Managing Sediments in the Watershed:
Bringing Dredged Material and Watershed Managers Together
August 29-31, 2006
Portland, Oregon

The “Big Picture” and Details That Support It

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Success of a “Big Picture” Watershed Plan relies entirely on a commitment to the details that support it.

It’s hard enough to get your head around and get agreement on all the pieces of the vision but it’s really only the beginning…

If Watershed Managers are going to address sediment management they will need to be able to understand it in the context of all the other competing issues they deal with.

1. Overview of Portland’s Watershed Management Plan

2. Prioritizing and Selecting Actions

3. Where does managing dredged materials fit in?

4. Stormwater Management: Is prevention half the battle?

1. Overview of Portland's Watershed Management Plan

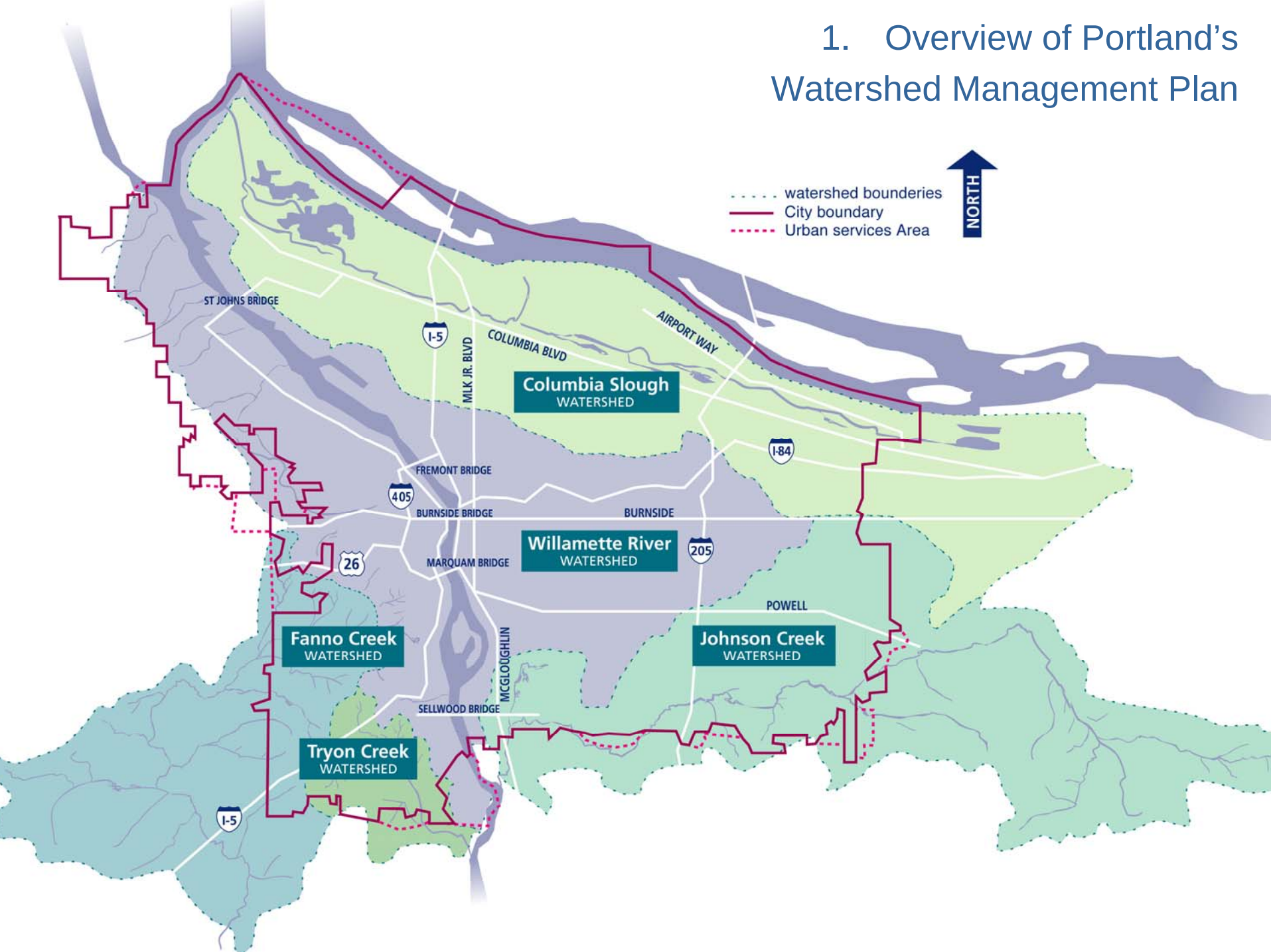


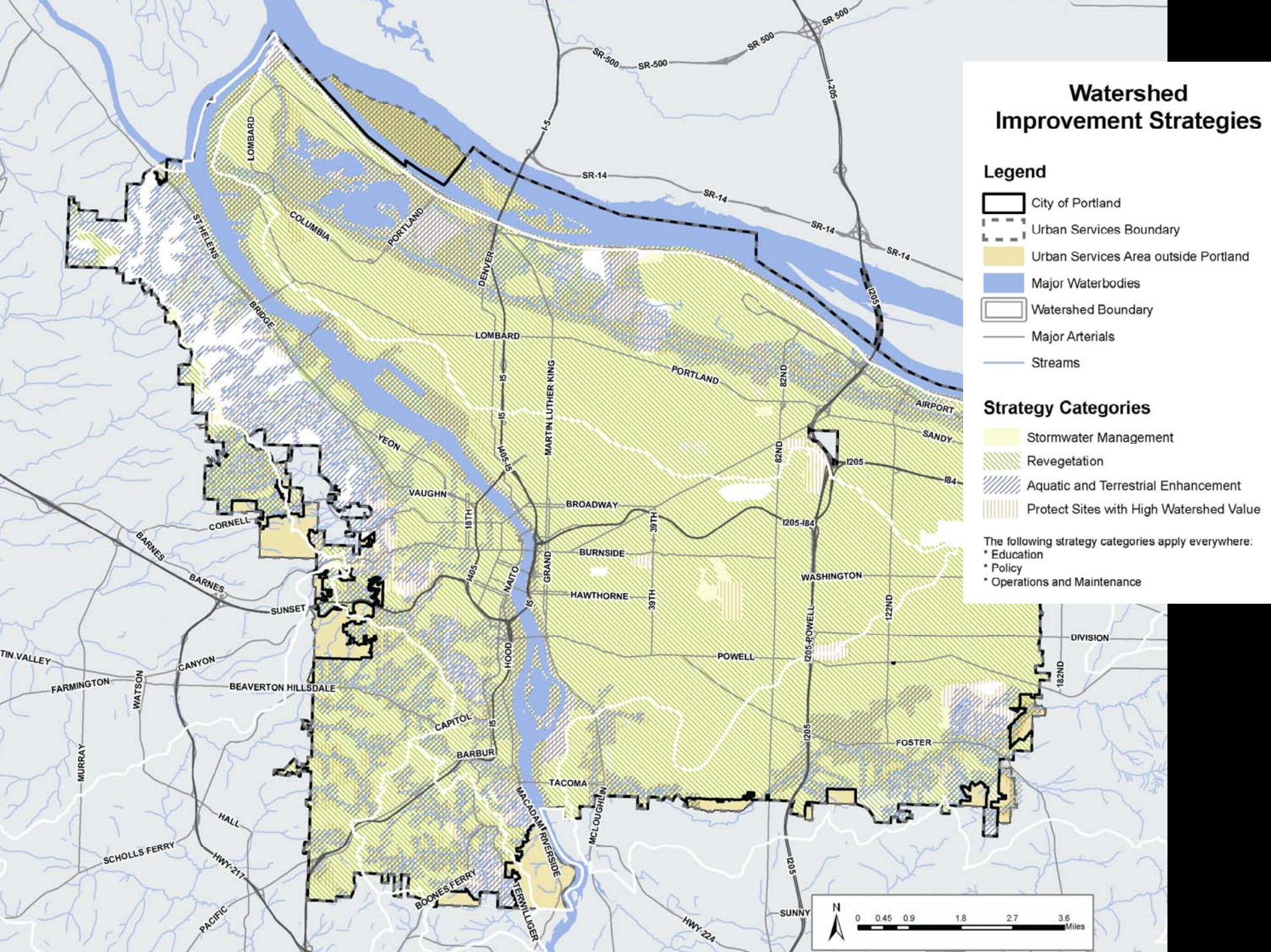
Table 3 Goals and Objectives

Goals	Watershed Health Objectives
Hydrology	***Stream Flow and Hydrologic Complexity:*** Protect and increase rainfall interception areas, create infiltration and detention areas to normalize stream hydrographs, reduce stormwater flow to sewer systems, and reduce basement flooding.
	Channel and Floodplain Function: Protect and restore the extent, connectivity, and function of streams, other open drainageways, wetlands, riparian areas and floodplains to improve bank stability and natural hydrologic functions and reduce risk to development and human safety.
	Stormwater Conveyance: Maintain stormwater collection and conveyance infrastructure capacity.
Physical Habitat	***Aquatic Habitat:*** Protect and improve aquatic, riparian, and floodplain habitat extent, quality, and connectivity that supports the persistence of native fish and wildlife communities.
	Terrestrial Habitat: Protect and improve upland habitat extent, quality, and connectivity that support the persistence of native terrestrial communities and connectivity to aquatic and riparian habitat.
Water and Sediment Quality	***Stream Temperature:*** Protect and improve stream temperatures, dissolved oxygen, and pH levels that protect ecological health and achieve applicable water quality standards.
	Human Pathogens: Maintain and manage sewer infrastructure and stormwater inputs and runoff to limit sewage overflow and the delivery of pathogens to waterways and achieve applicable water quality and sewer design manual standards.
	Urban Pollutants: Manage the sources and transport of urban stormwater and industrial pollutants and nutrients to limit surface water, groundwater, soil, and sediment contamination to levels that protect ecological and human health and achieve applicable water quality standards.
Biological Communities	***Fish and Other Aquatic Organisms:*** Implement watershed actions to maximize the persistence of native Willamette and Columbia River fish and other aquatic organisms and assist with species recovery and potential population productivity by protecting and improving hydrology, habitat, and water quality.
	Terrestrial Wildlife and Vegetation: Implement watershed actions to restore populations of terrestrial organisms to healthy, self-sustaining levels, protect and restore the composition and structure of native vegetation communities, and reduce populations of non-native plants and organisms to levels that do not compete with native species.

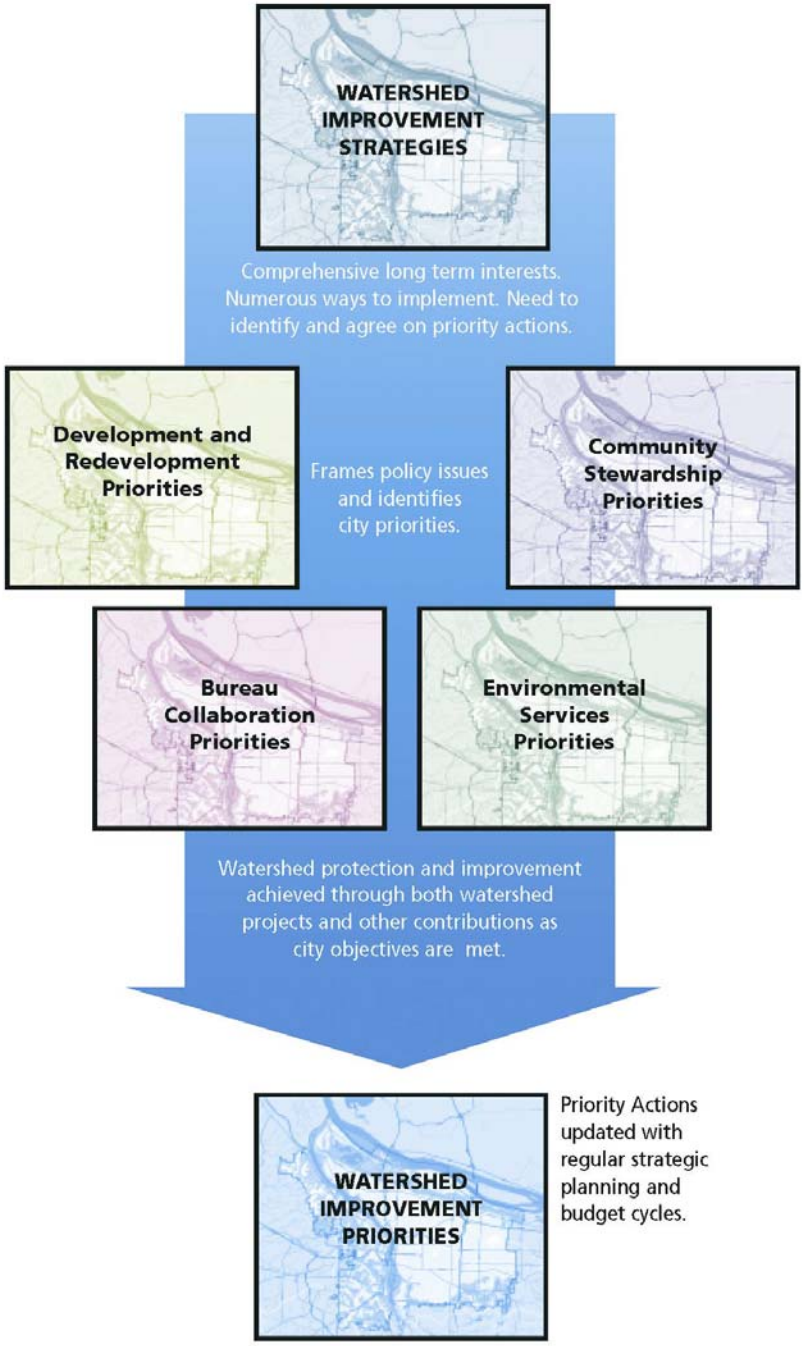
Table 4.1 Watershed Strategies and Actions

STRATEGIES	ACTIONS
Stormwater	Modify the storm drainage system to increase infiltration and maximize evapotranspiration
	Modify the storm drainage system to increase reuse or detain stormwater
	Modify the storm drainage system to treat stormwater pollutants
	Modify the storm drainage system to separate flow from combined storm/sanitary sewer
Revegetation	Increase the extent of canopy and other vegetative cover
	Improve the quality and composition of vegetative cover
Aquatic and Terrestrial Enhancement	Restore channel and floodplain function and stability
	Restore or create river, stream, wetland, and terrestrial habitat structure and function
	Restore habitat connectivity and access
	Manage for appropriate native species
Protection and Policy	Implement management of erosion, sediment, and pollutant discharge from construction sites
	Implement management of stormwater for all new and redevelopment projects
	Implement management of pollutant discharges for industrial and commercial sites
	Protect sites and features with high watershed values and functions
Operations and Maintenance	Operate and maintain the storm sewer system, public rights-of-way, greenspaces and other city facilities and infrastructure to remove and prevent pollutant discharges
	Reduce illicit and non-stormwater discharges
	Maintain and repair sewer systems to ensure conveyance for current demand and future growth
Education Involvement and Stewardship	Promote watershed awareness with city staff, schools, the business community, organizations, and general public
	Provide pollution prevention education to city staff, the business community, organizations, and general public
	Provide technical assistance and incentives to city staff, schools, the business community, organizations, and general public

2. Prioritizing and Selecting Actions


Watershed Improvement Strategies
Legend
City of Portland
Urban Services Boundary
Urban Services Area outside Portland
Major Waterbodies
Watershed Boundary
Major Arterials
Streams
Strategy Categories
Stormwater Management
Revegetation
Aquatic and Terrestrial Enhancement
Protect Sites with High Watershed Value
The following strategy categories apply everywhere:
* Education
* Policy
* Operations and Maintenance
SR-500
I-5
I-205
SR-14
LOMBARD
COLUMBIA
PORTLAND
ST HELENS
BRIDGE
DENVER
MARTIN LUTHER KING
YEON
VAUGHN
BROADWAY
BURNSIDE
HAWTHORNE
GRAND
NAITO
HOOD
CORNELL
BARNES
SUNSET
CANYON
FARMINGTON
WATSON
BEAVERTON HILLSDALE
CAPITOL
BARBUR
TACOMA
MACADAM
RIVERSIDE
MCLOUGHLIN
TERWILLIGER
BOONES FERRY
HALL
SCHOLLS FERRY
HWY-217
PACIFIC
MURRAY
HWY-224
SUNNY
POWELL
WASHINGTON
FOSTER
DIVISION
AIRPORT
SANDY
I84
I205-I84
I205-POWELL
I405-I5
18TH
39TH
82ND
122ND
182ND
N
0 0.45 0.9 1.8 2.7 3.6 Miles

Portland Watershed Improvement Priorities



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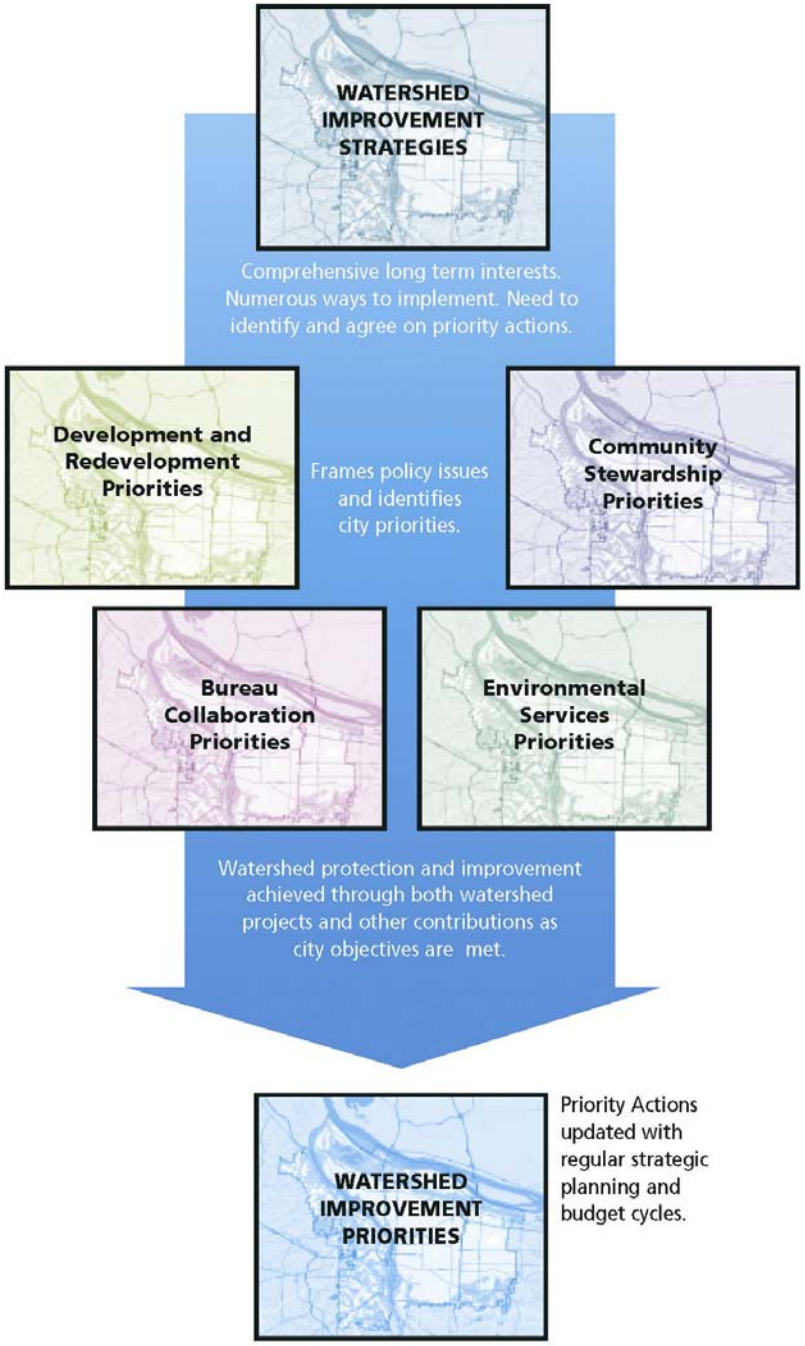
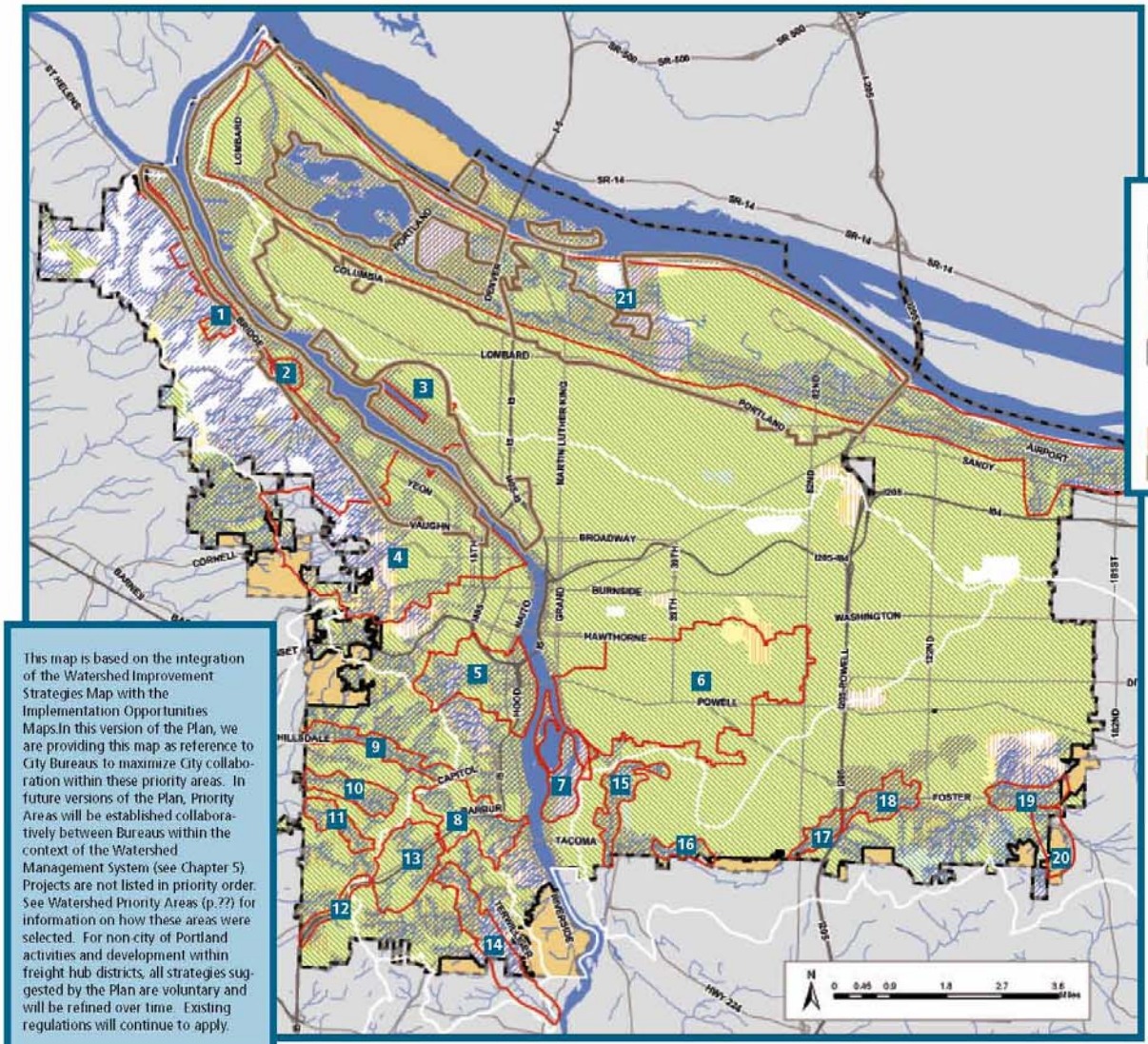


ACTIONS for WATERSHED HEALTH

Watershed Priority Areas



This map is based on the integration of the Watershed Improvement Strategies Map with the Implementation Opportunities Maps.In this version of the Plan, we are providing this map as reference to City Bureaus to maximize City collaboration within these priority areas. In future versions of the Plan, Priority Areas will be established collaboratively between Bureaus within the context of the Watershed Management System (see Chapter 5) Projects are not listed in priority order. See Watershed Priority Areas (p.??) for information on how these areas were selected. For non-city of Portland activities and development within freight hub districts, all strategies suggested by the Plan are voluntary and will be refined over time. Existing regulations will continue to apply.

Legend

- City of Portland
- Urban Services Boundary
- Urban Services Area outside Portland
- Major Waterbodies
- Watershed Boundary
- Major Arterials
- Streams
- Priority Areas
- Freight Hub Districts

Strategy Categories

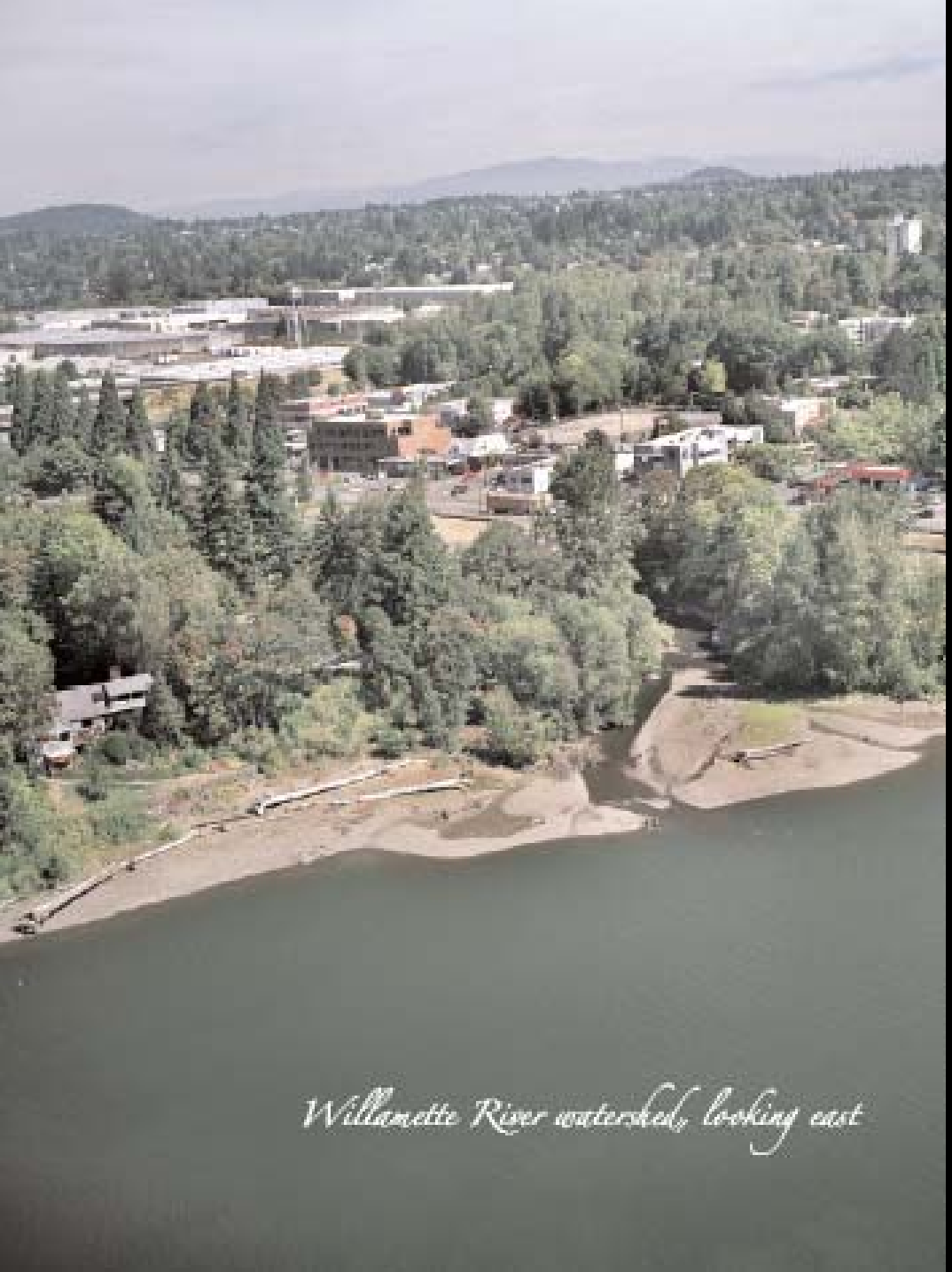
- Stormwater
- Revegetation
- Aquatic and Terrestrial Enhancement
- Protect Sites with High Watershed Value

The following strategy categories apply everywhere:
* Education
* Policy
* Operations and Maintenance

ID	AREA NAME	WATERSHED*
1	Linnton Village and Hillside Study	WR
2	Doane Creek and Lake	WR
3	Swan Island Subwatershed	WR
4	NW Neighborhoods Predesign	WR
5	Marquam Woods Subwatershed	WR
6	Taggart Subwatershed	WR
7	Ross Island / Oaks Bottom	WR
8	Stephens Subwatershed	WR
9	Beaverton Hillsdale Stormwater Projects	F/T
10	Vermont Creek Stormwater Projects	F/T
11	Woods Creek Stormwater Projects	F/T
12	I-5 Stormwater Projects	F/T
13	Upper Tryon Stormwater Projects	F/T
14	Lower and Middle Tryon Stream Restoration	F/T
15	Crystal Springs	JC
16	Tideman/Johnson Stream and Wetland Restoration	JC
17	West Lents Stream Restoration	JC
18	East Lents Floodplain and Wetland Restoration	JC
19	Lower Powell Butte Restoration Area	JC
20	Kelley/Mitchell Creeks Stream Enhancement	JC
21	Columbia Slough Floodplain Priorities	CS

* Willamette River WR - Columbia Slough CS - Johnson Creek JC - Fanno/Tryon Creeks F/T

Figure 4.6



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Measuring progress…
With Performance Measures

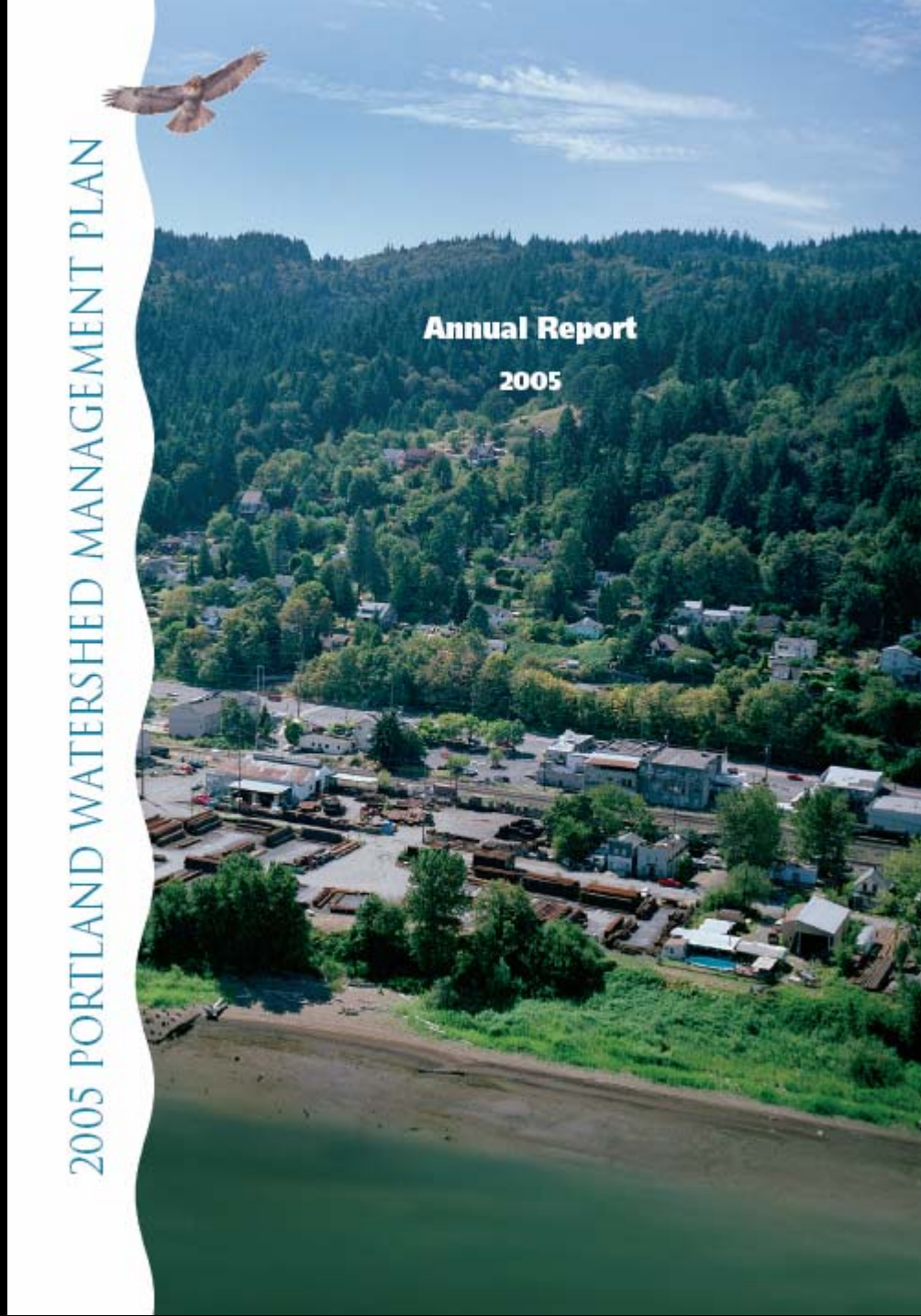
Protection and Policy Strategy

Development Management

- Addressed 1,600 calls to the spill protection hotline
- Conducted 10,345 erosion control inspections
- Opened 290 erosion control complaints
- Closed 267 erosion control complaints

Resource Protection

- Acquired 30 acres for restoration and protection



4. Stormwater Management: Is prevention half the battle?

MAY 16 2001

City of Portland

Stormwater Management Manual

Revision 3
September 1, 2004

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