced. An ecologically-sensitive trail will allow Portlanders to experience, yet minimize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

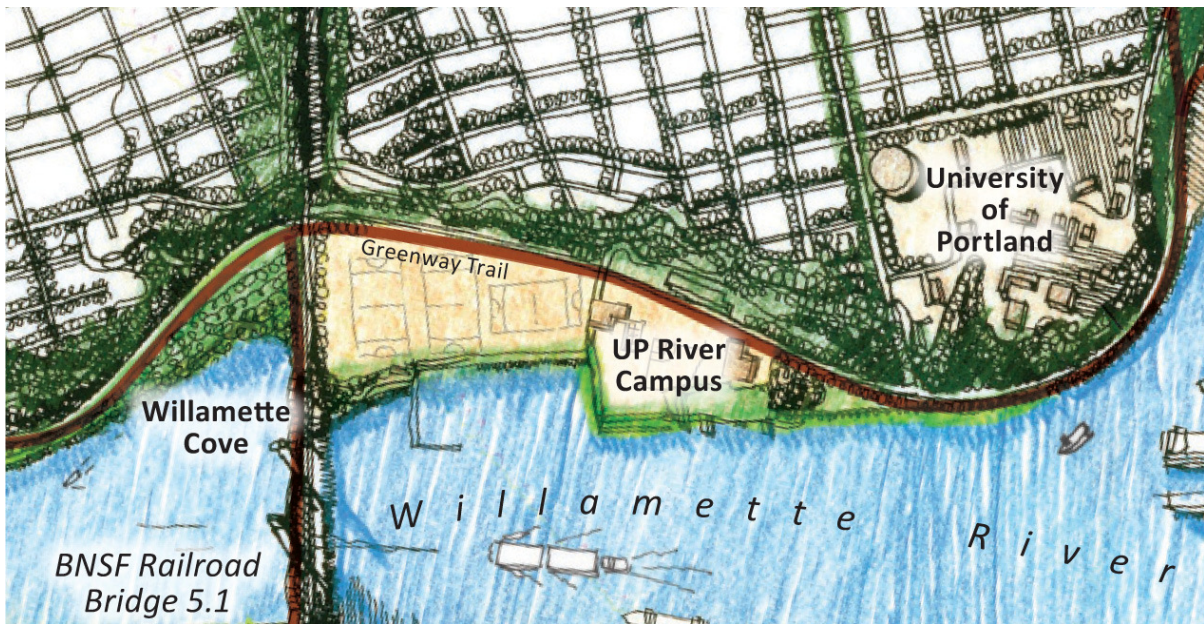


NORTH BEACH AREA ACTION ITEMS

The following actions are recommended for this area. For more information see Appendix A: Action Agenda and Map 11: Recommended Action Items.

Project ID	Location	Project
RS7	Willamette Cove	Create off-channel habitat, remove riprap, recreate shallow water habitat and floodplain, revegetate
RS8	University of Portland River Campus	Restore floodplain, expand shallow water habitat, regrade riverbanks, add complexity with wood and boulders, revegetate
A8	Willamette Cove	Design and build a bicycle/pedestrian trail with connections to other trails

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 consistent with the Cathedral Park Master Plan. 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 ACTION ITEMS

The following actions are recommended for this area. For more information see Appendix A: Action Agenda and Map 11: Recommended Action Items.

Project ID	Location	Project
S3	Lombard Street / St. Louis Avenue/ Ivanhoe Street	Realign intersections to reinforce truck movements on truck streets, improve traffic, pedestrian circulation
B2	Lombard Street/ Burgard Road	Replace weight restricted bridge
R13	Cathedral Park Vicinity	Create whistle free zone zone, control rail crossings to improve neighborhood livability and enable T-4 expansion
RS4	Crown Cork/ Baltimore Woods	Maintain and enhance existing oak habitat, remove invasive species along the bluff, revegetate
RS5	Mar Com waterfront	Create wetland habitat where conditions allow, treat stormwater outfall with swale outside of habitat area, improve riverbanks, revegetate
RS6	Cathedral Park	Excavate for stormwater retention, create stormwater swale, vegetate with hrdrophytes, add large woody debris
A1	St. Johns Landfill/ Chimney Park	Design and build a bicycle/pedestrian crosswalk across Columbia Boulevard, allowing a safe connection between the St. Johns Landfill and Chimney Park
A2	Chimney Park/ Pier Park	Build a bicycle/pedestrian bridge over the railroad tracks, connecting Chimney Park and Pier Park
A3	Lombard Street/ Bruce Avenue	Design and build a bicycle/pedestrian crosswalk at Pier Park
A4	Lombard Street/ Decatur Street	Design and implement trail improvements and viewpoint
A5	Decatur Street/ Cathedral Park	Develop a bike boulevard and trail improvements
A6	Baltimore Street/ Decatur Street	Build a bike boulevard along N. Baltimore to Cathedral Park
A12	Cathedral Park	Continue master planning and implement final design

Illustration 4: The Future of St. John



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 through the former St. Johns landfill site. A bicycle and pedestrian bridge will be constructed over the North Slough connecting the former St. Johns landfill site with the Smith & Bybee Wetlands natural area and the greenway trail that continues 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 ACTION ITEMS

The following actions are recommended for this area. For more information see Appendix A: Action Agenda and Map 11: Recommended Action Items.

Project ID	Location	Project
S4	Lombard Street (T-6 to Rivergate Blvd.)	Widen Lombard Street, add signal at Ramsey Boulevard
S6	Rivergate	Provide intelligent transportation system improvements (e.g. signal timing) to reduce congestion
S7	Burgard Road/ Lombard Street	Widen to two lanes with center turn lane, bike lanes, and sidewalks
S8	Leadbetter Road	Street extension and rail over crossing (Marine Drive loop)
B4	Lombard Street/ Columbia Slough	Strengthen bridge and add sidewalks and bike lanes
R1	Kenton Line Upgrade	Upgrade to double track, new sidings
R3	Ramsey Rail Complex	Construct up to four tracks and one mainline to improve bottlenecks and increase storage capacity
R8	South Rivergate Yard	Expand railroad yard to increase Terminal 5 bulk capacity (phase 1)
R9	T-5 Unit Rail Loop #4	Construct two additional loop tracks to increase storage capacity
W1	Burgard Loop Water Main	Add 12" water main along Simmons Road or 16" water main along Burgard Road
SS1	Shipyards Pump Station	Increase capacity of Shipyards Pump Station near Burgard Road
SS2	Marine Drive Pump Station	Upgrade mechanical and electrical equipment, increase capacity to meet current and future demand (project is in the final design phase)
SS4	Lombard Pump Station	Install second electrical feed and control equipment
EP9	North Willamette Crossing Study	Increase priority in Regional Transportation Plan to study the need for a new bridge connecting Hwy 30 to Rivergate
RS3	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.



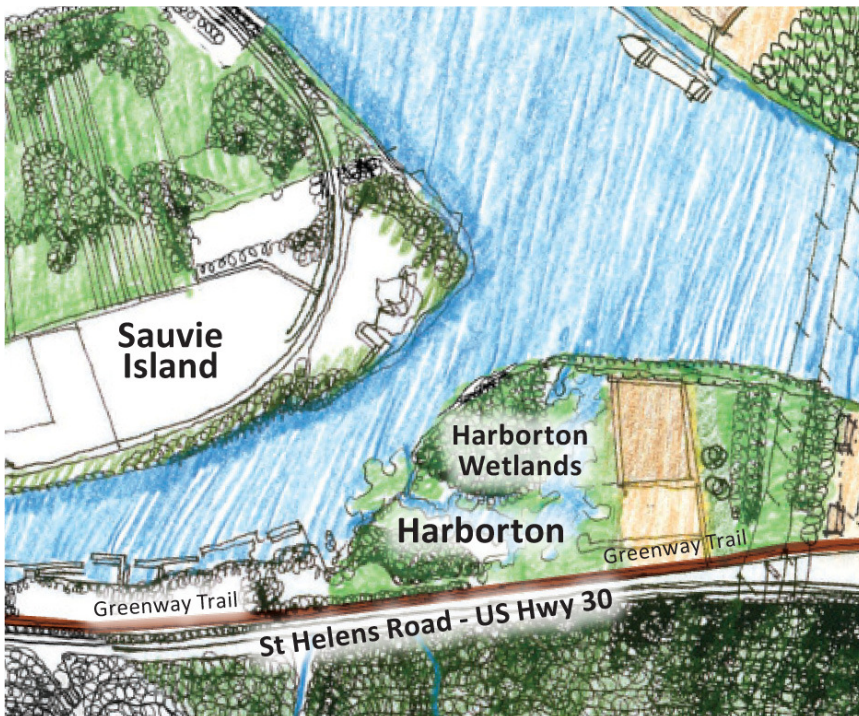
The confluence of the Willamette River with Multnomah Channel is an important habitat area for fish and wildlife. To the left is Harborton Wetlands and to the right, Sauvie Island.

THE CONFLUENCE AREA ACTION ITEMS

The following actions are recommended for this area. For more information see Appendix A: Action Agenda and Map 11: Recommended Action Items.

Project ID	Location	Project
M2	Willamette River Channel	Maintenance dredging as recommended in Dredge Materials Management Plan
RS1	Sauvie Island Properties	Enhance upland wetland and revegetate
RS2	Kelley Point Park	Prepare a master plan for Kelley Point Park. Designate areas where appropriate to add large woody debris and boulders, revegetate with native species
RS17	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,
RS18	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

Illustration 6: The Future of the Confluence Area



LINNTON VILLAGE

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

The Linnton beach will be protected and enhanced to become 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 an important partner 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 will 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 trail to and from the Linnton Village 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 follow along the edge of the right-of-way, and where it can, it will safely parallel the Portland and Western railroad track as a rail-with-trail.



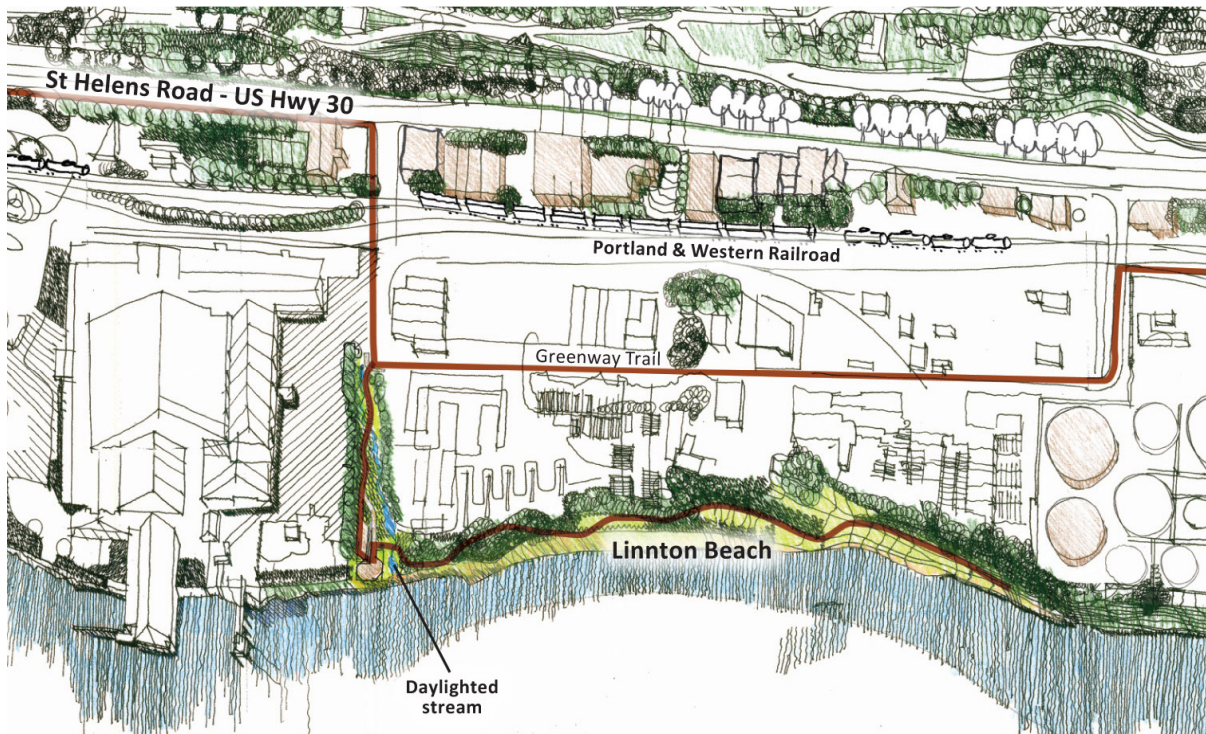
The Linnton waterfront will provide habitat for fish and wildlife and a place for the community to enjoy the river.

LINNTON VILLAGE AREA ACTION ITEMS

The following actions are recommended for this area. For more information see Appendix A: Action Agenda and Map 11: Recommended Action Items.

Project ID	Location	Project
W2	Linnton Parallel Water Main	Extend parallel water main as needed for site development
RS16	Linnton	Daylight stream mouths, create off-channel habitat fed by seasonal streams and provide connectivity, improve riverbanks, remove invasives and revegetate with native species
A10	NW Front Avenue	Build a bike lane and bike boulevard from NW. St. Helens Road at NW 107 th east on 107 th to NW Front, north on NW Front to NW 112 th and then west on 112 th to NW. St. Helens Rd.
A11	Linnton Beach Riverfront Trail	Acquire a trail easement and design and build a publicly accessible walking path (soft-surface) along the riverfront in Linnton generally between NW 107 th and NW 112 th .
A16	BNSF Railroad Bridge to Marina Way	Conduct feasibility studies to evaluate rail-with-trail proposals adjacent to the Portland and Western rail corridor
RC2	St Helens Road	Revitalize St Helens Road as a main street though the use of storefront grants and other tools
RC3	Linnton Rail Line	Work with Bureau of Transportation to pursue funding to analyze the potential for developing a whistle-free zone on the rail line through Linnton.

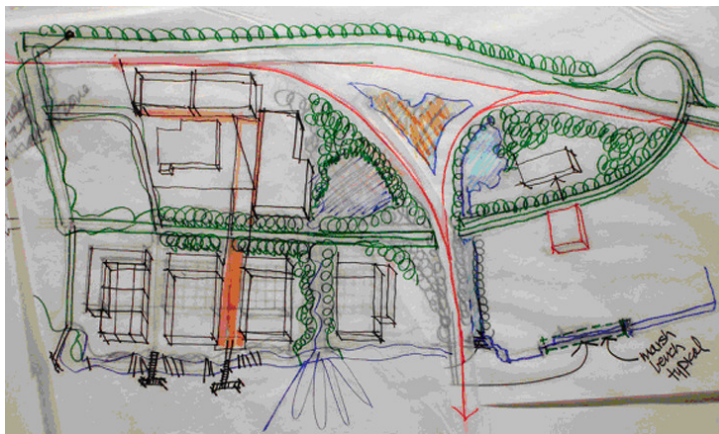
Illustration 7: The Future of the Linnton Village



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.

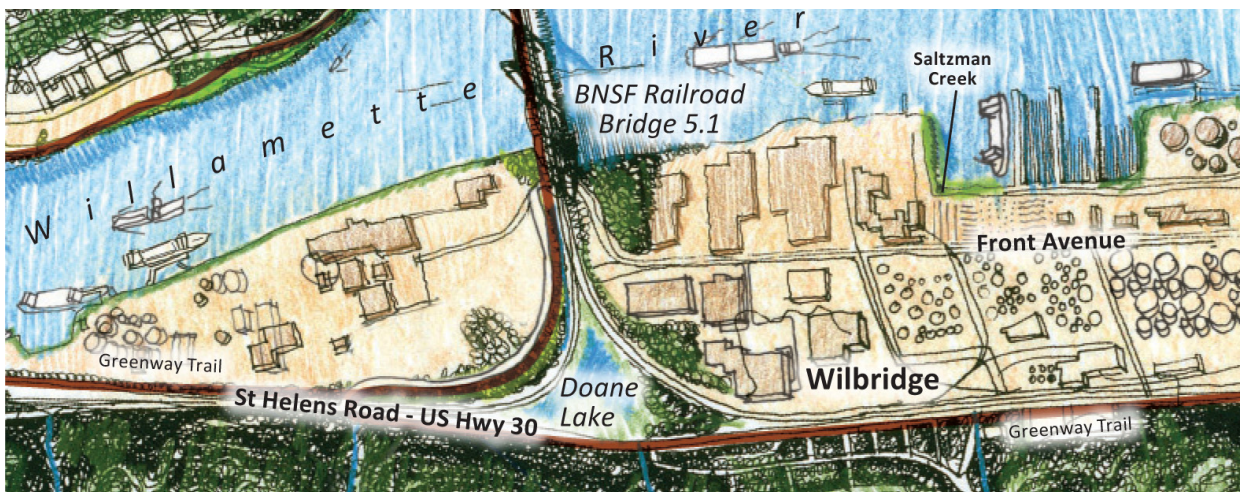
North Doane Lake, Doane Creek, and abutting upland areas provide significant habitat and will be conserved and restored to increase connectivity between Forest Park and the river. The confluences of the Willamette River with Saltzman Creek and Doane Creek will be enhanced to provide important refugia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

WILBRIDGE AREA ACTION ITEMS

The following actions are recommended for this area. For more information see Appendix A: Action Agenda and Map 11: Recommended Action Items.

Project ID	Location	Project
S10	US 30 access in Willbridge area	Construct an additional BNSF rail crossing connection between Front Avenue and Highway 30 near the closed Balboa crossing
SS6	Guild's Lake Pump Station	Install second electrical feed and control equipment, address impacts of Portsmouth Forcemain on downstream discharge
RS15	Transloader International	Daylight stream, revegetate stream mouth to create fish refugia at confluence area, acquire easement or property as necessary
RS14	Doane Creek	Daylight part of creek, establish passage under Front Avenue to enhance connectivity to Forest Park, revegetate and restore banks
RS13	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
A15	Railroad Bridge	Conduct a feasibility study to evaluate rail-with-trail proposals on the BNSF Railroad Bridge
A16	Rail-with-Trail to Linnton	Conduct a feasibility study to evaluate rail-with-trail proposals adjacent to the Portland and Western rail corridor

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 result in continued 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.



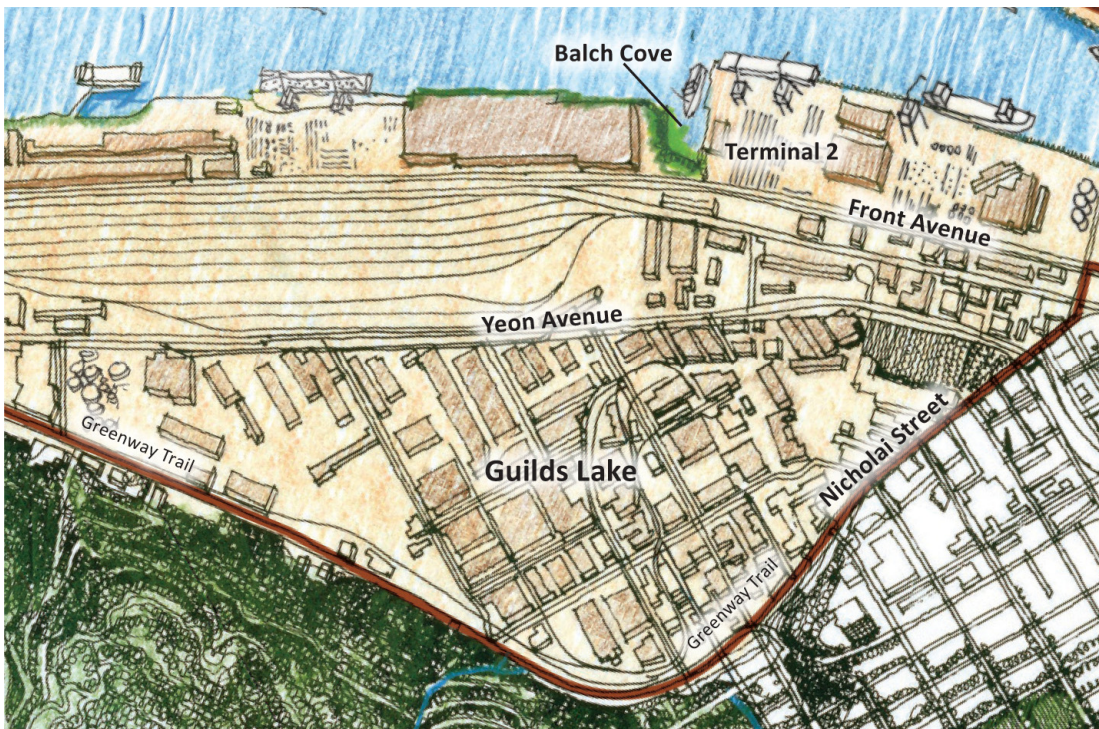
Guild's Lake is home to an interconnected infrastructure network with the convergence of harbor, rail, pipeline, and highway.

GUILD'S LAKE AREA ACTION ITEMS

The following actions are recommended for this area. For more information see Appendix A: Action Agenda and Map 11: Recommended Action Items.

Project ID	Location	Project
SS5	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
RS12	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
S1	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. Action Agenda
- B. Outreach Log
- C. Related Publications and Documents



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

APPENDIX A: Action Agenda

The Action Agenda contains specific recommendations for the North Reach grouped into five sections: Economic Prosperity, Watershed Health, Access, Riverfront Communities and Working with our Partners. The action items for each section are grouped into two categories, capital projects and additional projects and studies. Potential funding sources for the action items are also included in each section.

Many of the sections include:

- Unique project identification numbers that are also used elsewhere in the River Plan / North Reach
- Project descriptions
- Lead agencies (when known)
- Cost estimates (when available)
- Rankings based on criteria specific to that section
- Timeline for implementation (when known)

It is important that implementation of these action items is monitored periodically to ensure that the goals and recommendations of the River Plan / North Reach are being carried out.



Trail stakeholders review potential trail designs.

1. ECONOMIC PROSPERITY

The following Economic Prosperity action items implement the objectives found in the main part of Volume 1A. The first section lists capital improvement projects that could be implemented by the City or another entity. The projects are shown on Map 4. The second section lists additional studies and projects that the City will undertake. The third section lists potential funding sources to accomplish the actions.

Working Harbor Reinvestment Strategy

The Working Harbor Reinvestment Strategy (WHRS) was completed as part of the River Plan / North Reach to help establish a public-private investment partnership, support intergovernmental coordination and identify economic development priorities among the broad range of potential investments. The WHRS identifies a 10-year program of public investments to be supported by the City of Portland, Portland Development Commission and Port of Portland. These projects were selected as short-term investments that improve competitiveness or expand development capacity in the project area.

Ranking

WHRS staff applied the following criteria for selecting and prioritizing projects:

- Ratio of project costs to developable acres served
- Advances one or more of the top three business priorities identified in the Working Harbor Reinvestment Strategy business interviews
- Provides improved access to 20+ acre vacant sites
- Improves interregional access (regional or priority truck streets or regional rail or marine infrastructure)

If a project met at least three of the above criteria it is included in the River Plan / North Reach economic prosperity action agenda. All of the projects on this list are considered priority and are recommended for implementation within 10 years. However, six projects met all four criteria, and are therefore identified as high priority projects:

- H1 I-5 Delta Park - Widen to 6 lanes
- S1 Yeon/US 30 ITS - Interconnect signals and install CCTV and variable message signs
- S2 Going ITS - Interconnect signals; install CCTV cameras, message signs, and "smart" signal to better allocate green time
- B1 Going Street at Swan Island - Retrofit weight restricted bridge over UPRR
- B2 Lombard at Burgard - Replace weight restricted bridge
- R1 Kenton Line Upgrade - Upgrade to double track, new sidings

Priority in Existing Plans

If projects are prioritized on another capital project list, the priority level and list are identified here. RTP refers to the Regional Transportation Plan capital project list that is managed by Metro, and projects are expected to receive funding within the timeframe shown. FMP # identifies the priority tier level of projects in the City of Portland Freight Master Plan (2006). Sanitary sewer and stormwater projects are included in the City of Portland Capital Improvement Plan and are expected to receive funding within the timeframe shown.

Estimated Cost

The costs listed in the action item table are estimates obtained from the Federal 2035 Regional Transportation Plan (2007) and the City of Portland Freight Master Plan (2006).

A: Capital Improvement Projects					
Project ID	Project (Transportation System Plan#)	Description	Cost (\$M)	Priority in Existing Plans	Ranking
Highway			30		
H1	I-5 Delta Park (30023)	Widen to 6 lanes	Funded	Funded	High Priority
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	Priority
H3	I-5 Columbia River Crossing (30020)	Local share of Alternatives Analysis currently underway	TBD	FMP 1	Priority
Streets			40.7		
S1	Yeon/US 30 (Nicolai to St Johns Bridge) ITS (60023)	Interconnect signals and install CCTV and variable message signs.	0.89	RTP Priority 2008-17	High Priority
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	High Priority
S3	Lombard/St. Louis/Ivanhoe Improvements (30057, 30071)	Realign intersections to reinforce truck movements on truck streets, improve traffic, pedestrian circulation.	1.51	Funded	Priority
S4	Widen Lombard (T-6 to Rivergate) (30036)	Widen N Lombard Street, add signal at Ramsey Boulevard	Funded	Funded	Priority
S5	Columbia Blvd (I-205 - Burgard) ITS (30008)	Install CCTV and changeable message signs at intersections	0.42	RTP Priority 2008-17	Priority
S6	Rivergate ITS (30072)	Add intelligent transportation system equipment and connect to ODOT's highway communication systems	0.48	RTP Priority 2008-17	Priority
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	Priority
S8	Leadbetter Road Extension (30031)	Street extension and rail over crossing (Marine Drive loop)	Funded	Funded	Priority
S9	Columbia Blvd / N Portland Rd (30070)	Improve intersection to reinforce truck street movements and minimize neighborhood cut-through	0.7	FMP 1	Priority
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	FMP 1	Priority
S11	Going/Greeley Climbing Lane, Interchange (30016)	Redesign Going/Greeley interchange, construct climbing lane on Going.	2	FMP 1	Priority

A: Capital Improvement Projects (cont.)					
Project ID	Project (Transportation System Plan#)	Description	Cost (\$M)	Priority in Existing Plans	Ranking
Bridge			180.0		
B1	Going Street at Swan Island (30013)	Retrofit weight restricted bridge over UPRR.	Funded	RTP Priority 2008-17	High Priority
B2	Lombard at Burgard (30068)	Replace weight restricted bridge.	24.9	Funded	High Priority
B3	Denver Viaduct (30010)	Reconstruct viaduct to improve truck access to I-5 (Delta Park Phase 2 project).	46	RTP Priority 2008-17	Priority
B4	Lombard Street at Columbia Slough (30067)	Strengthen bridge and add sidewalks and bike lanes.	9.8	RTP Priority 2008-17	Priority
B5	West Hayden Crossing (30053)	Construct a new bridge to Hayden Island.	99.3	RTP Priority 2008-17	Priority
Marine			2.0		
M1	Columbia River Channel (10002)	Deepen the river channel to serve larger container ships	Funded	Funded	Priority
M2	Willamette River Channel	Maintenance dredging as recommended in Dredge Materials Management Plan.	2	Priority	Priority
Rail			114.9		
R1	Kenton Line Upgrade (40085)	Upgrade to double track, new sidings.	25.4	FMP 3	High Priority
R2	Vancouver Yard Bypass	Construct bypass track on west side of Vancouver Yard and W 39th bridge.	Funded	Funded	Priority
R3	Ramsey Rail Complex (30064)	Construct up to four tracks and one mainline to improve bottlenecks and increase storage capacity.	Funded	Funded	Priority
R4	Marine Drive (Rivergate W) Crossing, Phase 2 (30039)	Construct grade-separated rail crossing at Rivergate West entrance	13.6	RTP Priority 2018-25	Priority
R5	Penn Junction Realignment and Overcrossing (expand 30055)	Grade separation, track realignment, double-tracking, and signal upgrades to improve capacity.	26	FMP 2	Priority
R6	UP Line Connection (Brooklyn Line - Graham Line) (20093)	Add rail connection between the Brooklyn and Graham Lines to increase rail capacity.	15	FMP 1	Priority
R7	N Portland Junction Rail (30065)	Accommodate higher rail speeds	9.2	FMP 2	Priority
R8	South Rivergate Yard (30047)	Expand railroad yard to increase T-5 bulk capacity (Phase 1)	Funded	FMP 1	Priority

A: Capital Improvement Projects (cont.)					
Project ID	Project (Transportation System Plan#)	Description	Cost (\$M)	Priority in Existing Plans	Ranking
R9	Terminal 5 Unit Rail Loop #4 (30078)	Construct two additional loop tracks to increase rail storage capacity.	2.8	FMP 1	Priority
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	FMP 2	Priority
R11	UP Line Upgrade, Albina to E Portland (expand 20094)	Upgrade track to increase north-south speeds, extend to Willsburg Jct.	8.8	FMP 1	Priority
R12	Barnes to T-4 track (30062)	New dedicated track for T4 through Barnes Yard	1	FMP 1	Priority
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	Priority
Water			7.3		
W1	Burgard Loop Water Main	Add 12" water main along Simmons Rd or 16" water main along Burgard Road. Track opportunities to combine with Burgard Street improvement.	0.55	Priority	Priority
W2	Linnton Parallel Main	Extend parallel main as needed for site development	6.75	As needed	Priority
Sanitary Sewer and Stormwater			14.0		
SS1	Shipyards Pump Station	Increase capacity of Shipyards Pump Station near Burgard Rd.	2.7	2010-2014	Priority
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	Priority
SS3	Oregonian Pump Station	Upgrade old mechanical & electrical equipment, increase capacity to meet current & future demand.	0.3	2010-2014	Priority
SS4	Lombard Pump Station	Install second electrical feed and control equipment.	0.46	2008-2012	Priority
SS5	NW Neighborhoods Balch CSO Support Projects	Repair and replace old pipes, provide new capacity in combined system that will bring flows to the Balch CSO Consolidation Conduit (BCC).	8.6	2008-2012	Priority
SS6	Guilds Lake Pump Station	Install second electrical feed and control equipment, address impacts of Portsmouth Forcemain on downstream discharge.	0.5	2008-2012	Priority
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	Priority
SS8	Portland Harbor Superfund	Investigation, remediation to meet City/Port obligations	TBD	Priority	Priority
Total Capital Improvement Project Costs in millions			\$388.9		

B: Additional Studies and Projects				
Project ID	Project	Lead Org	Timeline	Ranking
EP1	Conduct a hydraulic/ hydrologic analysis evaluating implications of eliminating balanced cut and fill requirements.	BPS and BES	Start within 2 years	Priority
EP2	Develop a strategy to improve freight rail funding and service.	tbd	tbd	Priority
EP3	Implement the Harbor ReDI (Harbor Redevelopment Initiative) and develop strategies to address brownfield issues citywide.	PDC	Complete within 1 – 5 years	Priority
EP4	Prepare a small shipper rail strategy	Lead org tbd, OHWR	tbd	Priority
EP5	Investigate the feasibility of adding a regional rail yard	Lead org tbd, OHWR	tbd	Priority
EP6	Secure long-term transportation funding for upgrades, modifications, improvements to street, rail, shipping facilities.	PBOT	tbd	Priority
EP7	Develop a funding source for small projects that address freight deficiencies or improve site access and circulation.	PBOT	tbd	Priority
EP8	Evaluate alternatives and recommend a stormwater rate structure for large-site industrial areas	BES	tbd	Priority
EP9	North Willamette Crossing Study (2004 RTP#4016) - Increase priority in Regional Transportation Plan to study need for new US 30 to Rivergate bridge.	Metro	tbd	Priority

C: Potential Funding Sources			
	SOURCE	USE OF 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.	Funds generated from rates can only be used for actions that are directly related to the utility service. Limited public support for increasing Portland’s sanitary/stormwater rates, which are already among the highest in the country. Voluntary rounding up on utility bills has been identified as a funding strategy for the Grey to Green program.
	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 and the funds available through tax increment financing are diminishing. The only URA in the North Reach, the Willamette Industrial URA is not currently generating significant revenue.

LOCAL	Systems Development Charges (SDCs) <i>One-time fees charged at the time of development that reflect a share of the costs of increased demand on infrastructure.</i>	Capital improvements that increase infrastructure capacity and associated administrative costs	Projects must be adopted as part of a capital improvement program and address impacts of new growth. Parks SDC funds must be spent in the geographic region of the city where they were collected.
	Local Improvement Districts (LIDs) <i>Voluntary assessment district funds.</i>	Infrastructure planning and projects	LID funds can only be within the defined district area. 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.
	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>General obligation bonds, local option levies, Community Benefit Opportunity Grants and other sources.</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.
	Metro 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.
STATE	Department of Transportation Oregon Transportation Investment Act <i>Increase in gas taxes.</i>	Highway and bridge related projects	Limited to highways and bridges. Small likelihood of public support for gas tax increase at this time.
	Department of Transportation State Transportation Improvement Program	Transportation projects	Funding for <i>Regional Transportation Plan</i> (RTP) priorities. Many River Plan investments are recommended for inclusion in the RTP.
	ConnectOregon	Freight rail, marine and transit projects	Lottery funded, legislature authorized grant and loan program. Projects eligible for funding from State Highway Trust Fund are not eligible through ConnectOregon.
	Economic Development Grants and Loans	Economic development projects	
	Taxes <i>Real estate transfer tax.</i>	Transportation projects	Requires legislative authorization.
FEDERAL	U.S. Department of Transportation SAFETEA - LU	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.
	American Recovery & Reinvestment Act TIGER competitive grants, formula block grants, and other allocations.	Economic stimulus funding for infrastructure projects.	Projects must be shovel-ready. One time funding.
OTHER	Public/Private partnerships <i>e.g. PDC development agreements</i>	Infrastructure projects	Willing participants are needed.
	Highway tolls	Highway and bridge projects	Public sentiment against new user fees.

2. WATERSHED HEALTH

The following Watershed Health action items implement the objectives found in the main part of Volume 1A. The first section lists capital improvement projects that could be implemented by the City or another entity. The projects are shown on Map 6. The second section lists additional studies and projects that the City will undertake and, finally, the third section lists potential funding sources to accomplish the actions.

Ranking

The City ranked the projects in the following table based on the ranking criteria below. All of the projects have high ecological value for either aquatic or terrestrial species and will provide significant ecological improvements to the Lower Willamette when completed. Some of the project sites have existing habitat that needs protection and enhancement, while other projects such as river confluence areas, are degraded but provide the most important aquatic habitat for fish recovery. These rankings do not distinguish between those different ecological benefits. It is anticipated that lead organizations will try to act on the higher ranked action items first, but they will also take advantage of implementation opportunities as they arise, regardless of the ranking listed in this action agenda.

High

- can be done with existing funding or funding likely to be secured,
- there is a constituency and a lot of momentum behind the project, or
- contamination ranks 1 or 2

Medium

- funding not yet secured,
- there is a constituency and some momentum behind the project, or
- contamination ranks 2 or 3

Low

- funding not secured,
- there may or may not be momentum behind the project,
- lead organization is not yet identified, or
- contamination rank 4

Capital Improvement Projects

The Capital Improvement Projects found in this table are also shown on Map 6. Most of these projects could serve as either mitigation or restoration sites if the property owner is willing. Those that are only intended to serve as restoration sites are shown with an “R.” The lead City bureau for all restoration sites is the Bureau of Environmental Services (BES). Portland Parks and Recreation is also a lead City bureau in coordination with BES for Kelley Point Park and Willamette Cove.

Contamination

The Contamination rankings found in the table were developed by staff from the EPA, DEQ, and the City in an April 11, 2008 meeting using the following categories:

1 = Minimal or no known contamination. May require cleanup to occur in the short-term prior to acquisition and restoration. The clean up remedy will not limit restoration and there is no concern about contamination from adjacent properties entering the site.

2 = The extent of the contamination may require cleanup, which is likely to occur in the short-term prior to acquisition and restoration. Limited concern about contamination from adjacent properties entering the site.

3 = Significant contamination will require long-term, extensive cleanup prior to acquisition and restoration. Concern about contamination from adjacent properties entering the site.

4 = Significant contamination will require long-term, extensive cleanup. Concern about contamination from adjacent properties entering the site. The remedy will limit or eliminate the restoration potential of the site.

Estimated Cost

The following acquisition and restoration cost estimates were developed over the course of several years by BPS and BES.

Acquisition cost estimates included in the attached table show area and cost information for restoration sites that are in private ownership. The price per square foot is expected to vary from \$3 to \$8 per square foot for typical industrial land in this area. This range is based on research conducted for the *2004 Industrial Districts Atlas* and discussions with industrial real estate brokers in 2009. It is important to note that acquisition costs can also vary by site location, size, fair market value, and other factors. The acquisition cost for Sauvie Island is based on an estimate of \$0.15 to \$0.55 per square foot for agricultural land from the Multnomah County Assessor and farm sales information for the area.

To determine restoration cost estimates, potential restoration treatments were assigned to each site by Bureau of Environmental Services and Bureau of Planning and Sustainability staff based on a general project description. In total, 12 restoration treatment types were used.

Off-Channel Habitat	\$3 / square foot
Willamette Bank Restoration	\$1,500 / linear foot
Willamette Bank Enhancement	\$500 / linear foot
In-Channel Habitat	\$22.50 / square foot
Revegetation	\$1.15 / square foot
Berm Removal	\$1.85 / cubic foot
Removal of Structures	\$12 / square foot
Stream Daylighting	\$1,500 / linear foot
Tributary Enhancement	\$11 / square foot
Wetland Enhancement	\$0.20 / square foot
Stormwater Swale	\$50 / square foot
Floodplain Restoration	\$3 / square foot

A 75 percent contingency cost was added to the estimated restoration cost due to the low level of certainty about what the work will actually entail. This is a standard practice used by the City in the Capital Improvement Project process.

A management, monitoring and design fee multiplier of 90 percent was applied to the restoration cost estimate to cover elements of project design such as: project management; alternatives analysis report; engineering design; existing conditions, wetlands, and ordinary high water (OHW) boundary surveys; wetland delineation, OHW determination field work and reports; hydraulic and hydrologic report and modeling; archaeological survey and reporting; geotechnical site analysis and report; hydrology data collection (groundwater, stream flow data, etc.); sediment and water quality sampling and reporting (including Phase 1 report); permitting; construction outreach; and post construction such as as-built survey, long-term monitoring, and long-term maintenance.

Since these estimates assume a clean site, sites that are highly contaminated will either cost significantly more or won't be restored until cleanup has occurred.

A. Capital Improvement Projects									
Project ID	Name	Restoration/Mitigation Project (R) Restoration site only	Property Owner	Contamination		Estimated Cost			Ranking
				Water / Bank	Land	Acquisition (millions)	Restoration (millions)	Total (millions)	
RS1	Sauvie Island Properties	Enhance upland wetland and revegetate	Private	1	1	\$0.8 - \$3	\$16	\$17 - \$19	Medium
RS2	Kelley Point Park	Prepare a master plan for Kelley Point Park. Designate areas where appropriate to add large woody debris and boulders, revegetate with native species. (R)	City-Parks	Unknown	1	N/A	\$16	\$16	Medium
RS3	South Rivergate Corridor	Enhance wetlands, revegetate below powerlines and increase wildlife connectivity	Port, Private	2	1	\$10 - \$28	\$9	\$19 - \$37	H-M
RS4	Crown Cork/ Baltimore Woods	Maintain and enhance existing oak habitat, remove invasive species along the bluff, revegetate	Multiple Private	Unknown	Unknown	\$2 - \$6	\$2	\$4 - \$8	Medium
RS5	Mar Com Property	Create wetland habitat where conditions allow, treat stormwater outfall with swale outside of habitat area, improve riverbanks, revegetate	Port	3	2 - 3	\$0.05 - \$0.1	\$1	\$0.25-\$0.3	Low
RS6	Cathedral Park	Excavate for stormwater retention, create stormwater swale, vegetate with hydrophytes, add large woody debris. (R)	City-Parks	In-water 3; Bank 1	1	N/A	\$2	\$2	High
RS7	Willamette Cove	Create off-channel habitat, remove riprap, recreate shallow water habitat and floodplain, revegetate	Metro, City	3	1	N/A	\$11	\$11	High
RS8	University of Portland	Restore floodplain, expand shallow water habitat, regrade riverbanks, add complexity with wood and boulders, revegetate	University of Portland	3	2 - 3	\$3 - \$9	\$21	\$24 - \$30	Medium
RS9	Mock's Crest	Maintain and enhance oak habitat, remove invasive species	City, Private	1	1	\$3 - \$7	\$6	\$6	Medium
RS10	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, Port, Private	3	2 - 3	\$0.7 - \$2	\$2	\$3 - \$5	High
RS11	Swan Island Beaches	Remove riprap, add riparian vegetation	Port, City	In-water 3; Bank 2	Unknown	\$2 - \$5	\$5	\$7 - \$10	Medium

A. Capital Improvement Projects (cont.)									
Project ID	Name	Restoration/Mitigation Project (R) Restoration site only	Property Owner	Contamination		Estimated Cost			Ranking
				Water / Bank	Land	Acquisition (millions)	Restoration (millions)	Total (millions)	
RS12	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	Private, Port, City	3	Unknown	\$0.3 - \$0.7	\$4	\$4 - \$5	Medium
RS13	Saltzman Creek	Enhance confluence. Excavate and lay back steepened banks to increase shallow water habitat, revegetate banks and creek mouth.	Private	3+	3+	\$.2 - \$0.6	\$5	\$5 - \$6	Low
RS14	Doane Creek	Daylight part of creek, establish passage under Front Avenue, enhance connectivity to Forest Park, revegetate and restore banks	Private, City	Creek 3	South of Bridge 4	\$4 - \$10	\$17	\$21 - \$27	Medium
RS15	Transloader International	Daylight stream, revegetate stream mouth to create fish refugia at confluence area	Transloader International	2	2	\$0.06 - \$0.2	\$0.5	\$0.6 - \$0.7	Low
RS16	Linnton	Daylight stream mouths, create off-channel habitat fed by seasonal streams and provide connectivity, improve riverbanks, remove invasives and revegetate with native species.	Private	2 - 3	2	\$2 - \$5	\$8	\$12 - \$18	High-Medium
RS17	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	Owens Corning	2	2	\$1 - \$4	\$7	\$8 - \$11	Medium
RS18	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	PGE	2	1	\$9 - \$25	\$12	\$21 - \$37	Medium-Low
	Total					\$39 - \$105	\$143	\$181 - \$247	

B. Additional Studies and Projects				
<i>Project ID</i>	<i>Project</i>	<i>Lead Org</i>	<i>Timeline</i>	<i>Ranking</i>
WH1	Develop strategies to help increase tree canopy in the North Reach.	BPS, BES, Parks	Ongoing	High-Medium
WH2	Develop a River Restoration Program for the North Reach funded by development fees, the City's general fund and other sources.	BES, BPS	Complete within 1 year	High
WH3	Submit River Plan to advance compliance with Metro Title 3 and 13, as well as State and Federal mandates.	BPS	Upon plan adoption	High
WH4	Establish guidelines for low impact and eco industrial design through development of designs suitable for the North Reach.	BPS, OHWR	Start within 2 years	Medium
WH5	Develop regulations for the application of pesticides and herbicides in the river overlay zones.	BPS	Start within 2 years	Medium
WH6	Develop a certified mitigation bank to accept mitigation resulting from the River Plan / North Reach. This includes development of the mitigation banking instrument and restoration of site that can generate mitigation credits.	OHWR, BES, BPS	Provide a progress report to City Council within 2 years	High-Medium
WH7	Develop a mitigation bank certification process.	BES, OHWR, BPS	Complete within 1 year	High
WH8	Direct BES and OMF to establish an effective low interest loan financing program for ecoroofs.	OMF, BES	Complete within 2 years	Medium
WH9	Direct BES to develop ecoroof designs that provide habitat function in addition to stormwater function.	BES	Complete within 2 years	Medium
WH10	BES should convene a meeting with property owners who live along the bluff in N. Portland to provide information about how to safely plant and maintain vegetation on steep slopes.	BES	Complete within 2 years	High

C. Potential Funding Sources			
	SOURCE	USE OF SOURCE	OPPORTUNITIES/LIMITATION
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	Funds generated from rates can only be used for actions that are directly related to the utility service. Limited public support for increasing Portland's sanitary/stormwater rates which are already among the highest in the country. Voluntary rounding up on utility bills has been identified as a funding strategy for the Grey to Green Street improvement project.
	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	It varies where SDC funds can be spent depending on the type of SDC assessed. SDC funds must address impacts of new growth. 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.
	Portland Parks and Recreation Local share of Metro Natural Areas Bond Measure (2006)	Trail and park restoration projects	Funding is budgeted for natural area and trail corridor acquisition and restoration within Parks' managed natural areas. The Willamette Greenway is an acquisition target area.
	Local Improvement Districts (LIDs) <i>Voluntary assessment district funds.</i>	Infrastructure planning and projects	LIDs can only be spent in certain areas. 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.
	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.

Action Agenda – Watershed Health

REGIONAL	Port of Portland	Freight infrastructure and Port property improvements; restoration and cleanup	
	Metro 2006 Natural Areas Bond Acquisition Fund	Restoration projects, habitat acquisition, trail projects	The Willamette River Greenway is one of 27 regional target areas.
	Oregon Watershed Enhancement Board (OWEB) Grant Program	Acquisition, restoration, natural resource assessment and monitoring, education and outreach, Watershed Council support and technical assistance.	25% matching requirement. Funded by state lottery, salmon license plate revenue, federal grants and purchase of “salmon-friendly” power.
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.
	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.

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.

3. ACCESS

The following Access action items implement the objectives found in the main part of Volume 1A. The first section lists capital improvement projects that could be implemented by the City or another entity. The projects are shown on Map 8. The second section lists additional studies and projects that the City will undertake and finally the third section lists potential funding sources to accomplish the actions.

Ranking

The City ranked the projects based on the following ranking criteria. It is anticipated that lead organizations will try to act on the higher ranked action items first, but they will also take advantage of implementation opportunities as they arise, regardless of the ranking listed in this action agenda.

High

- funding likely to be secured,
- timeline is 0-5 years,
- there is a constituency and a lot of momentum behind the project, or
- the project will serve “many” people

Medium

- funding not yet secured,
- timeline is 5-10 years, or
- there is a constituency and some momentum behind the project

Low

- funding not secured,
- timeline is 10-20 years, or
- there may or may not be momentum behind the project

A. Capital Improvement Projects				
<i>Project ID</i>	<i>Area</i>	<i>Project</i>	<i>Lead Organization</i>	<i>Ranking</i>
A1	St. Johns Landfill to Chimney Park	Design and build a bicycle/pedestrian crosswalk across Columbia Boulevard allowing a safe connection between the St. Johns Landfill and Chimney Park.	PBOT	High
A2	Chimney Park to Pier Park	Build a bicycle/pedestrian bridge over the railroad tracks connecting Chimney Park and Pier Park.	Metro and Portland Parks	High
A3	Pier Park at N. Lombard Street and N. Bruce Avenue	Design and build a bicycle/pedestrian crosswalk at N. Lombard Street and N. Bruce Avenue.	PBOT	Medium
A4	N. Lombard Street to N. Decatur Street	Acquire an easement for an off-street trail between N. Lombard Street and N. Decatur street and then design and build a bicycle/pedestrian trail connecting Pier Park to N. Decatur Street at N. Catlin Street. Incorporate a river viewpoint in the design of the trail.	Metro (<i>for easement</i>) and Portland Parks (<i>for trail and viewpoint development</i>)	Acquisition - High Design/Build - Medium

A. Capital Improvement Projects (cont.)				
<i>Project ID</i>	<i>Area</i>	<i>Project</i>	<i>Lead Organization</i>	<i>Ranking</i>
A5	N. Decatur Street at N. Catlin Street to Cathedral Park	Build a bike boulevard along N. Decatur Street to Cathedral Park.	PBOT	Medium
A6	N. Baltimore between N. Decatur and Cathedral Park	Build a bike boulevard along N. Baltimore to Cathedral Park.	PBOT	Medium
A7	Steel Hammer Property (Lampros Steel)	Acquire a trail easement and then design and build a bicycle/pedestrian trail that extends the trail on the BES water lab site to the Willamette Cove property to the south.	Metro (<i>for easement</i>) and Portland Parks (<i>for trail development</i>)	Acquisition - High Design/Build - Medium
A8	Willamette Cove	Design and build a bicycle/pedestrian trail that connects the trail on the Steel Hammer site to N. Edgewater Street, the McCormick/Baxter site, and the Peninsula Crossing Trail.	Metro and Portland Parks	Medium
A9	Waud Bluff	Design and build a trail connecting N. Willamette Blvd near the University of Portland to N. Basin on Swan Island. Design will include a bridge over the railroad tracks.	Portland Parks	High (in design)
A10	NW Front Ave in Linnton between 107th Avenue & 112th Avenue	Build a bike lane and bike boulevard from NW. St. Helens Road at NW 107 th east on 107 th to NW Front, north on NW Front to NW 112 th and then west on 112 th to NW. St. Helens Rd.	PBOT	Low
A11	Linnton Beach Riverfront Trail	Acquire a trail easement and design and build a publicly accessible walking path (soft-surface) along the riverfront in Linnton generally between NW 107 th and NW 112 th .	Portland Parks	Low

B. Additional Studies and Projects				
<i>Project ID</i>	<i>Area</i>	<i>Project</i>	<i>Lead Organization</i>	<i>Ranking</i>
A12	Cathedral Park	Implement the City Council endorsed Cathedral Park Master Plan.	Portland Parks	Medium
A13	Mocks Crest Trail	Study the feasibility of when and how to design and build a bicycle/pedestrian trail connecting N. Willamette Blvd. and N. Basin on Swan Island.	Portland Parks	Low

A14	Between N. Port Center Way on Swan Island and N. River Street in Lower Albina	Complete the North Portland Greenway Master Plan. Include a bicycle/pedestrian connection between Swan Island and the Lower Albina industrial area in the planning. Build on the right-of-way design alternatives identified in the Swan Island/Lower Albina Transportation Feasibility Study conducted for the River Plan by Alta Planning and Design.	Portland Parks	High
A15	Railroad Bridge	Conduct a study to evaluate the feasibility of building a bicycle/pedestrian facility adjacent to the BNSF Railroad Bridge (design similar to the Esplanade Trail adjacent to the Steel Bridge).	PBOT	Low
A16	Between the Railroad Bridge and the City Limits North of Linnton	Conduct a study to evaluate the feasibility of building an off-street bicycle/pedestrian trail between the BNSF railroad bridge and the city limits north of Linnton. Options to explore include building a bicycle/pedestrian rail-with-trail within or adjacent to the Portland and Western rail corridor and cantilevering a separated bicycle/pedestrian path adjacent to NW. St. Helens Rd.	Portland Parks	Low
A17	Willamette River North Reach	Work with Metro to include all segments of the near-term and long-term Willamette Greenway Trail alignment in the Regional Trail Plan.	Parks	High
A18	Willamette River North Reach	Provide signage along the greenway trail with a distinctive graphic framework to inform the public about the Willamette River, the greenway trail, restoration activities and Portland's working harbor.	OHWR, Portland Parks	Medium-High
A19	Linnton	Conduct study exploring alternative designs for community access in Linnton along the NW 107 th Ave right of way from Highway 30/St. Helens Road to the riverbank. The connection should be compatible with rail and industrial operations, and the study should include evaluation of an elevated connection.	Portland Parks, PBOT	Medium

C. Potential Funding Sources			
	SOURCE	USE OF SOURCE	OPPORTUNITIES/ LIMITATIONS
LOCAL	General Fund <i>Funds collected from property taxes.</i>		General funds are discretionary and allocated by the City Council among competing needs.
	Portland Parks and Recreation Local share of Metro Natural Areas Bond Measure (2006)	Trail and park restoration projects	Funding is budgeted for natural area and trail corridor acquisition and restoration within Parks' managed natural areas. The Willamette Greenway is an acquisition target area.

LOCAL	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 parks and transportation infrastructure from a particular development.</i>	Capital improvements that increase capacity of parks or transportation infrastructure and associated administrative costs.	<p>SDC funds are limited to capital improvements and cannot be used for ongoing maintenance. Projects must be adopted as part of the SDC Capital Improvement Program and address impacts of new growth.</p> <p>Parks SDC funds must be spent in the geographic region of the city where they were collected.</p>
REGIONAL	Metro <i>Natural area bond measure</i>	Land acquisition and easements to fill in gaps in the regional trail network and other trail improvement projects. Grants for local community projects that preserve or enhance natural features on public lands.	The Willamette Greenway is an acquisition target area. Grant projects must have matching fund.
	Metro <i>Metropolitan Transportation Improvement Program (MTIP)</i>	Regional transportation improvements	Funding for <i>Regional Transportation Plan</i> (RTP) priorities. Many River Plan investments are recommended for inclusion in the RTP.
STATE	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	
FEDERAL	U.S. Department of Transportation <i>SAFETEA - LU</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.
	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.
PRIVATE/ NON PROFIT	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	

4. RIVERFRONT COMMUNITIES

The following Riverfront Communities action items implement the objectives found in the main part of Volume 1A. The first section lists studies and projects that the City will undertake. The projects are shown on Maps 9 and 10. The second section lists potential funding sources to accomplish the actions.

Ranking

The City ranked the projects based on the following ranking criteria. It is anticipated that BPS will complete high priority action items first, but staff will also take advantage of opportunities as they arise, regardless of the priority listed in this action agenda.

High

- funding likely to be secured or can be done with existing funding, or
- there is a constituency and a lot of momentum behind the project

Medium

- funding not yet secured, or
- there is a constituency and some momentum behind the project

Low

- funding not secured,
- there may or may not be momentum behind the project, or
- Lead organization is not yet identified

B: Additional Studies and Projects					
<i>Project ID</i>	<i>Area</i>	<i>Project</i>	<i>Lead Org</i>	<i>Timeline</i>	<i>Ranking</i>
RC1	Linnton	Work with the Linnton community to develop an action program to improve the vitality of the Linnton village, including establishing access to the river and identifying and recruiting appropriate industrial uses that are compatible with existing nearby residences.	BPS	Start within 2 years	Medium
RC2	Linnton	Work with the Linnton community to apply for a Portland Development Commission storefront improvement grant to help revitalize the main street portion of the commercial district on St. Helens Road.	BPS	Start within 1 year	High
RC3	Linnton	Work with Bureau of Transportation to pursue funding to analyze the potential for developing a whistle-free zone on the rail line through Linnton.	BPS	Start within 2 years	Medium
RC4	Cathedral Park and St. Johns	Work with the Bureau of Transportation and the Port of Portland to pursue funding opportunities for the improvements needed to establish a whistle-free zone in Cathedral Park.	BPS	Start within 2 years	High
RC5	Citywide	Work with the City of Portland Noise Office to further develop citywide policies regarding residential development in and near industrial and employment zones.	BPS	Start within 2 years	Medium

C: Potential Funding Sources			
	SOURCE	USE OF 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.
REGIONAL	Port of Portland	Freight infrastructure and Port property improvements; restoration and cleanup	
PRIVATE/ NON PROFIT	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	

5. WORKING WITH OUR PARTNERS

The following Working with our Partners action items implement the objectives found in the main part of Volume 1A. The first section lists studies and projects that the City will undertake. The second section lists potential funding sources to accomplish the actions.

Ranking

The City ranked the projects based on the following ranking criteria. It is anticipated that lead organizations will try to act on the higher ranked action items first, but they will also take advantage of implementation opportunities as they arise, regardless of the ranking listed in this action agenda.

High

- Can be done with existing funding or funding likely to be secured, or
- there is a constituency and a lot of momentum behind the project

Medium

- funding not yet secured, or
- there is a constituency and some momentum behind the project

Low

- funding not secured,
- there may or may not be momentum behind the project, or
- Lead organization is not yet identified

B: Additional Studies and Projects				
<i>Project ID</i>	<i>Recommendation</i>	<i>Lead Org</i>	<i>Timeline</i>	<i>Ranking</i>
WP1	Create an optional Willamette River Early Project Review pilot process for projects in the Portland Harbor that require approval from city, state and federal resource agencies.	OHWR, BDS	Start upon plan implementation	High
WP2	Train BDS planners who are assigned to Willamette River permitting in industrial issues, interjurisdictional permitting and clean-up of contaminated sites.	OHWR, BPS, BDS	Start within 1 year	High
WP3	Assign and fund a staff person at BES to act as a scientific consultant to BDS as needed during the City river review process. This service could be formalized through an inter-bureau agreement.	BES, BDS	Start within 1 year	High
WP4	Create a guidance document that clearly states the City's substantive requirements for cleanup activities. Work with DEQ to distribute the document.	BPS, OHWR, BDS	Complete within 1 year	High
WP5	Work with DEQ to identify a clearly defined role for City involvement in clean-ups that implement the River Plan / North Reach's substantive requirements.	BDS, OHWR, BES	Complete prior to code implementation	High
WP6	Continue to comment on DEQ and EPA cleanup activities. Allocate additional funding as needed.	BDS, BES, OHWR	Ongoing	High
WP7	Provide the River Plan / North Reach 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.	BPS, BES, OHWR, City Attorney	Upon plan adoption	High
WP8	Continue soliciting and coordinating City comments on the Portland Harbor Superfund cleanup activities.	BES	Ongoing	High
WP9	Increase the frequency and depth of communication with Tribal governments.	Mayor's Office, OHWR	Ongoing	High

B: Additional Studies and Projects (cont.)				
<i>Project ID</i>	<i>Recommendation</i>	<i>Lead Org</i>	<i>Timeline</i>	<i>Ranking</i>
WP10	Ensure communication and collaboration among river-related local governments, agencies, organizations, industries and citizens in the Lower Willamette River.	OHWR, BES	Start within 2 years	Medium
WP11	Work with other agencies and organizations to establish and maintain engagement focused on the North Reach Neighborhoods.	OHWR	Start within 6 months	High
WP12	Develop a North Reach Advisory Committee to evaluate implementation of the River Plan / North Reach.	OHWR	Start within 1 year	High
C: Potential Funding Sources				
	SOURCE	USE OF 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	Funds generated from rates can only be used for actions that are directly related to the utility service. Limited public support for increasing Portland's sanitary/stormwater rates which are already among the highest in the country. Voluntary rounding up on utility bills has been identified as a funding strategy for the Grey to Green Street improvement project.	
	Other <i>General obligation bonds, local option levies, Community Benefit Opportunity Grants and other sources.</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.	
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.	
	Oregon Watershed Enhancement Board (OWEB) Grant Program	Acquisition, restoration, natural resource assessment and monitoring, education and outreach, Watershed Council support and technical assistance.	25% matching requirement. Funded by state lottery, salmon license plate revenue, federal grants and purchase of "salmon-friendly" power.	
FEDERAL	Environmental Protection Agency National Watershed Initiative Target Grants	Research and restoration projects, infrastructure and cleanup	Funding priorities vary year to year.	
PRIVATE/NON-PROFIT	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.	

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 Dotterrer, 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	
10/28/08	Planning Commission Briefing	Edmunds, Buono, Sperry, Hale	20+	
10/29/08	Friends of Baltimore Woods Advisory Group	Sperry	20	
11/03/08	River Plan / North Reach Open House	Edmunds, Campbell, Jortner, Buono, Sperry, Leech, Hale, Kountz	12	X
11/07/08	River Plan / North Reach Mailing		2117	
11/12/08	Noise Review Board	Sperry	6	
11/13/08	Planning Commission boat tour	Kelley, Campbell, Alice Ann Wetzel	~15	
11/14/08	River Plan / North Reach Mailing		479	
11/19/08	River Plan / North Reach Open House	Edmunds, Campbell, Jortner, Buono, Sperry, Hale	20	X
12/02/08	Industrial Stakeholders	Edmunds, Buono, Sperry, Campbell, Engstrom, Kountz	8	
12/03/08	River Plan / North Reach Open House	Edmunds, Campbell, Brooks, Buono, Sperry, Leech, Hale	25	X
12/09/08	Planning Commission Hearing	Edmunds, Campbell, Buono, Sperry, Kountz, Jortner, Hale, Engstrom	30+	X
12/11/08	Oregon Dpt. Of Land Conservation and Development	Edmunds, Buono, Jortner	1	
12/17/08	Corey Lerner	Buono	1	
12/17/08	Natural Resource Trustees	Edmunds, Campbell, Buono	20	
12/30/08	Bob Sallinger	Edmunds, Campbell, Buono	2	
12/31/08	Army Corps of Engineers	Edmunds, Campbell, Buono	2	

Date	Organization / Event	Planning Staff	Attendance	Noticed in River Plan News
01/06/09	Central Eastside Industrial Council	Edmunds, Buono, Hale	15	
01/07/09	Port of Portland	Buono	2	
01/09/09	Friends of Baltimore Woods Advisory Group	Sperry	20	
01/09/09	John Soresz - Property site visit	Buono, Brooks	1	
01/09/09	Siltronic Corporation	Edmunds, Campbell, Buono, Brooks	2	
01/12/09	Paul Scarlett – Property site visit	Edmunds, Buono, Brooks	2	
01/13/09	Planning Commission Hearing	Edmunds, Campbell, Brooks, Buono, Sperry, Hale, Koski, Kountz	20+	X
01/23/09	Oregon Dpt. Of Land Conservation and Development	Edmunds, Buono	1	
01/26/09	Corky Collier – Property site visit	Buono, Brooks	1	
01/28/09	Siltronic Corporation	Edmunds, Campbell, Engstrom	5	
01/30/09	Oregon Dpt. Of Land Conservation and Development	Edmunds, Kountz, Wetzel	2	
02/03/09	Union Pacific Railroad	Edmunds, Buono	2	
02/03/09	Port of Portland	Edmunds, Campbell, Kountz, Zehnder, Dotterrer	5	
02/04/09	Oregon Department of State Lands	Edmunds	2	
02/05/09	Fee Workshop	Edmunds, Campbell, Engstrom, Buono, Kountz	10	
02/06/09	League of Women Voters	Edmunds, Hale, Koski	17	
02/11/09	Fee Workshop	Edmunds, Campbell, Engstrom, Buono, Kountz	7	
02/24/09	Planning Commission	Edmunds, Engstrom, Campbell, Sperry, Buono, Hale, Kountz, Brooks, Jortner, Koski	40	X
03/11/09	River Plan / North Reach Mailing		73	
03/13/09	River Plan / North Reach Mailing		1	
03/13/09	Interagency Meeting	Edmunds, Engstrom, Campbell, Buono, Sperry	6	
03/17/09	Audubon Society	Edmunds, Hale	1	
03/17/09	Terry Carney – Property Site Visit	Brooks, Buono	1	
03/18/09	Port of Portland	Edmunds, Hale	1	
03/20/09	Siltronic Corporation	Edmunds, Campbell, Hale, Eden Dabbs	7	
03/23/09	Audubon Society	Susan Anderson, Engstrom, Jortner	3	
03/24/09	Planning Commission	Edmunds, Engstrom, Buono, Brooks, Sperry, Kountz, Hale, Koski	14	X
03/30/09	Siltronic Corporation	Edmunds, Campbell, Hale, Kountz, Brooks	8	
03/31/09	Working Waterfront Coalition	Edmunds, Engstrom, Campbell	2	
04/01/09	Interagency Meeting	Edmunds, Campbell, Buono	10	
04/01/09	Audubon Society	Edmunds, Engstrom, Campbell	1	
04/02/09	OSALT – Property Site Visit	Brooks, Buono	1	
04/03/09	Corey Larner	Buono	2	

Date	Organization / Event	Planning Staff	Attendance	Noticed in River Plan News
04/06/09	npGreenway	Edmunds, Buono	2	
04/06/09	Siltronic Corporation	Campbell	5	
04/07/09	Natural Resource Trustees	Edmunds	21	
04/07/09	Port of Portland	Edmunds, Kountz, Engstrom	5	
04/07/09	Harbor Redi	Campbell, Buono	17	
04/08/09	Port of Portland	Edmunds, Campbell, Engstrom	3	
04/08/09	Corky Collier	Edmunds, Brooks, Buono	1	
04/14/09	Planning Commission	Edmunds, Engstrom, Campbell, Buono, Hale, Koski, Kountz, Sperry, Brooks	~25	X
04/15/09	Hanson RM, Inc.	Edmunds	1	
04/17/09	Siltronic Corporation	Engstrom, Campbell, Hale	5	
04/22/09	Siltronic Corporation	Edmunds, Engstrom, Campbell, Hale	5	
04/22/09	Debbie Deetz Silva	Kountz	1	
04/24/09	Siltronic Corporation	Edmunds, Engstrom, Campbell, Hale	5	
04/28/09	Siltronic Corporation	Edmunds, Engstrom, Campbell, Hale	7	
04/29/09	Interagency Meeting	Edmunds, Buono, Koski	9	
05/04/09	Debbie Deetz Silva	Edmunds, Sperry, Buono	1	
05/05/09	Port of Portland	Edmunds, Engstrom, Kountz	8	
05/12/09	Planning Commission	Edmunds, Engstrom, Brooks, Buono, Sperry, Kountz, Hale, Koski	19	X
05/18/09	Working Waterfront Coalition	Edmunds, Engstrom, Buono	2	
05/18/09	Audubon Society	Engstrom, Edmunds, Buono	1	
05/19/09	Harbor ReDI Steering Committee	Kountz		
05/19/09	Siltronic Corporation	Campbell, Engstrom, Edmunds, Hale	13	
05/20/09	Baltimore Woods EG2 Zone Stakeholder Meeting	Sperry	17	
05/20/09	Willamette Cove Trail Planning	Edmunds	10	
05/22/09	Harbor ReDI Boat Tour	Edmunds, Engstrom, Kountz, Hale	~20	
05/22/09	Interagency/ stakeholder meeting	Edmunds, Buono, Engstrom, Campbell	13	
05/22/09	Doug Polk	Sperry, Stein	1	
05/26/09	Planning Commission	Edmunds, Engstrom, Campbell, Brooks, Buono, Sperry, Kountz, Hale, Koski	13	X
05/28/09	Interagency/stakeholder meeting	Edmunds, Buono, Engstrom, Campbell	8	
06/02/09	Working Waterfront Coalition	Edmunds, Buono, Engstrom, Campbell	2	
06/02/09	Port of Portland	Edmunds, Engstrom, Campbell, Kountz	4	
06/09/09	US Fish and Wildlife	Edmunds, Campbell, Engstrom	3	
06/11/09	Siltronic Corporation	Edmunds, Campbell, Hale	12	
06/12/09	Site Visit - Siltronic Corporation	Edmunds, Brooks, Hale	5	

Date	Organization / Event	Planning Staff	Attendance	Noticed in River Plan News
06/15/09	Siltronic Corporation	Edmunds, Hale	6	
06/16/09	Siltronic Corporation	Edmunds, Campbell, Hale	8	
06/17/09	River Plan/North Reach Listening Post	Edmunds, Buono, Engstrom, Campbell, Brooks, Kountz, Hale, Koski, Sperry	13	X
06/23/09	Planning Commission	Edmunds, Engstrom, Campbell, Brooks, Buono, Sperry, Kountz, Hale, Koski	~20	X
07/07/09	Portland Business Alliance	Engstrom	~25	
07/07/09	Port of Portland	Engstrom, Dotterrer, Kountz	4	
07/09/09	Development Review Advisory Committee	Engstrom	24	
08/22/09	Riverfest	Edmunds, Buono, Mieke Keenan	~75	
7/23/09	Siltronic Corporation	Edmunds, Campbell, Hale	8	
7/30/09	Union Pacific Railroad	Edmunds, Buono	2	
8/04/09	Port of Portland	Edmunds, Kountz, Campbell, Engstrom, Dotterrer	4	
8/05/09	Gunderson Inc.	Edmunds, Campbell, Buono	3	
8/11/09	Hanson RM	Edmunds	3	
8/12/09	Mayor's Stakeholder Meeting	Edmunds, Campbell, Engstrom, Buono	14	
8/13/09	Ben Jacklett - Oregon Business Magazine	Edmunds, Dabbs, Campbell	8	
8/20/09	Wildlands, Inc	Edmunds	10	
8/22/09	Riverfest	Edmunds, Buono, Mieke Keenan	~75	
8/24/09	Barbara Quinn, Virginia Bowers	Edmunds, Buono	5	
8/24/09	Steve Pfeiffer and Krista Kohl	Edmunds, Buono	3	
8/25/09	Siltronic Corporation	Edmunds, Campbell, Brooks	6	
8/26/09	Friends of Baltimore Woods and property owners	Edmunds, Buono	5	
8/28/09	Port of Portland	Edmunds, Buono, Campbell	7	
9/9/09	Mayor's Stakeholder Meeting	Edmunds, Buono, Campbell, Engstrom	18	
9/10/09	Siltronic Corporation	Edmunds, Campbell, Brooks, Hale	7	
9/23/09	Siltronic Corporation	Edmunds, Campbell, Brooks, Hale	7	
9/23/09	Hanson RM	Edmunds	1	
10/01/09	Freight Committee	Edmunds, Buono, Kountz	~20	
10/01/09	Weston Solutions	Edmunds	3	
10/6/09	Mayor's Stakeholder Meeting	Edmunds, Zehnder, Engstrom, Buono, Hale	23	
10/06/09	Port of Portland	Zehnder, Engstrom, Kountz	4	
10/7/09	Siltronic Corporation	Campbell, Brooks, Buono, Hale	6	
10/12/09	Jeff Joslin	Edmunds	1	
10/13/09	Northwest Industrial Neighborhood Association	Edmunds, Buono, Kountz	22	
10/15/09	Working Waterfront Coalition	Zehnder, Edmunds	2	
10/16/09	Andy Giegerich – Portland Business Journal	Edmunds, Engstrom, Kountz	4	

Date	Organization / Event	Planning Staff	Attendance	Noticed in River Plan News
10/16/09	Audubon Society	Edmunds, Zehnder, Buono	2	
10/22/09	Metro	Edmunds, Jortner	1	
10/22/09	Mayor's Stakeholder Meeting	Edmunds, Buono, Campbell, Hale, Engstrom, Marisol Caron	21	
10/22/09	Siltronic Corporation	Edmunds, Campbell, Buono, Brooks, Hale	8	
10/23/09	Portland and Western Railroad	Edmunds, Buono	2	
10/27/09	Russellville Park Retirement Community	Edmunds, Hale	15	
10/30/09	Siltronic Corporation	Edmunds, Campbell, Hale	10	
11/03/09	Port, Working Waterfront Coalition	Edmunds, Buono, Caron	3	
11/04/09	Linnton Neighborhood Association	Edmunds	28	

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



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

Media Coverage Referencing the River Plan / North Reach

- “Waterfront development plan hits muddy waters” Portland Business Journal (September 18, 2009)
- “Irate businesses protest fees in city’s River Plan” Portland Business Journal (July 31, 2009)
- “Exorbitant fees mar River Plan” Portland Business Journal (July 31, 2009)
- “River Plan Draws Groans” Portland Tribune (July 2, 2009)
- “Portland has new plan for Portland Harbor section of Willamette River” The Oregonian (June 29, 2009)
- “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)



River Plan staff talk with stakeholders about the River Plan / North Reach at an open house.

APPENDIX C: 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 www.portlandonline.com/bps/riverplan, unless otherwise noted. All documents were produced by Bureau of Planning and Sustainability 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

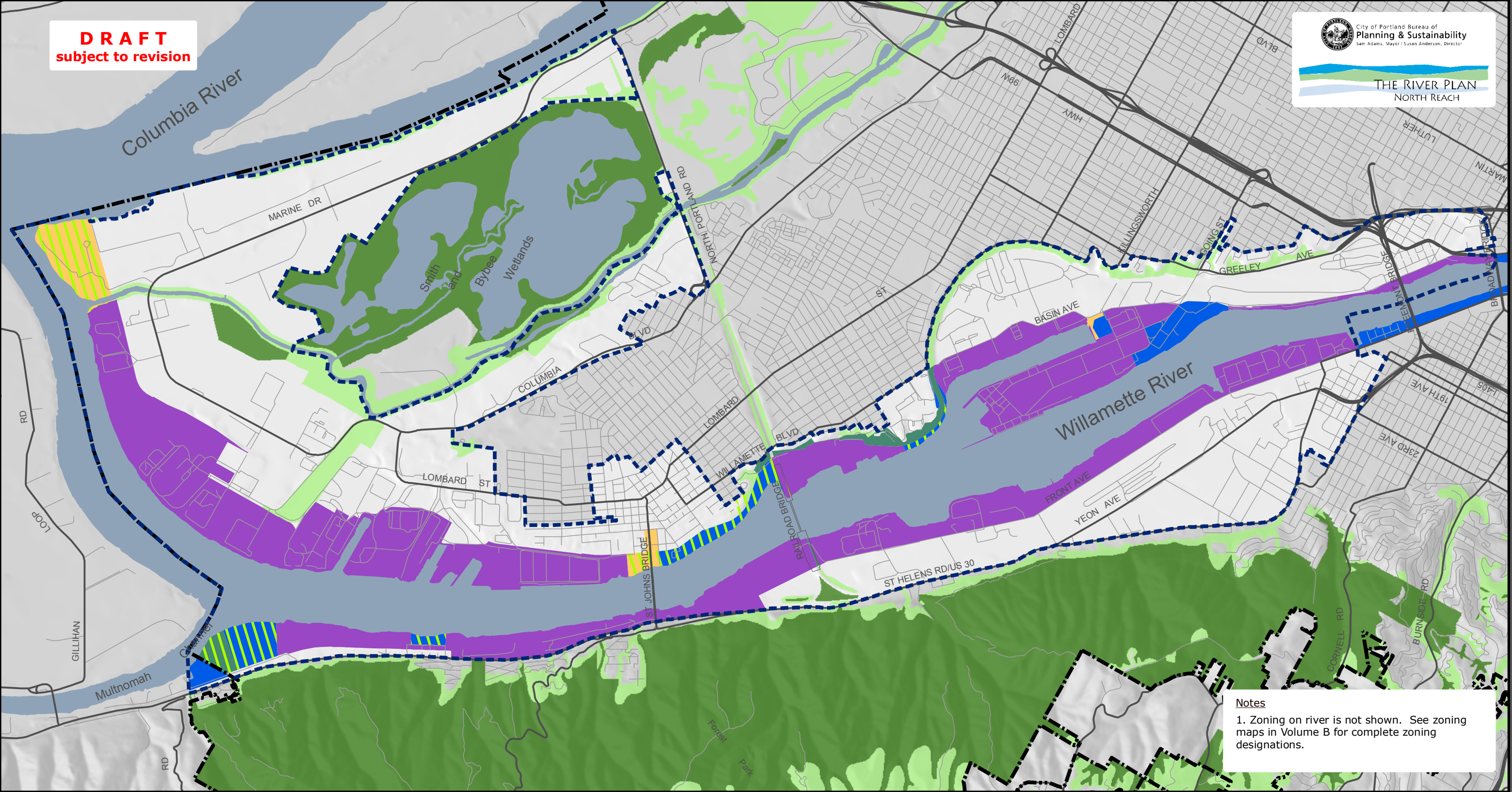


City of Portland Bureau of
Planning & Sustainability
Sam Adams, Mayor | Susan Anderson, Director














THE RIVER PLAN
NORTH REACH

Map #1: Existing Overlay Zones



Notes
1. Zoning on river is not shown. See zoning maps in Volume B for complete zoning designations.

legend

- | | | | |
|--|--|--|---|
|  north reach boundary |  environmental conservation (c) |  river industrial (i) |  river general (g) |
|  Portland city boundary |  environmental protection (p) |  river recreational (r) |  river natural (n) |
| |  |  |  river water quality (q) |

November 2009

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







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Map #2: Proposed Overlay Zones

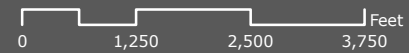
Sheet #1 of 2

legend

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

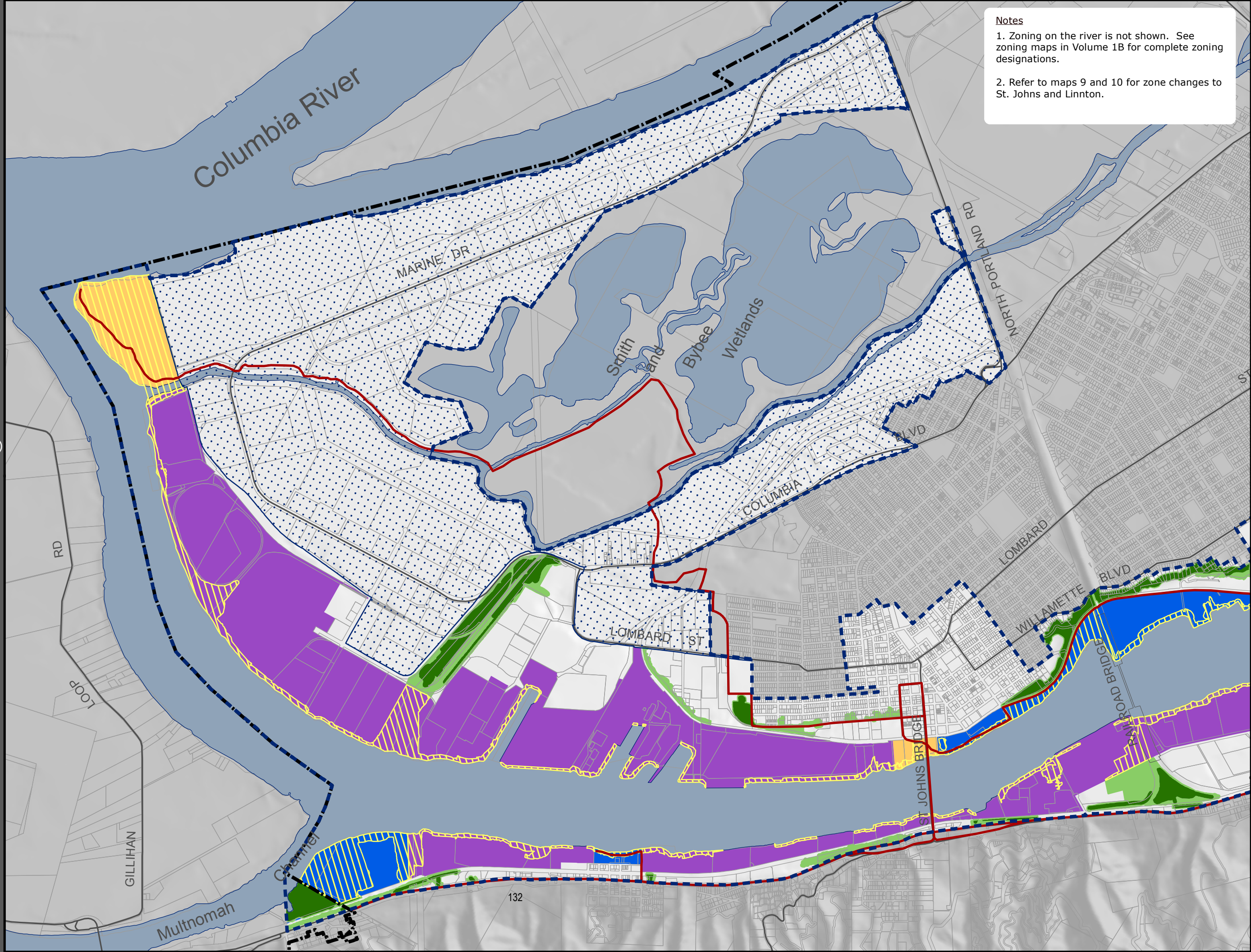
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Notes

1. Zoning on the river is not shown. See zoning maps in Volume 1B for complete zoning designations.
2. Refer to maps 9 and 10 for zone changes to St. Johns and Linnton.



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River Plan / North Reach

Map #2: Proposed Overlay Zones

Sheet #2 of 2

legend

- areas not evaluated for overlay zone changes
- north reach boundary
- trail alignment
- Portland city boundary

river overlay zones

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

environmental overlay zones

- environmental conservation (c)
- environmental protection (p)

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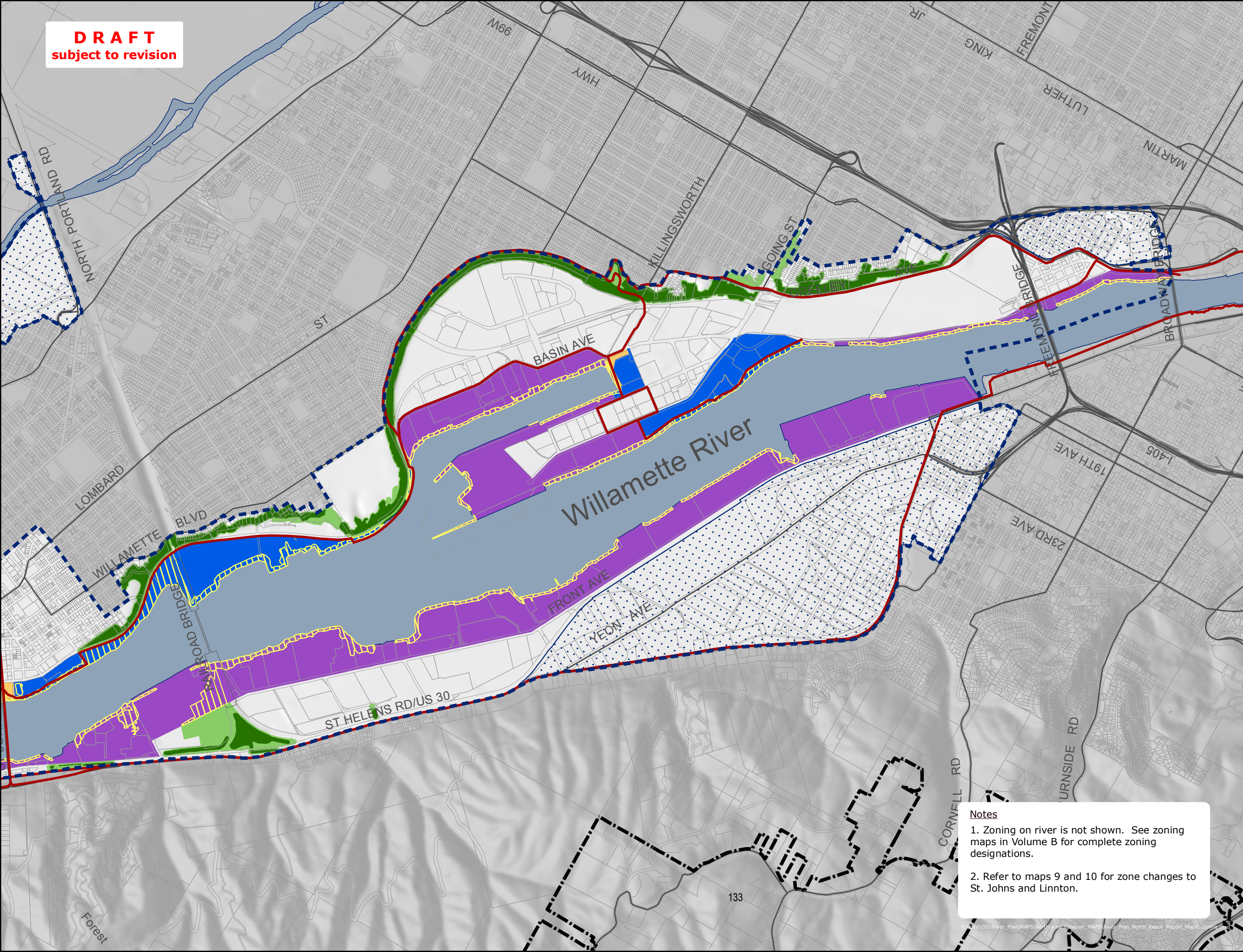
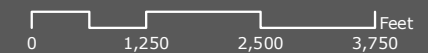
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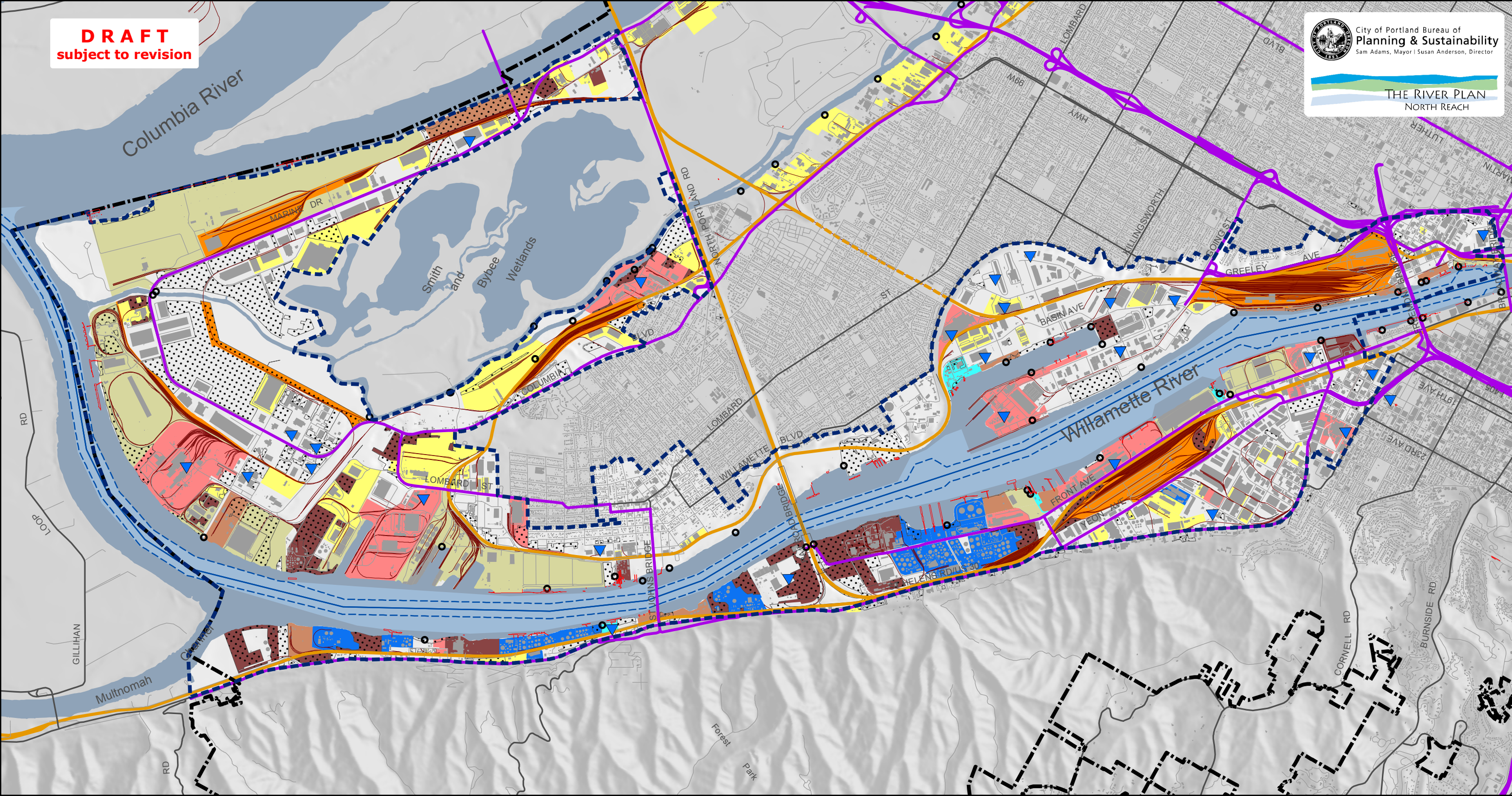


Notes

- Zoning on river is not shown. See zoning maps in Volume B for complete zoning designations.
- Refer to maps 9 and 10 for zone changes to St. Johns and Linnton.



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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) | outfalls | other rail users |
| building footprint | | | |

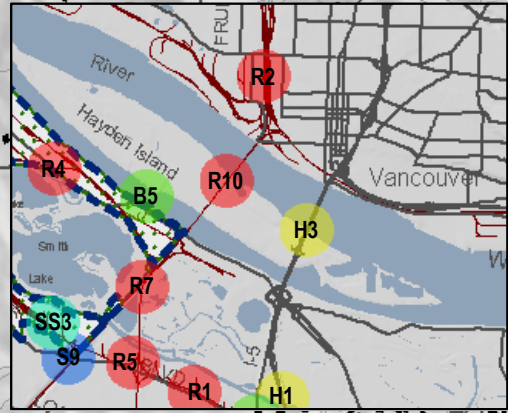
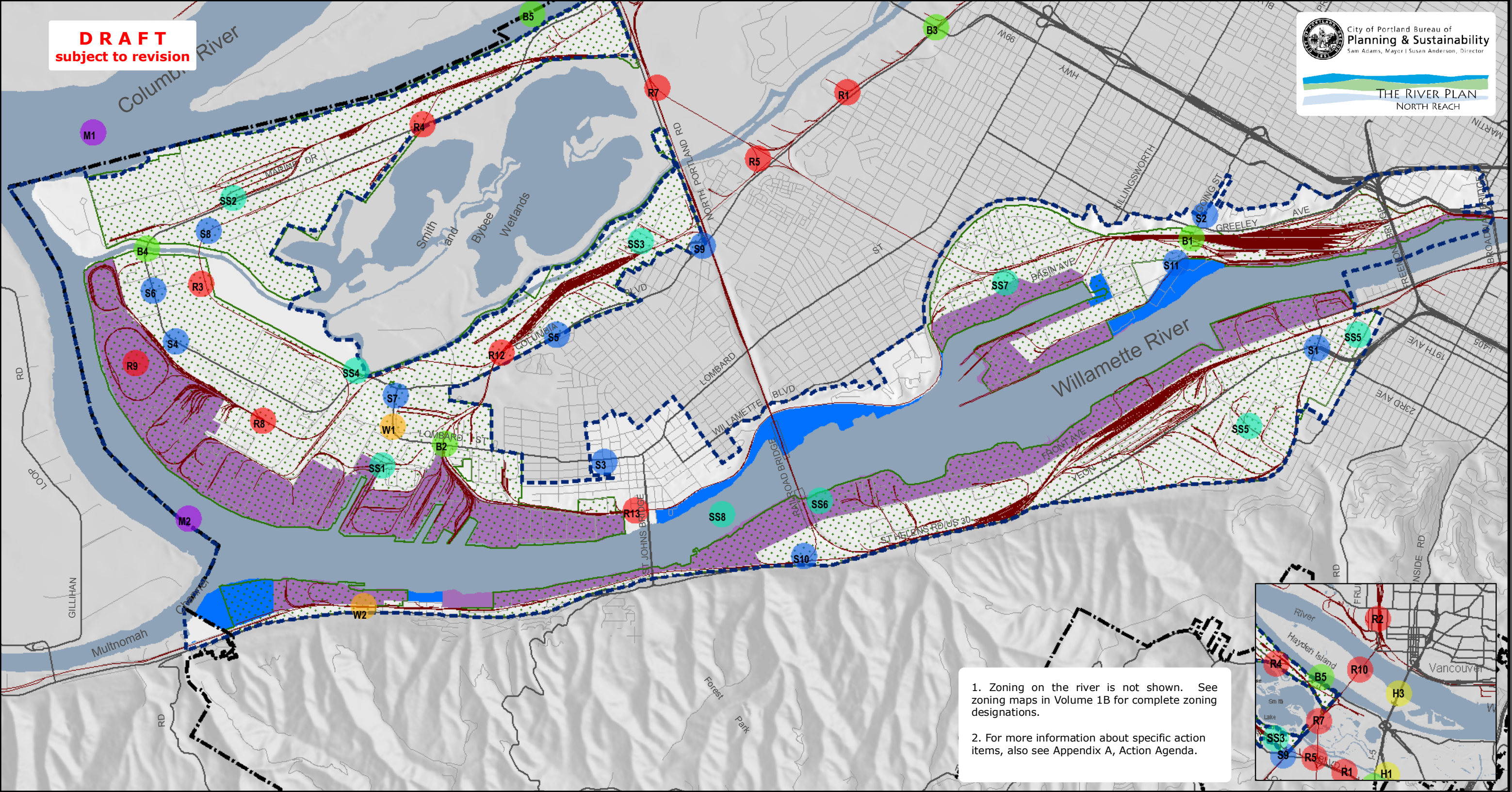
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1. Zoning on the river is not shown. See zoning maps in Volume 1B for complete zoning designations.

2. For more information about specific action items, also see Appendix A, Action Agenda.

- legend**
- north reach boundary
 - Portland city boundary
 - rail lines
 - river industrial overlay zone (i)
 - river general overlay zone (g)

- prime industrial land


- economic prosperity action items**
- | | | | | | |
|---|---------|---|----------------|----|----------------|
| H | highway | M | marine | SS | sanitary sewer |
| S | street | R | rail | | |
| B | bridge | W | drinking water | | |

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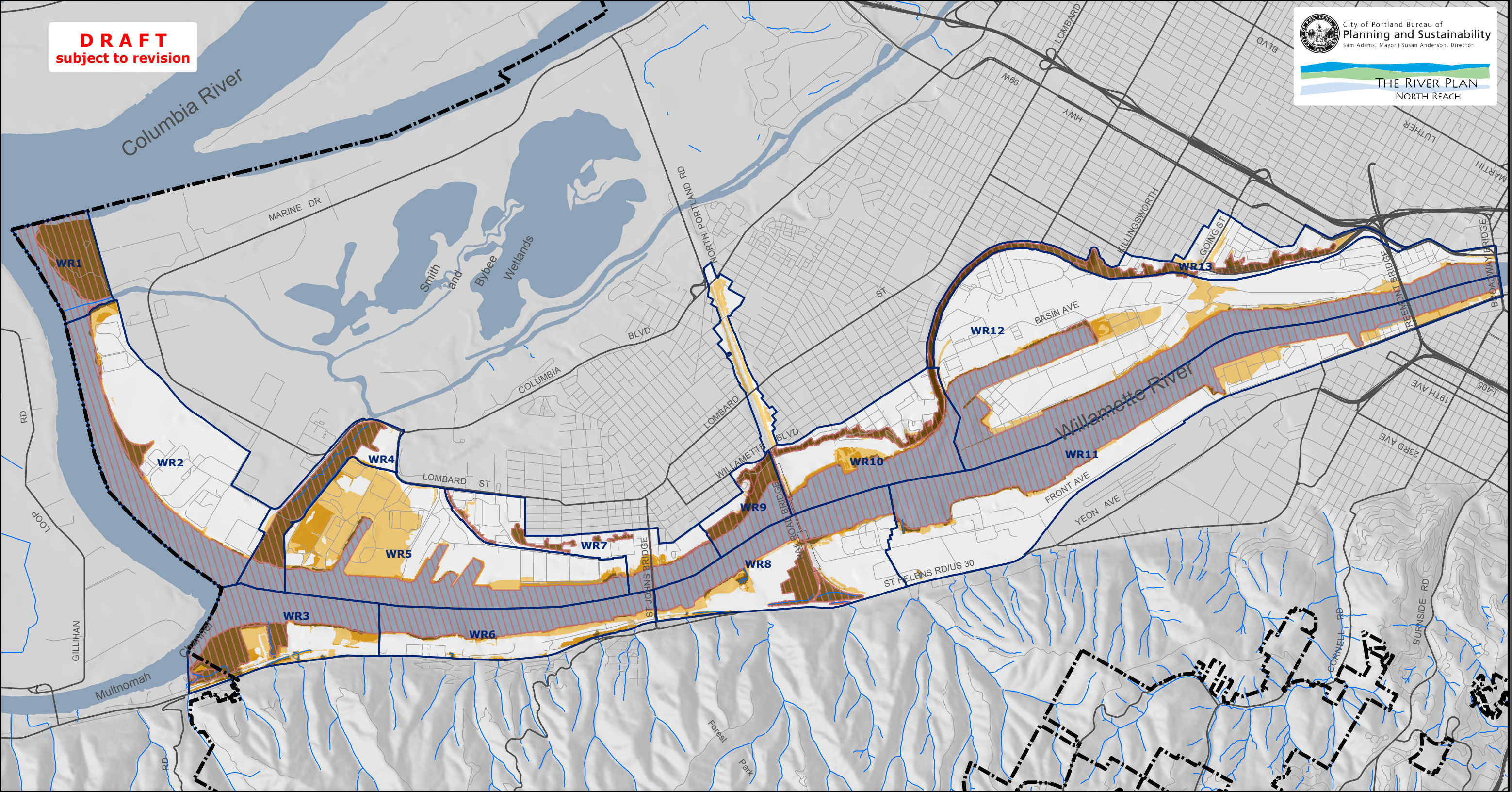


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Sam Adams, Mayor | Susan Anderson, Director










THE RIVER PLAN
NORTH REACH

**Map #5: Natural Resource Inventory - Riparian/
Wildlife Habitat Combined Ranks**



legend

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

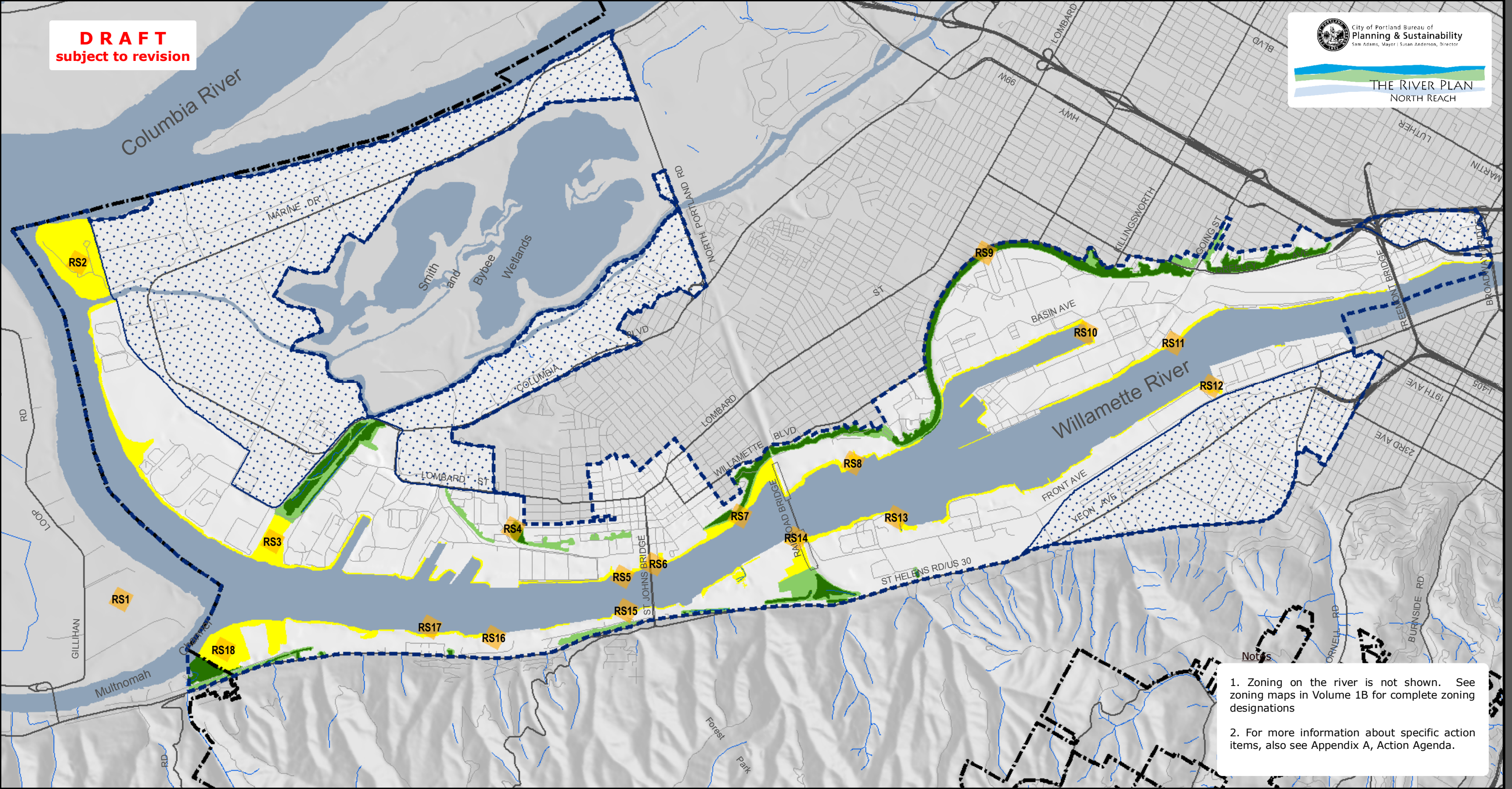
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Notes

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2. For more information about specific action items, also see Appendix A, Action Agenda.

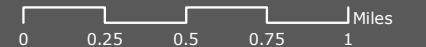
legend

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


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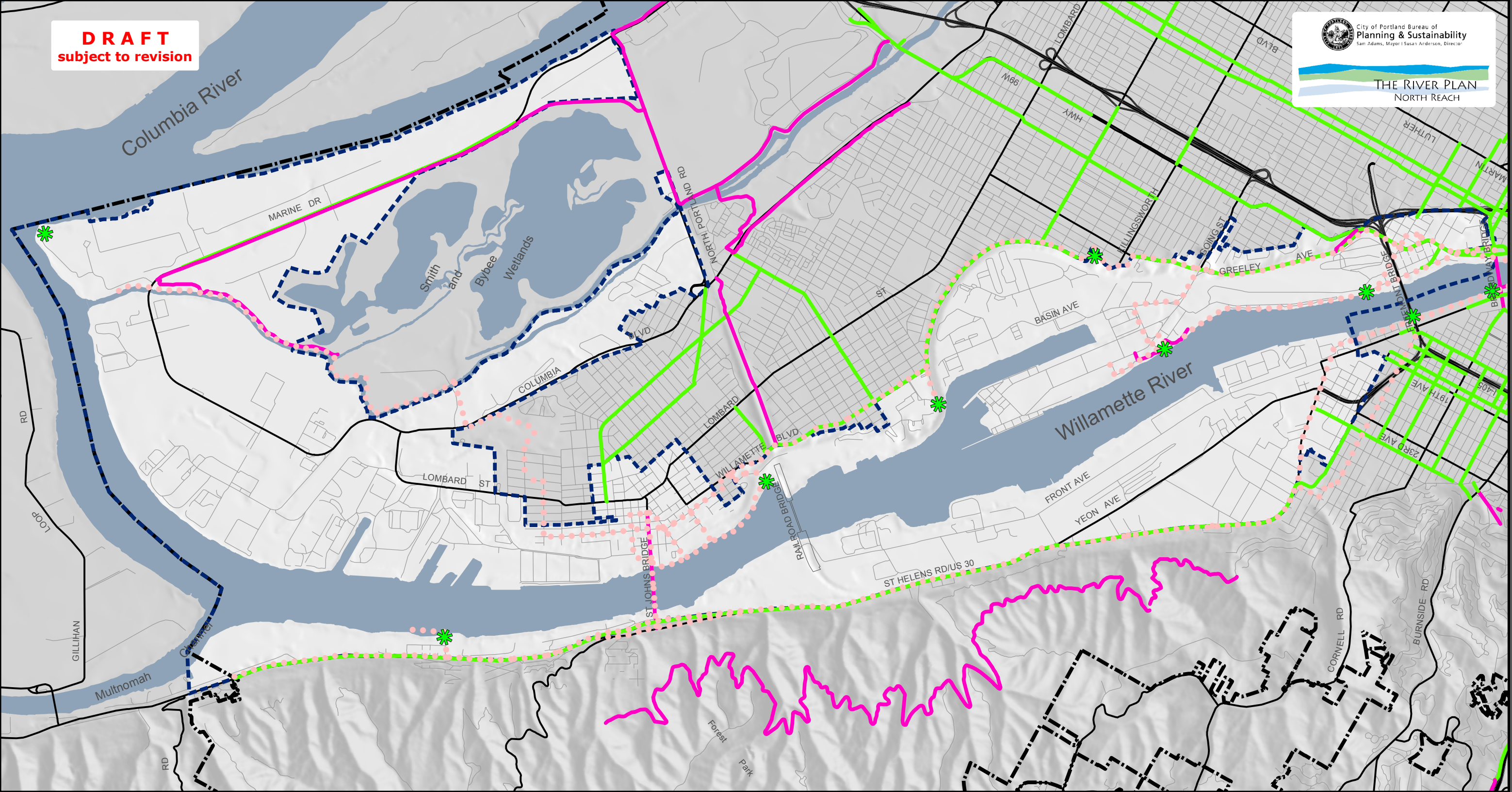






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THE RIVER PLAN
NORTH REACH

Map #7: Existing Greenway Trail and Bicycle Network



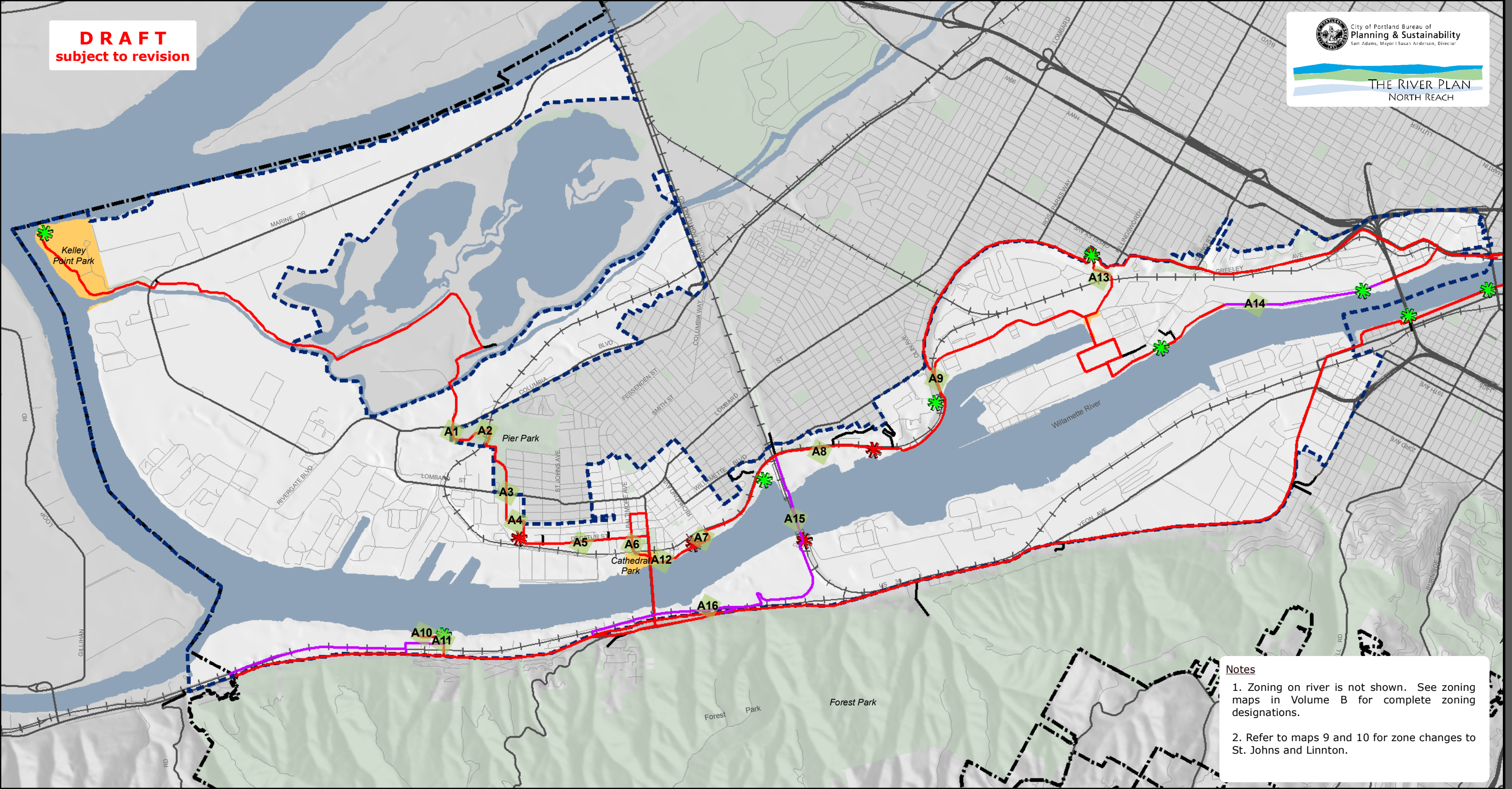
- Legend
-  north reach boundary
 -  Portland city boundary
 -  existing greenway viewpoint
 -  existing greenway trail designation

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

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Notes

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2. Refer to maps 9 and 10 for zone changes to St. Johns and Linnton.

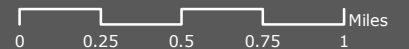
legend

- north reach boundary
- Portland city boundary
- recommended greenway viewpoints
- existing greenway viewpoints to remain
- river recreational overlay zone (r)
- trail access locations
- access action items
- greenway trail alignment**
- recommended greenway trail
- potential greenway trail (needs further feasibility study)

February 2010

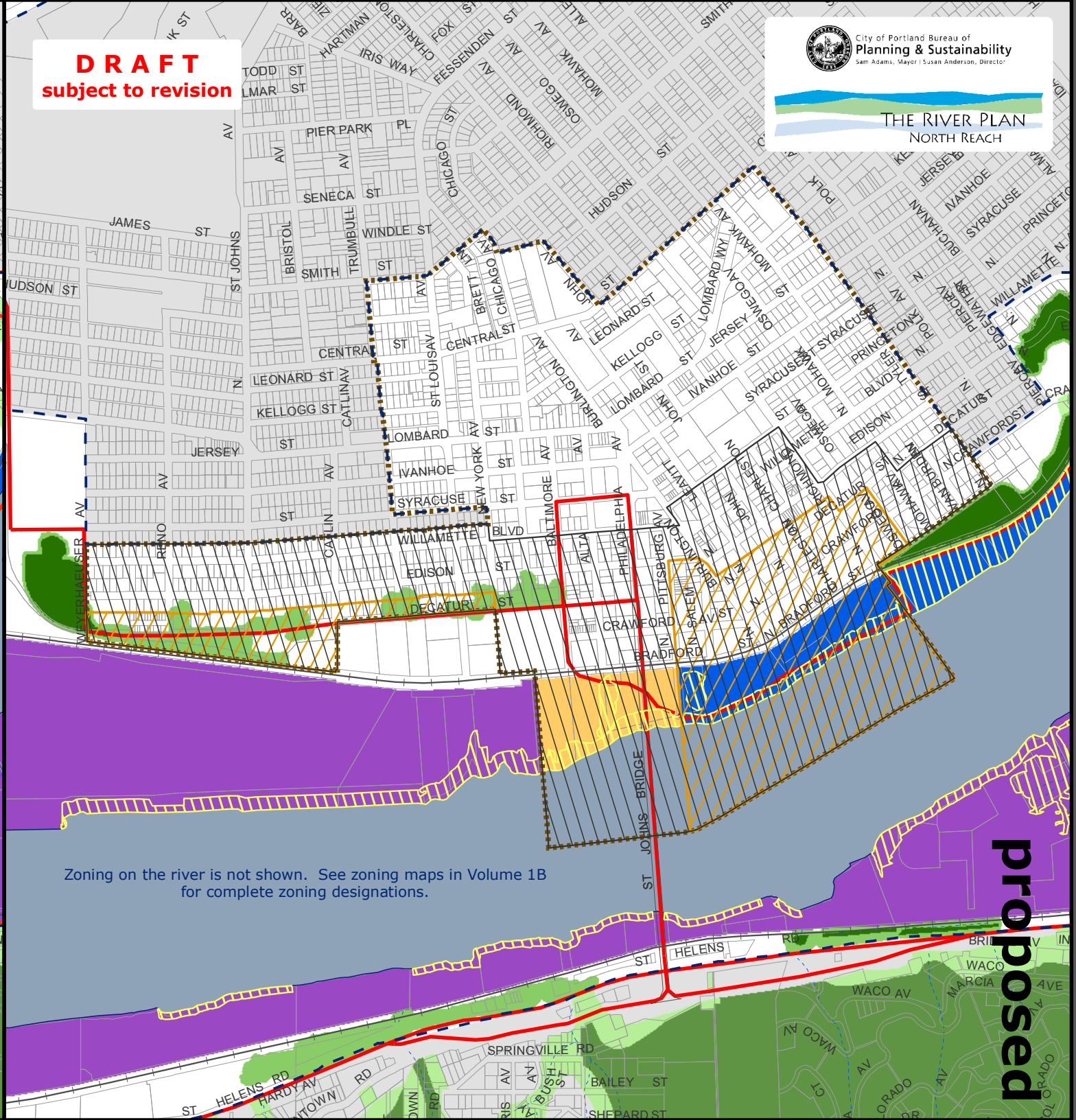
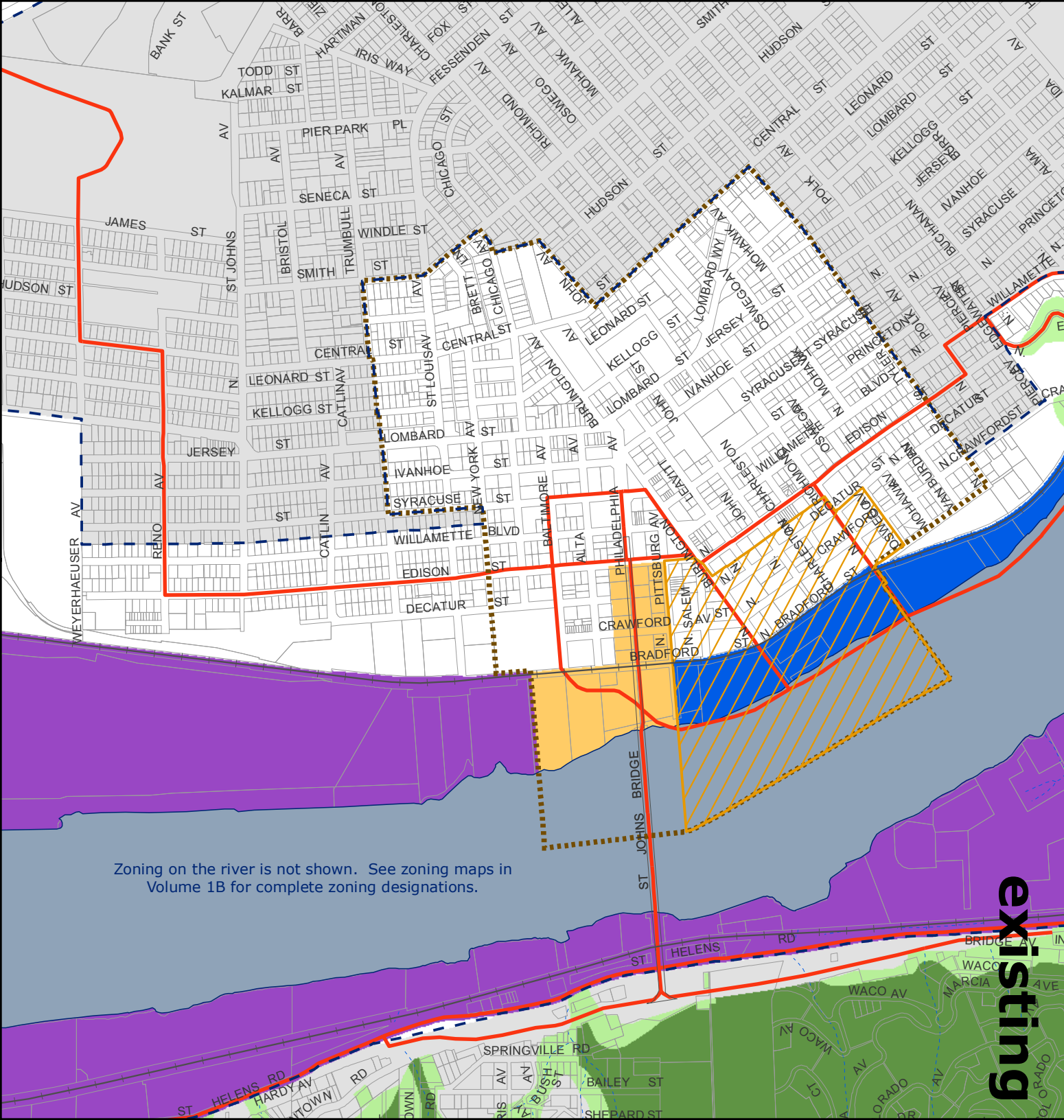
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Map #10: St. Johns Existing and Proposed Zoning



Zoning on the river is not shown. See zoning maps in Volume 1B for complete zoning designations.

Zoning on the river is not shown. See zoning maps in Volume 1B for complete zoning designations.

legend

- | | | |
|------------------------------|--------------------------------|---|
| greenway/river overlay zones | environmental overlay zones | plan district boundary |
| river environmental (e) | environmental conservation (c) | subdistricts |
| river industrial (i) | environmental protection (p) | industrial noise impact area (proposed) 149 |
| river recreational (r) | surface stream | greenway trail |
| river general (g) | north reach boundary | |

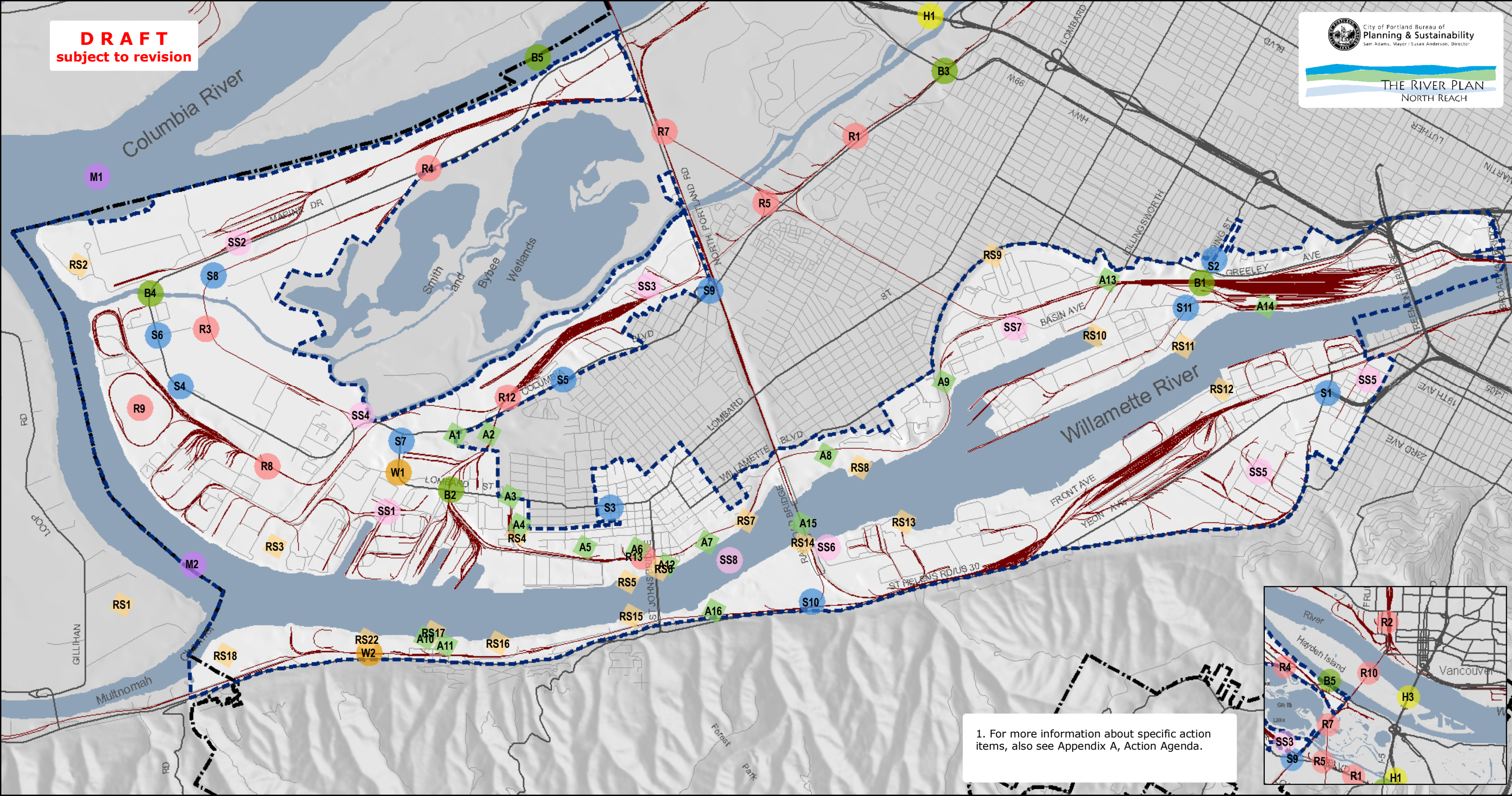
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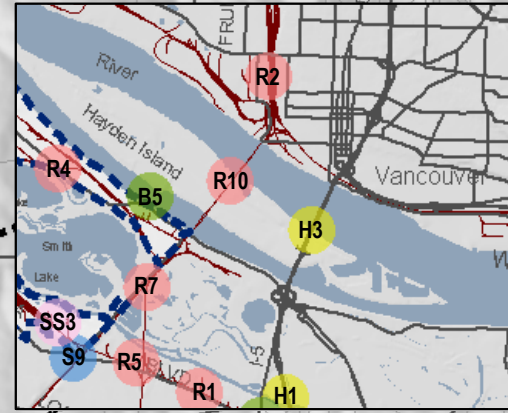
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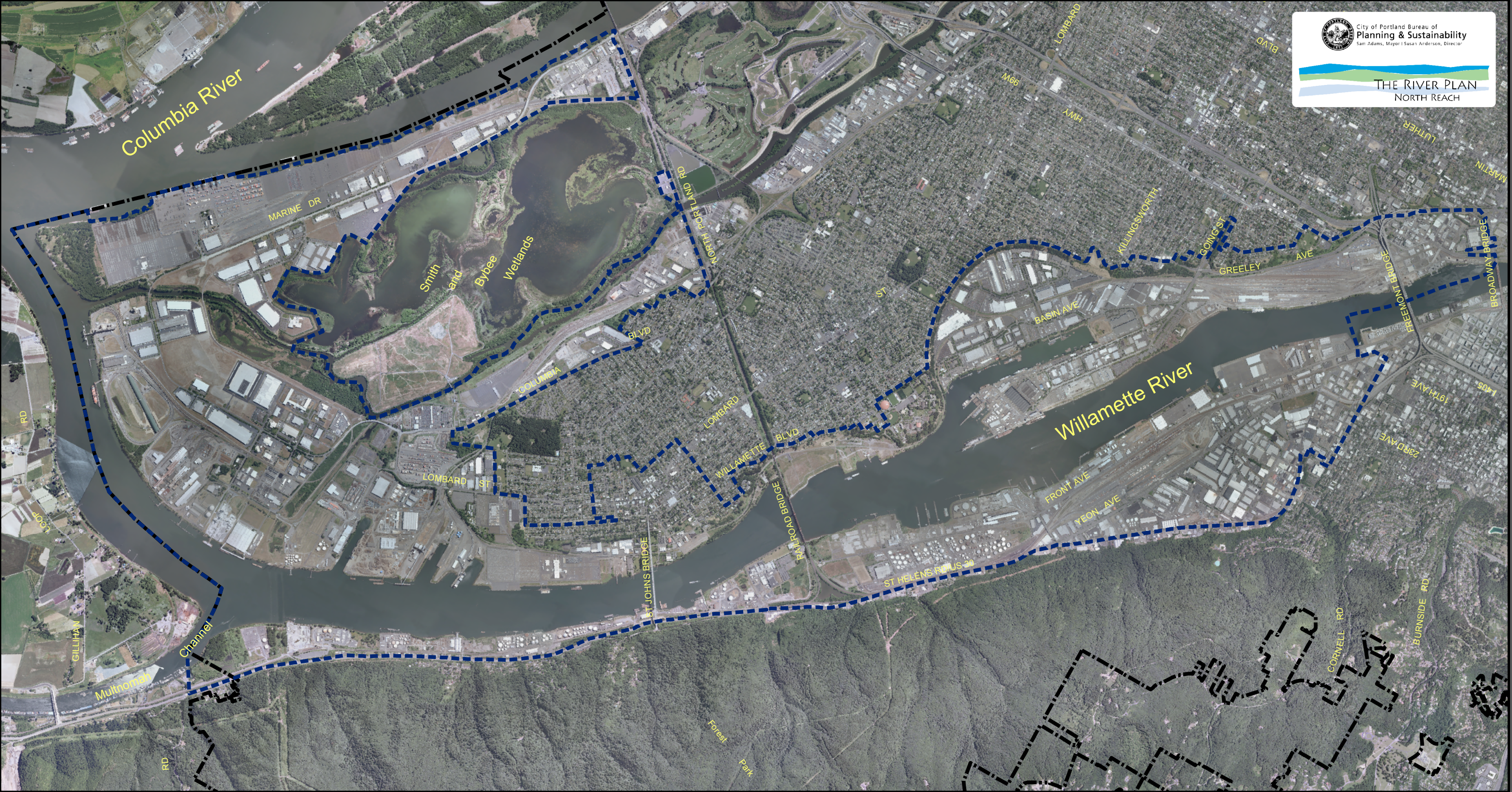
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1. For more information about specific action items, also see Appendix A, Action Agenda.



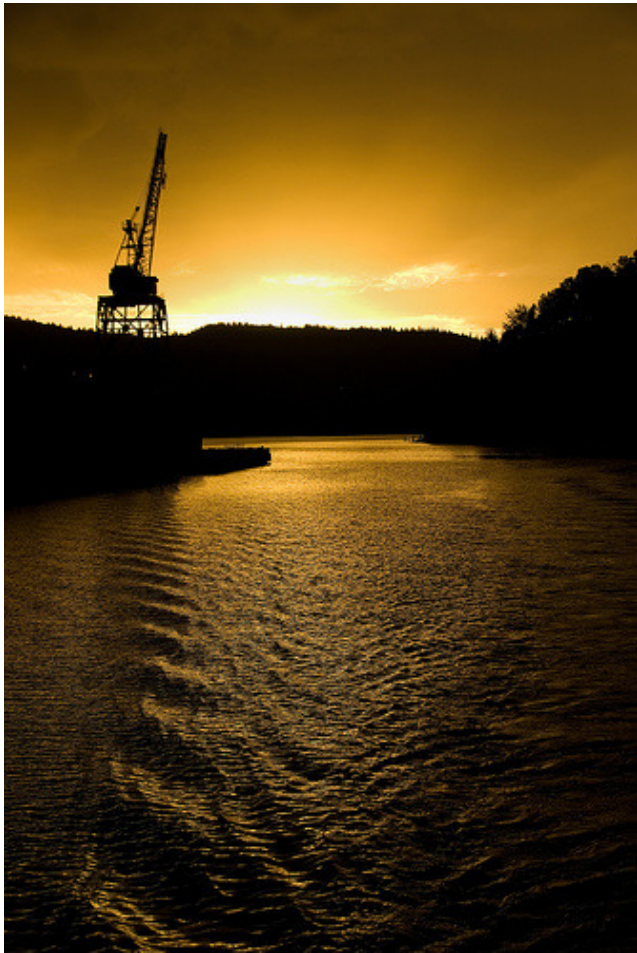
legend		action items			
north reach boundary	RS restoration sites	H highway	M marine	SS sanitary sewer	
Portland city boundary	A access	S street	R rail	RC riverfront communities	
rail lines	B bridge	W drinking water			



- legend
-  north reach boundary
 -  Portland city boundary

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VOLUME 1A: POLICIES, OBJECTIVES, AND RECOMMENDATIONS (available in print)

VOLUME 1B: CODE AMENDMENTS AND ZONING MAPS (available in print)

VOLUME 2: ECONOMIC PROSPERITY BACKGROUND INFORMATION

VOLUME 3A: NATURAL RESOURCES INVENTORY: RIPARIAN CORRIDORS AND WILDLIFE HABITAT

VOLUME 3B: 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

VOLUME 5: ORDINANCE AND RESOLUTION (available in print)

Volumes 2, 3 and 4 are available on CD.