



PORTLAND PARKS & RECREATION

Healthy Parks, Healthy Portland



Natural Area Acquisition Strategy

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Natural Area Acquisition Strategy

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Sustaining a healthy park and recreation system to make Portland a great place to live, work and play.

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Introduction



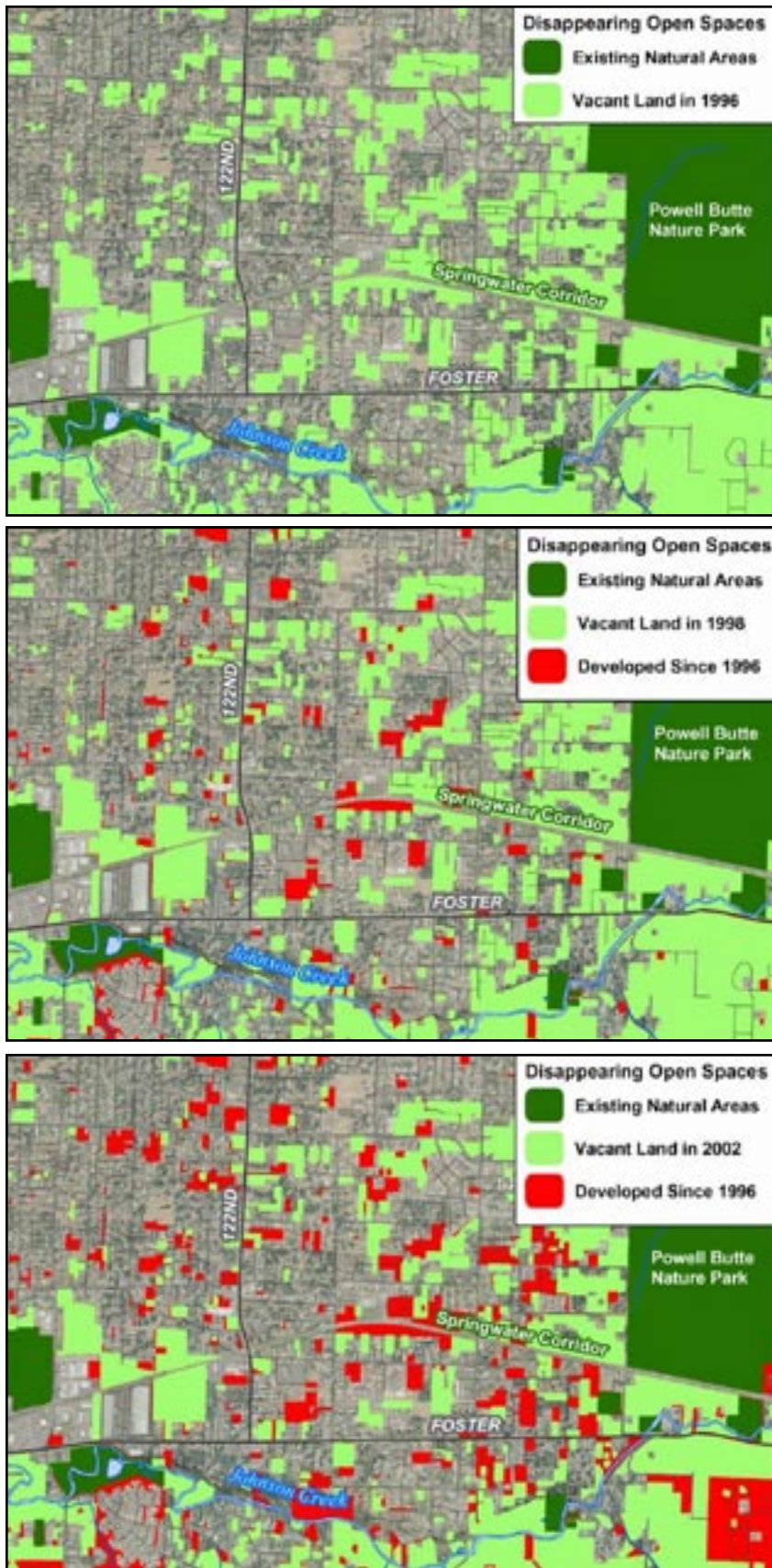
“The city and region have an interconnected system of trails, parks, natural areas, streams, and rivers that are well protected and ecologically healthy” is one of the guiding principles of *Parks 2020 Vision*. This document, adopted by City Council in 2001, identified a need for additional natural area acquisition.

In the last five years, Portland Parks and Recreation (PP&R) has refined the elements of protecting a healthy connected system of natural areas within the city. This natural area acquisition strategy outlines a general approach and highlights priority actions to achieve the vision. Implementation will rely on a number of partners. This strategy offers a vision developed with both city and regional partners. PP&R’s focus will be on protection priorities outlined in the report, building on our present system.

Need for Additional Natural Areas

Portland State University’s Population Research Center’s 2003 report on population trends predicts steady increases in the region’s growth, with 2.3 million residents in the Portland-Vancouver metropolitan area by 2010. To maintain Portlanders’ current quality of life, including access to open space, clean water, and breaks from urban density, remaining natural lands must now be protected from development. Additional population will inevitably increase use pressure on parks and open spaces. As use increases, larger spaces are needed to provide opportunities for both people and wildlife in the city.

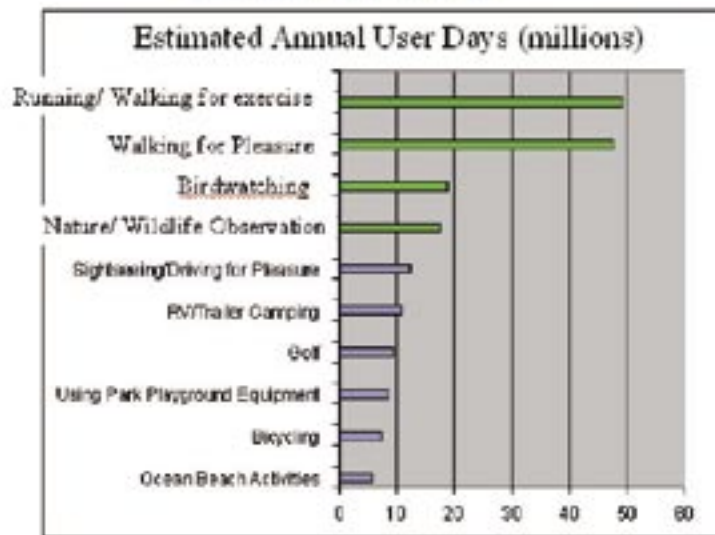
Introduction



Undeveloped land is becoming scarce within Portland's urban growth boundary. The following illustrations offer an example from southeast Portland. Records of vacant land reveal large tracts of undeveloped land in 1996 but very few remaining as of 2002. Once wetlands are filled and forests paved over, these habitats cannot be recreated. If we want to preserve and connect these remnant habitats we must act soon.

Open space is scarce, but the demand is high. Oregon State Parks' *Outdoor Recreation Plan* evaluates demand for recreational facilities. Of the top ten outdoor recreation activities listed in the report, the top four are all associated with natural areas: running/walking for exercise, walking for pleasure, birdwatching, nature/wildlife observation.

Top 10 Oregon Outdoor Recreation Activities – State Residents OREGON SCORP 2003



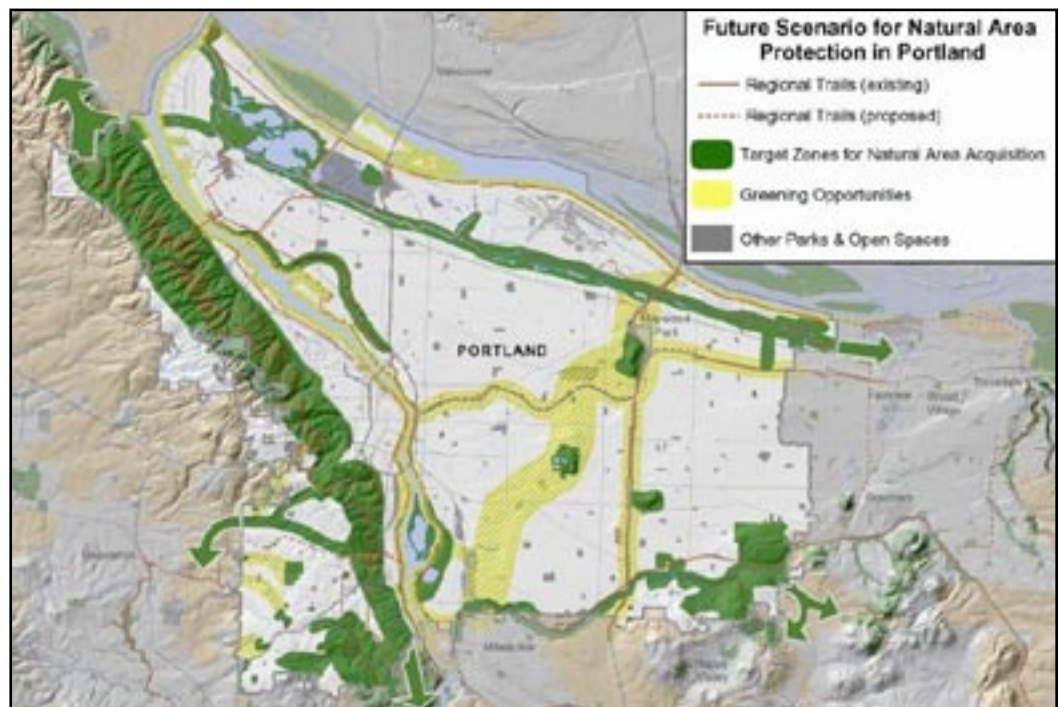
In a 2004 survey for PP&R, residents in Portland were asked which of a long list of park elements were adequate and which needed additional facilities. Natural wildlife areas topped the list in percentage of respondents desiring additional facilities.

Vision & Benefits

Protected Nature Vision

In the densely urban Portland of 50 years from now, fewer residents will have backyards and bird feeders; many will live in high-rise buildings and rely on public transportation. These future Portlanders will still be able to hear the sound of a splashing stream, feel a cool forest breeze, and thrill to the sight of a great blue heron gliding gracefully overhead, or a young salmon hiding in a still pool. They will appreciate the foresight of community leaders of today who have enlarged and protected a sustainable system of connected natural areas within Portland and the region.

The protected system of natural areas will consist of green ribbons along major waterways and feature large natural area parks and preserves. Access to nature will be provided to Portland residents from neighborhoods and trails, while some areas may be restricted for wildlife protection. The natural area system within Portland is part of a larger regional system of connected natural areas, linking the Cascade foothills to the Coast Range, the Tualatin River to the Columbia. This strategy focuses on the protected natural areas, but to complete the vision of protected nature in the city, natural areas will further be connected by green corridors along the Willamette River, freeway routes, and through residential neighborhoods.



Benefits of Natural Areas

Natural areas are a treasured element of life in Portland. Native wildlife – eagles, ospreys, frogs, and butterflies – inhabit our natural areas. The great blue heron, Portland's official bird, relies on the protected trees where they nest and marshes where they feed. Green open spaces help define our Pacific Northwest quality of life; access to nature attracts new residents and businesses to the region. Many studies in the US and Canada have shown an increase in property values near protected open spaces.

Natural areas help cool our neighborhoods, clean our air, and hold on to the carbon produced by our cars, homes, and industries that could worsen global warming. Natural landscapes also serve to infiltrate and hold water from rain events, improving water quality and habitat for our treasured salmon. We rely on the stormwater services provided by our natural areas without giving them the credit they deserve.

Hiking and nature watching are a few of the most popular outdoor recreational activities in Portland. For many residents, urban natural areas are the only access to nature. These park sites provide an opportunity to learn about the natural world and learn to become stewards of the land. Natural area parkland serves as a laboratory for ecological research and a classroom for service learning. And as the metropolitan area becomes increasingly dense, natural areas provide a haven to relax and a brief escape from city noise and congestion.

Natural Areas Provide:

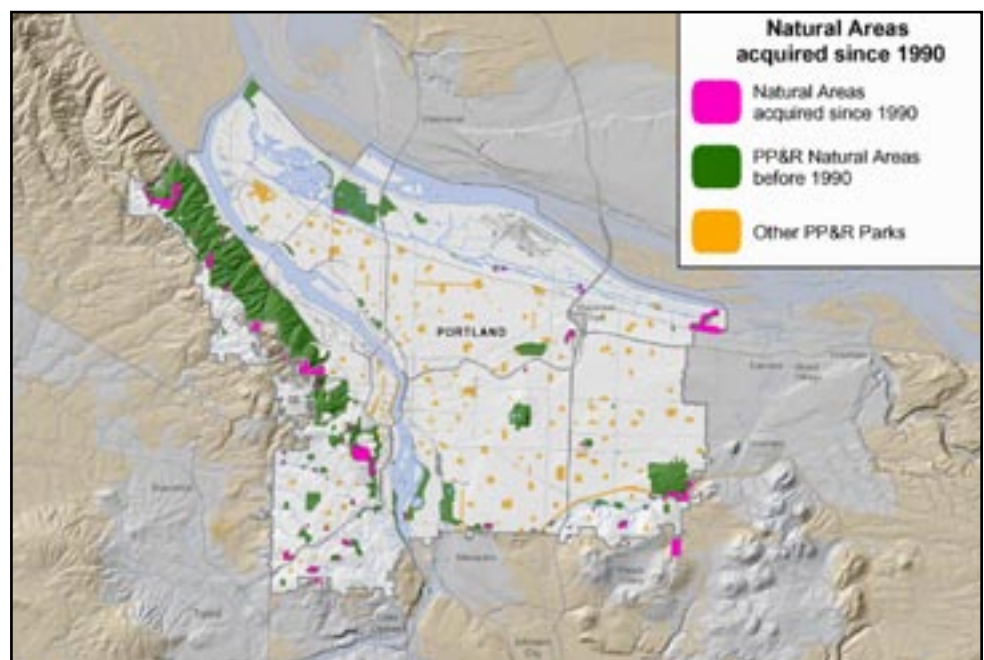
- Native Wildlife Habitat
- Preservation of Biodiversity
- Nature-based Recreation
- Ecosystem Services
 - Water Quality
 - Stormwater Management
 - Air Quality
 - Cooling
- Economic Benefits
 - Enhanced Property Values
 - Nature-based Tourism
 - Reduction in Stormwater Infrastructure Costs
 - Reduction in Public Health Costs
- Educational Opportunities
- Stewardship/Service Learning Opportunities
- Research Laboratory
- Open Space

Historic Background

John Charles Olmsted visited Portland and produced the *Report of the Park Board, Portland, Oregon, 1903*. Olmsted urged the integration of natural areas in a comprehensive park system that would “afford the quiet contemplation of natural scenery (with) rougher, wilder and less artificially improved [parks].” He recommended acquisition of the wooded hills west of the Willamette River for a park with a wild, woodland character.

Following a feasibility study published in 1945 by the City Club of Portland, the ‘Committee of Fifty’ civic leaders persevered until 4,200 acres were formally dedicated as Forest Park in 1948. Additional natural areas were added as Portland’s park system grew. PP&R’s natural area acquisition acquired more focus after formation of the natural resource unit in 1988.

In recent years, natural area acquisition has been guided by Metro’s *1992 Greenspaces Master Plan* and local target area acquisition plans. Between 1990 and 2005, PP&R added 750 acres of natural area to its management portfolio, primarily from the 1995 bond measure. (Through intergovernmental agreements, PP&R took on management of most of the Portland natural area properties purchased through the bond measure by Metro.) Other key sources of funding were the Federal Emergency Management Agency (FEMA) after the 1996 floods, and System Development Charges (SDCs).



Partnerships



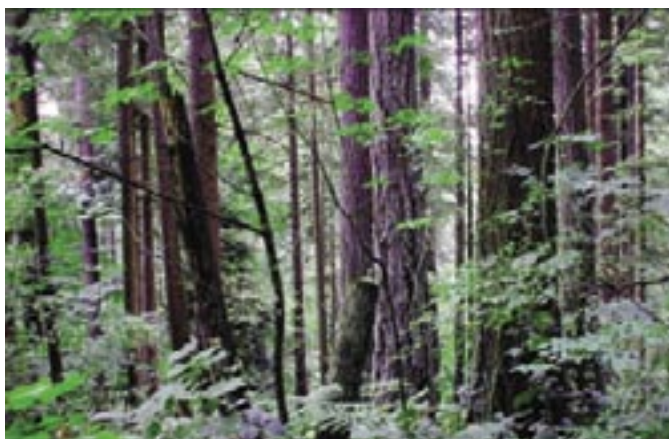
PP&R manages most of the protected natural areas within the City of Portland (7,000 acres). Other large natural area sites include Metro's Smith and Bybee Lakes Wildlife Area and Oregon State Parks' Tryon Creek State Natural Area. Additional natural areas are held by Portland's Bureau of Environmental Services (BES), organizations such as the Port of Portland, Three Rivers Land Conservancy, and private neighborhood associations. Acquisition, as well as management, will continue to be a shared responsibility.

Metro continues to serve as a key partner in acquisition planning. PP&R's ability to manage property acquired by Metro allowed regional acquisition of small, but significant parcels, especially those offering buffers or connections to already protected habitat land.

BES will continue as a principle partner in PP&R's natural area acquisition strategy. PP&R's mission to protect and manage natural areas blends with the utility and watershed health responsibilities of BES. Responsible for water quality and stormwater management within the city, BES relies on the green infrastructure of park natural areas and has been a key partner in previous acquisition projects. After the 1996 floods, PP&R and BES partnered to acquire and protect flood-prone land along Johnson Creek with a combination of funds from FEMA and the City. Portland's Bureau of Planning (BOP) has joined PP&R and BES in the identification of natural area acquisition target areas through its inventory of riparian and upland habitat within the city.

Watershed Councils, park friends groups, and local land trusts also serve as key partners in identification and acquisition of natural area land.

Current System



Forests



Meadows



Wetlands

Current System

Natural area settings in Portland include forests, meadows, wetlands, streams, and riverbanks. The 7,000 acres currently managed by PP&R as natural area are primarily forest (85%) and represent the range of forest types naturally occurring in the region including upland Douglas fir stands, ash and cottonwood riparian forests, and younger deciduous forest types. Open woodlands, such as those dominated by Oregon white oak, account for another eight percent of the system. Shrublands and grasslands, including wetland marshes and scrubs, and upland sites occur less frequently but offer unique habitat features.



Streams



Riverbanks

Approach

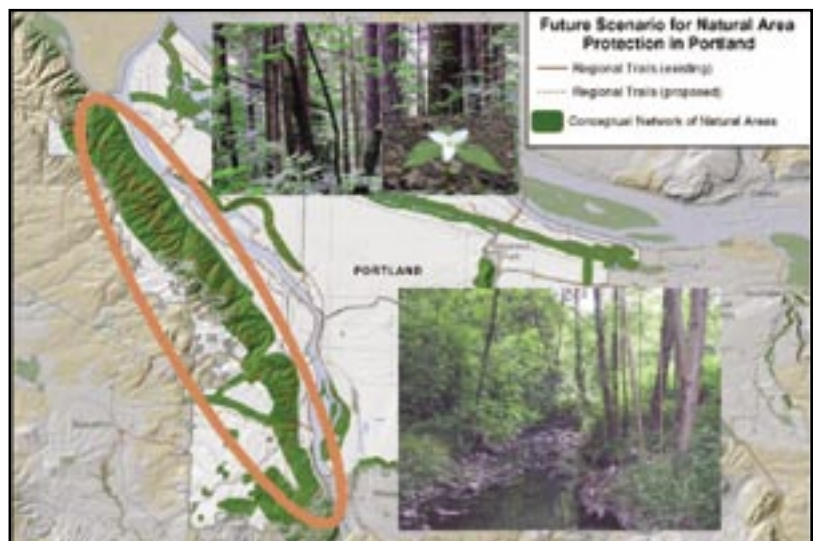
System Components

Future acquisitions for an expanded natural area system will focus on protecting large, sustainable tracts of land and protect examples of exceptional value to for habitat and watershed health. Featured components of the system are illustrated below:

- Protected areas on the Willamette River, such as currently protected areas at Kelley Point and Elk Rock Island. Few natural remnants of riparian forest and beaches remain in Portland. These protected areas provide food and shelter to migrating and resident fish, and offer nesting and perching sites for birds such as ospreys and eagles.

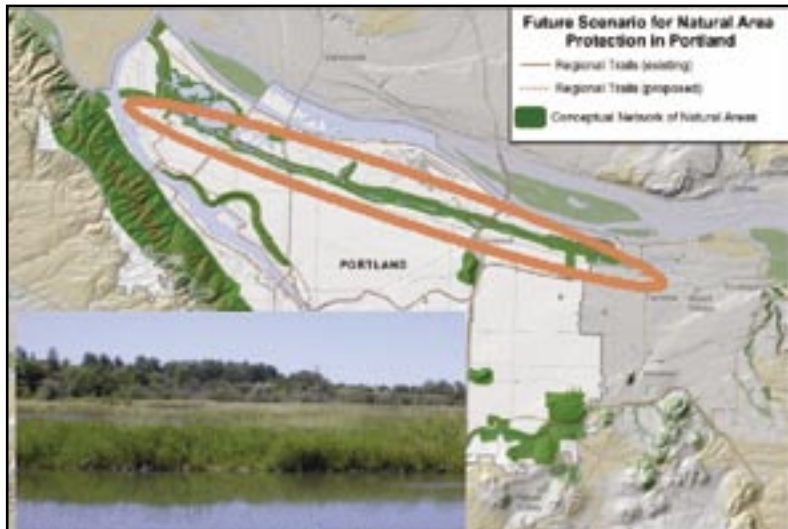


- A westside wildlife corridor connecting Forest Park to the north with Tryon Creek State Natural Area to the south will offer a route for both wildlife and people. The existing backdrop of trees that frame Portland's skyline will be preserved.



Approach

- Protected corridors along the floodplains of Johnson Creek and Columbia Slough will protect habitat for migrating fish as well as other wildlife drawn to these water features. Larger nodes of connected upland habitat will enhance the value of the corridor.



- Protection of the unique habitat islands of the East Buttes preserves unique plant communities and important bird migration stopover spots.



Citywide Priorities

Conservation planning at the state, regional, and local levels has converged in the last few years, paving a clear path for Portland to follow. The *Oregon Conservation Strategy*, published by the Oregon Department of Fish and Wildlife in 2006, highlights two actions for the Willamette Basin ecoregion: 1.) Maintaining and restoring fish and wildlife habitats in urban environments and 2.) Conserving, restoring, and reconnecting high value habitats.

Resource conservation principles for Portland were adapted from the Willamette Valley principles listed by the Oregon Watershed Enhancement Board (OWEB) in a 2004 report on Land Acquisition priorities.

OWEB Principles for Willamette Valley

- Protecting Large, Intact Areas
- Stabilizing Areas “On the Brink”
- Securing Transition Areas (development)
- Restoring Function
- Protecting Sites with Exceptional Biodiversity Values
- Improving Connectivity
- Complementing Existing Networks

PROTECTING LARGE, INTACT AREAS

Larger areas offer more protected interior habitat and are shown to be required breeding habitat for many species. Forest Park is the city’s largest habitat area; to maintain a citywide system, an eastside large node is also needed. Powell Butte is the second largest protected natural area maintained by the City. Acquisition of existing undeveloped land south of Powell Butte would provide a second large forested park and provide eastside residents a closer forested park. This butte natural area would protect the headwaters and steep ravines of Johnson Creek tributaries.

PROTECTING SITES WITH EXCEPTIONAL BIODIVERSITY VALUES

Examples include the now uncommon oak madrone habitat remnants on the escarpment that continues along the east side of the Willamette and the riparian cottonwood and Oregon ash forests, once common along the Willamette banks. Habitat for individual species of concern will also be given priority.

IMPROVING CONNECTIVITY WITHIN A REGIONAL SYSTEM OF NATURAL AREAS

We want to make connections between our sites in Portland and those outside of the city. We also want to make connections within the city between natural areas and from natural areas to trails. An example is the undeveloped land along Johnson Creek between Johnson Creek Park and the Metro-owned Springwater Trail. The acquisition of this land, under option currently, will make the connection to the new Johnson Creek Bridge and offer habitat restoration opportunities.

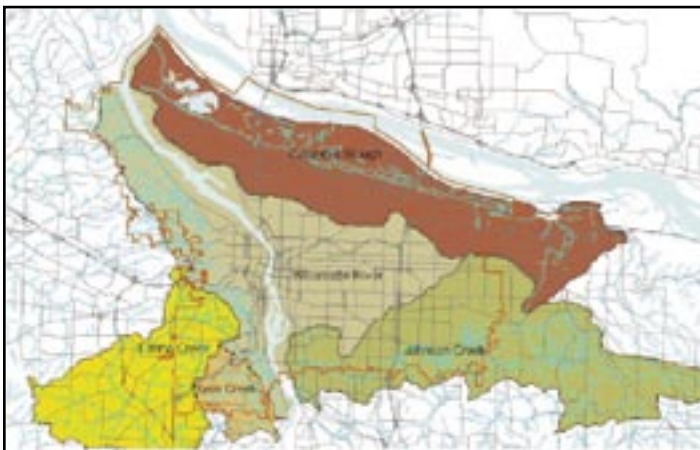
Approach

BUFFERING CURRENT NATURAL AREAS

Interior habitat is rare in our natural areas. Edges are more subject to weed invasion and other urban influences and support different wildlife than does interior habitat. De facto buffers of undeveloped or lightly developed land have protected some natural areas. As infill and increased density change the landscape, intense development will occur up to the edges of our protected land. Adding land adjacent to our existing natural areas help protect the existing sites and offer more efficient management.

Watershed Specific Priorities

Further refinements of acquisition priorities were developed in cooperation with BES. Criteria are consistent across the city, with



specific emphasis tailored to each watershed. For example, within the area that drains directly to the Willamette River, beaches and mudflats would be a priority; in Johnson Creek and Tryon Creek watersheds, headwater springs would be noted.

COMMON ECOLOGICAL CRITERIA

- Large, contiguous habitat
- Riparian buffers
- Wetlands, especially those connected with water bodies
- Natural streams, springs, and headwater areas
- Sites in good ecological condition
- Known nesting or roosting sites for species of concern
- Property adjacent to existing park property or serving as a connection

COMMON SOCIAL CRITERIA

- Regional trail connections
- Opportunities for environmental education or nature-based recreation
- Property threatened with development

PRIORITY HABITATS AND SPECIES

Led by BES, a *Terrestrial Ecology Enhancement Strategy* is being developed with an interbureau team and outside advisory group which will further refine acquisition priorities to protect Portland's biodiversity. Preliminary lists of habitats and species of concern used for acquisition priorities were taken from listings by federal and state agencies and the Oregon Natural Heritage Information Center.

In addition, several current BES documents support acquisition priorities:

Framework for Integrated Management of Watershed Health

This document outlines the four watershed health goals of the city: hydrology, physical habitat, water quality, and biological communities.

2005 Portland Watershed Management Plan

Objectives and strategies to achieve healthy watersheds were developed for the city.

Individual objectives and strategies for each of the city's primary watershed areas, developed by BES watershed planning teams, helped define the watershed-specific acquisition priorities.



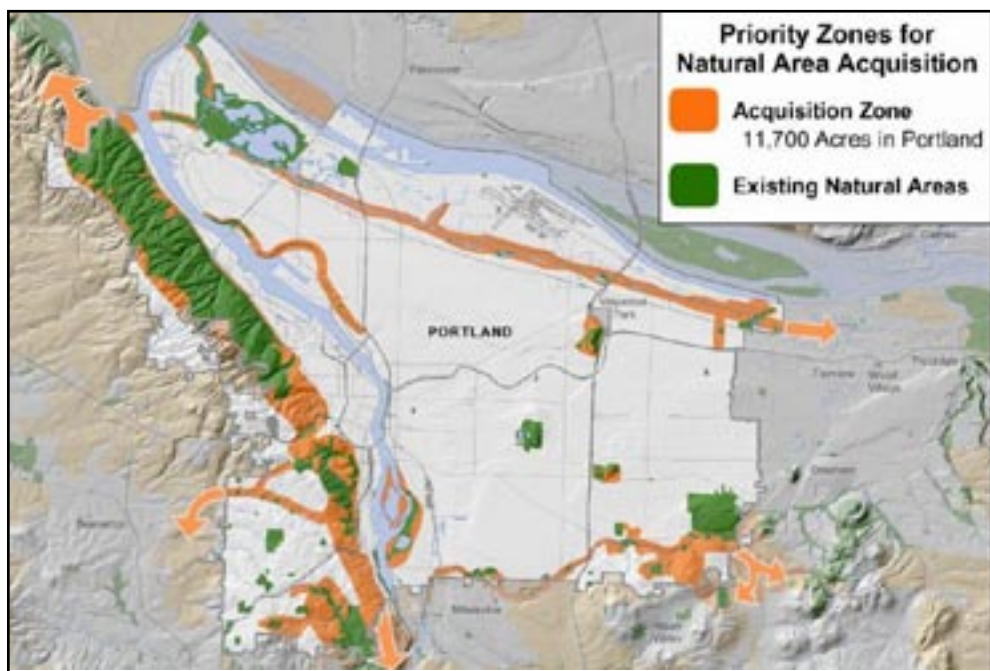
Example Habitats & Species of Concern in Portland

- Riparian ash/cottonwood forest
 - Great blue heron
 - Bald eagle
 - Willow flycatcher and other neotropical migratory songbirds
- Emergent marsh/beach and mudflats
 - Migratory shorebirds
- Oregon white oak woodlands
 - White-breasted nuthatch
- Rivers and streams
 - Chinook salmon
 - Coho
 - Steelhead
 - Cutthroat
- Wetland ponds
 - Western painted turtle
 - Northwestern pond turtle
 - Northern red-legged frog
- Large forest patches
 - Bats (several species)
- Grasslands
 - Streaked horned lark
 - Western meadowlark

Implementation Strategy

Phases

The acquisition zone identified in the protected natural area vision comprises over 11,000 acres in the city. This large area highlights the acquisition target areas; more specific refinement will identify parcels and phasing.



Acquisition is always opportunistic, especially as PP&R employs a willing seller approach. A phased plan has been developed which will guide acquisition planning. The intersection of available funds and available land will determine specific parcel acquisitions.

5-Year Focus: Priority parcels in each watershed

10-Year Focus: Large parcels or grouped acquisitions

20-Year Focus: Additional connections along major stream corridors

50-Year Focus: Additional priorities in each watershed

Using the principles listed above, first priority parcels have been identified in each watershed that:

- Improve management of, buffer or connect current holdings
- Secure large tracts
- Protect currently functioning habitat
- Protect identified conservation needs
- Consider threat of development or loss of habitat

Implementation Strategy

The list is a living, frequently updated document. Changes in ownership, surrounding land use or identification of an important habitat will affect the list, which will be used as the five-year short-term focus. Rather than restrict initial investment to a specific geographic area or habitat, protecting the best remaining habitats throughout the city has been given priority. Priority habitat on some developed parcels was identified for partial acquisition. In implementation, these habitats could be protected through partition and purchase or through conservation easements.

The 5-year focus is to protect priority parcels in each watershed.

Watershed	# Parcels	Acres	Cost Estimate Millions of Dollars
Columbia Slough	40	165	13.2
Fanno Creek	15	4	0.3
Tryon Creek	38	83	6.6
Johnson Creek	39	27	2.2
Willamette River	31	261	20.9
TOTAL	163	540	43.2

Estimating acquisition cost is difficult since purchase price can vary from \$5,000 per acre for land with environmental protection zoning, a conservation easement or previous mitigation obligations to \$500,000 per acre for large tracts suitable for multi-use development. For the purpose of budgeting, a standard figure of \$80,000 per acre was used. All dollar amounts are given in 2006 dollars; budgets for later years are not increased for inflation.

The 10-year focus is to protect a large forested site on Portland's east side.

Buttes Natural Area	195	528	42.2
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The 50-year focus is to complete the system connections.

Complete the system		1,000-2,000	80-160
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Sources of Funds

Traditional sources of funding for acquisition include bond measures, SDCs, partnerships, and donations. To meet these ambitious acquisition targets, new funding avenues will need to be explored.

NEED FOR LANDBANKING

A valid question is often raised when additional spending on acquisition is proposed: “Why acquire additional land when resources are not available to care for or provide visitor facilities on existing properties?” The answer is that if remaining natural areas are not protected now, they will be lost forever. A landbanking program must be established to stabilize and hold new acquisitions. These areas may not be open for formal public use for the foreseeable future and the entire system may exceed our capacity to restore all habitat land immediately. The choice is to leave a protected, but somewhat degraded, system to future generations or lose the opportunity to build the system.

IS ENVIRONMENTAL ZONING SUFFICIENT?

Environmental zoning regulations offer some protection to remaining natural lands, but these protections are not adequate to create and restore a sustainable system. Conservation zoning on most upland habitat sites allows limited development which can fragment existing connections between sites. Even where development is prohibited, mostly along streams, a patchwork of private ownership does not offer the benefits of managing or restoring large tracts or controlling invasive species. In some cases, acquiring conservation easements that allow for coordinated restoration and management may be an attractive option to outright purchase, especially where habitat areas span multiple developed parcels.

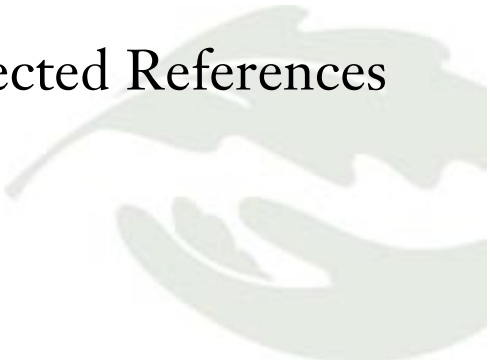
NUISANCE WILDLIFE

Natural areas offer shelter to wildlife that are not always welcome in urban neighborhoods, such as coyotes, raccoons, and geese. Ownership of this system of natural areas includes a responsibility for educating neighbors about living with wildlife. PP&R is participating in an interbureau effort, led by BES, to develop a strategy for wildlife and terrestrial habitats in the city. The strategy is informed by PP&R’s natural area inventory and acquisition planning and will provide guidance on managing wildlife within our natural areas and parks.

EQUITY

The acquisition strategy for natural areas is focused on protection of existing functioning habitat. Past development patterns dictate that natural areas are not distributed equally throughout the city and all residents do not have equal proximity to natural area parkland. All city residents do benefit from the system of natural areas and separate programs can create small patches of natural landscape in developed parks and schools throughout the city. Creating green corridors between natural areas and providing neighborhood trail connections will improve access for all Portlanders.

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