2004

A Metropolitan Greenspaces Program Report

# Conserving Nature in every Neighborhood

METRO PARKS AND GREENSPACES AND U.S. FISH AND WILDLIFE SERVICE

# THE CONFLUENCE

Two great rivers are at the heart of Portland, Oregon, and Vancouver, Washington – the Columbia, the great river of the West, and the Willamette, a national heritage river. Mountains, hills, valleys, lakes, canyons, forests, wetlands and meadows define the wildlife-rich landscape of both cities.

Another confluence has been the Metropolitan Greenspaces Program. Like tributaries flowing together to become a powerful force, local people, organizations and government agencies merged their strengths to conserve urban natural resources. A catalyst has been the extraordinary partnership of Metro, the regional government for the Portland metropolitan area, and the U.S. Fish and Wildlife Service.

Since its inception in 1991, the Metropolitan Greenspaces Program has been one of only two national demonstration projects created under the auspices of the U.S. Fish and Wildlife Service to develop new and innovative ways to preserve natural areas for fish, wildlife and people in urban regions. Like its Chicago Wilderness counterpart, the program in the Portland-Vancouver area has involved the enthusiastic dedication of thousands of people in agencies, local governments, schools, churches and nonprofit organizations.

Through a combined effort, remarkable success has been made – neighborhood by neighborhood – to protect, preserve and restore some of the region's most biologically productive habitats. The Metropolitan Greenspaces Program has become one of the most innovative and successful urban ecosystem protection programs in the world.

# THE URBAN WILDS

URBAN ECOSYSTEMS ENCOMPASS A WEALTH OF WILDLIFE HABITATS WORTHY OF ENVIRONMENTAL STEWARDSHIP. THEY OFFER NO LESS A REMARKABLE ARRAY OF HABITATS THAN OUR RICHEST NATURAL AREAS.

A bald eagle soars over Japanese cargo ships docked at a city port. Golfers listen to the clattering of dozens of young herons calling for food from their nests at the edge of the 18th green. Elk roam through a forest of Douglas fir, city skyscrapers in the distance. A rufous hummingbird, fresh from its migration from Mexico, hovers at a neighborhood backyard feeder. Salmon course through a neighborhood stream. Forty thousand Vaux swifts swirl to roost in a middle-school chimney. A peregrine falcon sweeps over rush hour traffic to its nest atop a busy interstate highway bridge.

All places, even city streets with skyscrapers, are parts of ecosystems. Urban

ecosystems encompass a wealth of wildlife habitats worthy of environmental stewardship – streams, woodlands, lowlands, wetlands, meadows, springs, ponds, lakes, forests, rivers, greenways and backyard habitats. They offer no less a remarkable array of habitats than our richest natural areas, such as national parks or designated wilderness.

Urban lands affect wildlife far beyond their boundaries. The metropolitan area is on the route of migratory birds, abundant with major stops along the Pacific flyway. In the Portland-Vancouver area, more than 200 bird species inhabit urban neighborhoods. All Columbia River salmon populations can be found spawning, rearing or migrating through the urban area. For fish, birds and animals that range over large areas including national forests, parks and reserves, urban habitats can be important to their survival. Habitats are ecologically connected over vast regions – the landscape is continuous, and rivers flow long distances.

From a forested park to a steel bridge abutment, urban wildlife habitats range from the common to the startling. Some are vestiges of the natural world, and some the result of birds and animals adapting to artificial features of the built environment. Yet others are habitats specially created by people who want to protect wildlife where they live and work, and to further the city's ecological legacy.

# THE GREEN-SPACES MASTER PLAN

In the early 1900s, renowned landscape architects John Charles Olmsted proposed a system of interconnected parks for Portland. Decades passed, and few of his recommendations were accomplished. Nearly a century later, with a rapidly growing population, citizens urged Metro to create a regional system of parks and greenspaces for fish, wildlife and people in the Portland-Vancouver area.

In response, Metro made a commitment to develop a Metropolitan Greenspaces Master Plan. Federal support helped carry out the vision. The U.S. Fish and Wildlife Service provided funding for a region-wide inventory, conducted by

biologists, to pinpoint the area's most critical habitats. Through collaboration with local governments, conservation organizations, agencies and literally thousands of citizens, potential sites were proposed for protection. The goals were to conserve the area's most significant natural resources, and to ensure nature in everyone's neighborhood. It took several years, but finally the plan was adopted by Metro and endorsed by every city and county in the area. Because so many people had worked to create it, the plan had power.

With the plan as a guiding framework for habitat acquisition, protection and restoration, many local agencies took action. Metro's $135.6 million bond measure to acquire significant undeveloped natural areas was the largest effort, placed on the ballot in 1995. Citizens overwhelmingly supported the measure with 63 percent of the vote. Through careful negotiations with willing sellers, Metro, along with local governments and parks agencies, leveraged the original bond measure funds to ultimately protect more than 8,000 acres of the highest-ranking wildlife habitats in the region, including more than 70 miles of riparian stream frontage.

The plan continues to flourish as the vision for ongoing restoration and protection of a connected system of natural areas throughout the region.

GLOBALLY AND LOCALLY, HUMAN POPULATIONS ARE URBANIZING THE LANDSCAPE. OUR CITIES HAVE BECOME KEY TO CONSERVING BIODIVERISTY.

# NATURE IN EVERY NEIGHBORHOOD

# GREENSPACES GRANTS

A worker emerges from a warehouse to take a lunch break on a bench beneath a tree alive with the trilling of a wren. Children scamper out of classrooms to sketch plants in a schoolyard habitat. Apartment-dwellers saunter over to a nearby park and quietly watch a butterfly alight on a branch. Commuters watch blossoming trees from a train.

A connection with nature nearby is important to people in their everyday lives. For communities to be livable, people need something of the natural world in their midst. Healthy wildlife habitats also are signs of healthy environments for people. The way to limit sprawl and destructive urbanization is to create wildlife-rich cities with clean air and water where people want to live.

Nature gives pleasure to people. The natural world is a delight to the senses – the sight of trees bursting with colorful blossoms, the lively whistle of bird calls, fresh scents after a spring

rain, the delicious sweetness of a ripe berry, the touch of gurgling water in a stream.

Wildlife habitats should not be relegated to the countryside. Places for wildlife need to be integrated into the built environment so that nature exists in every neighborhood, providing oases of beauty and wonder as respites in the most paved-over of worlds.

*"What is clear is that people need contact with wildlife on an everyday basis. Most people need a nature area within a five- or 10-minute walk of home."*

– Nature Areas for City People; London Ecology Handbook

## GREENSPACES GRANTS, 1991 – 2004

More than 300 conservation, education and restoration projects have been funded across the region.

With nearly $2.2 million in grant awards, Metro and the U.S. Fish and Wildlife Service have leveraged federal funds with more than $9 million locally for habitat-related projects.

The Greenspaces grant program is another great success story of the collaboration between Metro and the U.S. Fish and Wildlife Service.

Beginning in 1991, the service has provided funding and expertise to administer exceptional grant programs in partnership with Metro Regional Parks and Greenspaces staff. Resources have been pooled to develop and fund more than 300 conservation, education and restoration projects that fit the two agencys' missions to protect, restore and enhance natural habitats, and engage and educate the public.

The Greenspaces program shows the big picture, blurring human-declared boundaries such as state or county lines, so that the connectedness necessary for biodiversity is made clear. Within the framework of the regional greenspaces system, restoration and conservation needs are identified, and grants are awarded to projects that support habitat improvements, field-based learning opportunities and land-use planning efforts.

The returns have been astonishing.

With nearly $2.2 million in grant awards, Metro and the U.S. Fish and Wildlife Service have leveraged federal funds with more than $9 million locally for habitat-related projects.

Throughout the urban community, people have been inspired to get involved. Thousands of acres of significant habitat have been restored by hand (and

*"We have been able to leverage $200,000 with our original $10,000 grant. We have plans to leverage hundreds of thousands more dollars protecting threatened wildlife habitat in metropolitan Portland."*

– Jayne Cronlund
Three Rivers Land Conservancy

*"The $2,554 grant shared by SOLV and Oregon Trout provided a cornerstone for SOLV's watershed restoration programs."*

– Jack McGowan, SOLV

in one case, with the help of goats), engaging literally tens of thousands of adult and youth volunteers through field-based projects and school programs, resulting in dramatic habitat improvements for fish and wildlife in neighborhoods throughout the region.

The number of partners typically joining the collaborative efforts is dazzling. For example, one project led by the Tualatin River Watershed Council was supported by 19 partners, pairing neighborhood groups such as The Friends of Rock, Bronson and Willow creeks, with corporations such as timber giant Willamette Industries,

local agencies such as the county Soil and Water Conservation District, the Tualatin National Wildlife Refuge, a middle school and the Audubon Society of Portland.

In addition to the remarkable success of the habitat restoration projects, grants also have funded a wealth of environmental educational programs and have supported work to restore threatened and endangered salmon, steelhead and other at-risk species. A variety of conservation projects received Greenspaces grants for field studies, monitoring and strategic planning.

# THE BALD EAGLE STORY

There hardly is a better endangered species story to demonstrate the importance of habitat protection in urban areas than the success of the bald eagle. In 1978, when bald eagles were listed under the Endangered Species Act, there was not a single nest site found in the Portland-Vancouver metropolitan region. Only 57 occupied nests were documented in all of Oregon and Southern Washington. This area now supports more than 400 active nests, and numbers are still rising. Suitable habitat protected as part of the extensive system of greenspaces has enabled return of the eagles to the metropolitan area, a historically important part of their range.

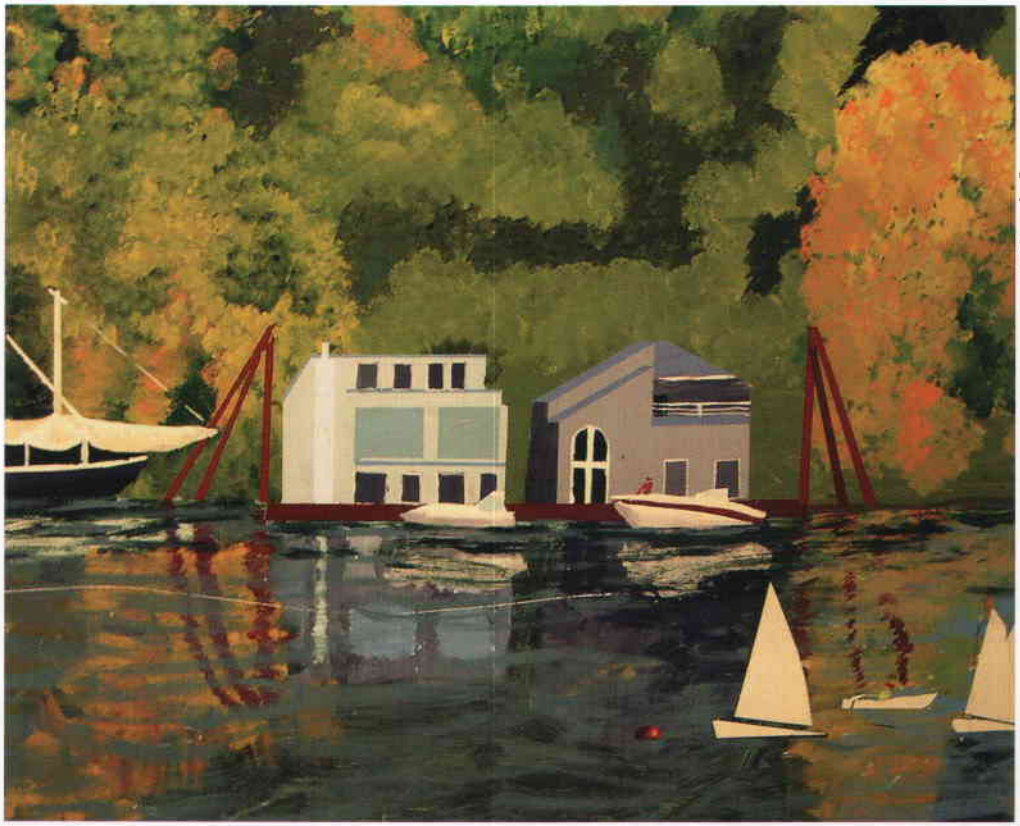
Bald eagles can be found in the region year-round using local habitats for nesting, migrating and wintering. An estimated 2,500 to 3,000 bald eagles visit Oregon each spring, and there are many city sites where people can regularly spot bald eagles, including Oaks Bottom, Ross Island Lagoon and Smith and Bybee Lakes Wildlife Area. For many years, the Audubon Society of Portland hosted a dawn bald eagle watch on Sauvie Island, where eager birdwatchers might count as many as two dozen bald eagles flying overhead from their roosts in the Tualatin Mountains to feed on the island's wildlife reserve.

Incorporating habitat protection into urban growth management strategies has contributed toward the recovery of the bald eagle, lending hope to today's challenging efforts to conserve biodiversity that must include meaningful roles for our cities.

*"Migratory animals, including the majestic bald eagle, can't avoid giant metropolitan areas just because humans build them. It's their home, too."*

– Bob Sallinger,
Audubon Society of Portland

THE WILLAMETTE RIVER WATERSHED IS HOME TO 75 PERCENT OF OREGONIANS, AND FEW NATURAL RESOURCES TOUCH PEOPLE AS DEEPLY AS THE RIVER.



*A portion of the Gregory Heights Middle School mural*

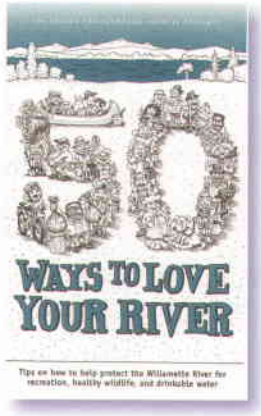
# RIVERS

It's no secret that it rains a lot in the Pacific Northwest. Copious rainfall results in a multitude of rivers coursing across the landscape. The Portland-Vancouver metropolitan region has been shaped, geographically and culturally, by its two major rivers, the Columbia and the Willamette. Other significant rivers include the Clackamas, Tualatin, Sandy and the Lewis. Headwater streams and creeks form an enormous web of watersheds.

The Greenspaces grant program has supported numerous projects inspiring citizens to clean up the rivers, and learn about and restore the natural character of streams that wind through their communities.

**"Fifty Ways to Love Your River"**

A successful project to educate the general public about river health led to "Fifty Ways to Love Your River," a booklet produced by the Oregon Environmental Council. Greenspaces grants supported the council's work to educate average citizens about the ways they can help improve river quality, habitat and fish populations through an engaging guide that reached more than 20,000 residents.




**Bringing the River Inside**

Knowledge about the environment helps foster values and teach students how to safeguard natural resources. As part of an environmental education project funded by a Greenspaces grant, every student at Gregory Heights Middle School made a field trip to observe and learn about current environmental issues in and around the Willamette River. They then created a 640-foot mural of river scenes and wildlife painted along the main hallways and ceilings of their school. Art, math, language arts, social studies and science were woven into the program. Partners with the school included Headwaters to Ocean and the Artist in Residence Program of Portland State University.

**Clearing Invasive Species**

Invasive species are one of the greatest threats to Oregon's river systems, especially those near the urban-suburban fringe. The Sandy River, because of its proximity to developed urban landscapes, active farms and tendency to flood, is particularly vulnerable to invasions of noxious weeds. A Greenspaces grant supported efforts to restore the Sandy River's riparian areas, improve water quality and increase watershed health. During the five-year restoration project, invasive plants such as scotch broom and Japanese knotweed were brought under control on high priority floodplains and natural meadows within a seven-mile stretch of the Wild and Scenic portion of the river. A plan for long-term management involving landowners throughout the basin has been developed to keep these plants under control.

WETLANDS ARE SIGNIFICANT HABITATS IN FAR GREATER PROPORTION THAN THEIR SIZE, SERVING AS KEY AREAS FOR ALMOST HALF OF ALL SPECIES LISTED UNDER THE ENDANGERED SPECIES ACT.

# WETLANDS

As with elsewhere across the nation and around the world, the once-bountiful wetlands around Portland and Vancouver have been disappearing, lost to both infill and sprawl. Development continues to be a threat, making it ever more important to have urban programs with the long-term means to protect wetlands and the wildlife populations that depend on them. Wetlands are significant habitats in far greater proportion than their size, serving as key areas for many species including almost half of those listed under the Endangered Species Act, and providing essential nesting, migratory and wintering areas for migratory birds.

Wetlands and the waterfowl, bats, frogs and other wildlife they attract are often very visible signs of nature in neighborhoods. Greenspaces grant projects focusing on wetlands often draw huge armies of volunteers, sometimes hundreds of people working together, to restore the natural water systems, plant trees and other native species, and watch the wildlife return.

**Fernhill Marsh**
With the help of a Greenspaces grant, a wetland was expanded to create an emergent marsh, with a mosaic of islands designed to provide waterfowl habitat and reduce pollution from stormwater runoff. The project included removal of 12 tons of trash, the planting of native vegetation, erosion control work, signs and education projects. The project began with 160 acres and hopes to eventually encompass 500 acres. Now Fernhill Marsh is described as a place "to see thousands of ducks, hundreds of geese and swans and a bald eagle or two."

**Salish Ponds**
Salish Ponds Wetlands Park is a 70-acre natural area park in the neighborhood of the Reynolds School. Students from the school worked with city staff and local experts to conduct research and gather data on the flora and fauna of the site. Their teachers attended training sessions on wetlands, data collection and stewardship.

**Raindrops to Refuge**
Sherwood is the fastest-growing city in the state of Oregon – its population increased 281 percent in the decade between 1991 to 2001. The city and local partners developed the Raindrops to Refuge (R2R) program to ensure the preservation of local natural areas, especially wetlands, for the benefit of fish, wildlife and the community. Some of the most significant habitats are along Chicken, Rock and Cedar Creeks, which flow through the Tualatin River National Wildlife Refuge. Awarded two Greenspaces grants, R2R developed a watershed action plan for habitat restoration, conservation, education and outreach. Projects included "Neighbor to Neighbor" educational workshops, a Greenway Walks Guidebook created by fourth and fifth grade students at Middleton Elementary School, and restoration of a 3-acre upland site, removing invasive species and planting native trees and shrubs.

MAINTAINING FOREST CANOPY THROUGHOUT THE LANDSCAPE ALSO HAS BEEN FOUND TO BE CRITICAL FOR MAINTAINING HEALTHY STREAMS.

# FORESTS

Portland's 5,000-acre Forest Park is one of the largest city parks in the world. More than a park, it's a relatively undisturbed wilderness, home to black bear and elk, and part of a forest corridor to the Pacific Ocean, 80 miles away. On the opposite side of the region, Metro's Oxbow Regional Park is a 1,200-acre forest with 160 acres of giant old-growth Douglas firs 700 to 800 years old. Between these two significant forests, woods large and small are nestled amid city streets and homes. Greenspaces grants for forest conservation and education projects in neighborhoods foster appreciation, and improve habitats and ecosystems for sensitive wildlife, including migratory birds.

### Saving Noble Woods

Noble Woods encompasses 37 acres of woodlands and meadows along Rock Creek. It is one of the oldest and largest remaining forested areas in Hillsboro, a rapidly developing city, and was destined for development as homesites. A foundation was created to save the site and bring it into public ownership. Funding from a Greenspaces grant was used for environmental education programs for the general public and school groups. Summer nature day camps are held in the park and a lesson plan guide was developed. The program helps nurture community interest in the forest and its wildlife.

### Wildlife in Forests: a Study

Portland State University received two Greenspaces grants to study the abundance and diversity of birds,

mammals, amphibians and reptiles in forested greenspaces. The overall goal was to gather information to help guide decisions about how to sustain native wildlife in urban areas through the design and management of habitat networks. To identify factors that are influential, the study compared data about the landscape – such as surrounding land uses, habitat area, connectivity and vegetation – with wildlife communities in greenspaces. Early results have shown that the size of a habitat patch is highly important because larger habitat areas correlate to native vegetation, migratory birds and native mammal populations.

### Willamette Bluffs Oak Restoration

Oregon white oak is one of the most at-risk habitat types in decline in the Willamette Valley. An accidental burn of approximately 40 acres of land known as Willamette Bluffs provided an opportunity to re-establish a native oak savannah where invasive species had persisted for many years. A Greenspaces grant brought together a partnership of the city of Portland Environmental Services, Fire Bureau and Planning, along with Metro, Open Meadows School, bluff landowners and others to restore native habitat to a portion of the burned area. Although it will take years for the native oak to mature, the steep slope was stabilized to prevent erosion, invasive plants were removed, and native groundcovers, shrubs and trees were planted. Working with adjacent landowners, the city has developed a long-term plan for managing their property and its interface with private lands.

RIPARIAN CORRIDORS ARE SOME OF THE MOST PRODUCTIVE WILDLIFE HABITATS, AND ARE THE BEST REMAINING PLACES FOR WILDLIFE MOVEMENT ACROSS THE URBAN LANDSCAPE.

## STREAMS

Streams and creeks course through a preponderance of neighborhoods throughout the Portland-Vancouver metropolitan region. Though some are unnamed and under-appreciated, many are treasured by people living along these watercourses. A battalion of "friends" groups has formed to protect and restore the streams flowing or even trickling through their backyards. More than 90 percent of native birds in the region use sensitive streamside habitats, and nearly half depend on them for survival. They also support a wide array of aquatic species, including salmon, steelhead and lamprey, protected or recognized as at-risk under the Endangered Species Act.

Non-native plants are the bane of habitats, but in riparian areas, infestations of weeds can be catastrophic. Japanese knotweed has roots that extend underground 10 feet by 20 feet. Blackberry shrubs crowd out acres of native species. English ivy vines smother ground plants and topple trees whose trunks and branches they envelop. Greenspaces grants help wildlife by restoring native vegetation to streamside areas.

**Boeckman Creek: Goats for Greenspaces**

A Greenspaces grant was awarded to the city of Wilsonville to restore the Boeckman Creek riparian area, which had been smothered with invasive plant species. As one of the treatments, approximately 400 goats were used to graze the restoration site. The goats were kept in a 1-acre fenced site, then moved after they'd eaten a significant portion of the invasive species. Follow-up treatments, including hand-pulling and mowing, complemented the goats' grazing. The goats were effective at removing blackberries and ivy, and also acted as "cuddly ambassadors" for the site. Local residents stopped by to see the goats and learn more about the project. Kerry Rappold, natural resources program manager for the city of Wilsonville, proposes that "future efforts on the part of goats and human beings will hopefully realize the project goals of controlling invasive species and restoring a native plant community."

**"Fish Fling"**

To enhance salmon populations by providing juvenile fish with a source of marine-driven nutrients, a Greenspaces grant supported the Tualatin Riverkeepers "Fish Fling." Salmon carcasses were strategically placed along a tributary to the Tualatin River. The nutrient enrichment also is expected to enhance the overall ecology of the upper Tualatin by increasing fish and wildlife productivity. Participation included streamside landowners, scouts, local service clubs, Northwest Steelheaders and Trout Unlimited.

**Mt. Scott Creek**

Mt. Scott Creek, critical habitat for steelhead, is known to support coho salmon, coastal cutthroat trout and lamprey. A Greenspaces grant helped fund the enhancement of a 70-acre site along the creek. Clackamas County staff delicately placed large woody debris in the stream with heavy equipment to improve fish habitat and dissipate stream energy. Banks were revegetated to restore native riparian species and reduce erosion.

DOWNTOWNS SURPRISINGLY CAN CONTAIN A REMARKABLE REPRESENTATION OF NATIVE WILDLIFE DIVERSITY.

# DOWNTOWN

Wildlife habitats exist, and something of the natural world can be spotted, even in the most paved-over of places. Peregrine falcons find aeries on bridges. Four thousand migrating Vaux swifts roost in an elementary school chimney. Ospreys build nests on power poles. Owls nest in parks along city streets. Bald eagles feed in the river that flows through the heart of the city. Downtowns surprisingly can contain a remarkable representation of native wildlife diversity. Greenspaces grants support projects that help improve wildlife habitat at the very urban core.

**Urban Conservation Treaty for Migratory Birds**

The Audubon Society of Portland was awarded a Greenspaces grant to support its key role in migratory bird conservation efforts as lead partner in the city of Portland's Urban Conservation Treaty for Migratory Birds program. Efforts focus on education, outreach and reducing the hazards to migratory birds. Projects include a peregrine watch program to educate people about the falcons nesting in the city, a Wildlife Care Center program for schools and the general public, an educational Living With Birds series, and a media campaign related to urban bird populations.

**Bat Surveys**

Six species of bats considered to be at-risk and cited as federal Species of Concern are believed to be present in the Portland metropolitan

region. A Greenspaces grant helped fund a study of local bats to determine what species are present, and how to protect their roosts and foraging areas. A total of 31 open spaces were sampled, and 38 bridges were searched for bat roosts during the first year of the study. Seven species were found, including one that had not yet been recorded in the metro area, *Myotis thysanodes*. Results show that bat distribution and concentration seems to be higher in larger habitats and along major waterways such as the Willamette River, Balch Creek and the Tualatin River. Surprisingly, bats were not using bridges in the metro area to the degree that they are known to use them in other areas.

**Eco-Roof**

In 1999, the National Oceanic and Atmospheric Administration listed upper Willamette River steelhead and chinook salmon as threatened, bringing the Endangered Species Act to Oregon's most populated area. Portland's overtaxed sewer system is a major contributor to poor water quality, adversely affecting salmonids. Urgent environmental goals for the city of Portland are to improve water quality and fish habitat. The Eco-Roof is a test project of innovative restoration and stormwater management. Planted rooftops can measurably reduce the quantity and rate of runoff, while simultaneously filtering and retaining particulate matter to cleanse the water. The project, with eight different plot sites, is located on the rooftop of the B&O Commerce Center, an industrial warehouse centrally located on the east bank of the Willamette. In addition to direct stormwater benefits, studies of the planted roof will provide information that will lead to more rooftop gardens, and ultimately to more actions that benefit streams.

Neighborhood parks, while providing a welcome respite for people, play an important role in conserving wildlife habitat and maintaining watershed health.

# Neighborhood Parks

Parks abound throughout the Portland-Vancouver metropolitan region. Some are defined by their geology – Mt. Tabor, Powell Butte, Apollo Ridge, Beacon Rock. Others are named for the species that inhabit them, such as Willamette Butterfly Park and Wapato State Park. Some are based on the history of the site, such as Howell Territorial Park and Brown's Ferry. Parks also are named for popular features, such as Blue Lake and Lackamas Lake. Some are undeniably urban – Main City Park and Durham City Park. Some have the allure of simply charming names – Hideaway Park and Moonshadow Park.

Greenspaces grants help improve parks for wildlife while providing amenities to the community and familiar ways for people to get acquainted with nature.

### Powell Butte Nature Park: Looking to Save Salmon

Through one Greenspaces grant, more than 50 marine biology students at Central Catholic High School completed a two-year hands-on monitoring project of Powell Butte Nature Park's natural seeps, seasonal wetlands and streams. They measured the water quality of a number of streams on the butte, mapped these sites using GPS coordinates and revisited them on four different occasions to record data. A primary objective was to evaluate changes to natural patterns of runoff that may cause erosion problems, and the impact of runoff on salmon populations of adjacent Johnson Creek. The students produced an action plan that recommends strategies for improving watershed health, identifies major sites of disturbance and establishes a water quality monitoring plan.

### Sandee Palisades

A 1 1/2-acre neighborhood pocket park was transformed from a concrete trench into an aesthetically lovely site that filters urban stormwater to protect the Sandy River downstream. A Greenspaces grant funded work that created a meandering artificial stream surrounded by native vegetation that provides wildlife habitat and serves as a biofilter for stormwater. A short trail and bench made of recycled materials were added for public enjoyment. Partners on the project included the city of Troutdale, a scout troop, students from local schools and about a hundred neighborhood volunteers. After the project was complete, students who were involved testified at hearings for the city of Troutdale that resulted in improved stormwater policies.

### Midland Park Naturescape

"Naturescaping" is widely promoted by Metro, Soil and Water Conservation Districts and the city of Portland to teach people how to garden using native plants and avoiding pesticides, resulting in healthier landscapes and improved wildlife habitat. In this example of a Greenspaces grant, students in grades six through 12 collaborated with Portland Parks and Recreation and people from the community to design and build a "naturescape" in a small public park. Students researched naturescaping principles, developed a plan for the area and planted the site. The project was videotaped and outreach materials were developed to teach and inspire the general public about the benefits of more natural landscape designs that can be used by homeowners, schools and others on small lots.

WHETHER THEY REALIZE IT OR NOT, PEOPLE ARE MAKING DECISIONS AND CHOICES IN THEIR EVERYDAY LIVES THAT WILL IMPACT THE FUTURE OF THE EARTH'S NATURAL HERITAGE.

# BACKYARDS AND SCHOOLYARDS

Backyard trees and gardens. A fountain in the center of an apartment complex. A community garden nestled amid a row of houses. Schoolyards. Most neighborhoods have a touch of nature, and some even have a small feel of wilderness in what are otherwise densely build-up areas. They offer a respite from city stress, and a place to learn more about nature by daily observation.

While the habitat value of these areas is limited, Greenspaces grants for backyard and schoolyard projects help create thriving artificial habitats and make important contri-

butions to watershed health: improved habitats downstream, improved water quality and quantity, reduction in invasive species, decrease in use of chemicals and lawn-watering, better air quality and cooling from trees, and greater connectivity of greenspaces.

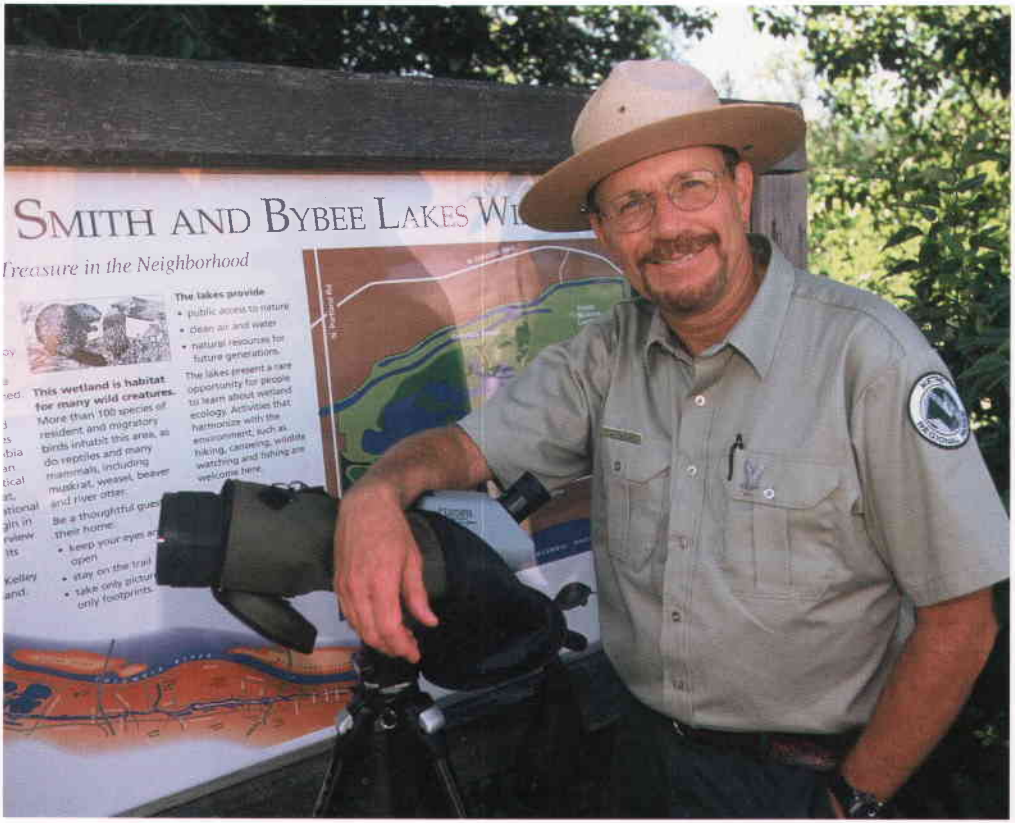
**McCoy Village**

A Greenspaces grant helped fund a backyard habitat in the courtyard areas of a low-income housing development. Part of GROW (Generations Renewing Our World), this project provided hands-on environmental learning opportunities for children, promoted community involvement, built understanding of ecological values, and expanded connections in and around the village. Residents of the affordable living community worked with a local horticulturist to design a butterfly garden, develop a recycling program, and organize a summer school for youths focused on stewardship and shared responsibility.

**Backyard Wildlife Sanctuary Education Program**

Clark County is the fastest-growing metropolitan county in Washington. During the past decade, wildlife habitat and natural areas have been lost to development. The Backyard Wildlife Sanctuary Program was created to raise public awareness about the importance of urban greenspaces, and how small modifications made by individuals in their backyards could ultimately bind the greenspaces network into a larger functioning ecosystem. With the help of a Greenspaces grant, more than 65 classes and presentations were offered through the county. The program was staffed by 25 volunteers who contributed more than 1,500 hours to the project, and the program reached thousands of residents.

The Metropolitan Greenspaces Program is a partnership between the U.S. Fish and Wildlife Service and Metro.




## THE COLLABORATION

Metro is a unique regional government that empowers and assists the communities within its boundaries to transform their visions into reality. Its mission includes land-use planning and policies for livable communities, and the creation of a regional system of parks, natural areas, greenways and trails.

Serving more than a million people in 24 cities throughout the Portland metropolitan area, Metro has been recognized around the world as an urban role model for environmental health and maintaining quality of life. An extended region of influence includes

more than 350,000 people in the Vancouver area, the second-largest metropolitan area in Washington.

The mission of the U.S. Fish and Wildlife Service is to work cooperatively with others to protect, restore and enhance natural habitats, supporting fish, wildlife and plants for the continuing benefit of the American people. The agency oversees migratory birds, endangered species, freshwater fish, and certain marine mammals and anadromous fish.

The Metropolitan Greenspaces Program is a partnership between the two, focused on the overlap between their missions and service to the public. Because the program uses federal funding, the geographical region covered by the partnership is able to follow the natural landscape, rather than political boundaries. This enables the program to be a bi-state effort that includes the entire growing Portland-Vancouver metropolitan area. Urbanization has a profound influence on the decline of fish, migratory birds and threatened and endangered species. Urban development is now the leading cause of species extinction. Conservation in more wild and pristine places is no longer enough. Protecting nature in urban areas and actively engaging the public in solutions are now on the forefront of biodiversity conservation.

The Metropolitan Greenspaces Program is an unprecedented opportunity for the U.S. Fish and Wildlife Service to partner with Metro and others to develop flexible approaches for addressing urgent conservation needs in and around urban areas.

The program now serves as a tested and proven model for new ways to serve the public by protecting fish and wildlife and their habitats in urban landscapes.

# PARTNERS

Ainsworth Elementary School
Alice Ott Middle School
Association of NW Steelheaders
Audubon Society of Portland
Beaverton School District: Arts & Communication High School
Binnesmead Middle School
Canby School District
Cascade Geographic Society
Cascadia Quest
Cascadia Wild!
CE Mason School
Cedaroak Park Primary School
Centennial Learning Center
Center Neighborhood Association
Central Catholic High School
City of Canby
City of Cornelius
City of Forest Grove
City of Gresham
City of Happy Valley
City of Hillsboro
City of Lake Oswego
City of Milwaukie
City of Oregon

City of Portland
City of Sherwood
City of Tigard
City of Troutdale
City of Tualatin
City of Vancouver
City of West Linn
City of Wilsonville
Clackamas County
Clackamas County School District 1
Clark County
Columbia Slough Watershed Council
Columbia Springs Environmental Education Center
Concordia University
David Douglas High School
Deer Creek Elementary School
Earth and Spirit Council
East Multnomah Soil and Water Conservation
Environmental Information Cooperative
Environmental Middle School
Evergreen High School
Evergreen School District
Fans of Fanno Creek
Fernhill Wetlands Council
Fowler Middle School
Friends of Forest Park
Friends of Laurelhurst Park
Friends of Trees
Friends of Tryon Creek State Park
Friends of the Tualatin River National Wildlife Refuge
Friends of Zenger Farm
George Middle School

Gregory Heights Middle School
Gresham Barlow School District
Headwaters to Ocean
Highland Park Intermediate School
Hillsboro Parks and Recreation
Hillsboro Union High School
Hollyrood Elementary School
Irvington School
Jackson Bottom Steering Committee
Jackson Bottom Wetland Preserve
JB Thomas Middle School
Jemtegaard Middle School
John Inskeep Environmental Learning Center
Keepers of the Waters
Kelly Elementary School
Kraxberger Middle School
Lake Oswego Junior High School
Lake Oswego Land Trust
Lake Oswego Middle School
Lakeshore Elementary School
Leach Botanical Garden Friends
Lenox Elementary School
Lewis and Clark High School

Linkup/Oregon City School District 62
Madison High School
Markham Elementary School
Merlo Station Community School
Milwaukie High School
Mt. Hood Community College
Mt. Tabor Middle School
Multnomah County Educational Service District
Multnomah County Parks
National Wildlife Federation
NatureScaping for Clean Rivers
Northeast Community Development Corp.
North Clackamas Parks and Recreation District
North Clackamas School District
Northwest Service Academy
Northwest Regional Educational Service District
Ockley Green Middle School
OMSI
Open Meadow Alternative School
Oregon Environmental Cooperative
Oregon Episcopal School
Oregon Humane Society
Oregon Outreach
Oregon Trail Foundation
Oregon Trout
OSU Extension/4-H Youth
Pacific University
Palisades Grade School
Portland Public Schools
Portland State University
Portsmouth Middle School
Raindrops to Refuge
Rex Putnam High School
Reynolds High School
Reynolds School District
RiverBend Youth Center
Riverside Elementary School
Sabin Early Childhood Education Center
Saturday Academy
Seth Lewelling Elementary School
Sherwood School District
SOLV
Southeast Uplift Neighborhood Program
Southwest Neighborhood Association
St. Mary's Home for Boys, Levi Anderson School
Sunnyside Elementary School
Sunnyside Family Cooperative School
Sunset Primary School
The Berry Botanic Garden
The Gardner School
The Nature Conservancy
The Oregon Environmental Council

The Oregon Zoo Foundation
The Wetlands Conservancy
The Xerces Society
Three Rivers Land Conservancy
Tigard Public Schools
Total Work of Art, Inc.
Tualatin Riverkeepers
Tualatin Hills Parks and Recreation District
Tualatin River Watershed Council
Tualatin Valley NW Steelheaders
Urban Water Works
Vancouver School District
Volunteers of America Southeast Childcare Center
Washington County Educational Service District
Washington Department of Fish and Wildlife
Washington State University
Washington Trout
West Sylvan Middle School
Westview High School
Whitman Elementary School
Willamette Primary School
Wilsonville Primary School
Wolftree, Inc.

## Photo credits

Bruce Forster: page 2, confluence; page 4, Fanno Creek; page 5, squirrel; page 8, fishing and picnicking; page 15, going fishing; page 16, wetlands; page 19, deer; page 22, downtown; page 24, walking dog; page 28, Metro naturalist; page 29, sign; page 32, urban growth

Mike Houck, Audubon Society of Portland: page 5, spirea; page 6, greenspaces sign; page 8, birdwatching; page 9, jogging; page 18, Forest Park

Bob Salinger, Audubon Society of Portland: page 23, peregrine on St. Johns Bridge

U.S. Fish and Wildlife Service: page 15, river otters

# CONSERVING NATURE IN EVERY NEIGHBORHOOD

For other publications and materials produced through the Metropolitan Greenspaces Program, more descriptions of past grant projects, grant application materials and other information, visit www.metro-region.org/grants or http://oregonfwo.fws.gov/greenspaces/gs-program.htm

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