COMPREHENSIVE NATURAL RESOURCE PLAN

Smith and Bybee Wetlands Natural Area

Portland, Oregon

MARCH 2012

Metro | *Making a great place*

Tom Hughes

Rex Burkholder

Dear Friend,

Smith and Bybee Wetlands is an extraordinary place. It includes 2,100 acres of wetlands and uplands and all the associated wildlife within a large urban area and industrial complex. It's a healthy and vital place – the last natural remnant of the Columbia River flood plain wetland area in the Columbia River and Willamette River confluence. Our stewardship of Smith and Bybee Wetlands reflects the value we in this region place on natural resources.

Metro and the Smith and Bybee Wetlands Advisory Committee have watched over Smith and Bybee Wetlands for the past 20 years. In some ways it has been extraordinary. We've watched the city dump transform into wildlife habitat – the ultimate recycling tale. Some of us were paddling over the entire area in 1996 when the lakes were under more than 20 feet of water.

At the same time, the changes over the past 20 years have been subtle. Collectively we've restored wildlife habitat and gently accommodated walking and paddling at Smith Lake. Metro has managed the Smith and Bybee Wetlands Fund with effective restoration efforts, and the City of Portland constructed a canoe launch facility. Land has been consolidated and the primary property owners – Metro, the City of Portland and the Port of Portland – have coordinated with each other and with the community.

Although the place is vital, the work is not done. This 2011 plan is a new vision. It builds on the legacy of the past 20 years, with an emphasis on the restoration of wildlife habitat. It also anticipates the opening of a regional trail around St. Johns Landfill, bringing people through the management area and in close contact with nature.

This plan reflects who we are today – focused on increasing wildlife habitat with subtle ways for people to enjoy the place and animals. The plan includes a strategy to reduce invasive species and transform St. Johns Landfill from methane production to native prairie habitat. Habitat, rather than people, is front and center. At the same time, people will have new opportunities to participate in restoration activities along with access to nature, including birding, paddling, biking and walking.

We commend the hard work of Metro staff and the advisory committee. Over the next 10 years, we'll strengthen our partnership and continue the stewardship that this special place deserves.

Yours truly,

Tom Hughes
Metro Council President

Rex Burkholder
Metro Councilor

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Smith and Bybee Wetlands

INTRODUCTION

CONTEXT

Not very long ago, as human history is measured, the Columbia River was an untamed and dynamic waterway that exerted a powerful force within its floodplain. The bottomlands adjacent to this great river were a maze of channels and sloughs, shallow lakes, ponds, marshes and forests. The configuration of this complex landscape changed with the seasonal fluctuations of the river and with major flood events. Large and small mammals, waterfowl, birds of prey and numerous other species were very abundant in this productive habitat. Resident and migratory fish thrived in the river, its side channels and wetland habitats.

This dynamic system changed dramatically in the historical blink of an eye when major settlement began in the mid-1880s. Dredging, diking, filling, land clearing, dams and other impacts resulted in a very different landscape. Few semi-natural remnants of the once extensive Columbia River bottomlands remain in the Portland area and Smith and Bybee Wetlands is one of the largest of these. Smith and Bybee Wetlands occupies nearly 2,000 acres along the Columbia Slough near the confluence of the Willamette and Columbia rivers. This area includes the remnants of two large, shallow lakes and a complex of sloughs and marshes.

The Smith and Bybee Wetlands is a hidden jewel. Surrounded on all sides by industrial development, the area continues to provide essential habitat for rare plants and a diversity of wildlife, from less common species such as the western painted turtle, bald eagle and neotropical migrating songbirds, to ubiquitous species such as raccoons, striped skunks and robins. Pulses of wildlife enter and exit as the seasons and water levels change over the course of the year. During winter when water levels are high, Smith and Bybee Wetlands provide critical off-channel refugia to steelhead trout, Chinook and coho salmon, listed under the Federal Environmental Species Act (ESA). During the spring and summer, bald eagles and neotropical migrating songbirds nest and fledge their young. As water levels recede, autumnal mudflats are exposed, and a suite of wading birds and shorebirds enter the site. Egrets and sand pipers can be found during this time, either stopping over during their fall migration or preparing for an extended stay and overwinter at Smith and Bybee Wetlands. Peregrine falcons have been observed hunting these shorebirds. With the onset of winter rains, the lakes begin to fill, and the cycle begins anew.

Reclamation of the St. Johns Landfill provides an exceptional opportunity to create rare Willamette Valley upland prairie habitat. Much of the historic expanse of Willamette Valley upland prairie has been converted to other uses. Upland prairies are home to a suite of rare birds, mammals, reptiles, butterflies and plants. The nearness of St. Johns Landfill to Smith and Bybee Wetlands only enhances its ecological value. For example, decommissioned ground around the perimeter of the landfill may provide additional nesting sites for western painted turtle, and the forested areas adjacent provide habitat for cavity nesting birds such as American kestrels, which forage over the landfill.

The Smith and Bybee Wetlands Comprehensive Natural Resource Plan is a tool for protecting and enhancing this opportunity. First developed in 1988 (adopted in 1990), the original plan implemented a management framework, provided the funding and instituted the processes needed to begin restoration of the wetlands. The 1990 plan was first developed as a consensus of property owners, neighborhood organizations and residents, environmental interest groups and governmental agencies. The common vision shared by this diverse group included a natural area reserved for fish and wildlife habitat and no-impact or low-impact recreational uses. The adoption of the 1990 plan was the first joint session of Portland City Council and Metro Council. Metro Council President Tanya Collier and Portland Mayor Bud Clark presided. The major outcome was a binding document that:

- Preserved Smith and Bybee Wetlands and incorporated the landfill into the management area
- Formed the Smith and Bybee Lakes Advisory Committee[1] to coordinate the vision with landowners and the community
- Opened the door for Metro's role as owner and land manager
- Approved the use of the landfill's "end use fund" for the entire management area
- Established a vision for the area and a set of initial policies and actions.

This 2011 plan is a new vision. It builds on the legacy of the past 20 years, with an emphasis on restoration of wildlife habitat. This plan also recognizes the importance of integrating human experiences into the Smith and Bybee Wetlands area. Through these experiences, the area will continue to garner support and provide educational assets within an urban setting.

The 2011 plan is a new vision, with an emphasis on the restoration of wildlife habitat and the importance of integrating human experiences into the Smith and Bybee Wetlands area.

[1]*Note: The advisory committee has convened consistently over the past twenty years, but their title has changed. The original name was the Smith and Bybee Lakes Advisory Committee, then a change was made to "management committee." In the late '90s, "lakes" was changed to "wetlands." Unless the reference is to the past, this document will use the current name of Smith and Bybee Wetlands Advisory Committee, rather than Smith and Bybee Lakes Advisory Committee.*

GOAL AND OBJECTIVES

The goal of this plan is to describe a course of action that will protect and enhance the area as an environmental and recreational resource for the region. Smith and Bybee Wetlands are preserved as a historical remnant of the Columbia River riparian and wetlands system, providing an ecological showcase of native habitats and wildlife. The area will be maintained and enhanced, to the extent possible, in a manner that is faithful to their original natural condition. Upland habitats of the St. Johns Landfill will be functionally linked into the wetlands area, adding diverse habitats that support a greater assemblage of wildlife. Only those recreational uses that are compatible with environmental objectives of the plan will be encouraged. Smith Lake and adjacent uplands will be the principal location for recreational activities. Bybee Lake will be less accessible. Its primary use will be as an environmental preserve.

To achieve this goal, the plan establishes a series of objectives that are consistent with the 1990 plan objectives.

1. Control water levels in order to manage the wetlands' environmental system.
2. Provide for and maintain habitat diversity representative of lower Columbia River floodplain wetlands.
3. Maintain and enhance water quality in the wetlands.
4. Implement a monitoring program to ensure early detection of potential environmental problems, and to quantify management programs.
5. Provide access to Smith and Bybee Wetlands that supports appropriate types and levels of recreation.
6. Encourage appropriate types and levels of recreational activities that are compatible with environmental objectives.
7. Incorporate Smith and Bybee Wetlands into the Regional Conservation Strategy, the Oregon Conservation Strategy, the 40-Mile Loop recreation trail system and the Intertwine the region's network of parks, trails and natural areas.
8. Develop upland areas in a manner that is compatible with the preservation and use of the wetlands for passive recreation.
9. Provide opportunities for wetland and environmental system research and education, as well as volunteer stewardship.
10. Develop appropriate funding strategies to implement environmental and recreational improvement projects.
11. Continue the organizational structure to manage the wetlands property as a single management unit to ensure consistent implementation of the plan.
12. Integrate management of the wetland habitats with management of the upland prairie habitat at St. Johns Landfill.

The development of this plan involved many people. Special effort was made by the Smith and Bybee Wetlands Advisory Committee. They set the course for the next steps over 10 years:

- Restoration of seven significant conservation target areas
- Construction of the regional trail and bridge around St. Johns Landfill
- Leverage the Wetlands Fund with substantial grants to accomplish the goals of the plan
- Continue a strong partnership with St. Johns Landfill in the transformation from landfill to upland prairie.

I can't think of any city in the United States that has such a large wetland ecosystem as ideally situated for wildlife as Smith and Bybee Wetlands, which is in the Pacific Flyway and adjacent to the confluence of the Columbia and Willamette Rivers, yet within Portland, Oregon's major population center. The residents of the region have access to this incredible natural resource, which ensures it will meet its objective forever: to provide a sanctuary for a diverse array of plants and animals. **Larry Devroy, Port of Portland**

HISTORY AT THE SMITH AND BYBEE WETLANDS

People have interacted with Smith and Bybee Wetlands in many ways over the years, and there are many stories to tell. It is through these stories that we begin to weave together a rich and dynamic experience, one in which we are connected not only to a complex natural system but to our ancestors. We could talk about the Chinook Nation and their relationship to Smith and Bybee Wetlands or the preservation views of John Charles Olmsted in 1903. But this update to the 1990 plan is the story of the near-past and the present. In the past 70 years we've changed our relationship to Smith and Bybee Wetlands from a city dump and hunting ground to a place where we consciously preserve wildlife, learn about the place, and experience nature in a subtle, nonintrusive manner. Just as the landfill was a utilitarian function that reflected the views of the 1930s, today's conservation ethic reflects who we are in relation to Smith and Bybee Wetlands.

1930 to 1970: urban refuse, leisure, and natural disaster

For more than half a century, wetlands surrounding Smith and Bybee lakes[1] served as a landfill. In 1932 the City of Portland opened a waste incinerator at the site we know today as Chimney Park. For the rest of the decade, ash was disposed between Columbia Boulevard and the Columbia Slough. A bridge was constructed over the slough to what became the St. Johns Landfill, where by 1940 incinerator ash and residential and commercial waste were being buried.

Next to the landfill, Smith and Bybee lakes were a popular hunting, fishing and camping area. The land around the lakes was privately owned, with a hunting lodge and popular camping area – and a

[1]*See note on page 8.*

substantial city. Vanport was the second largest city in Oregon, with a population of approximately 40,000 people, and many worked in the nearby shipyards.

Vanport was especially vulnerable to flooding, because it was built on reclaimed lowlands adjacent to Smith and Bybee lakes. Making matters worse, an unusually heavy snow pack accumulated in the mountainous regions of the Columbia River Basin during the winter of 1948. Heavy rains and melted snow swelled the many tributaries feeding the Columbia in the following spring, creating high water levels not seen since the 1800s.

On the morning of Memorial Day in 1948, the Housing Authority of Portland issued the following statement: "Remember: Dikes are safe at present. You will be warned if necessary. You will have time to leave. Don't get excited."

At 4:17 p.m., the western railroad dike burst, sending a 10-foot wall of water from Smith Lake into the area of Vanport College. Numerous sloughs and backwaters in the area delayed the flood's progress about 30 minutes, giving residents some time to escape. Because of the holiday, many were away from their homes. These factors contributed to the low loss of life: there were 15 deaths reported. Nonetheless, Vanport was a complete loss and never recovered.

After the flood, Smith and Bybee lakes were more isolated from people and continued as a place for hunting, camping, swimming and horseback riding. One family on Smith Lake operated a hunting lodge, and many people hunted ducks and other waterfowl.

1980s and 1990s: transitions and regulations

In 1980, the City of Portland transferred management of the St. Johns Landfill to Metro. The area was included in the urban growth boundary, the invisible line that separates Oregon's urban communities from protected rural land. Soon afterward, hunting was prohibited in the natural area, and fishing and boating were greatly reduced. After assuming responsibility for the property in the early 1990s, Metro limited public access to help enhance the natural resources that made the lakes so valuable.

Over the years there have been many dams in various locations. In 1983 a dam was installed to keep water levels high and reduce the potential of an avian botulism outbreak at Smith and Bybee Lakes. Unable to leave the lakes, the remaining fish grew plentiful and large. These fish, including many exotic species like carp and bluegill, probably originated in the Willamette River. The State record largemouth bass was caught, and the lakes became an important warm water fishery.

In 1985, 55 acres were added to the landfill, but its days were numbered. The City of Portland drafted a Landfill End Use Plan in 1987. People envisioned the landfill as a place for open meadows and recreation. There would be car and recreational vehicle parking, model airplane and archery areas, boat ramps and storage. Plans changed again in 1989, when the Department of Environmental Quality required Metro to construct a multi-layer cover for the entire landfill and install a system to collect gas from decomposing wastes. These features were designed to protect air and water quality from the effects of buried waste. As a result, the focus for the landfill shifted to environmental protection and conservation.

Over the next two years, a strong group of citizens and experts developed the Natural Resources Management Plan, which was a significant catalyst for change. Adopted by city council and Metro in 1990, the plan superseded the Landfill End Use Plan, and established a blueprint for landowners and public agencies to take action. At this time, Metro assumed ownership and liability for the landfill itself, although the surrounding area included many owners. Preparing the 1990 plan brought together diverse parties with a strong vision.

> The goal…is to protect and manage the Smith and Bybee Lakes as an environmental and recreational resource for the Portland region. The lakes will be preserved as historical remnants of the Columbia River riparian and wetlands system...they will be maintained and enhanced, to the extent possible, in a manner that is faithful to their original natural condition. Only those recreational uses that are compatible with environmental objectives…will be encouraged.
>
> *(1990 plan, page 9)*

As kids in the 1960s and early '70s, Terri Smith-Weller and her friends used to water ski on Smith Lake. West of the boat ramp on the south side of the lake there was a cabin with a wood stove and kitchen. The Smith-Weller family ran a riding academy that rented and broke horses in the late 1940s, probably until the Vanport Flood. The barn was in the area between the diked area and the Columbia Slough.

In the 1960s a private boat club, the 21 Skeeters, had a dock near the boat ramp on the south side of Smith Lake. A raft was anchored near the north tree line, where the water was smoother, drawing as many as 10 families on sunny Sundays.

Smith Lake was considered a better place to water ski than the Columbia River because the trees around the lake blocked the wind. The water on the north side of the lake was beautifully smooth. The water in Smith Lake was about as turbid as it is now. Mosquitoes weren't a problem, likely because the lake was sprayed. Terri remembers that planes would fly over in the early morning spraying the lake – probably with DDT.

On days too cold to water ski, the family took their boat to explore the Columbia Slough. If they went east they reached an area where the Swift meat packing plant dumped liquid animal waste – blood, probably – into the slough. They knew the slough was much more polluted than the lake and avoided touching its water. **As told by Terri Smith-Weller**

In 1991, the landfill closed and the process to cap and cover the landfill began. The Smith and Bybee Lakes Fund was created, with the Smith and Bybee Lakes Advisory Committee as keepers of the vision and Metro as fiscal agent. This structure set the course for conservation of the wetlands as the top priority for the next 20 years.

1990 to 2010: ecology and education

During the past 60 years, community perspective on Smith and Bybee Wetlands has evolved. The days of hunting, garbage disposal, and water skiing are long gone, but people are still discussing the appropriate level of human interaction with nature. The 1990 plan for the area called for a significant environmental education center and trails around all edges of the lakes. However, a major flood in 1996 changed people's perspective on the area. Waters extended over the landfill road, covering it in eight feet of water, and continuous water joined both lakes and the slough. After the flood, the wetlands were viewed even more than before as a watery, changeable environment. Plans for an environmental education center faded, and the earthen dam between the slough and Bybee Lake was replaced with a water control structure, allowing the hydrology to be altered seasonally.

Children were watching a cottontail rabbit cross their path on the Interlakes Trail. It was very close as it hopped from the trail into the shrubbery. Soon afterward, a weasel crossed the trail right in front of the group. They were amazed to see it so near. Suddenly, the squeal of a dying bunny was heard and the weasel came out of the shrubs with a ball of fur in its mouth. It crossed the trail for the second time, right in front of the group. I was surprised the students did not react negatively to the experience. They were excited at the opportunity to witness a "secret" of nature. The teacher was moved by the experience and very happy the children experienced nature in such a dramatic way. **James Davis, Metro Naturalist**

In 2001 the City of Portland planned the realignment of Marine Drive, initially infringing on significant habitat for western painted turtles. Many partners came together to protect them, including neighboring landowners who sacrificed some of their land to shift the road location. Parking at Smith and Bybee Wetlands was relocated, and a new canoe launch, picnic tables and a restroom were constructed. The action to protect the turtles was a significant demonstration of the growing interest in habitat protection.

In 2004 the community engaged in a difficult discussion about the relationship between people, trails and habitat preservation. Participants in a feasibility study eliminated planned trails along the east edge of Smith Lake and debated the route of a regional east-west trail connecting the North Portland neighborhood with the trail to Kelly Point Park and Marine Drive. Eagle and blue heron nesting sites were at odds with the regional trail, which would provide important nature experiences and neighborhood and regional connections. The debate was at times heated. Ultimately, the Trail Feasibility Committee summarized the issues and left the decision to the Metro Council. Councilors decided to locate the trail away from the lake's sensitive south side, if a route on the other side of the slough proved feasible. This decision again reflected a growing conservation ethic at Smith and Bybee Wetlands and showed caution in putting people too close to wildlife.

Meanwhile, environmental education was growing at Smith and Bybee Wetlands, even without the previously planned education center. From 2002 to 2009, the Smith and Bybee Wetlands hosted 481 school field trips, public events and group programs (see Appendix C-5, Education Programs). Nearly 12,000 people, including many school groups, have experienced nature and learned about wetland ecosystems here. The primary location for teaching and exploring has been the Interlakes Trail, a paved, accessible trail with two viewing platforms, which is used by 20 to 30 people daily (see Appendix B-4, Trail Counts).

With its transformation to an upland prairie, the former landfill has attracted wildlife. The flora and fauna that use Smith and Bybee Wetlands as a home or refuge show that wildlife can survive in cities, if given habitat that can support them. Deer, coyote, river otter, beaver, mink, long tail and short tail weasel and the western painted turtle have all been seen on the former St. Johns Landfill. As the methane production decreases and human safety increases, there will be more opportunities for wildlife viewing and education.

The wetlands are identified as an Important Bird Area (IBA) in the state of Oregon, part of an international system of sites that have been inventoried for exceptional avian habitat values. The IBA program is managed by the Audubon Society of Portland and the National Audubon Society.

Having community partners helps Metro do more than we could alone and do it better. Broad perspectives help produce better decisions and partners create capacity to do things that would otherwise be left undone.

Dave Helzer, City of Portland

The IBA program has identified the wetlands for supporting tens of thousands of migratory ducks and geese, plus annual concentrations of well over 500 egrets and herons. Rare species like American white pelicans and willow flycatchers utilize habitats in the natural area. Grassland birds species that are experiencing serious population declines stopover on the landfill's upland habitat. Large migratory flocks of sandpipers and plovers foraging on emerging mudflats in late summer. Sustaining habitats for these myriad avian species is a major component of the plan.

Today, Smith and Bybee Wetlands is a beloved area for canoeists and kayakers. The area is large enough to provide a tranquil day trip of navigating Smith and Bybee Wetlands. The best time for paddling is during high water; after about June, the water levels are too low. Many describe the paddling experience as peaceful and surprising. Some say that thanks to the screen of vegetation, they feel as if they have left the city and entered a wilderness area.

The ways people can experience Smith and Bybee wetlands are limited, and have become more limited over the past 20 years. But the value is clear. The stories that people tell about the area's past and present reflect our appreciation of natural habitats and wildlife.

The conservation of this landscape was achieved, in part, through the 1903 Olmsted Land Legacy report. As stated in the Olmsted Land Legacy report, "John Charles Olmsted envisioned a great meadow preserve along the Columbia Slough reaching to Vancouver that would protect the beautiful bottom land scenery." Smith and Bybee Wetlands today is a microcosm of this vision. It has beautiful wetlands and the upland grassland of the St. Johns Landfill. Today the area's vast natural resources provide Portland metropolitan area residents with opportunities to experience this rare remnant of the Columbia River and slough wetland system. This vision for Smith and Bybee Wetlands will continue to coordinate the area's complex wetland ecological system, provide educational and recreational opportunities and create memories to pass along to future generations.

For birders the winter may be the best time to paddle across the lakes. Some of the best experiences you can have are early on a light, drizzling weekend morning because there is less noise from the nearby freeway and you can hear the surrounding wildlife. On days like these, you can spend time watching and recognizing birds — familiar and unfamiliar. There are frequent sightings of resident bald eagles flying overhead and occasional sightings of white pelicans. Bird activity can be tremendous in the winter and quite breathtaking. Many urbanites would never imagine having the opportunity of seeing these birds in the city, but you can at Smith and Bybee. **An enthusiastic birder**

Smith and Bybee Wetlands time line

Chinook Native Americans lived near and navigated the waterways of the lower Columbia River and Slough.

Hunting lodge operated by the Smith family on the lake.

Smith and Bybee Lakes were a popular camping area.

Smith Lake floods and devastates the Vanport area.

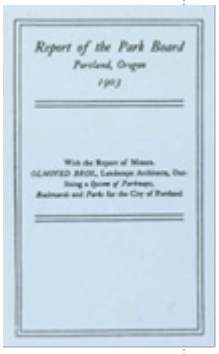
The natural area moves from a semi-private hunting area to a popular recreation area with hunting, fishing, boating, waterskiing and hiking activities.

1800 | 1900 | 1950 | 1960

Abundance | Wildlife and habitat degradation

Lewis and Clark Expedition in spring of 1806 – journals detail landscape and Native American life.

1903 report to the Park Board. The Olmsted brothers inspire a vision to preserve areas like Smith and Bybee for future generations.



St. Johns Landfill opens to public as the City Dump.

Earthen dam installed on North Slough –trap fish species within the lakes.

1996 Floods – Smith and Bybee Lakes are indistinguishable and flow into one large water body.

Interlakes Trail is constructed.

1970 | 1980 | 1990 | 2000 | 2010

Legislative change

Conservation

The nation's first environmental protection legislation emerges – a new focus on water quality monitoring and restoration and conservation.

Metro's Smith and Bybee Wetlands Natural Area education program begins.

Smith and Bybee Lakes Wildlife Area Rec. Facilities Plan (1999) – reassessment of natural area after 1996 floods. The plans for the Interpretive Center and many proposed trails are cancelled.

Smith and Bybee Comprehensive Natural Resource Plan focuses on conservation targets and access for people to experience nature.

Smith and Bybee Lakes Natural Resources Management Plan is adopted (1990) and establishes conservation as the top priority.

Metro is given the responsibility for the closing of the St. Johns Landfill.

Oregon State Legislature stopped expansion of landfill. Began to protect wetlands.

St. Johns Landfill closed to the public and covered. The gas system precludes active recreation plans.

The water control structure replaces earthen dam on the North Slough. It allows hydrology to mimic historic levels.

Canoe launch, picnic area and restrooms built based on preserving western painted turtle habitat near Marine Drive.

Smith and Bybee Wetlands Trail Feasibility Study completed – establishes priority for nesting birds on the south side of Smith Lake.


Willamette River
Lombard St bridge
N Lombard St
North Slough
Bybee Lake
Marine Drive
Flood control structure
St Johns Landfill
Landfill bridge
Smith Lake
Blind Slough
Columbia Blvd
Columbia Slough
Portland
800 400 0 800 Feet

PLANNING PROCESS SUMMARY

MANAGEMENT AREA

The Smith and Bybee Wetlands Area is 2,100 acres. This management area is bounded by North Portland Road, Columbia Slough and the Rivergate Industrial District. The project area also includes Columbia Slough, the Ramsey Lake wetland mitigation area and the St. Johns Landfill.

Smith and Bybee Wetlands site map

Biological features – habitat

- Two shallow lakes, including permanent open water, emergent wetlands with smartweed and willow
- Forested wetlands, primarily willow, with some areas of Oregon ash and black cottonwood
- Sedge meadow wetlands
- Seasonal ponds
- Upland grassland, riparian woods and woodlands.

Biological features – fish and wildlife

- 17 species of fish identified, including resident warm water game species, nongame species and migratory salmonids
- More than 150 bird species
- Numerous species of reptiles, amphibians, mammals, insects and aquatic invertebrates.

PLANNING PROCESS

This plan builds on a long and distinguished history of planning at Smith and Bybee Wetlands. Highlights include the 1972 North Portland Peninsula Plan that recognized the wetlands as a viable natural asset for the Rivergate District and was the first plan to establish a balance between development and preservation of natural resources. This was followed by environmental studies by the Port of Portland and the City of Portland's Bureau of Environmental Services in 1987. The findings from these studies led to the development of the 1990 plan.

As work began on this 2011 Comprehensive Natural Resource Plan (CNRP), the accomplishments from the 1990 plan were readily apparent:

- The establishment of the Smith and Bybee Wetlands Fund, which provides ongoing support for restoration within the management area by Metro staff
- The Smith Bybee Management Committee was established to safeguard the vision
- Property acquisition largely consolidated property into public ownership
- Construction of an effective water control structure
- Habitat restoration projects on more than 100 acres of land dominated by invasive species such as reed canarygrass
- Construction of recreational facilities, including a parking lot, restrooms, trail access and canoe launch
- Hosting environmental education at the site
- Covering the St. Johns Landfill and implementing effective environmental controls.

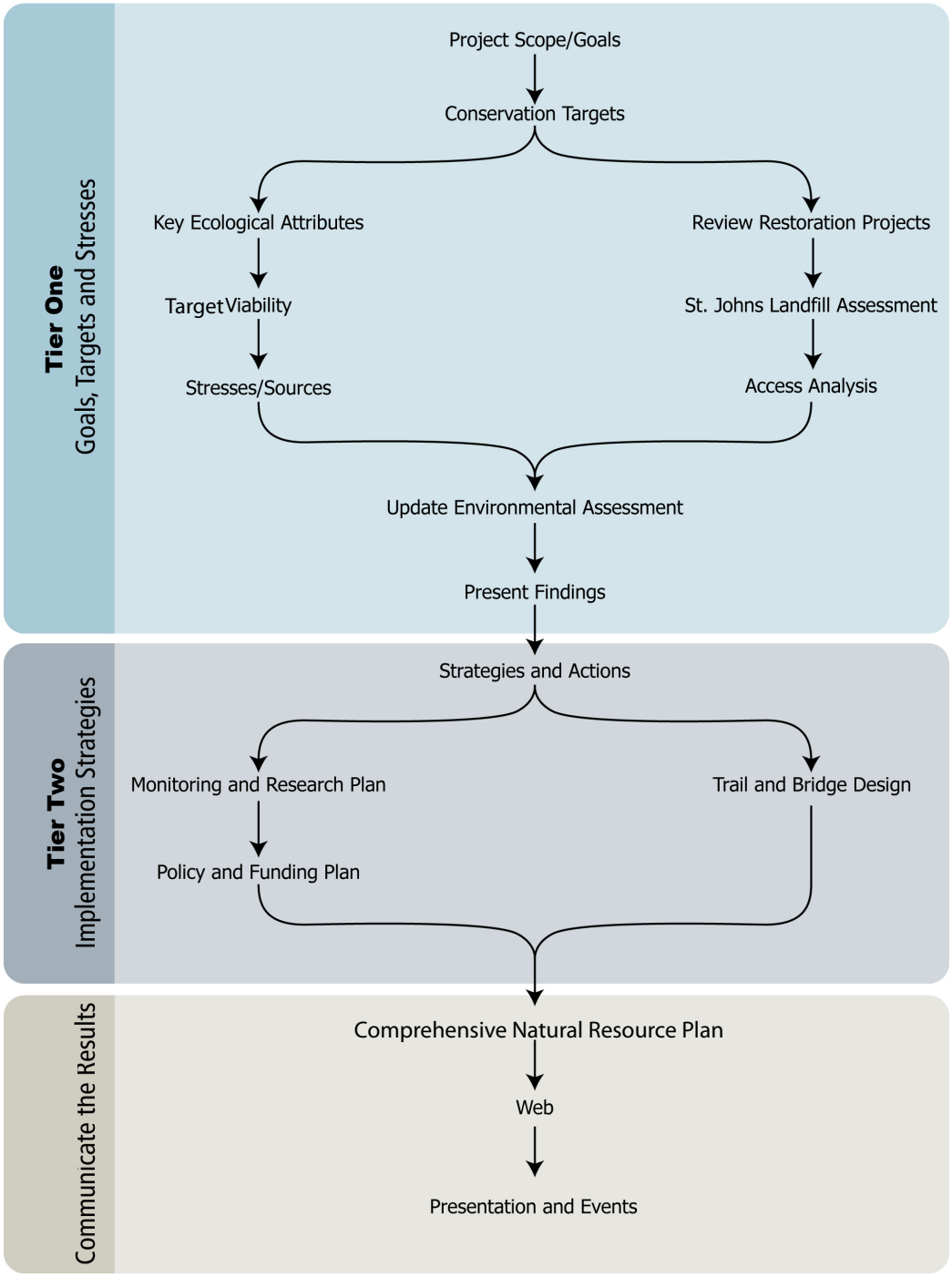
With this in mind, the planning process began to update the 1990 plan. After 20 years of management there was a new set of objectives. It had become particularly important to establish specific, measurable objectives and strategies that clearly linked to stresses affecting the identified conservation targets. This would allow tracking progress, learning and reporting on the value of funds expended. It was also important to revisit and confirm or modify the vision.

Finally, since the 1990 plan was adopted, the St. Johns Landfill was transformed from a site typically associated with environmental and public liability to a community asset with significant potential. The site is still heavily regulated and will always carry potential environmental risk - an estimated 15 million tons of garbage were dumped there. However, there is now ample opportunity to develop a diverse and resilient landscape at the site. Incorporating this thinking into the plan was timely, along with consideration for the regional trail on the landfill, which would offer the community new opportunities for hiking, bicycling and wildlife viewing.

The planning process began in the summer of 2009 with a discussion of the key topics to address and who should be involved. The Smith and Bybee Wetlands Advisory Committee provided the forum and direction for the planning process, led by Metro and David Evans and Associates (see Appendix C-2 for committee members). The plan meetings were open to the public and a long list of interested people were invited to each meeting. Meetings were held approximately every other month through May 2011. A public open house and landfill tour was held in October 2010 and presentations were made to interested organizations throughout the planning process.

The planning process was based on a two-tiered approach to improve conservation and integrate meaningful human experiences through physical and visual access. The plan recognizes that the conservation of species, habitat and natural features must occur simultaneously with the provision for human access to these natural systems. Education and exposure are the cornerstones for protecting the natural area for decades to come. This two-tiered approach also recognized that

PLANNING PROCESS DIAGRAM



conservation and access generally have different stakeholders, different funding sources, and different strategic approaches.

Initially stakeholders reviewed the overarching project goals and objectives common to both conservation and access. The project then developed conservation and access strategies independently. The conservation planning followed a methodology established by The Nature Conservancy and the planning for access built on the 2005 Trail Feasibility Study.

Along with the technical discussions around conservation and recreation, the committee reviewed and revised many components of the management of the wetlands. In 1990 there were many landowners and the designated manager, Metro, had no experience managing natural areas. After 20 years that picture had changed. As a result, the committee reflected on several aspects of management. Early in the planning process the committee joined Metro in recommending that a new type of document be used for the vision. The 1990 plan was adopted into Portland's zoning code and proved unwieldy to modify. As a result, the 2011 plan will move to the Comprehensive Natural Resource Plan, which is adopted through a land use process and can be modified. Other management aspects reviewed and revised included use of the Smith and Bybee Wetlands Fund, the roles of the committee and Metro in management decision-making, and the policies that guide actions that will increase the wetlands' protection and appreciation by the community.

This is anticipated to be a plan for 10 years. During that time the strategies and actions will be carried out, measured, evaluated and adjusted as necessary to achieve plan goals and objectives. Success will be measured against the goals and objectives that were largely established in the 1990 plan and carefully brought up-to-date with this plan.

CONSERVATION

Conservation has been a priority at Smith and Bybee Wetlands for the past 20 years. After pursuing restoration during this period, one of the fundamental questions facing the project team is "Are the conservation strategies that we are using having their intended impact?" This question is important to the practitioners implementing the strategies, the advisory committee, as well as the stakeholders and donors that support them. This section of the plan provides a framework for conservation in the Smith and Bybee Wetlands and sets the stage to answer that question over the next 10 years. This framework follows the Conservation Action Planning template (The Nature Conservancy 2007) and includes:

Define conservation targets

Species, communities or ecological systems that encompass the native biodiversity of the site. Targets may be habitats, with nested species or individual species if they cross habitats. Example: riparian forest.

Define key ecological attributes

A key attribute, if missing or altered would lead to the loss of the target over time. The condition may be good, fair or poor at the time of establishing the target. Example: riparian forest native tree and shrub richness measured by number of native plant species per acre.

Analyze threats and sources

Analyze and rate the level of damage expected, the geographic scope of the impact the contribution of the source, and the irreversibility of the degree to which the effects can be restored. Example: changes in plant community composition due to competition by invasive species.

Develop action plan

Based on the conditions that should move the attributes from a "poor" to a "good" condition and the associated threat ratings, the action plan sets strategic goals for restoration.

Develop monitoring plan

The monitoring plan systematically reviews the key attributes and progress on the condition indicators. Monitoring results may suggest adjustments needed to the action plan.

CONSERVATION TARGETS

Conservation targets are species, communities or ecosystems that, when conserved, ensure the conservation of all native biodiversity at a site. They reflect local and regional conservation goals and are viable or at least feasibly restorable. One example is upland prairie: A healthy prairie has diverse flowering plants that provide food and habitat for pollinating insects. The upland prairie conservation target, when fulfilled, "brings along" a full array of biodiversity.

The complexity of habitats and species at Smith and Bybee Wetlands could be characterized in many different ways. In order to be manageable, between five and 10 targets were discussed, starting with habitats present at the site. Each habitat represents the numerous species that are affiliated with the habitat and depend on its health. For example, healthy riparian forest in the Columbia River bottomland should have large trees. Large trees provide nest sites for a variety of wildlife including bald eagles. Bald eagles are not considered a conservation target themselves, but are considered a "nested target" within the riparian forest habitat conservation target. All wildlife are considered nested targets with two exceptions: Western painted turtles became a conservation target because they cross habitat types, requiring special conditions for nesting, basking, etc.; and the Streaked Horned Lark because they have been observed within the management area, are known to occur on adjacent parcels and are a candidate species under the Federal ESA.

The conservation target methodology and the associated ecological attributes are discussed in detail in Appendix A-2, Conservation Targets Background, and Appendix A-3 through A-3.7, Key Ecological Attributes. Using on-site habitat types and regional conservation planning efforts as guides, conservation targets were selected that encompass the site's biodiversity values and regional conservation targets. (See map page 26.) These conservation targets are:

Upland prairie

The grassland at the 250-acre St. Johns Landfill could incorporate many elements of native Willamette Valley upland prairie. About 97 percent of the historical expanse of Willamette Valley upland prairie has been converted to other uses. Metro and many other organizations are actively engaged in upland prairie restoration activities at sites throughout the valley. Streaked Horned Lark and western meadowlark are both Oregon Conservation Strategy species that are associated with upland prairie habitat.

Emergent wetlands and open water

Emergent wetlands occupy approximately 825 acres of the site. Nested conservation targets included with emergent wetlands are Columbia sedge meadows and mudflats. The Columbia sedge plant community is listed as "critically imperiled" both globally and in Oregon by the Oregon Biodiversity Information Center.

Permanent open water habitats include ponds and Columbia Slough as well as Bybee and Smith Wetlands; they cover approximately 300 acres at drawdown. Mudflats become exposed as the water is drawn down over the summer, providing valuable habitat for migrating shorebirds.

Seasonally high open water covers more than 800 acres in the winter and spring prior to drawdown. Juvenile salmonids, including Chinook, coho and steelhead, feed and grow in the wetlands and are a nested target within the emergent/open water conservation target. During high flows, these off-channel habitats provide critical refugia for the young fish.

Shrub wetlands

When fully restored, shrub wetlands will occupy approximately 360 acres of the site. Little Willow Flycatcher, an Oregon Conservation Strategy species for the Willamette Valley, is closely linked with this habitat.

Bottomland hardwood forests

Bottomland hardwood forests will cover approximately 260 acres of the site. Existing stands of Oregon ash include mature trees that are more than 200 years old. These forests are frequently inundated and provide valuable habitat for neotropical migrants, such as Swainson's thrush and Yellow warbler, and sensitive bat species that may include hoary bat and Yuma myotis.

Riparian forests

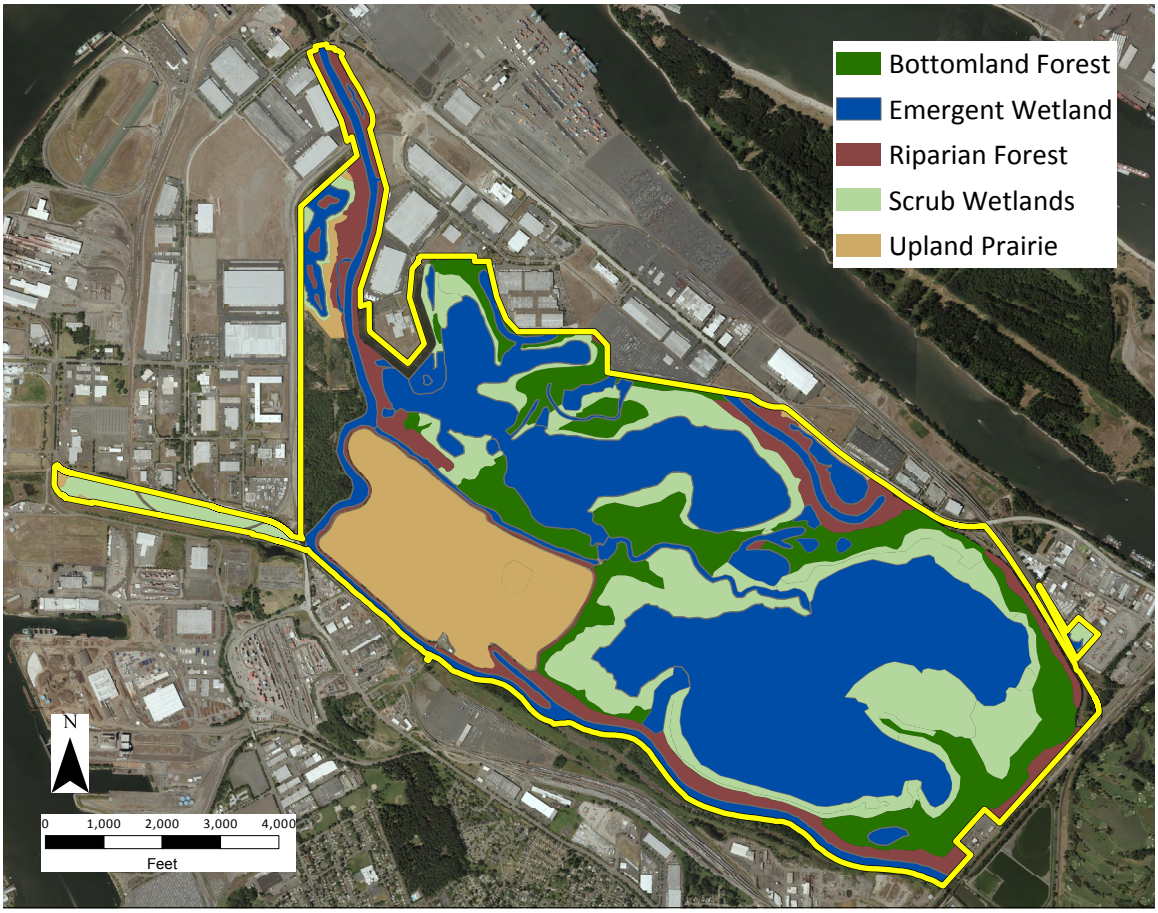
Riparian forests are gallery-type forests dominated by black cottonwood that line the sloughs throughout the site. These narrow bands of forest provide nesting sites for bald eagle and rookery sites for great blue heron. The bald eagle is a nested conservation target of this habitat type. This habitat occupies approximately 175 acres.

Western painted turtle

Western painted turtles are residents of the open water habitats at Smith and Bybee Wetlands area, but they also rely on other habitats for basking and nesting, including the St. Johns Landfill. The western painted turtle is an Oregon Conservation Strategy species and the population at Smith and Bybee Wetlands is the largest known remaining population in the state.

Streaked Horned Lark

The Streaked Horned Lark is declining throughout its range, including the Portland metropolitan area. Experiments aimed at creating breeding habitat are ongoing at the St. Johns Landfill. While pairs have yet to breed at the site, pairs have bred at the nearby Rivergate Industrial District and have been observed scouting the newly established habitat at the landfill. The Streaked Horned Lark is a candidate for listing under the Federal ESA, is an Oregon Conservation Strategy species, and is a focal species in other conservation plans for the Willamette Valley.



Conservation targets

KEY ECOLOGICAL ATTRIBUTES

Once a conservation target is identified, key ecological attributes (KEAs or attributes) are used to measure its health or viability. They are:

- Aspects of a target's biology or ecology that, if missing or altered, would lead to the loss of that target over time
- The biological or ecological components that most clearly define or characterize the conservation target, limit its distribution, or determine its variation over space and time
- The most critical components of biological composition, structure, interactions and processes, and landscape configuration that sustain a target's viability or ecological integrity.

These concepts of targets and attributes are translated into specific indicators that can be measured. By evaluating and rating the attributes' indicators, the foundation is built for establishing restoration goals, tracking progress and measuring success. Below is an example of attributes and indicators for the bottomland hardwood forest target.

Conservation target: Bottomland forest

Type	Key ecological attribute	Indicator
Size	Extent of bottomland forest including Oregon ash forest	Acres of bottomland forest
Condition	Vegetative structure: tree layer	Percent native tree canopy cover
Condition	Mature Oregon ash	Number and size of mature Oregon ash per acre
Condition	Native tree recruitment	Number of Oregon ash saplings per acre
Condition	Key habitat feature presence: snags	Number of snags per acre

KEAs and indicators are fully described in Appendix A-3, Key Ecological Attributes.

Metro mapped the conservation targets and provided a preliminary assessment of the overall status of the KEAs for this plan. The map contains 100 individual polygons representing the conservation target habitat types split between those patches where the KEAs are generally in good or very good condition, or those in poor or fair condition.

All of the bottomland hardwood forest is presently in poor to fair condition, as is much of the upland prairie target (see table below). A total of 719.8 acres are in poor to fair condition.

Conservation target	GOOD OR VERY GOOD CONDITION		POOR OR FAIR CONDITION	
	Acreage	Number of units (polygons)	Acreage	Number of units (polygons)
Open water/emergent wetland	778.5	14	45.2	13
Shrub wetland	177.6	13	185.6	14
Bottomland forest	0.0	0	259.9	13
Riparian forest	159.8	19	15.6	6
Upland prairie	18.1	6	213.5	2
Totals	**1,134.0**	**52**	**719.8**	**48**

THREATS AND SOURCES

An effective conservation strategy requires an understanding of threats to targets and the sources of those threats. Adjacent development and subsequent disruption of natural systems place stress on the resource and its inhabitants and threaten the health of the greater ecosystem. More specifically, the following threats are evident:

- Disruption to natural water regimes
- Invasive plants and animals
- Disruption in habitat connectivity
- Human disturbance.

Each conservation target was evaluated for threats. Below is a sample from the open water/ emergent wetlands conservation target:

Stress	Stress rank	Source	Source rank	Comment
Native herbaceous species competition for space, water, light, nutrients	Very high	Invasive species; reed canarygrass	Very high	Related to vegetative structure KEA
Decreased fish and amphibian fitness	High	Pollutants in storm-water outfalls	High	Related to water quality KEA
Altered hydrograph	High	Water releases, held by dams	High	Related to native forb and graminoid KEAs
Reduced food supply for ducks, shorebirds	Medium	Invasive species; carp	High	

The methodology is described in more detail in Appendix A-4, Threats and sources.

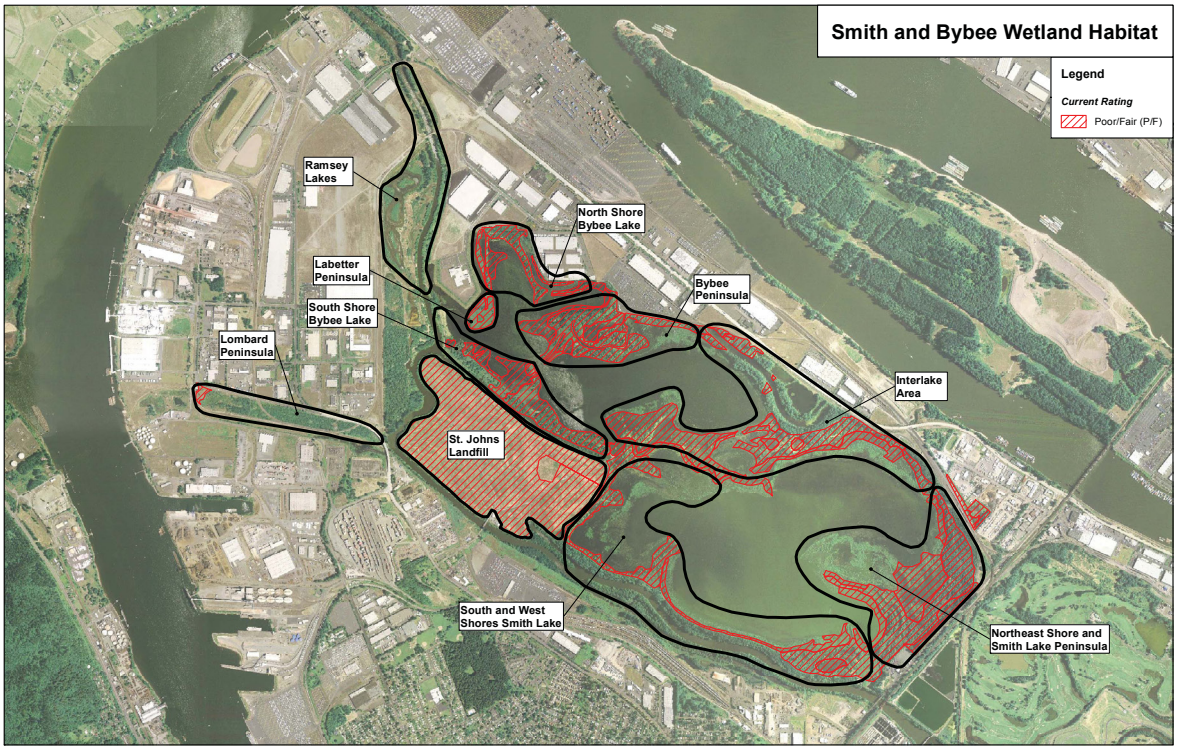
Even though the landfill prairie is artificial, I love standing on the open grassland, envisioning a time when it will be filled with the spring song of grassland birds; while looking out across the vast expanse of old ash trees, willows and open water.
Jonathan Soll, Science and Stewardship manager, Metro

CONSERVATION TARGET GOALS AND STRATEGIC ACTIONS

Based on the above methodology, the plan outlines strategic actions to be carried out at Smith and Bybee Wetlands over the next 10 years. They are based on the short- and long-term goals for the conservation targets and enhancing the visitor experience. The strategic actions described here are general courses of action to achieve these objectives and not highly prescriptive courses of action. Specific prescriptions will be developed by Metro staff and other public landowners (Port of Portland, City of Portland) to address site-specific conditions encountered in the targeted action areas.

By applying the conservation action planning template, about 590 acres of habitat are prioritized for restoration over a 10-year period throughout the Smith and Bybee Wetland area. This includes about 210 acres of upland prairie at St. Johns Landfill. Because of the large size of the restoration effort that is needed and the constraints of the current budget, actions have been prioritized into one of three categories:

- Priority 1 – These actions would provide significant ecological, educational or visitor experience benefits and are planned to be implemented in first five years of this plan.
- Priority 2 – These actions, although important to the ecological health of Smith and Bybee Wetlands area and when completed would improve the visitor experience, are less important than Priority 1 actions. Priority 2 actions would be implemented during the second five years of this plan, but implementation would be dependent on completion of Priority 1 actions. These actions may also be supplanted by the need to address new threats, such as the need to control a new invasive species. The priority rating may also change depending on what Metro learns through monitoring the effects of the Priority 1 actions (an adaptive management approach).
- Priority 3 – These actions, while beneficial to implement, are not likely to occur within the 10-year time frame of this management plan, given current budgetary limitations (personnel and money).



Conservation target: emergent wetland/open water

Short-term goal

By 2021, increase the extent of Columbia sedge meadow with greater than 40 percent Columbia sedge cover by 22 acres; manage hydrologic conditions that will allow increased distribution of Columbia sedge throughout emergent wetland habitat; and maintain ovipositing habitat for breeding amphibians and fish passage for anadromous salmonids.

Long-term goal

The desired future condition is to have all key ecological attributes functioning at the good to very good levels, thereby maintaining and restoring habitat suitable for sensitive species such as the tricolored blackbird, dusky Canada goose and migrating and overwintering shorebirds, and providing off-channel refugia for ESA-listed anadromous salmonids.

Strategic actions

Restoration actions will be concentrated where Columbia sedge meadows currently have an established presence and will be undertaken to allow Columbia sedge to spread, either through natural recruitment, direct seeding with site-collected seed, or planting of plugs grown from site-collected Columbia sedge seed.

Table 1: emergent wetland (Columbia sedge meadow)

Restoration area	Priority 1 0-5 years	Priority 2 6-10 years	Priority 3 10+ years
South Shore Bybee Lake		1.8	
Leadbetter Peninsula	6.7		
Bybee Lake Peninsula	3		6.3
Interlake Area	5.1		
South and West Shores Smith Lake		8.5	
Subtotal	11.8	10.3	6.3
Total acreage			**28.4**

EMERGENT WETLANDS AND OPEN WATER

The long-term goals include restoring habitat suitable for sensitive species such as the tricolored blackbird, dusky Canada goose and migrating and overwintering shorebirds. The open water rises and falls from 300 to 1,000 acres and provides off-channel habitat for ESA-listed salmon juveniles.

Conservation target: shrub wetland

Short-term goal

By 2021, restore 31 acres of degraded shrub wetland habitat to good condition for native shrub richness and canopy cover KEAs. These actions will link shrub wetland habitats that are in good condition but currently separated from other habitats by reed canarygrass monocultures.

Long-term goal

The long-term desired future condition is to have all KEAs functioning at good to very good levels and providing suitable habitat for special status species such as the Little Willow Flycatcher and ovipositing native amphibians.

Strategic actions

Restoration will be initiated to establish a native shrub plant community in areas currently dominated by reed canarygrass.

Table 2: shrub wetlands

Restoration area	Priority 1 0-5 years	Priority 2 6-10 years	Priority 3 10+ years
South Shore Bybee Lake		14.4	
North Shore Bybee Lake			7.7
Bybee Lake Peninsula			17.1
Interlake Area		5.1	
Smith Lake Peninsula and Northeast Shore			39.6
South and West Shores Smith Lake	11.3		
Subtotal	**11.3**	**19.5**	**64.4**
Total acreage			**95.2**

SHRUB WETLAND

With 550 potential acres at Smith and Bybee Wetlands, the shrub habitat is one of the largest habitats. The long-term goal is to provide high quality habitat for species such as the Little Willow Flycatcher and the red-legged frog.

Conservation target: bottomland forest

Short-term goal

By 2021, restore 117 acres of degraded bottomland forest to fair condition including consideration of native tree cover and sapling presence by planting Oregon ash where reed canarygrass monocultures currently fragment the bottomland forest habitats.

Long-term goal

The long-term desired future condition is to have all KEAs functioning at very good levels, thus creating future interior habitat suitable for special status species such as purple martin, yellow-breasted chat, northern red-legged frog, and two bat species, California myotis and Yuma myotis.

Strategic actions

Restoration will be initiated to establish a bottomland forest plant community in areas currently dominated by reed canarygrass. These actions will link fragmented forested communities and by doing so will reduce edge effect while increasing interior habitat patch size. This will be accomplished through a combination of aggressive site preparation, planting, caging and annual maintenance.

Table 3: bottomland forest

Restoration area	Priority 1 0-5 years	Priority 2 6-10 years	Priority 3 10+ years
South Shore Bybee Lake	27.5		
North Shore Bybee Lake			15.6
Bybee Lake Peninsula			33.1
Interlake Area	28.8	36.3	
Smith Lake Peninsula and Northeast Shore			88.1
South and West Shores Smith Lake	24.0		
Subtotal	**80.3**	**36.3**	**136.8**
Total acreage			**253.4**

BOTTOMLAND FOREST

Bottomland forests include willow and Oregon ash forests, with 100-year-old trees present. These forests are frequently inundated and provide valuable habitat for neotropical migrant birds, bats and native amphibians.

Conservation target: riparian forest

Short-term goal

By 2021, protect large trees from beaver predation in 79 acres of riparian forest.

Long-term goal

The long-term desired future condition is one where forested and shrub habitats are continuous, not fragmented by reed canarygrass monocultures, thereby greatly increasing the extent of interior habitat at Smith and Bybee Wetlands. All KEAs will be functioning at good to very good levels. Note that existing industrial development and accompanying infrastructure will continue to limit our ability to improve the wildlife movement corridor KEA to very good condition.

Strategic actions

The only areas of riparian forest currently functioning in a poor to fair condition are found in the Interlake Area and in the area that forms the outside edge of Smith and Bybee Wetlands along North Portland Road. Restoration actions will include a combination of aggressive site preparation, planting, caging, and annual maintenance.

Table 4: riparian forest

Restoration area	Priority 1 0-5 years	Priority 2 6-10 years	Priority 3 10+ years
Interlake Area (protect existing trees)	29.2		
Northeast Shore Smith and Lake Peninsula			7.9
South and West Shores Smith Lake (protect existing trees; plant new areas)	49.6		
Subtotal	**78.8**	**0.0**	**7.9**
Total acreage			**86.7**

RIPARIAN FOREST

These narrow bands of forest that line the sloughs are dominated by black cottonwood and provide nesting sites for bald eagles and rookeries for great blue herons.

Conservation target: upland prairie

Short-term goal

By 2021, restore 140 acres of degraded upland prairie to fair condition for native forb and graminoid cover and availability of natural perches KEAs.

Long-term goal

The long-term desired future condition is to have up to 210 acres of contiguous upland prairie with all KEAs functioning at good to very good levels, thus creating up to ten male meadowlark territories and habitat suitable for other grassland associated species such as Grasshopper Sparrow, Oregon Vesper Sparrow, Western Bluebird, Common Nighthawk, Northern Harrier, Streaked Horned Lark, and Short-eared Owl. Additionally, suitable conditions for nesting western painted turtles will be maintained along the perimeter of the St. Johns Landfill.

Strategic actions

Aggressive site preparation using a variety of techniques to reduce non-native, rhizomatous grass cover and to prepare a seedbed that will allow native grasses and forbs to be successfully established.

Table 5: St. Johns Landfill

Conservation target	Priority 1 0-5 years	Priority 2 6-10 years	Priority 3 10+ years
Upland prairie	80	60	70
Total acreage			**210**

UPLAND PRAIRIE

About 97% of the historic Willamette Valley upland prairie has been converted to other uses. The long-term goal at the St. Johns Landfill site is to have up to 210 acres of contiguous upland prairie with a majority of native plants. Because of the dominant non-native grass, this is perhaps the most ambitious goal in the plan.

Conservation target: western painted turtle

Short-term goal

By 2021, increase the number and distribution of suitable nesting area KEAs for western painted turtle to very good condition by establishing new suitable nest sites. Increase the basking site availability KEA from fair to good condition by importing basking logs into areas that currently have insufficient basking sites available.

Long-term goal

The long-term desired future condition is to maintain conditions that will support a viable population of western painted turtles by having all key ecological attributes functioning at good to very good levels. Existing industrial development and accompanying infrastructure will continue to limit our ability to improve nest site connectivity to open water and dispersal corridor KEAs to very good condition.

Strategic actions

Install basking logs along the perimeter of ponds, lakes and sloughs that lack sufficient material. Locate suitable upland nesting locations, create bare and sparsely vegetated area and limit disturbance.

WESTERN PAINTED TURTLE

Western painted turtle are residents of the open water, moving to other habitats for nesting and basking. The surrounding industrial development limits the movement of this Oregon Conservation Strategy species and the long-term goal is to maintain conditions that will support a viable population of these turtles.

Top photo: The invasive red-eared slider (second from right) basks with native painted turtles.

Conservation target: Streaked Horned Lark

Short-term goal

By 2021, attract nesting pairs and successfully fledge Streaked Horned Lark at the St. Johns Landfill by creating and maintaining ten acres of sparsely vegetated or bare ground nesting habitat with KEAs for graminoid height, woody vegetation cover, and rhizomatous grass dominance functioning at very good to good levels.

Long-term goal

The long-term desired future condition is to have successful annual nesting by maintaining key ecological attributes for nesting and foraging that function at good to very good levels. The challenge presented by rhizomatous grass dominance will continue to compromise these ecological attributes.

Strategic actions

In the absence of natural disturbance regime (fire), cultural activities must be conducted annually to maintain KEAs at good or very good condition. These actions may include importing soil, using chemical and/or mechanical methods to maintain bare ground, and experimental habitat configurations (shape and size).

STREAKED HORNED LARK

Streaked Horned Larks are declining throughout their range. Their habitat includes gravelly nesting areas that are relatively rare along with areas for foraging. The goal is to have successful annual nesting at the St. Johns Landfill.

Prioritized actions

The following tables represent prioritized actions through years 1-5 and 6-10.

Target areas: Years 1-5	Acreage
South Shore Bybee Lake: bottomland forest	27.5
Bybee Lake Peninsula	3.0
Leadbetter Peninsula: Columbia sedge meadow	6.7
Interlake area: Columbia sedge meadow, riparian forest (cage trees), bottomland forest	63.1
South and west shores Smith Lake: riparian forest (cage trees), shrub wetland, bottomland forest	84.9
St. Johns Landfill: existing habitat and additional areas TBD	80.0
Total	**265.2**

Target areas: Years 6-10	Acreage
South Shore Bybee Lake: Columbia sedge meadow, shrub wetland	16.2
Interlake area: shrub wetland, bottomland forest	41.4
South and west shores Smith Lake: Columbia sedge meadow	8.5
St. Johns Landfill: upland prairie	60.0
Total	**126.1**

Beyond 10 years	Acreage
Priority 3 — all areas	285.4

The following actions represent ongoing systems or programs that are in place and practices that will be continued and/or enhanced.

Habitat restoration

Strategic habitat restoration actions focus on abating threats and restoring attributes in areas where the overall habitat is functioning in the poor to fair range. In the wetlands and forests of the Smith and Bybee Wetlands area, this poor to fair range of function is a result of invasive plant species altering the structure and composition of the plant communities by maintaining conditions unfavorable for the natural regeneration of native tree and shrub species. This situation, combined with herbivory by beaver and natural aging and decay processes, has left these areas almost void of native trees and shrubs. These voids fragment habitats at Smith and Bybee Wetlands. Strategic actions will restore these voids with native trees and shrubs and link habitats currently functioning in good to very good condition. Linking these habitats will reduce the edge effect and create habitat that is more favorable to habitat specialists, which tend to be the more sensitive or at-risk species (Hennings 2010).

Other restoration actions will increase species diversity within forested and shrub habitats by planting native trees and shrubs and protecting trees from beaver herbivory.

At St. Johns Landfill, the plant community structure and diversity attributes are also functioning at poor to fair levels. This is a result of the non-native seed mix originally sown over the landfill. Perennial ryegrass, birdsfoot trefoil, New Zealand white clover, and other perennial and annual grasses were included in the mix (Metro 1997). Efforts to establish native grasses on the landfill cover were initially unsuccessful, however, the grasses appear to be faring better since the mowing regime was changed from annual mowing to a five-year rotation system. There are opportunities to introduce additional native seed, whether on areas left bare from various landfill closure activities or made bare by habitat management.

Water management

Water management is a critical management action with significant long-reaching implications. The current water management strategy is to inundate the greatest extent of emergent and shrub wetlands and bottomland forest as possible and maintain high water levels until June, when water is drawn down and allowed to reach equilibrium with the low water levels of the Columbia River. This active manipulation of water levels through the water control structure is intended to mimic the historical annual cycle of flooding and drawdown to the extent possible. It will be continued over the course of the next 10 years unless monitoring uncovers unanticipated negative effects of this management strategy. Maintenance of the water control structure will be an ongoing annual task.

This water management strategy provides a number of benefits:

- Maintains emergent wetlands by creating conditions unfavorable to tree and shrub colonization
- Reduces reed canarygrass cover in emergent and shrub wetlands
- Provides access to off-channel refugia to ESA-listed salmonids
- Enhances the Columbia River estuary food web by exporting macrodetrital plant material
- Maintains favorable habitat conditions for ovipositing native amphibians
- Creates favorable conditions for the spread of native forbs and graminoids including Columbia sedge
- Mitigates impacts to the natural hydrologic cycle created by water control structures in and along the Columbia River and the anticipated impacts related to climate change
- Exposes autumnal mudflats that provide vital habitat for native plants and migrating and overwintering wading birds and shorebirds
- Provides recreational bird-watching opportunities.

INVASIVE SPECIES FRAMEWORK

More than 100 non-native plants and numerous non-native vertebrates inhabit Smith and Bybee Wetlands. Not all of the non-native species are problematic; however, some are invasive. The Oregon Invasive Species Council defines an invasive species as "a non-native species whose introduction does, or is likely to, cause economic or environmental harm or harm to human health. An invasive species can be a plant, animal, or any other biologically viable species that enters an ecosystem beyond its native range." At Smith and Bybee Wetlands, invasive species can transmit disease, compete for resources and modify habitats needed by native plants and animals.

Many of the conservation goals identified for Smith and Bybee Wetlands cannot be reached without managing invasive species. The following diagram demonstrates how invasive species management fits within a conservation planning framework. As potential sources of stress on conservation targets, invasive species must be evaluated and, where needed, controlled.

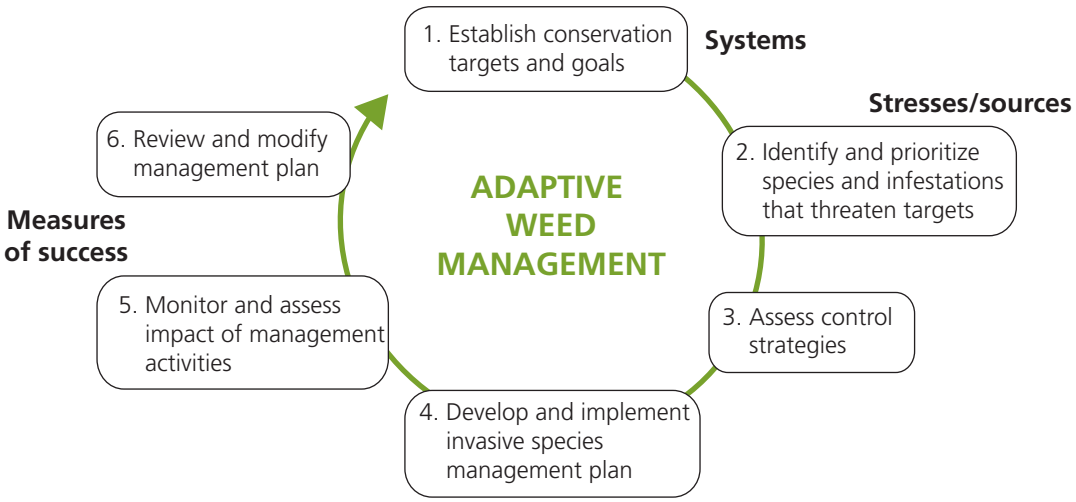


Figure 1: weed management in the context of conservation action planning

Prevention is the first line of defense against invaders and can be the most cost-effective approach. Metro staff implements best management practices such as brushing boots and other gear before and after visits to Smith and Bybee Wetlands to avoid spreading seeds and other propagules. These practices are updated as new information becomes available.

Early detection and rapid response (EDRR) works to prevent establishment of new invaders. As shown in Figure 2, the earlier that an invasive species is detected, the better the chance of eradication. This is especially important for species that can have big impacts on conservation targets. Once an invasive species becomes established in multiple locations, control costs increase substantially, and it is necessary to prioritize sensitive areas and species that are placed at risk by the invader.

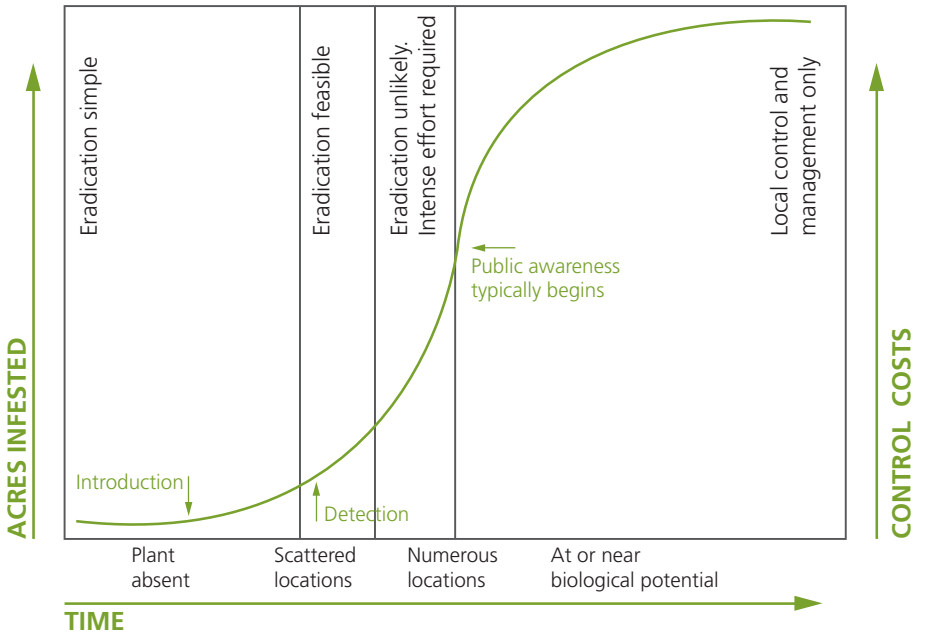


Figure 2: the invasion process. As an invasive species becomes more widespread, control costs increase along with difficulty of control.

Plants

Exotic plants at Smith and Bybee Wetlands vary in their invasiveness and potential to interfere with native plant communities. To determine the ecological importance and priority for management action for exotic plants at Smith and Bybee Wetlands, Metro used a three-step process:

1. Develop a list of exotic plants of concern based on site knowledge, the species' presence on Oregon Department of Agriculture's noxious weed list (A or B), and professional judgment of the staff scientist. In evaluating species that are not listed by ODA, the scientist considered input from other Natural Areas Program staff, colleagues in other organizations, informal lists used by organizations such as the 4-County Cooperative Weed Management Area partnership and the City of Portland, and other resources such as Cal-IPC and King County Noxious Weed Program web sites.

2. Evaluate these species using the Alien Plants Ranking System (APRS Implementation Team, 2001) in three areas:

- Significance of impact or threat (site characteristics)
- Innate ability to be a pest (species characteristics)
- Difficulty of control

3. Consider additional factors that influence the urgency and need for control, such as:

- Potential to control or eradicate the species via early detection and rapid response (EDRR), avoiding the need for more resources later
- Toxicity of species and presence in publicly accessible areas
- Presence of species in areas of Smith and Bybee Wetlands where it could be picked up by visitors and spread to other sites
- Relative sensitivity of the habitat where the species is found (e.g., Columbia sedge meadows vs. reed canarygrass monoculture).

A complete list of exotic plants is in Appendix A-9. Metro selected 20 species from the list to evaluate with APRS. These species were expected to produce a range of results.

Although it proved a useful exercise to evaluate exotic species at Smith and Bybee Wetlands with an independent program, the APRS produced no surprises. The two species identified as serious threats are reed canarygrass and invasive Ludwigia (water primrose). The EDRR species in Appendix A-8, Figure 1 are old man's beard (Clematis vitalba), diffuse knapweed, purple loosestrife and Canada thistle. The latter two species really cannot be considered EDRR at this point, since they are established in most of the suitable habitat; every model and ranking system has its limitations.

Animals

Many exotic animals inhabit Smith and Bybee Wetlands, including aquatic and terrestrial organisms representing every major taxonomic group. Control options are more limited for animals than plants, and the three main components for working on exotic animals are:

1. Habitat management. Some invasive animals thrive where habitats have been disturbed. An example is the European starling that invades fragmented forest patches and out-competes native birds for nesting sites. Planting projects that re-connect forest fragments into larger patches will provide interior habitat for native birds; this interior habitat is not used by starlings and is a KEA identified elsewhere in this plan.
2. Work with partners. Red-eared sliders are established at Smith and Bybee Wetlands, where they compete with native painted turtles for nesting, basking and other resources. Metro can work with Oregon Department of Fish and Wildlife to capture and remove sliders. Another example is cooperative work with Oregon Department of Agriculture; ODA conducts surveys for emerald ash borers. These insects pose a serious threat to the Oregon ash in bottomland hardwood wetlands. By working with ODA to place survey traps at Smith and Bybee's ash forests, Metro can learn about any invasions soon after they occur and work with ODA to control them.
3. Support other efforts. By actively supporting efforts such as the City of Portland's and Oregon Invasive Species Council's Invasive Animal Assessment, Metro can leverage its work and interests.

Invasive species present threats that appear and change quickly. The framework presented in this chapter is intended to be flexible and adaptable. As knowledge and techniques for managing invasive species evolve, new methods will be applied at Smith and Bybee Wetlands. The Conservation Target Planning framework for this master plan provides a context for viewing invasive species by evaluating their threat to identified conservation targets. The power of this framework lies in its ability to incorporate new knowledge and changing conditions posed by invasives as Metro monitors progress toward targets' identified goals.

RECREATION AND ACCESS

The opportunities for people to experience this rare remnant of the Columbia River and slough wetland system are limited and important. The water skiing, camping, and hunting of past decades will not reappear over the next 10 years. However, it is important for people to enjoy the beauty and wildlife of the natural area while we continue to be responsible stewards. The vision for people at Smith and Bybee Wetlands is to continue to provide access, in fact to increase it, but in a subtle manner consistent with the conservation goals described in section three.

The St. Johns Landfill perimeter road presents an opportunity to build a new regional trail link. This trail will provide people with a new way to view Smith and Bybee Wetlands and the associated wildlife. As a segment of the 40-Mile Loop Trail and North Portland Greenway, the trail will link downtown Portland with the confluence of the Willamette and Columbia rivers, and will provide incredible views to Smith and Bybee Wetlands that were previously unavailable.

Beginning with the development of the conservation targets, which led to the process of establishing the key ecological attributes, the planning team was able to understand potential stresses and threats placed on the system. It was verified that not only were some of the stresses and threats naturally occurring, but many were based on human interactions. The landfill trail alignment was carefully considered to both provide access and also have the most limited impacts.

In the fall of 2010 and via a web survey, the community was asked: "Which statement best reflects your sense of balance between the preservation of natural resources and people experiencing nature at Smith and Bybee?" Over half, 55.2 percent of the 30 respondents, selected the following:

> The region continues to become more and more developed. Wildlife and habitat preservation is a top priority for Smith and Bybee Wetlands; access by people needs to be subtle and not at the expense of wildlife.

(See Appendix C-1.2, Survey results, for full survey results.)

It is with this balance in mind that we carefully embark on the integration of humans into this system. This plan identifies and prioritizes the ways in which people will experience Smith and Bybee Wetlands.

Physical access and recreation

Physical access to Smith and Bybee Wetlands is limited but workable, and most people arrive by car. If you look for a way to get to Smith Lake by car, you'll discover the entry off North Marine Drive leading to the visitor area and parking lot. On foot or by bicycle, the Peninsula Crossing Trail is also a good way to arrive at the Smith and Bybee visitor parking lot. From this point you can walk to the Interlakes Trail or launch a canoe at the boat launch. The parking lot and restroom in the visitors area were constructed in 2005 and, with space for 39 cars in the parking lot, the amount of access in 2011 deemed sufficient.

The Interlakes Trail is the only trail that is available in 2011 in the Smith and Bybee Wetlands. It is a paved loop with two viewing platforms for wildlife viewing. The trail provides an experience of riparian forest habitat with views to mudflats, the wetlands and the associated wildlife. A spur trail from the Bybee Lake viewing platform approaches the channel that separates Smith Lake from Bybee Lake. This portion of the trail is soft surface, and it is not clear to walkers whether it is a sanctioned trail or an informally made path.

The Smith Lake canoe launch is .25 miles east of the visitor area. A gravel path leads to the shore of Smith Lake, where you can place your boat in the water, wade to the side and get in. During the best paddling seasons, winter and spring, many people use this launch site. Although the idea of adding a dock for boaters' convenience has been discussed, it has subsequently been dismissed. The current configuration works well during high water and becomes more unworkable as the water level declines. When water levels are lower, paddling is more intrusive to the wetlands; therefore, the current launch discourages access appropriately. A thorough description of access by car, bicycle, walking and non-motorized watercraft is included in Appendix B-5, Access description 2011.

Field trips to Smith and Bybee

One of the ways many people experience Smith and Bybee Wetlands is through educational field trips. There are two types of educational programs, public school programs and public field trips. Environmental education through school trips is available year-round, but primarily occurs in the spring and fall. These programs revolve around what the students, typically second graders, are learning in school. There are about 30 programs per school year, and the cost in 2011 is $2 per student. These programs are staffed by Metro volunteer naturalists. They teach about wildlife watching, tracking, and wetland ecology. One of the primary expenses for these field trips is bus transportation from schools to Smith and Bybee Wetlands. Currently, the City of Portland Bureau of Environmental Services has an annual fund to assist schools with paying for bus transportation.

Public field trips happen on weekends during the year. Public trips are organized by youth groups, church groups, treatment programs, college classes, and others. These trips are staffed by Metro with help from volunteer naturalists and parent leaders. There are between 15 and 20 programs per year, and the cost in 2011 is $2 per person. Although these field trips are focused on nature observation skills, topics vary and include advanced topics such as management practices, water quality testing, and teaching techniques for environmental education.

In addition to environmental education, there are public events throughout the year. These events target adults and families and include bird-watching walks, turtle walks and "Twilight Tuesdays." There are 20 to 30 of these free events annually. Participants learn the basic skills of identifying birds or turtle natural history. At "Twilight Tuesdays," held two hours before sunset, people can actually see mammals such as beaver, deer, raccoon, nutria, otter and mice by using the proper stalking and observing techniques. This experience has a very dramatic effect on some people.

One of the most fun experiences that the public can have at Smith and Bybee Wetlands is paddling or boating. Spring of 2011 is the third spring that Metro has offered very popular public boating trips at Smith and Bybee Wetlands. People can call Metro, register, pay their fee, and then simply show up for their boat trip – the equipment is provided.

From 2002 to 2009 there were a total of 481 school field trips, public programs and group programs at Smith and Bybee Wetlands. The success of the education program has resulted in 11,756 individuals learning about wetland ecosystems and experiencing nature. This total is impressive given that this program is staffed half-time by one person. Every year, schools are turned away because there are limited resources to meet their requests for education programs (see Appendix C-5, Education programs).

In addition to the educational opportunities, there are currently several annual or monthly volunteer events at Smith and Bybee Wetlands, most of which are well attended. All events are permitted and organized through Metro staff. The role these events play in the care and management of the site is critical, as are the partnerships for monitoring. Activities range from guided bird counts to academic research.

Stewardship and volunteers

Volunteers contribute significantly to the habitat preservation of Smith and Bybee Wetlands. Participants in 2010 contributed:

- 175 volunteer hours for environmental education
- 108 volunteer hours for habitat restoration
- 259 volunteer hours for wildlife monitoring
- 542 total.

Over the next 10 years, there will continue to be opportunities for volunteers at Smith and Bybee Wetlands. With priorities established by this plan, volunteers play an important role in reaching the conservation goals. Currently, volunteers are trained for the day they participate. Metro staff also offer the opportunity to train work party leaders who want to lead multiple parties.

To volunteer at Smith and Bybee Wetlands or sponsor a work party, contact Metro at 503-797-1653 or e-mail parkvol@oregonmetro.gov.

Management

Similar to the management of the natural resources at Smith and Bybee Wetlands, the facilities such as restrooms and parking are managed by Metro staff. The site management issues that have been identified include signage and circulation by visitors, management of willows at the viewing platform locations and continued management of dogs on-site after the St. Johns Landfill trail is constructed.

The signage system at Smith and Bybee Wetlands has evolved over several years, and as such it is somewhat inconsistent. Naming standards and sign types vary from area to area. Way-finding is often difficult and inconsistent, with a variety of sign types. Upgrades are currently proposed to develop a signage system that is consistent with Metro's Signage Standards Manual, provides clear messaging, and reduces the number and types of signs.

One of the most detrimental impacts to Smith and Bybee Wetlands and the associated natural resources has been the introduction of dogs by visitors. As part of the initial study to determine stresses and threats to selected conservation targets, humans were identified as a primary threat, in part because they often bring dogs. Research shows that even if dogs stay on the trails, they are perceived as predators by wildlife and their zone of influence can be several hundred feet on either side of a trail. (See Policy 12, page 73.)

THE NEXT 10 YEARS: PROPOSED LINKS AND IMPROVEMENTS

The approach to improvements for access to Smith and Bybee Wetlands has been developed from several sources. First, in 2005, Metro began the development of a Trails Feasibility Study with MacLeod Reckord consultants. The results of that study are incorporated in this plan. Second, a web survey asked people: "What would you like to see more of at Smith and Bybee Wetlands?" They responded as follows:

- Habitat restoration and protection (74.1%)
- Trails (40.7%)
- Wildlife viewing stations (40.7%)
- Education programs (37.0%).

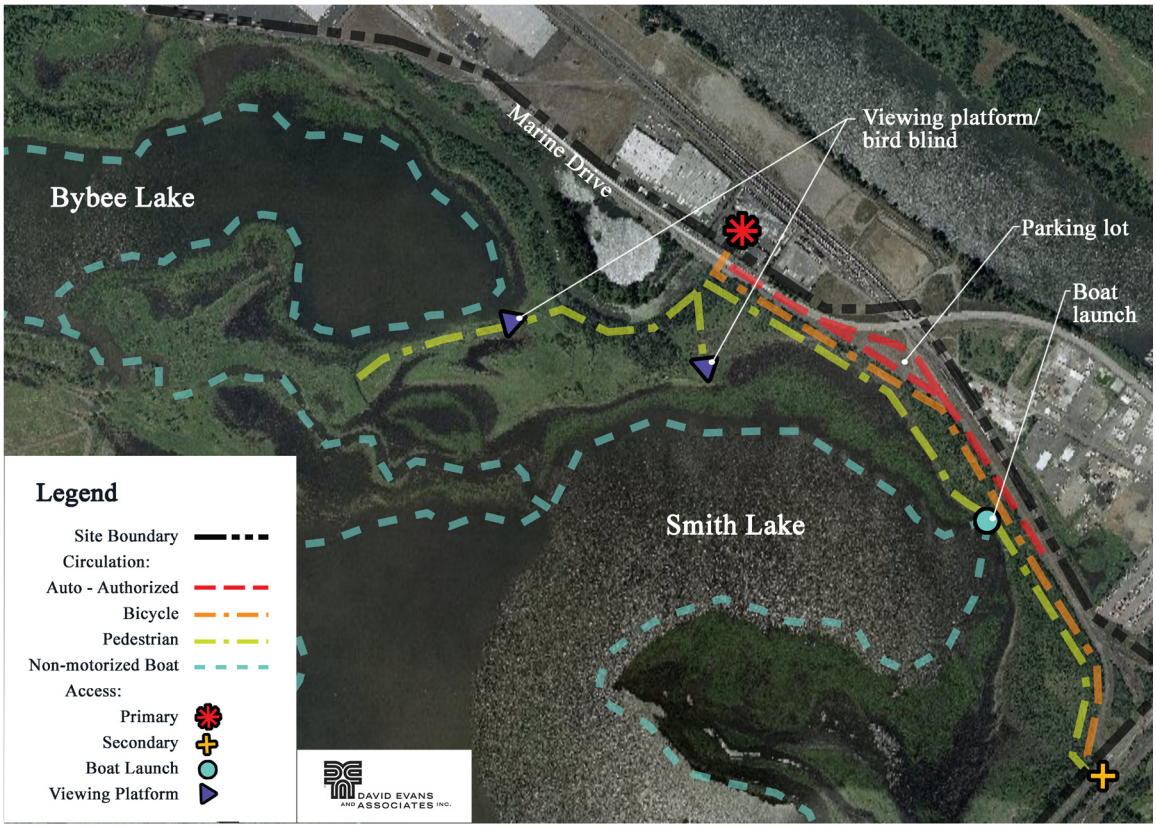
Third, the approach for improvements to access has been developed based on recommendations from the staff who work at Smith and Bybee Wetlands. They understand the visitors and have experience with the visitors' needs. Finally, the advisory committee discussed options for access and reached consensus on the following links and improvements.

Physical access

Proposed links and improvements to physical access at Smith and Bybee Wetlands are grouped into several major topic areas, as discussed below. These are: the Interlakes Trail, viewing platforms, the 40-Mile Loop Trail at St. Johns Landfill, the development of viewpoints and portage at the water control structure.

The Intertwine at St. Johns Landfill

The Intertwine is the region's network of parks, trails and natural areas. One of the most exciting aspects of the plan is the development of a trail system with new access to Smith and Bybee Wetlands. The creation of links to the 40-Mile Loop Trail and the North Portland Greenway Trail



Interlakes trail area

via the St. Johns Landfill will afford visitors previously unavailable access to this unique natural resource. The trail will provide bicyclists, hikers, joggers and nature enthusiasts continuous, non-motorized access within the site with views from the St. Johns Landfill to the wetlands, which are unmatched elsewhere on the site.

The need to maintain separation from gas infrastructure on the landfill will require the integration of wildlife friendly fencing adjacent to the trail. Careful integration of the fencing will attempt to maintain views while providing for the security of the exhaust systems and the safety of the visitors. See Appendix B-6 for a discussion on this issue.

The Interlakes Trail

This trail system currently offers the best dry land access to the site (see page 57). The majority of the trail is paved, with the exception of the segment beyond the viewing platform on Bybee Lake. This plan provides for improvements to this trail including clearer signage and the addition of seating at the Turtle Turnout. Improvements are also proposed for the soft surface trail beyond the Bybee Lake viewing platform to better delineate it, establish the route and to encourage users to remain on the trail and out of adjacent sensitive areas. Options for the extension and improvement of this segment of the trail include raising the grade of the trail above seasonal inundation either by adding base material to lift the grade or by constructing a raised metal grated walkway similar to the walkway at the Smith Lake viewing platform. The improvements would extend from the end of the paved path to the channel that connects Smith and Bybee lakes, providing outstanding views of the wetlands.

Viewing platforms

There are currently two viewing platforms located at Smith and Bybee Wetlands. Both are located along the Interlakes Trail. The viewing platform at Smith Lake is accessed via a raised walkway that crosses seasonally wet terrain and offers views across Smith Lake. These views are, however, partially obscured by tall vegetation. The second one is located on the shores of Bybee Lake and offers views to the west across the lake. There is currently metal siding on the viewing platform that hinders sight and compromises the overall experience. The plan calls for the expansion of both viewing platforms by adding a second level and by removing the siding on the Bybee Lake viewing platform to enhance the views and the overall visitor experience.

Portage and relationship to Bureau of Environmental Services canoe launch

There is currently an unimproved, non-motorized watercraft launch located on the Columbia Slough on the west side of the St. Johns Landfill bridge. Popular with boaters, this launch site provides access to the slough system around the landfill and into the North Slough that separates the landfill from Bybee Lake. The North Slough terminates at the water control structure adjacent to the channel between Smith Lake and Bybee Lake. During prime boating season, boaters often portage the structure to gain access to the lakes from the slough. A formal portage is proposed at this location to provide easier and safer access for boaters.

Viewpoints

The development of strategically located viewpoints and interpretive signage on the landfill will afford visitors with unique views of the entire site and to the Cascade Mountains in the distance. These areas will provide opportunities for visitors to stop, rest and enjoy the site. Interpretive signage will provide educational opportunities with regards to the function and value of the system, further enhancing the visitor experience.

Field trips to Smith and Bybee

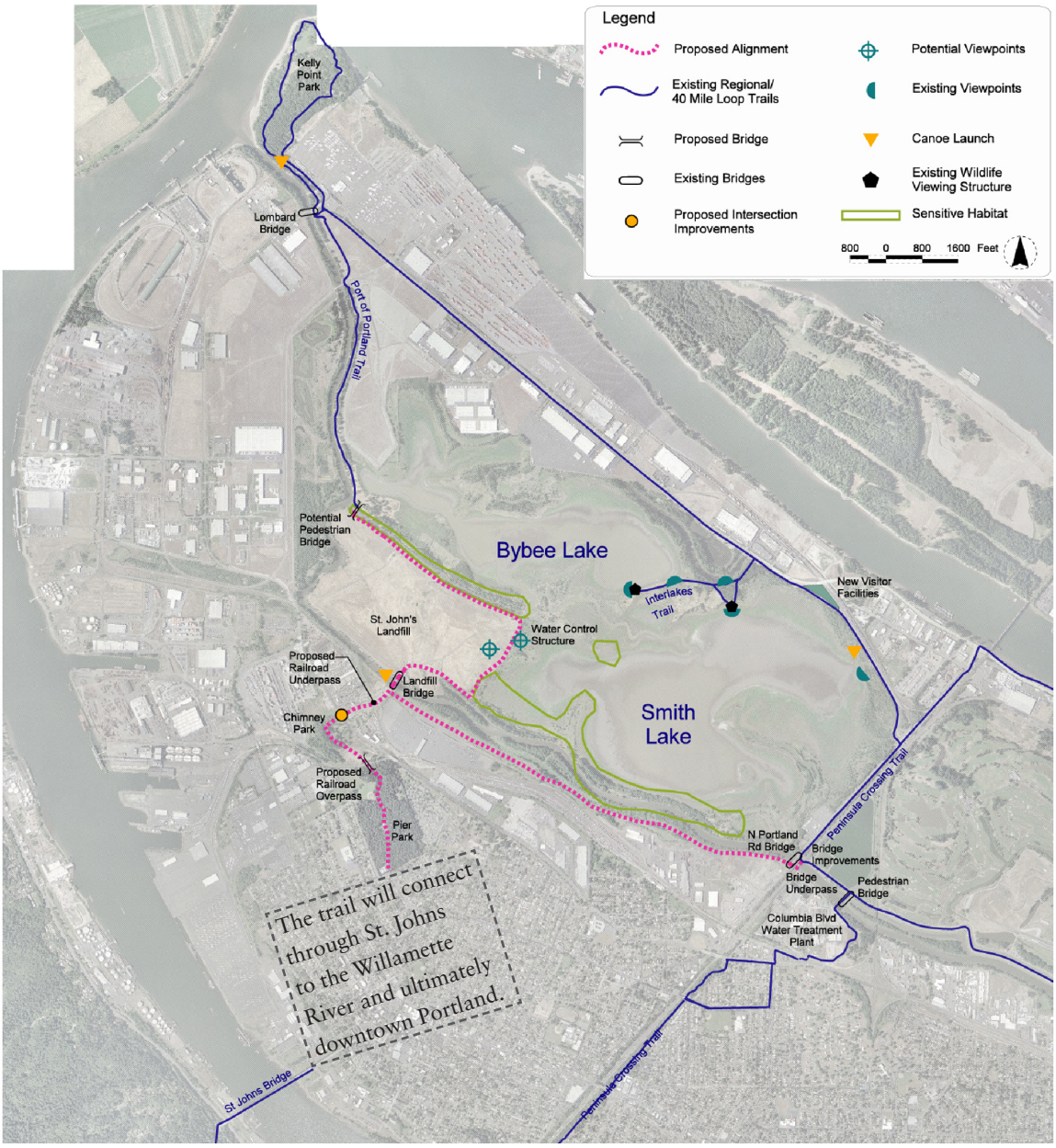
In the last few years, there have been an increasing number of requests for tours of St. Johns Landfill by education programs, including college and university instructors in the fields of environmental studies and ecology. The decline in methane production and the opening of the new trail on the landfill will provide an opportunity for additional educational opportunities at Smith and Bybee Wetlands. To address this opportunity, additional staff may be needed.

Metro currently permits and organizes volunteer work parties at Smith and Bybee Wetlands. It is proposed that this activity continue and, to the extent possible, be expanded. Essential tasks performed by these work parties include the removal of invasive species and facility maintenance.

Management

Willows

The two viewing platform viewing areas are partially obstructed by the growth of willows along the shores of the lakes. In order to maintain existing and proposed views, the plan calls for periodic



Trail on St. Johns Landfill connects St. Johns neighborhood with Kelly Point Park and the Columbia River

trimming of willows at Smith Lake. This function has in the past been performed by Metro staff or volunteer work parties.

Dogs

Because many wildlife species are negatively affected by dogs, including ground nesting birds and turtles, it is the intent of this plan to keep dogs out of Smith and Bybee Wetlands, in accordance with Metro-wide policies, including the regional trail on the St. Johns Landfill. Signage and enforcement will be key components to the success of such an endeavor. Additionally, it is thought that through education, visitors will understand and accept that dogs are particularly stressful to wildlife and native habitats, and that visitors will provide the self-policing necessary to eliminate the presence of dogs. Some resources devoted to enforcement may be necessary.

St. Johns Landfill with viewpoints

Signage

The integration of people into the system requires regulatory, way-finding, and interpretive signage. This signage system will be developed over the next 10 years. As other physical aspects of the system, such as trails, overlooks and viewing platforms, are implemented, the signage can be added on a project-by-project basis. It is critical that the system remain simple and, to the extent possible, subtle. Without proper planning it is possible for the landscape to become cluttered with redundant or unnecessary information. It should be the goal of the signage system to be beneficial and informative to the visitor without dominating the visual experience.

Metro's Signage Standards Manual establishes a graphic standard that will be integrated into the entire system based on three types of signs – regulatory, way-finding and interpretive. The name of the facility, the key agency, contact numbers and hours of operation will also be standardized.

The desired access and circulation through the site has been determined, and the appropriate signage designated. Acceptable standards with regards to icons and messages will be applied. The content and message for the interpretive signage is arguably the most important element of

the system and will need to be carefully considered. All visitors to Smith and Bybee Wetlands are potential future stewards of this important resource and, as such, the messages conveyed in the signage will be critical to helping visitors learn about and appreciate the sensitive nature of Smith and Bybee Wetlands and the importance it plays in our community. A complete signage development matrix is provided in Appendix B-7, Signage matrix.

The following tables describe the proposed improvements over the life of this plan.

Projects to provide access to visitors	**Priority over 10 years**	
	1	2
St. Johns Landfill regional trail and bridge Construct the trail in St. Johns Landfill, including a bridge over the North Slough, an overlook on St. Johns Landfill, two overlooks adjacent to the trail, and interpretive signage. Repair flood damaged section on Port property.	●	
North Slough/Bybee Lake portage Improve the portage between the North Slough and Bybee Lake.		●
Improve access to Interlakes Trail Facilitate access to the Interlakes Trail by adding bus parking and parking for people with disabilities at the trailhead. Improve the walk from the parking lot to the trailhead by separating the trail from the road.	●	
Viewing platform renovation Remove the siding on the Bybee Lake viewing platform. Add a second level to Bybee and Smith Lakes viewing platforms.	●	
Interlakes Trail extension Clarify the trail delineation at the end of the paved section of the Interlakes Trail. Validate the seasonal extension with signage and increase the path width to two feet, with bark mulch surface, boardwalk or metal grating.	●	
Signage upgrade Create consistent signage and upgrade regulatory signage and interpretive signage.	●	
Seating Provide seating at selected viewing areas, including the turtle-viewing area. Could include benches or walls.	●	

The table below represents proposed programming at Smith and Bybee Wetlands.

Environmental education program	**Keep current level**	**Increase for landfill**	**Serve more schools/public**	**Support of bus fund**
	●	◐	◐	●
General public boat trips program	**Keep current, once a month**	**Go to twice a month**	**Weekly**	
	●			

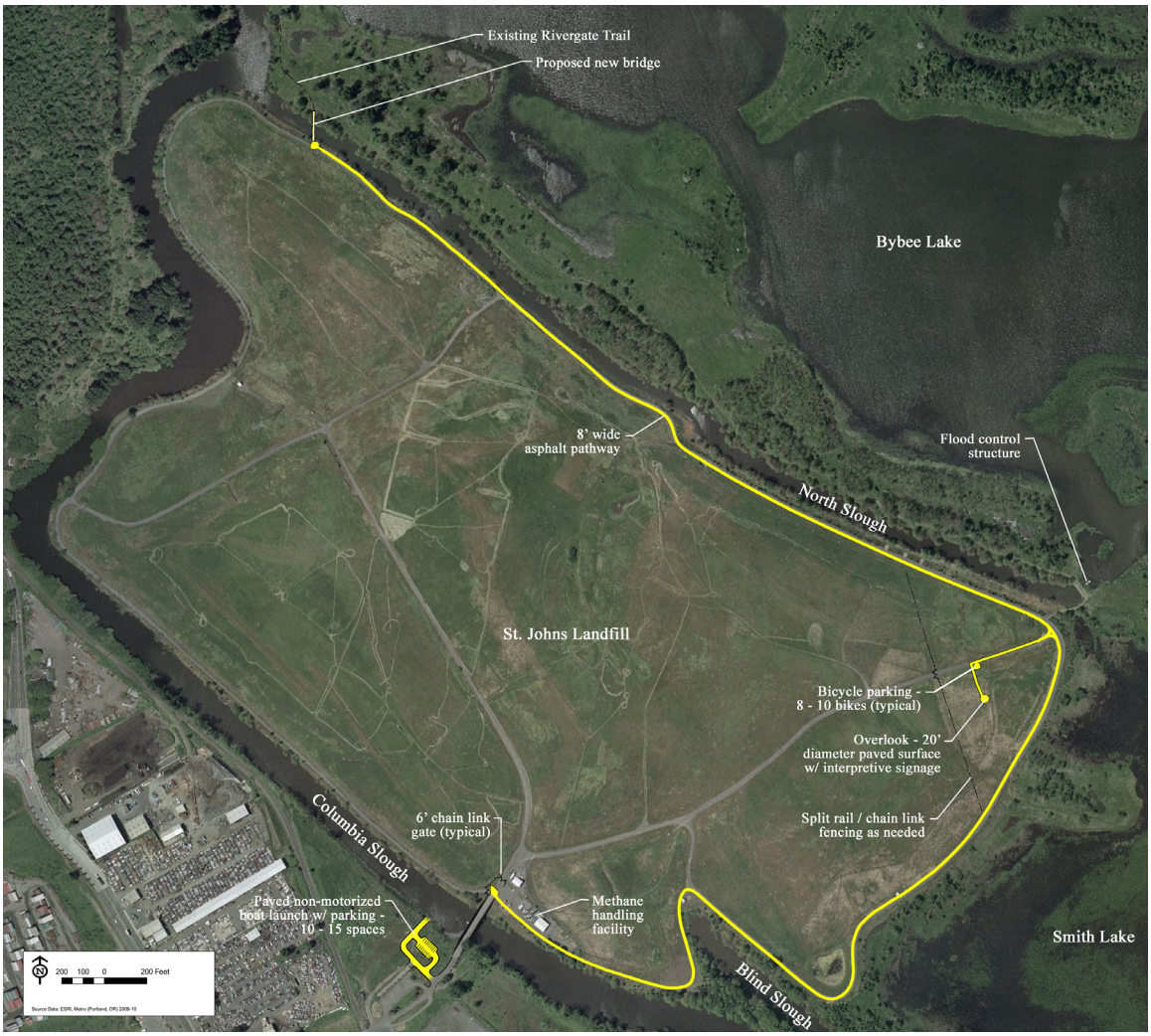
Full support ●
Some support ◐

The Smith and Bybee Wetlands Advisory Committee recommendations are noted. As with the capital projects, this list should be revisited periodically for additions and updates.

The next 10 years will see a change in people's interaction with Smith and Bybee Wetlands. The trail at the St. Johns Landfill will attract more people to and through the area. People from North Portland neighborhoods, as well as from neighborhoods with access to the regional trail system, will benefit from the healthy exercise and experience of nature at Smith and Bybee Wetlands.

It is anticipated that the public experience on the trail will increase demand for public field trips and environmental education. The advisory committee has reviewed the current levels of environmental education and feels that they are adequate for the current demand. However, with increased access, the committee anticipates that demand will increase over the life of this plan and, as a result, educational opportunities will need to be increased. With the addition of the St. Johns Landfill Trail to the system, new programs will be developed that highlight the upland prairie habitat. Currently, Portland's Bureau of Environmental Services (BES) provides annual funding for bus transportation for school children. The committee agrees that this funding is necessary and it would be an appropriate use of the fund if BES funding is no longer available.

Adaptive management may be needed in order to keep trail use in line with conservation objectives. The monitoring plan, described in section five below, will help measure the impact of trail users on Smith and Bybee Wetlands. Adjustments to the physical place and to the management may be needed.

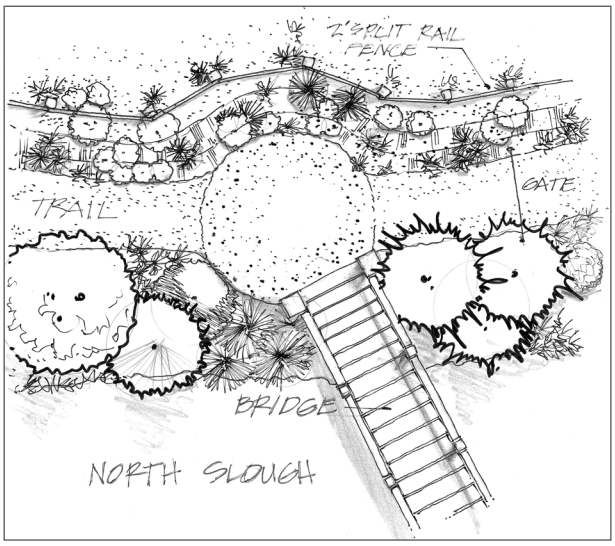


St. Johns Landfill trail

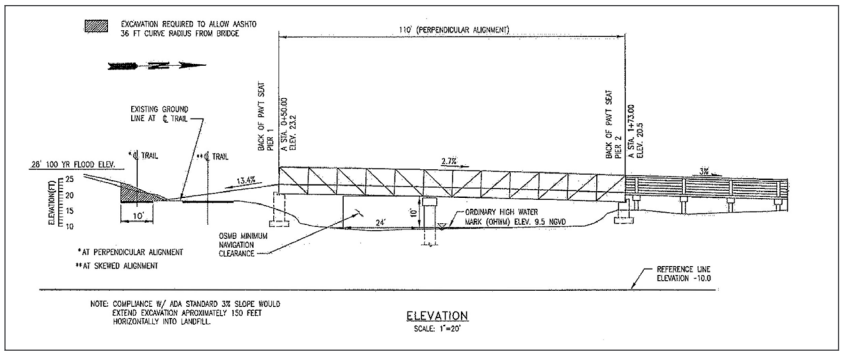
Access to Smith and Bybee Wetlands

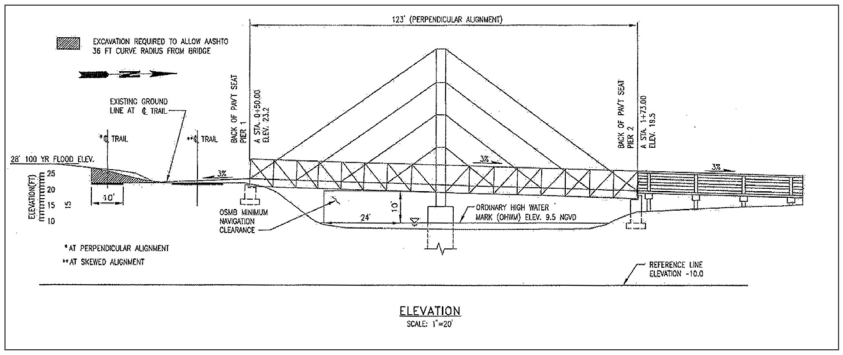
With education, recreation and advocacy in mind, thoughtful and innovative strategies for human integration balanced with the habitat and wildlife requirements is paramount. Incorporating the 2005 feasibility study for the St. John's Landfill Trail and the North Slough bridge crossing, strategies have been developed that provide responsible access to the area. Careful consideration of the human and natural interface will foster new and continued stewardship of the Smith and Bybee Wetlands.

Bridge concept



North Slough trailhead

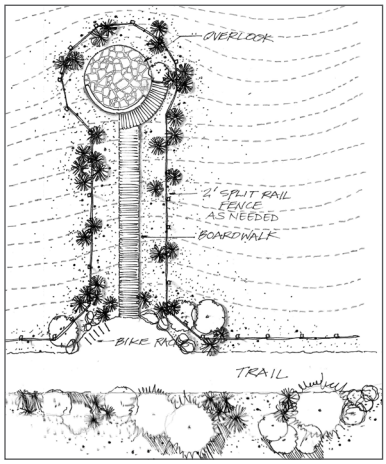




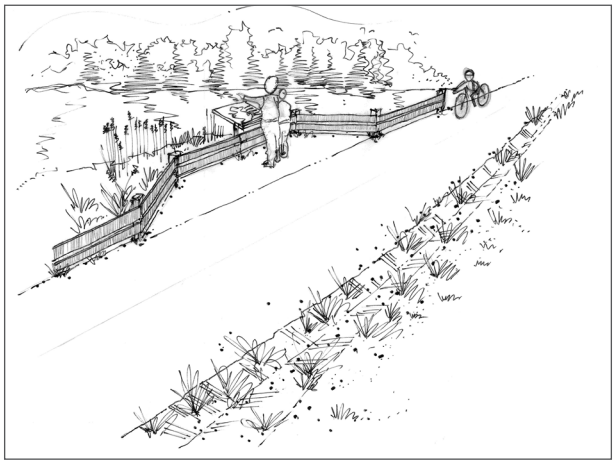
Bridge elevations

Trail and overlook at St. Johns Landfill

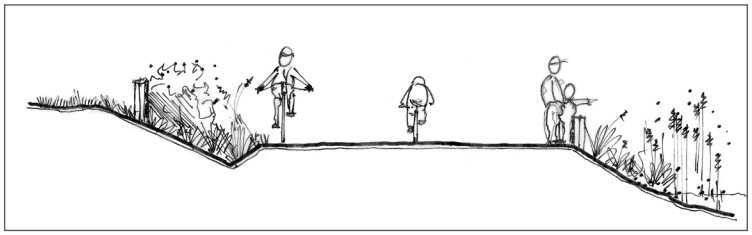
Careful integration of users is vital to the long-term health and support for the Smith and Bybee Wetlands. It is critical to foster understanding of the sensitive nature of the resource while providing recreational opportunities for Metro residents. Over the next 10 years, as methane collection decreases, parts of the St. Johns Landfill will be made accessible to the public. In addition to the cultivation of upland prairie and Streaked Horned Lark habitat, the intent is to develop overlooks to provide visitors 360 degree views of the area. The opportunity to provide users unique perspectives of the resource accompanied with educational outreach will help develop stewardship and advocacy for Smith and Bybee Wetlands.

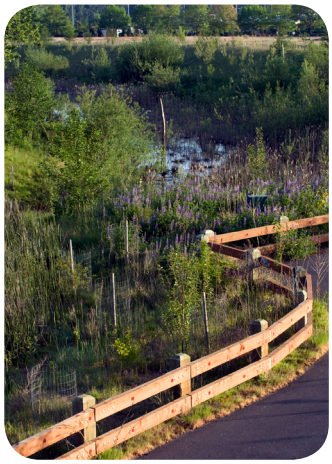


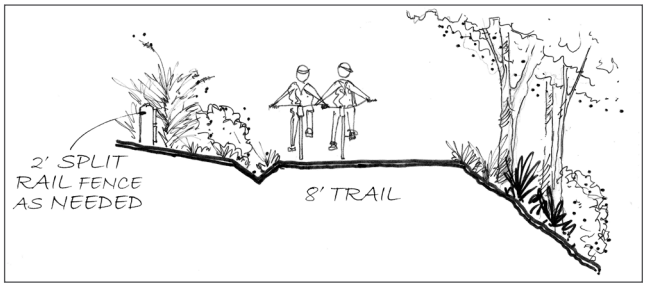
Overlook



Trail viewpoint







Trail cross-sections

Phil Gaddis banding a Yellow Rumped Warbler.

COORDINATION

The plan has laid out the history and context of the Smith and Bybee Wetlands, along with the conservation and recreation projects for the next 10 years. For those projects to be realized, coordination will be needed on a number of fronts. Important coordination points include:

- Monitoring of the restoration efforts to track effectiveness and making changes to the priorities as needed
- Policies guiding decision-making by the advisory committee as situations arise that may impact the wetlands
- Funding to realize the priorities of this plan.

With these tools, it is expected that priorities established by this plan will be realized.

MONITORING

Monitoring at Smith and Bybee Wetlands is an integral part of an adaptive management approach to restoration and maintenance. Based on the monitoring plan developed by Metro, a feedback loop is created between monitoring and management decisions. Monitoring will be done to evaluate habitat and local responses to management actions, as well as progress toward achieving habitat and conservation target objectives.

The monitoring strategy is based on threats and key ecological attributes associated with conservation targets. Generally, the greatest threats to Smith and Bybee Wetlands are traced to:

- Invasive plants
- Altered wetland hydrology
- Isolation from other natural areas on the larger landscape
- Habitat fragmentation and associated edge effect
- Human disturbance.

The monitoring plan, Appendix A-7, addresses threats directly and indirectly, by tracking changes in certain ecological attributes. It implements techniques that are well-established and continues many monitoring efforts already in place. The Smith and Bybee Wetlands Advisory Committee reviewed the monitoring approach during development of this plan. The monitoring plan is likely to change over time, however, this is a worthwhile starting point and a useful tool for focusing staff efforts.

Techniques

Some monitoring techniques are used to monitor more than one conservation target. This discussion is intended to provide a general introduction but not detailed methods.

Aerial inspections/GIS: Several metrics for health of conservation targets relate to their size. Where a desired condition is a minimum acreage, it can be estimated with GIS software using current aerial photography. Similarly, important connections within the natural area and to off-site habitat can be inspected with aerial photographs.

Transects: These are lines or strips of ground, along which measurements are made at regular intervals. Permanent transects will be revisited over the years to track progress toward goals. They are useful in tracking the abundance and composition of native plants and invasive species.

Point counts: Avian (bird) surveys during breeding season follow an established and widely used protocol that allows data sharing with other scientists. By tracking changes in the bird community, Metro can detect changes in habitat function as restoration projects mature. The species present can indicate whether excessive edge effect is occurring as well as whether suitable habitat structure for sensitive species is present.

Conservation targets

Riparian forest: A combination of transects, point counts and GIS work is used for this target. Because forests develop slowly, the detailed plant surveys along transects will occur in 5-year intervals.

Bottomland hardwood wetland: Metro previously conducted several years of avian point counts and established a baseline for the bird community when habitat restoration was initiated. Point counts will be repeated in the future, but immediate monitoring work will focus on habitat patch size and quality.

Shrub wetland: Rather than transects, this target can be tracked with less-formal surveys than the riparian forest while still providing information on the native plant community development. Much of the shrub habitat at Smith and Bybee Wetlands was planted with a variety of species. Visual inspections while walking through the habitat can confirm they remain present and established. Because shrubs serve as important attachment sites for amphibian eggs, Metro will monitor water levels during the breeding season for red-legged frogs and other natives to ensure the shrubs are flooded properly.

Open water: This habitat occupies the most acreage at Smith and Bybee Wetlands, has the highest overall threat rank and is the most complex to manage; it includes emergent wetlands as well as permanent water. More time and resources are devoted to monitoring and adapting management for open water than for any other target. Focused monitoring on the extent and health of Columbia sedge meadows and frequent attention to the water control structure and hydrologic management are necessary. To track effectiveness of water level management, intensive monitoring will be implemented at regular intervals. This plan calls for two years of detailed vegetation monitoring and data analysis every five years as the native plant community develops and reed canary grass is controlled.

Upland prairie: Existing point counts and photo points will be embellished with periodic informal surveys to track the presence and general abundance of native plants and invasives on the landfill.

Streaked Horned Lark: Metro works with the Streaked Horned Lark Working Group and key partners to establish habitat for this species on the landfill. Habitat and predator monitoring are necessary each year as this project develops. Standard techniques developed by The Nature Conservancy and Washington Department of Fish and Wildlife are used so data can be compared with other projects and sites.

Western painted turtle: Metro has surveyed painted turtles in the Smith and Bybee complex for more than 10 years and is an active member of the Turtle Working Group. Work is coordinated with other agencies and in partnership with the research community.

See Appendix A-2 for details about each conservation target and the associated monitoring.

POLICY

The 1990 plan was adopted during a time of change. People anticipated the landfill closing; environmental regulations were new and substantial; and property ownership at Smith and Bybee Wetlands was fragmented. At that time, Metro was not a land manager, and Smith and Bybee Wetlands was the first property in Metro's portfolio.

The 1990 plan responded to these circumstances with 28 policy statements that were carefully crafted to support the future coordination and management of Smith and Bybee Wetlands. Policy statements addressed land consolidation, the respective roles of Metro and the City of Portland, and very prominently the intention and use of the Smith and Bybee Wetlands Fund.

The original policies have provided strong guidance when land use decisions or practices were in question. The 1990 plan was adopted as part of Portland's Zoning Code and, as such, the policies were the basis for land use approvals.

After 20 years the situation has changed. The advisory committee has a history of accomplishments; Metro is well-established as the property manager; and the Fund has been used judiciously and has grown. The policies in the 2011 plan bring forward many of the 1990 plan policies, leaving some behind and also address today's issues.

This plan's policies will not be adopted into Portland's zoning code but will be a land use decision that validates all the actions proposed here. The following policies provide the basis for implementation of this plan and management of the area.

Policy 1

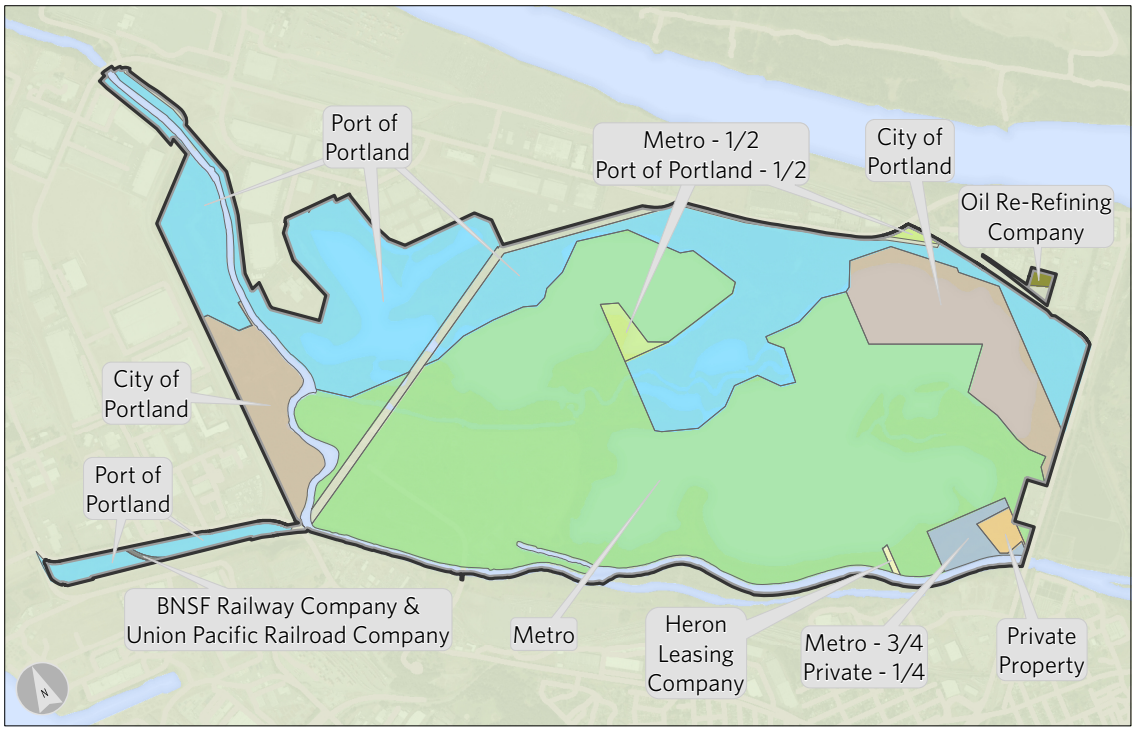
The plan recognizes that the Smith and Bybee Wetlands area exists within a regional context. The Oregon Department of Fish and Wildlife's Oregon Conservation Strategy (OCS), the Intertwine Alliance's Greater Portland-Vancouver Area Regional Conservation Strategy (RCS), and other regional plans help set that context. The OCS is Oregon's framework for conserving Oregon's natural resources in a manner that maintains or improves those resources for current and future generations. The OCS identifies priority habitats and associated species of highest conservation concern, describes key issues affecting habitats and species, and recommends conservation actions to address key limiting factors. Smith and Bybee Wetlands is identified in the OCS as a "Conservation Opportunity Area." The RCS builds on the OCS and provides greater regional specificity while supporting the overall framework of the state's effort. The plan is aimed at contributing toward the goals and objectives of the state and regional strategies through the management and habitat restoration of the Smith and Bybee Wetlands.

Policy 2

There are eight property owners in the Smith and Bybee Wetland management area, and the majority of the land is owned by the Port of Portland, Metro and the City of Portland. An Intergovernmental Agreement will be created and maintained between these owners that sets forth the management activities and responsibilities across diverse parcel ownership. Additional private owners will be welcome to join in similar agreements as needed.

Policy 3

Metro is the manager of the Smith and Bybee Wetlands Fund for acquisition and restoration of land within the Smith and Bybee Wetlands; and for the development, operation and ongoing maintenance of the recreational, educational, and environmental facilities and programs proposed by this plan.



Metro will effectively manage the budget for the fund so that it serves the purposes outlined in this plan, and maintain the fund in perpetuity. Metro will draft an annual budget for review, discussion and advice from the Smith and Bybee Wetlands Advisory Committee. The committee will recommend a budget; final approval of annual budgets and final determination on use of the fund is by Metro Council. The fund amount may rise and fall with fluctuations in interest and expenditures.

Policy 4

Metro is the manager of the Smith and Bybee Wetlands, including the St. Johns Landfill. The primary responsibility is to fulfill the vision and goals established by this plan. This responsibility includes, but is not limited to:

A. Manage restoration activities that fulfill the conservation target goals in this plan, monitor results and adjust restoration activities as needed

B. Provide community outreach and environmental education at Smith and Bybee Wetlands, as allowed by available funding

C. Provide ongoing maintenance

D. Develop the regional trails, in partnership with the City of Portland and the Port of Portland, in the management area as indicated by the Metro Council

E. Partner and coordinate with the Smith and Bybee Wetlands Advisory Committee to fulfill the goals of this plan

F. Draft an annual fund budget, annual work plan and work plan budget proposal for review, discussion and recommendation from the Smith and Bybee Wetlands Advisory Committee.

Policy 5

The Smith and Bybee Wetlands Advisory Committee, formed by Metro in 1990, shall continue to oversee implementation of this plan and provide guidance, partnership, and assistance on implementing the plan. The Smith and Bybee Wetlands Advisory Committee will include, but not be limited to, representatives of the following organizations:

- City of Portland, Portland Parks and Recreation
- City of Portland, Bureau of Environmental Services
- Port of Portland
- Oregon Department of Fish and Wildlife
- Metro
- Friends of Smith and Bybee Lakes
- 40-Mile Loop Land Trust
- Audubon Society of Portland
- A representative of private landowners within the CNRP boundary
- North Portland Neighborhood Services
- St. Johns Neighborhood Association
- Columbia Slough Watershed Council
- Representatives of adjacent industries.

The Smith and Bybee Wetlands Advisory Committee is the principal advisory body to Metro. The primary responsibility of the Smith and Bybee Wetlands Advisory Committee is to keep the vision established by the Natural Resource Management Plan and updated by the 2011 plan. This responsibility includes, but is not limited to:

A. Provide leadership and response to area land use actions that may have an effect on the Smith and Bybee Wetlands area

B. Support the financial strategy by developing partnerships, advocating for grants and otherwise leveraging the Smith and Bybee Wetlands Fund

C. Communicate and serve as a liaison to adjacent property owners and stakeholders to strengthen community investment in the Smith and Bybee Wetlands area

D. Review project monitoring results and correlate to stated objectives

E. Recommend and/or review properties to be added to the Smith and Bybee Wetlands area based on their environmental, educational or recreational value

F. Support educational and community outreach events promoting Smith and Bybee Wetlands as a unique community resource

G. Review, discuss and advise Metro on the annual budget for the Fund and the annual work plan and work plan budget

H. Serve as a sounding board for management actions that are outside the annual work plan and have an impact on either conservation goals or visitor experience

I. Designate the chair and vice-chair of the committee or the process through which the chair will be determined.

Policy 6

This plan lays out strategies for habitat restoration with the assumption that climate change will require adaptive management techniques, especially for rare species protection. Management tools will include the best available knowledge and may include fire, hydrologic alteration, manual, mechanical and chemical vegetation management approaches.

Policy 7

Smith and Bybee Wetlands provide food and shelter for diverse plant, fish and wildlife communities, many of which are declining or already rare in the region. As demonstrated by the number of conservation targets, multiple objectives exist for the Smith and Bybee Wetlands area. This plan acknowledges that other entities (e.g., Multnomah County Vector and Nuisance Control) may have a single focus; however, the Smith and Bybee Wetlands area shall be managed to maintain healthy ecological systems, including an intact food web.

Policy 8

Metro may negotiate with owners of land within the Smith and Bybee Wetlands area for the purpose of acquiring such land in order to better achieve the goals and objectives of the plan. Such negotiations shall proceed only if such owners are willing sellers.

Policy 9

Metro, in coordination with the Smith and Bybee Wetlands Advisory Committee, will implement monitoring efforts in a way that is consistent with the goals described in this plan.

Policy 10

The following policy statements shall apply to the St. Johns Landfill.

Regulatory environment: Management of the St. Johns Landfill site shall be subject to the terms and conditions of any permit, license or agreement required for post-closure care operations, as issued and enforced by the U.S. Environmental Protection Agency, State of Oregon, City of Portland, or other agency responsible for regulating any aspect of such operations.

Regulatory compliance: The implementation of any action established by this plan to support conservation target goals or public access objectives relevant to the St. Johns Landfill site shall give precedence to compliance with any in-force regulation of site post-closure care operations.

Land use definition: The primary use of the St. Johns Landfill site shall be upland prairie and riparian forest habitats, developed and managed consistent with this plan, with consideration of the surrounding wetland habitat, and of public access objectives. Public access to the site shall be limited to trail use, organized tours and educational events.

Land use review: New projects at the St. Johns Landfill site that are designed to meet post-closure care objectives are subject to land use review under City of Portland zoning code, for that purpose are pre-approved under this plan, and shall follow review procedures established by this plan prior to implementation.

Trail guidance: Trail development on the St. Johns Landfill site, consistent with this plan, shall include design features that minimize risks to public health and safety; are protective of site infrastructure; and allow landfill workers to carry out post-closure care operations efficiently and in compliance with all applicable regulations. Trail construction and maintenance at the site shall similarly abide by these guidelines.

Operations definition: Post-closure care operations at the St. Johns Landfill site shall be conducted in conformance with all applicable regulations and will include, but not necessarily be limited to: maintenance of the integrity of the landfill cover and perimeter banks; management of the landfill gas collection system; and environmental monitoring, environmental investigation and construction and management of remediation facilities stemming from such investigation.

Operations funding: Post-closure care operations at the St. Johns Landfill site shall be funded through a financial assurance mechanism approved by the Oregon Department of Environmental Quality under terms of the Solid Waste Disposal Site Closure Permit.

Policy 11

As a large natural area in Portland, Smith and Bybee Wetlands area has value for recreational and educational use. Although its primary value is as fish and wildlife habitat, many forms of public use are compatible and encouraged. This plan recognizes the importance of access to nature and people's need to experience nature.

Smith Lake will be the principal area for water-related recreational activities such as canoeing, rowing, fishing and bird watching. Bybee Lake and surrounding wetlands will be managed primarily as an environmental preserve. Bybee Lake will be available for recreational use, although access by foot and boat will be more difficult than to Smith Lake.

As a wetland system, most of the management area is aquatic and the boat launch onto Smith Lake provides access for paddlers to experience the wetlands. Nearby launches at Kelley Point Park and the Columbia Slough near the St. Johns Landfill site also provide boat access. Additional launch facilities are not anticipated, and boat access is confined to manual and electric propulsion. A portage facility from the North Slough to Bybee Wetland near the water control structure is anticipated by this plan.

Opportunities for terrestrial access are limited due to the narrow configuration and flood-prone nature of most land within the management area. The 40-Mile Loop Trail and Interlakes Trail provide access around and into Smith and Bybee Wetlands. Additional trails based on the North Slough Bridge and South Slough Trail Alignment feasibility studies are incorporated into this plan.

Policy 12

The regional trail(s) described in this plan will make important pedestrian/biking connections between the St. Johns neighborhood and downtown Portland with Smith and Bybee Wetlands, Kelly Point Park, and the Marine Drive trail. Integral to the realization of The Intertwine, the trail(s) will provide people a high-quality experience of nature accessible by biking and walking and including viewpoints to observe wildlife.

Because of the potential disturbance to wildlife and wildlife habitat, dogs are not allowed within the Smith and Bybee Wetlands.

Trail development on the St. Johns Landfill site fulfills conditions of prior land use decisions by the City of Portland, including construction of the water control structure and restoration of stream bank on the landfill perimeter.

Policy 13

All terrestrial areas not specifically identified for trails or other facilities shall be designated as habitat restoration and conservation areas. Use shall be limited to habitat management, site maintenance, educational programs, and research and monitoring projects.

Policy 14

The Smith and Bybee Wetlands Management Area includes the Columbia Slough from North Portland Road north and west (downstream) to Lombard Street. Any and all management actions, plans, or policies developed for this portion of the Columbia Slough and not specifically included elsewhere in the plan shall be treated as an amendment to the plan. See page 18 for a reference map.

Policy 15

It is anticipated that a variety of mitigation projects may be proposed for Smith and Bybee Wetlands Natural Area. These projects typically aim to compensate for wetland impacts elsewhere in the watershed and/or generate ecosystem services credits for off-site impacts. The Plan does not outright prohibit or allow these types of mitigation projects. The Advisory Committee will review any proposed mitigation project and make a recommendation to property owners on whether or not to allow the project. Metro's adopted Mitigation Policy Framework will service as an essential tool in evaluating potential projects.

Policy 16

Clean water is vital to supporting the fish and wildlife at Smith and Bybee Wetlands. Stormwater runoff that enters the wetlands from off-site outfalls must meet requirements in the Portland Stormwater Manual. The Advisory Committee will review any proposed outfall project and make a recommendation to property owners on whether or not to allow the project. Committee recommendations will be based on water quality, quantity and appropriate design of the outfall. All stormwater must be treated on-site prior to entering Smith and Bybee Wetlands. Outfalls that are not permitted, no longer needed or not properly maintained should be eliminated by the property owner.

Policy 17

Infrastructure in the plan area such as streets, water lines, stormwater facilities, power lines, sewers and pump stations protect public health and safety. The plan recognizes this and allows for ongoing maintenance and improvements of public infrastructure to ensure proper function. Maintenance of these facilities may involve negative impacts to native vegetation and wildlife in order to support the long-term functionality of the infrastructure. All impacts will be mitigated on site.

Further, Smith and Bybee Wetlands are surrounded by private industrial uses that are vital to metropolitan Portland's economy. The plan acknowledges the need for growth of industrial infrastructure on private property. The Smith and Bybee Advisory Committee will receive notice and work with industrial partners to make sure that growth is supported and, at the same time, that the wetlands within the management area are protected from impacts.

FUNDING

Smith and Bybee Wetlands has the somewhat unusual advantage of a dedicated endowment fund. The fund was established with the City of Portland's adoption of the St. Johns Landfill End Use Plan in 1987. Sources of income for the fund included a grant from the City of Portland's Refuse Disposal Fund, a portion of tipping fees collected by Metro at the St. Johns Landfill and Metro lease payments to the City of Portland. The 1990 plan designated Metro as the lead agency managing the fund and implementing the plan (Metro ordinance No. 91-370A).

Appropriate use of the fund was described in the 1990 plan as "…acquisition of land within the Smith Bybee Lakes Management Area; and for the development, operation and ongoing maintenance of the recreational, educational and environmental facilities and programs proposed by the Smith and Bybee Lakes Management Plan (Policy 4, 1990 NRMP)." This plan adopts similar language. The original fund balance was approximately $2.6 million, and at that time it was understood that the fund would be insufficient to fully fund all current and long-term needs.

Fund use in 2011

Current revenues include a small amount from fees collected from educational program users. Interest is earned on the unused portion of the fund balance. Earnings are based on the current rates of Metro's average investment portfolio. The 2010-11 fund balance is $3,987,047. In recent years, interest has been as high as $176,975 (2007-08) and as low as $39,870 (2010-11). The general practice is to expend the interest and not touch the principal. The fund reimburses Metro for the costs associated with management and oversight of the Smith and Bybee Wetlands including a portion of salary for an environmental educator, one natural resource scientist and one ranger. Typically, annual use of the fund includes contracted property services for restoration activities.

As established by the 1990 plan, decisions for use of the fund are made by Metro as the fund manager, and the advisory committee is the principal advisory body to the fund manager. Metro has an annual budget cycle, with a proposed budget drafted by January and adoption typically by May. This 2011 plan establishes the protocol of annual budget reports from Metro to the advisory committee for their review and recommendation when the budget proposal is in draft form.

10-year strategy for use of the fund

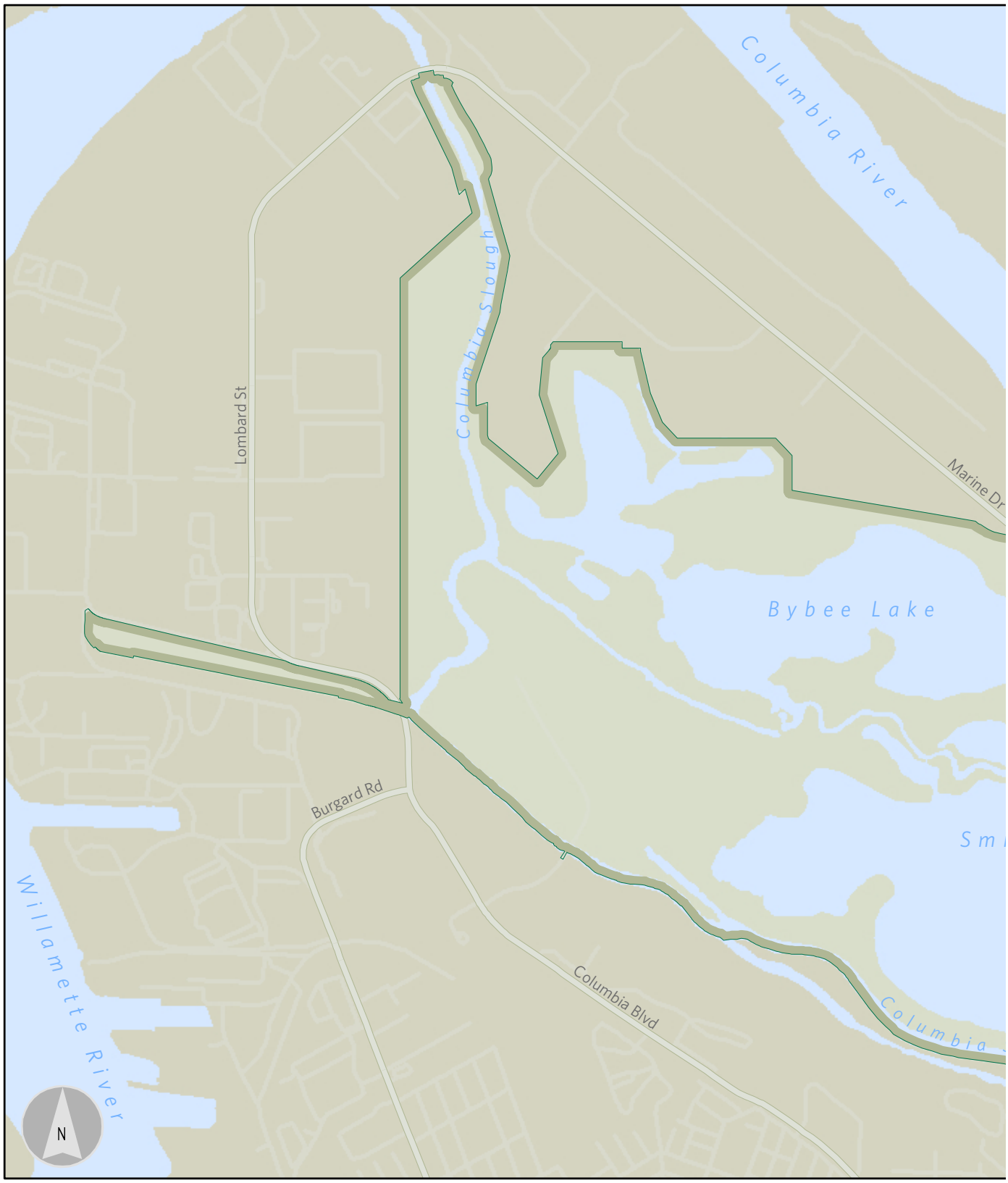
The program of restoration outlined in this plan is estimated to cost approximately $1.5 million over the next 10 years. The costs range from $1,000/acre to over $8,000/acre, depending on the challenges posed by the conservation target. The regional trail and bridge at St. Johns Landfill are estimated to cost approximately $7.3 million. There are other projects anticipated by this plan, but the projects mentioned above and their estimated costs make the point that the fund alone will not be sufficient.

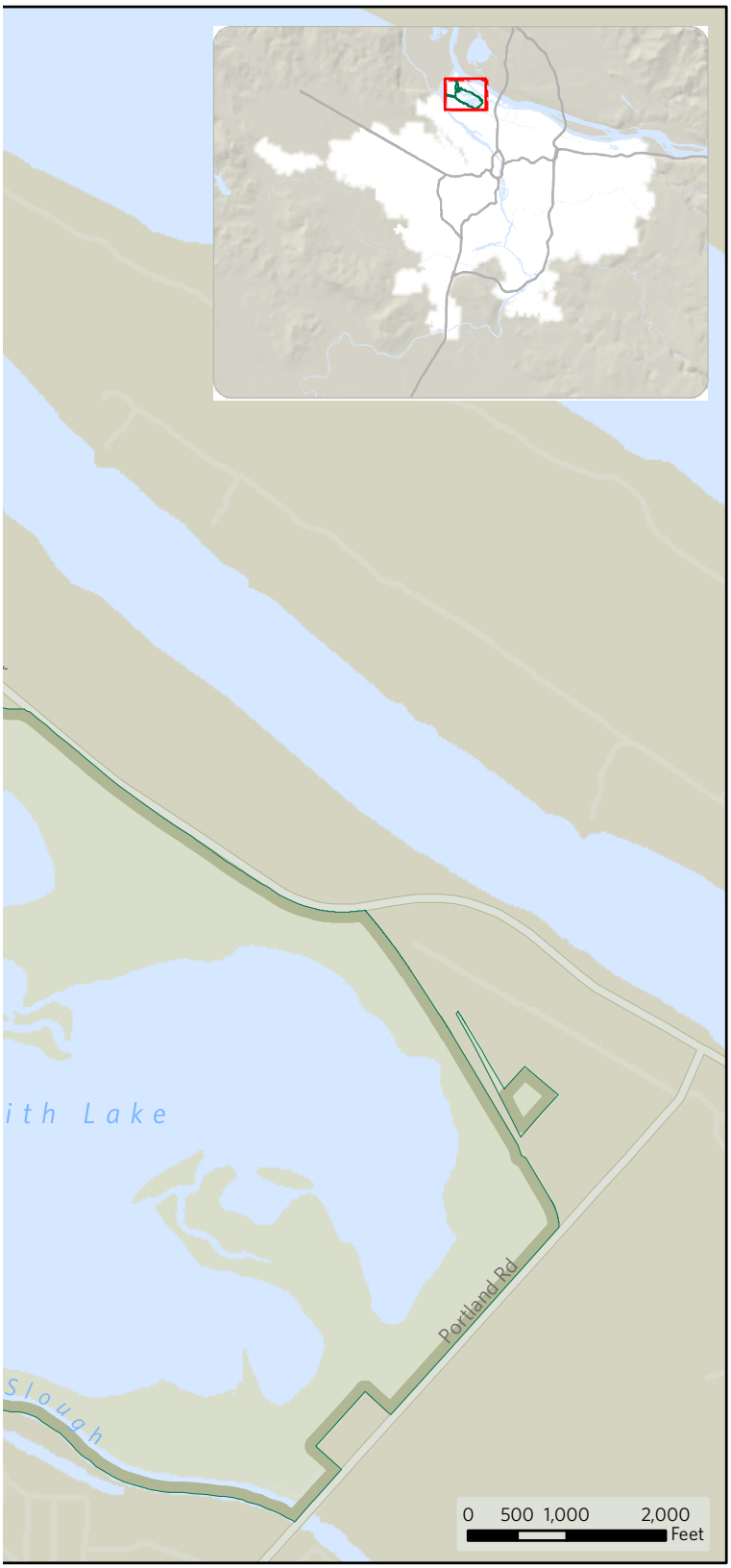
The general approach for funding includes five key strategies:

- Use the fund to attract significant grants over the next 10 years. The aspiration for restoration is to match the fund one to one with grants. For recreation, the aspiration is to contribute to a match for the regional trail and other access-related projects.
- Bring additional resources to the project work. It is anticipated that the Landfill Fund will substantially contribute to restoration.
- Draw down the fund to achieve high priority goals of the plan. Bring the proposed project work and budget to the advisory committee annually for review and recommendation. Note that grant funding cycles will have schedules that do not coincide with Metro's budget process. Discussions with the advisory committee will factor in grant timing (see Appendices C-4.1 and C-4.2 for sample 10-year pro forma and costs for restoration priorities).
- Continue to fund the basic staff positions needed to manage the day-to-day work, as well as the restoration of Smith and Bybee Wetlands.
- Enlist the advisory committee's support leveraging funds through community support for grants.

The beginning of the plan referenced the accomplishments of the past twenty years and indicated that the place is vital but the work is not done. The successful accomplishment of this plan's priorities will rely on coordination between many people. The monitoring program will coordinate on-the-ground actions, the science staff and the key stakeholders. Based on the facts, adjustments and adaptations can be made as needed. Realization of the plan's priorities will also rely on strong coordination between the advisory committee, the community and Metro. The policies set forth here will help facilitate that coordination and will be drawn upon as unexpected circumstances arise. Finally, the plan's priorities will be realized as funding is coordinated. The expectations in this plan are high. To fulfill those expectations, more investment and targeted investment will be needed. Through coordination of the advisory committee, Metro Council and granting agencies the priorities will be sufficiently funded and fully realized.

SMITH AND BYBEE WETLANDS OFFICIAL BOUNDARY MAP




ith Lake
Portland Rd
Slough
0 500 1,000 2,000
Feet

GLOSSARY

NRMP

Natural Resources Management Plan This plan was adopted in 1990 by City of Portland and Metro. It established the Smith and Bybee Wetlands Advisory Committee, Metro as land manager, and parameters for use of the Wetlands Fund. It was authorized by Portland Zoning Code 33.430.310. The NRMP is typically referred to as the 1990 Plan.

CNRP

Comprehensive Natural Resources Plan This plan is a new land use review type authorized by Portland Zoning Code 33.809. Similar to the NRMP, the CNRP allow long-term management for large ecosystems. However, the CNRP does not supersede the Zoning Code but must comply with current zoning regulations.

CONSERVATION TARGET

Species, communities or ecological systems that encompass the native biodiversity of the site. Targets may be habitats with nested species or individual species if they cross habitats.

KEA

Key ecological attribute A key attribute that if missing or altered would lead to the loss of the conservation target over time. For example, one of the key ecological attributes of riparian forest is native tree and shrub richness.

THREAT

Any element that places stress on the resource and its inhabitants and threaten the health of the greater ecosystem. Examples of threats include invasive plants and animals, disruption in habitat connectivity and human disturbance.

LAKE VS. WETLAND

The convention used in this plan is to use "wetland" when describing the overall area and the combination of Smith and Bybee Lakes. "Lake" is used when referring to either Smith Lake or Bybee Lake individually. This convention is based on common usage.

THE INTERTWINE

The Intertwine refers to the region's network of parks, trails and natural areas. It is championed by the Intertwine Alliance, a broad coalition or organizations working to build and protect the region's network of parks, trails and natural areas and to create opportunities for residents to connect with nature.

EXOTIC

A species occurring outside its native range; it is not necessarily invasive.

WEED

A common term for plants growing where they are not wanted, weeds can be native depending on the context.

NON-NATIVE

Synonymous with "exotic," it is a species occurring outside its native range and may or may not be invasive.

ACKNOWLEDGEMENTS

SMITH AND BYBEE WETLANDS ADVISORY COMMITTEE

The Committee met regularly and made content decisions about the plan development process.

Dave Helzer, Chair, Portland Bureau of Environmental Services

Pam Arden, 40-Mile Loop Land Trust

Lynn Barlow, Portland Parks and Recreation

Susan Barnes, Oregon Department of Fish and Wildlife

Troy Clark, Vice Chair, Audubon Society of Portland

Larry Devroy, Port of Portland

Sara Henderson, St. Johns Neighborhood Association

Dan Kromer and Dan Moeller, Metro

Patt Opdyke, North Portland Neighborhoods

Dale Svart, Friends of Smith & Bybee Lakes

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Metro is the Smith and Bybee Wetlands Fund manager and convened the CNRP planning process.

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CITY OF PORTLAND

The change from NRMP to CNRP was facilitated by Chris Scarzello and Roberta Jortner, City of Portland.

To volunteer at Smith and Bybee Wetlands or sponsor a work party, contact Metro at 503-797-1890 or parkvol@oregonmetro.gov.

Metro | *Making a great place*

Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy, and sustainable transportation and living choices for people and businesses in the region. Voters have asked Metro to help with the challenges and opportunities that affect the 25 cities and three counties in the Portland metropolitan area.

A regional approach simply makes sense when it comes to providing services, operating venues and making decisions about how the region grows. Metro works with communities to support a resilient economy, keep nature close by and respond to a changing climate. Together, we're making a great place, now and for generations to come.

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