

ATTACHMENT N

Portland, Oregon's Bird Agenda



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EXECUTIVE SUMMARY

Over 209 species of birds are regularly observed and recorded in the Portland, Oregon and Vancouver, Washington metropolitan region. Some are “resident” species, meaning they are non-migratory. Others spend winters in Central and South America, but breed here. Others pass through on their migratory routes and use local habitats for feeding and resting during their journeys. Twenty-three of the migratory species that occur here have been designated with some type of state or federal status for being at-risk due to population decline and threats.

In 2003, the City of Portland was selected by the U.S. Fish and Wildlife Service (USFWS) to become a pilot city for the Urban Conservation Treaty for Migratory Birds Program. Subsequently, an Urban Conservation Treaty for Migratory Birds was signed by City Commissioner Jim Francesconi with support from then Mayor Vera Katz. Between 2003 and 2006, 31 other agencies and organizations in the Portland metropolitan area signed on as partners. By joining this effort, Portland and its partners have made long-term commitments to help protect and conserve migratory birds in the following action categories:

- Habitat creation, protection and restoration
- Reducing hazards
- Invasive species management
- Education and outreach

Through a grant from the USFWS, the City of Portland launched its Treaty program, and accomplished a number of things to benefit migratory birds. In addition, the City has taken on other actions to carry on their work and commitment beyond the initial Treaty grant to promote the conservation of birds and their habitats. Further, the City of Portland has renewed its commitment to Treaty actions and has identified “next steps” as outlined in this Bird Agenda.

The Portland Bird Agenda is a document that:

- Summarizes the Urban Conservation Treaty for Migratory Birds Program and the City’s accomplishments to date;
- Identifies key issues currently facing migratory birds in Portland; and
- Outlines high priority actions and “next steps” for the City of Portland to take over the next five years.

INTRODUCTION

Background

The Portland area has benefited from a long history of citizens, organizations, elected officials and others that have appreciated and advocated for birds over the years. Various bird-related education and conservation programs have been offered here for well over a century. For example, the Audubon Society of Portland was established in 1902, hosting programs for Portlanders that were as popular back then as they are today.

While the public's interest in birds here and elsewhere is not new, knowledge about birds continues to grow, and the conservation issues that call for our attention continue to shift with the ever-changing times. In recent decades, much of the nation's population has moved out of rural areas and into cities. About 80% of people in the U.S. are now living in urban areas. Consequently, some of the major threats to the nation's biodiversity are now related to factors associated with urbanization and peoples' diminishing sense of connection with nature.

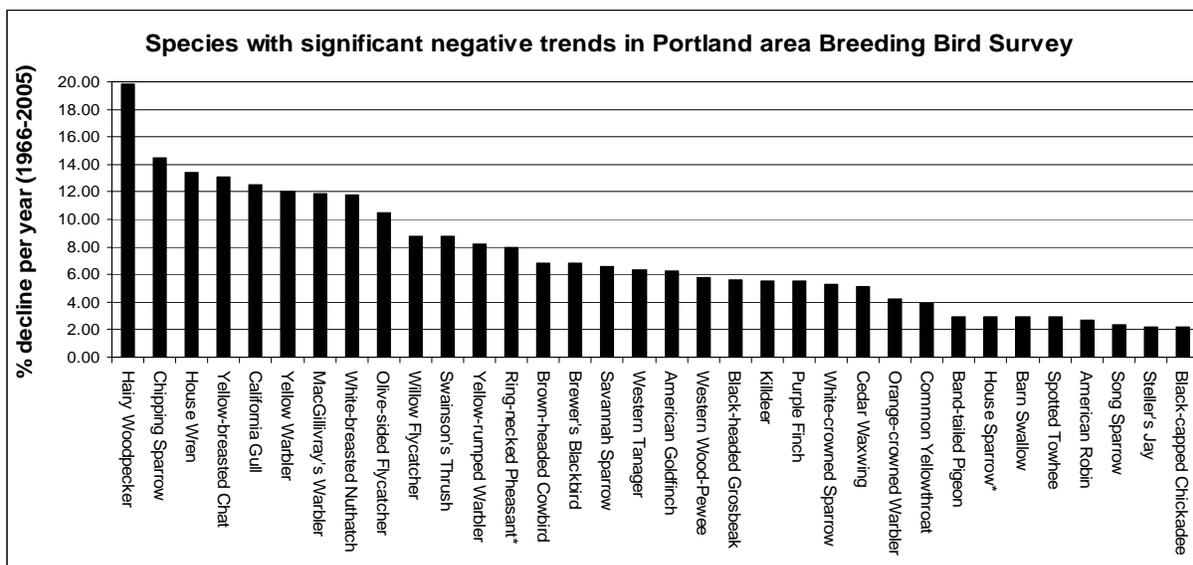
In the Portland, Oregon – Vancouver, Washington region, over 209 species of birds are regularly observed and recorded. Some are “resident” species, meaning they are non-migratory. For example, birds such as scrub jays, spend their whole life in the same neighborhood and never migrate. Others, such as warblers, are migratory; they spend winters in Central and South America, but may breed here. Still others, such as some shorebirds, pass through this area on their migratory routes and use Portland habitats for feeding and resting.

Migratory birds require a variety of different habitats across large landscapes; they travel to and from these habitats seasonally, and use them in order to meet their needs for food, breeding, and over-wintering. The greater Portland, Oregon –Vancouver, Washington metropolitan area is an important part of the major migratory bird travel and stopover route known as the Pacific Flyway, which extends from Alaska to Argentina. Of the birds known to occur in the Portland region, 23 are migratory species that have been designated with some type of state or federal status for being at-risk due to population declines and on-going threats. The same area also is home to the largest human population in Oregon—1.9 million in 2000, but expected to grow to between 2.9 and 3.2 million by 2030, and to between 3.6 and 4.4 million by 2060¹.



¹ Source: Metro. “20 and 50 year regional population and employment range forecasts”. September 2009.

Many of the migratory birds found in Portland show declining population trends based on 40 years of Breeding Bird Surveys and Christmas Bird Count data. Data from the Breeding Bird Survey analyzed by Metro indicate an unsettling trend in local bird populations, trends show that locally, species declines have been greater than declines statewide. The graph below shows species with statistically significant negative trends for the Portland area.



(c) Lori Hennings, Metro (2007)

Issues

Portland has identified a number of threats facing migratory birds. The primary ones include:

- Habitat Loss and Fragmentation
- Timing of Construction and Revegetation Projects
- Cat Predation
- Dogs in Natural Areas
- Public Activity in Sensitive Areas
- Structural Hazards (including Window Strikes and Collision with Communication Towers)
- Invasive Plants and Animals (including Invasive Plants and Animals and Exotic Ducks and Geese in Parks and Natural Areas)
- Climate Change

Issue: *Habitat Loss and Fragmentation*

Habitat loss and fragmentation is the largest cause of decline in native bird species populations². As urbanization occurs, native habitat tends to get destroyed or become degraded, and the remaining patches become smaller and increasingly fragmented (i.e., disconnected) from each other. These smaller pieces of habitat lose important functional values.

² Urban Conservation Treaty for Migratory Birds Program Handbook. U.S. Fish and Wildlife Service (46 pp.).

Natural areas and parks provide some of the most important nesting, feeding and stopover habitat in Portland. Protection and restoration of these existing habitats, creation of new habitats, and providing habitat connections for birds to move safely across the landscape are needed to ensure birds can successfully use and traverse the urban landscape throughout the year. Backyards can provide some of these important habitats for birds, and should not be overlooked.

An important aspect of habitat loss and deterioration is loss of snags and down wood. These elements are essential to many bird species for cover, shelter, food, nesting, roosting, perching. Yet, they are often removed by both public and private landowners because of perceived hazards or aesthetics.

Issue: Timing of Construction and Revegetation Projects

Many City activities and projects can potentially impact nesting birds. Stream enhancement; revegetation; mowing; construction, removal and maintenance of structures; water-level management; and projects that include native or non-native invasive vegetation removal, may disrupt bird nesting. Assessing bird use in areas prior to project implementation and altering the project methods or timing is important if birds are nesting in the area. Planning projects so as to avoid disturbances to birds by scheduling activities in potential habitats outside of the nesting season is the most effective way to ensure birds will not be harmed.

Issue: Cat Predation

Cat predation is a major cause of bird mortality in the U.S. The American Bird Conservancy estimates that up to 500 million birds are killed each year by cats—about half by pets and half by feral felines. Locally, cats are the number one cause of injury for birds treated at wildlife rehabilitation facilities, accounting for as many as 40% of all intakes (Bob Sallinger, Conservation Director, Audubon Society of Portland, pers. comm.). Over the past two decades, at least 20,000 birds, representing more than 80 different species, have been treated at Portland area wildlife rehabilitation facilities for cat-related injuries. Cats are natural hunters, but they are not a natural part of the ecosystem. Studies show the well-fed, well-cared-for outdoor cats are just as likely to prey on wildlife as feral cats that have to fend for themselves. Allowing cats to roam free also exposes the cats themselves to a variety of hazards. The best thing for both birds and cats is to keep cats indoors or in secure outdoor enclosures.

Issue: Dogs in Natural Areas

Portland has more off-leash dog areas than any other city in the United States. Yet many people take their dogs to natural areas to run and exercise. While dogs are allowed in some natural areas on leash, letting a dog run free in land that has been set aside for wildlife is not appropriate. Dogs can harm wildlife through direct predation, disruption of nesting (especially ground nesting birds), and harassment. Although wetlands support populations of waterfowl during all seasons, they are of particular importance during the winter, when they are “home” to thousands of migratory waterfowl. These birds live life on the edge, carefully reserving limited energy to find food, keep warm and avoid predators. Getting repeatedly scared up by off-leash dogs can be the difference between survival and death.

Issue: Public Activity in Sensitive Areas

Many of the most valuable habitats that remain in Portland are under public ownership. It is important that public use and access are carefully sited and managed to ensure that habitat values do not become diminished due to human disturbances and habitat degradation. Portland Parks & Recreation (PP&R) develops Habitat Management and Trail plans for natural areas, which set the course for habitat management and appropriate access. The plans use a set of guiding principles that makes habitat protection and restoration the highest priorities. PP&R also works with neighbors and local schools on stewardship activities to enhance and restore natural areas.

Issue: Structural Hazards

Collision with Communication Towers. A June 2002 report, “Communication Towers: A Deadly Hazard to Birds” by the American Bird Conservancy, estimated that, at a minimum, four to five million birds are killed each year nationwide in collisions with communication towers—but the number could be as high as 40 million. Neotropical songbirds, which migrate at low elevations and at night, are particularly susceptible to collisions. It is believed that their internal navigation systems can become confused by artificial night lighting, and they are attracted to tower lighting. Birds drawn to tower lights can become entrapped and circle endlessly, colliding with each other, with the tower and the guy wires, or dropping to the ground from exhaustion (<http://www.abcbirds.org/abcprograms/policy/collisions/towers.html>).

Window Strikes. Collisions with windows have emerged as a significant threat to migratory birds in the U.S. and around the world. In the U.S. alone, it is estimated that 100 million to 1 billion birds die every year after colliding with windows—a mortality rate second only to habitat destruction. Strikes can occur day or night, at windows of various sizes and aspects, on residences and high-rise buildings, in urban as well as suburban and rural areas. Windows deceive the healthiest individuals as readily as the weakest ones. During the day, birds are confused by reflections of trees, clouds, and even skyline reflected in building glass, and may fly head-on into it because it appears to be habitat. At night, rooftop lighting, interior light spill, and architectural ornamental lighting can “drown out” the celestial cues birds use to migrate and lure them into cities, where they may directly strike windows, circle until they are exhausted, or face daytime hazards they wouldn’t otherwise encounter.

Issue: Invasive Plants and Animals

Invasive Vegetation in Urban Natural Areas. Invasive plant species are among the biggest challenges facing our urban natural areas, and hence, the habitat our native bird populations depend upon. Next to outright conversion of land, invasive species and climate change are generally considered the most important threats to biodiversity. Invasive species play a significant role in altering the landscape and fundamental ecosystem processes, decreasing biodiversity, and damaging infrastructure. In an urbanized and fragmented area, invasive species pose a particularly acute threat to remaining natural habitats. Invasive species generally outcompete native plant species, and provide less food, cover and nesting value for native birds than native vegetation does. Species such as reed canarygrass and English and Irish ivies are capable of homogenizing the structure and biota of habitats, creating biological deserts, which provide few, if any, resources for native birds.

The change in species composition in grasslands and forest understories is decreasing habitat for native birds as well. The spread of rhizomatous, perennial grasses and understory weeds such as garlic mustard eliminates bare ground which many native ground-nesting birds require.

As mentioned under “Timing of Construction and Revegetation Projects” above, another issue related to managing invasive vegetation is how and when the management occurs. Removing invasive species during the nesting season can be disruptive or even cause nest failure. It is important to plan and implement invasive species removal to coincide with times best for eradication *and* to avoid disturbance to nesting birds.

Introduced and invasive birds can outcompete native birds for essential resources such as food and nesting sites, with aggressive non-native birds such as house sparrows and European starlings often usurping and/or depredating native bird nests and even killing native competitors. These actions can have drastic negative effects on native bird populations already stressed by alteration of their historic habitat.

Exotic Ducks and Geese in Local Parks and Natural Areas. Exotic ducks and geese in local parks and natural areas are those that have either been released from captivity or are the offspring of animals that have been released from captivity. Releasing domestic ducks and geese into the “wild” may seem like a kind thing to do, but it is actually considered to be “animal abandonment” and is against the law. Many exotic ducks and geese are poorly adapted to life in the “wild” and easily fall prey to dogs and predatory wildlife. They typically do not migrate and can quickly overpopulate a natural area, leading to habitat degradation, reduced water quality and competition with native ducks and geese that depend on the habitat for survival. Overcrowding in urban natural areas frequently results in aggressive behavior by male ducks during nesting season. Female ducks are forced to nest far away from over-populated parks and then have to lead their ducklings across a hazardous landscape after they hatch. It is not uncommon for females to be injured or killed during intense courtship competition.

Issue: Climate Change

There is growing scientific evidence that some birds are already responding to the changing climate.³ In the future, some species may disappear, some will likely experience range decreases or increases, and others will face challenges of new competitors. Many of the species projected to disappear or whose ranges might shrink are those that feed on insects (some are pests and threats to street trees, parks, landscape plants, and agriculture), which are key components of the diets of many of our migratory birds. Some species that commonly occur in Portland that may be excluded during the summer include the black-capped chickadee, Townsend’s warbler, dark-eyed junco, and evening grosbeak. Some species whose summer range may contract in Oregon include the olive-sided flycatcher, willow flycatcher, horned lark, red-breasted nuthatch, winter wren, warbling vireo, yellow warbler, yellow-rumped warbler, MacGillivray’s warbler, common yellowthroat, Wilson’s warbler, western tanager, Lazuli bunting, fox sparrow, song sparrow, white-crowned sparrow, western meadowlark, house finch, pine siskin and American goldfinch.

How a changing climate will play out in Portland is difficult to predict. What projections are showing, however, is that bird communities will look different in the future. Among the most important things that can be done to prepare and mitigate adverse effects is to protect, buffer and connect habitats, and help restore resilient ecosystems.

3 Global Warming & Songbirds: Oregon. American Bird Conservancy and National Wildlife Federation. 2002.

Urban Conservation Treaty for Migratory Birds

The U.S. Fish and Wildlife Service created the Urban Conservation Treaty for Migratory Birds (Treaty) program to help municipal governments conserve birds that live and nest in or overwinter or migrate through their cities. Launched in 1999, the first treaty was signed with New Orleans and the second was signed with Chicago. The treaties are a partnership agreement between a U.S. city and the U.S. Fish and Wildlife Service (Service) to conserve migratory birds through education, habitat improvement and bird conservation actions (<http://www.fws.gov/birds/Urban%20Treaty%20Fact%20Sheet.pdf>).

The aim of the Treaty program is to increase citizen awareness and understanding of the importance of bird conservation, maintain people's joy of nature through birds, and to identify and support the many roles urban areas can and need to play in order to conserve migratory bird populations into the future.

The Treaty program primarily focuses on four **action categories**:

- Habitat creation, protection and restoration
- Reducing hazards
- Invasive species management
- Education and outreach

Portland Treaty Partnership

The City of Portland was selected to become the fifth city in the nation to pilot the Treaty program. In February 2003, Portland Mayor Vera Katz accepted the invitation to become a pilot city for the Urban Conservation Treaty for Migratory Birds Program (Attachment A).

In May 2003, Portland City Commissioner Jim Francesconi and Dave Allen, Regional Director of the U.S. Fish and Wildlife Service, signed the Urban Conservation Treaty for Migratory Birds as part of the International Migratory Bird Treaty festivities, and 21 organizations signed on as Treaty partners (Attachment B). In May 2006, City Mayor Tom Potter and Miel Corbett, Assistant State Supervisor with the Service renewed the Treaty commitment and ten new organizations signed on as partners.

Urban Bird Treaty Goals

- ☑ Protect, restore and enhance urban/suburban habitats for birds
- ☑ Reduce hazards to birds
- ☑ Educate and engage citizens in monitoring, caring about, and advocating for birds and their conservation
- ☑ Foster youth education with a focus on birds
- ☑ Manage invasive species to benefit and protect birds
- ☑ Increase awareness of the value of migratory birds and their habitats, especially for their intrinsic, ecological, recreational, and economic significance

Convinced of the urgency of taking appropriate measures to protect and promote Migratory birds, on this day of May 13, 2006, the U.S. Fish and Wildlife Service and the City of Portland reaffirm their Urban Conservation Treaty for Migratory Birds and acknowledge the importance of local efforts and partnerships to achieve migratory bird conservation throughout the greater Portland metropolitan region.

~ Excerpt from the 2006 signed Treaty reaffirmation

By joining the effort, these 31 agencies and organizations (Attachment C) have made long-term commitments to help protect and conserve migratory birds, and have formally acknowledged that migratory birds:

- Are an excellent indicator of the overall health of an ecosystem and are an irreplaceable part of the natural systems of the earth.
- Are a valuable resource, contributing aesthetically, culturally, scientifically, and economically to citizens.
- Represent, for the vast majority of people, the sole everyday contact with wildlife. Birds connect all of us to the environment.
- Cross boundaries and ecosystems. Protecting them birds must be a cooperative effort among cities, states, citizens, educational institutions, environmental organizations, businesses and federal agencies.
- Face serious challenges. Many bird species are in decline from a variety of causes including habitat loss and degradation, introduction of nuisance plants and animals, pesticides and other pollutants, and collisions with buildings, cars, powerlines and other human-made objects.

The overall goal of the partnership is to help ensure that migratory birds and their habitats are conserved by promoting, linking and building on the impressive myriad of protection, restoration and educational efforts that are already underway throughout the greater Portland region.

Portland Bird Agenda

Urban areas pose unique challenges, as well as opportunities, for birds. The Portland Bird Agenda is an outgrowth of the Urban Conservation Treaty for Migratory Birds. It was developed by the City to highlight some of the challenges that birds face locally, some of the City's accomplishments to date that benefit migratory birds, and the specific actions that the City is committed to over the next five years.

This Bird Agenda also includes suggestions for actions that Treaty Partners and citizens can take. In the future, this Portland Bird Agenda can be broadened to include accomplishments and future actions of all Treaty Partners.

On February 14, 2011, the Bureau of Environmental Services (BES) and Portland Parks & Recreation sent a joint letter to the U.S. Fish and Wildlife Service, once again renewing the City's commitment to the conservation of migratory birds in Portland (Attachment D). The letter also

Migratory Bird Treaty Partners

American Bird Conservancy
 Audubon Society of Portland
 Berry Botanic Garden
 City of Portland
 Columbia Slough Watershed Council
 Corps Restoring the Urban Environment
 East Multnomah SWCD
 Ecotrust
 Friends of Forest Park
 Friends of Kellogg and Mt. Scott Creeks
 Friends of Oaks Bottom Wildlife Refuge
 Friends of Portland Community Gardens
 Friends of Rock, Bronson, Willow Creeks
 Friends of Smith & Bybee Lakes
 Friends of Trees
 Friends of Tryon Creek State Park
 Jackson Bottom Wetlands Preserve
 Johnson Creek Watershed Council
 Mazamas
 Metro Regional Parks and Greenspaces
 Northwest Ecological Research Institute
 Oregon Department of Fish and Wildlife
 OSU Extension Service, 4-H Wildlife Stewards
 Portland Chapter, Native Plant Society of OR
 Stop Oregon Litter & Vandalism (SOLV)
 Sunnyside Environmental School
 Three Rivers Land Conservancy
 Tualatin Riverkeepers
 Urban Greenspaces Institute
 USDA Forest Service, Mt. Hood National Forest
 Willamette Riverkeeper
 Wolftree

articulated the priorities that would be addressed by the respective bureaus. One of the top priorities was to update and finalize the draft Portland Bird Agenda, and submit it for adoption by the Portland City Council.



ACCOMPLISHMENTS

Actions Under the Original Treaty Grant

With the original \$50,000 grant from the USFWS for the City to launch this program, the City and its partners accomplished a number of things to address the intent of the Treaty:

Habitat Protection and Improvement

- Designated Oaks Bottom Wildlife Refuge as Portland's first urban migratory bird park through a City Council Resolution passed on May 5, 2004. This natural area was chosen because of its large size and diversity of habitats (e.g., open water, riparian, emergent wetland and upland habitats) that are important for nesting, wintering, resting and "re-fueling" to more than 185 species of birds, including some that are unusual for the Portland area.
- Re-established native components of the Oregon white oak plant community on 33 upland acres at Oaks Bottom Bluffs. This neighborhood-based community stewardship program provides a location for long-term educational activities, ecological field studies and research by area universities and schools. This project was supported, in part, by a 2003 Greenspaces grant and was identified as a Treaty action.
- Increased connectivity of bird habitat by purchasing over 150 acres of natural areas.
- Promoted Three-Rivers Conservancy's⁴ backyard conservation certification program.

Reducing Hazards

- Submitted comments on the 2006 Federal Communications Commission's (FCC) Proposed Rules addressing the effects of communication towers on migratory birds.
- Treaty partners commented on a project to locate new and taller utility towers at Ross Island and Oaks Bottom. Treaty partners submitted comments to the Planning Bureau with recommended measures designed to protect birds.
- Supported partners in efforts to reduce building hazards (e.g., window strikes) through additional requests to the USFWS for development of programs with that aim.
- Developed a "Dogs on Leash" program in Portland's parks and natural areas.
- Applied for a grant from the USFWS to convene a work group and summit of experts. Information gleaned will be used to develop Birdsafe Building Guidelines.
- Developed guidelines for mowing and pruning vegetation to reduce impacts on nesting birds and encouraged timing considerations by PP&R and TriMet in scheduling these activities.

Invasive Species Management

- Removed hundreds of acres of invasive species and revegetated public and private properties.

⁴ The Three Rivers Conservancy is now part of the Columbia Land Trust.

Education and Outreach

- Held annual Migratory Bird Day Festivals to celebrate migratory birds and raise public awareness about the plight of migratory birds.
- Garnered the support of 31 agencies and organizations as urban conservation Treaty for Migratory Birds Program Partners. By joining this effort, partners have made long-term commitments to help protect and conserve migratory birds.
- Purchased the “portlandmigratorybird.org” and “portlandmigratorybird.com” website in order to share and promote migratory bird resources and information for the City and Treaty partners. A graphic designer developed the layout, graphics and other design elements for the web site.
- Developed bird checklists (in conjunction with website development) for Leach Botanical Garden, Hoyt Arboretum, Whitaker Ponds Natural Area, Powell Butte, Pittock Bird Sanctuary, Forest Park, Sauvie Island, Sandy River Delta, Fernhill Wetlands, Jackson Bottom Wetlands, Tualatin Hills Nature Park, and Smith & Bybee Lakes in conjunction with Audubon Society of Portland volunteers, friends groups and other knowledgeable people.
- Created a CD, “On the Great Pacific Flyway – Songs and Stories Celebrating Portland’s Migratory Birds”. Storyteller Anne Rutherford, along with other local musicians and actors, wrote original songs and stories and performed them for the CD and other local events. CDs have been provided to educators and are available for purchase. All proceeds benefit the ongoing work of Portland’s Urban Migratory Bird Program.
- Portland Audubon Society developed Public Service Announcements (PSAs) to raise awareness of the region’s avian biodiversity and to inform the public about ways they can actively help protect and preserve birds. The PSAs appeared over 100 times in 2005 and 2006.
- Provided hot links on the BES website to Portland Audubon Society’s “Living with Wildlife” outreach materials. The materials are aimed at reducing hazards for migratory birds and address common questions received from the general public about birds. These include: *Living with Vaux Swifts*, *Living with Urban Waterfowl*, *The Impacts of Feeding Waterfowl*, *What to Do if You Find a Baby Bird*, *Living with Urban Crows*, and *Living with Woodpeckers*.
- Conducted bird-focused youth activities in Portland parks.
- Joined the Flying WILD City Partner network. This teacher-training program of the Council for Environmental Education uses the Flying WILD curriculum to help increase local support for the Migratory Bird Treaty program and develop a greater understanding of Portland’s birding areas.
- Developed Portland’s version of the Flying WILD program and trained 200 local teachers in using bird-oriented activities in their curriculum.
- Created a bird habitat garden in Oaks Bottom as an educational site.
- Began a neighborhood-based community stewardship program on 33 upland acres at Oaks Bottom Bluffs. This offers opportunities for educational activities, ecological field studies and research by area universities and schools. This project was supported, in part, by a 2003 Greenspaces grant and was identified as a Treaty action.

Actions Under the City's Terrestrial Ecology Enhancement Strategy and Other Programs

In addition to the actions taken under the original grant, the City of Portland has embarked on a number of other activities that compliment the Treaty activities to promote the conservation of migratory birds. Many of these actions have been conducted as part of the Portland Watershed Management Plan (PWMP) implementation, and specifically as part of the Terrestrial Ecology Enhancement Strategy (TEES), which is part of the PWMP. A citywide effort led by the Bureau of Environmental Services in collaboration with regional experts in wildlife ecology, the TEES includes identification and prioritization of habitats and species for protection and restoration, watershed-specific objectives, and actions.

The Terrestrial Ecology Enhancement Strategy is coordinated through the Science, Fish and Wildlife Division of BES. Because the TEES is consistent with the intent of the Treaty, and its actions help implement the Treaty, the TEES work is included in the Portland Bird Agenda.

Other City programs also contribute to the goals of the Treaty, including land acquisition, planning and restoration of City parks and natural areas, and updates to City programs and rules related to natural resource protection and control of invasive species.

Some examples of accomplishments under the TEES and other City programs that carry out the intent of the Treaty since 2006 include:

Habitat Protection and Improvement

- Planted, enhanced and maintained over 80 acres of oak woodland and savanna habitat, primarily along the North Escarpment (e.g., Mocks Bluff and Wauds Bluff) and South Escarpment (e.g., Oaks Bottom) along the Willamette River.
- Conducted an "oak release" habitat restoration project on Elk Rock Island to benefit the oak habitat, including birds associated with that habitat.
- Purchased over 150 acres of habitat through the Grey to Green Initiative, the Johnson Creek Willing Seller Program, and regional bond measure funds.
- Removed invasive shrubs and vines on 19.5 acres and nuisance trees, and planted over 1,000 native shrubs and trees throughout Mt. Tabor Park
- With other partners (including Urban Greenspaces Institute, Willamette Riverkeeper and Audubon Society of Portland), brought Ross Island into public ownership, protecting habitat for bald eagles, great blue herons and numerous other bird species.
- Developed a Site Assessment Form that is used to integrate terrestrial ecology elements into City projects. The assessments capture information about birds and habitats on sites that are slated for restoration or acquisition, and are then used to develop recommendations for possible actions to benefit birds.
- Developed a document, "Additional Things You Can Do To Help Native Birds," and incorporated it into the City's guidelines for avoiding impacts on nesting birds ("*Avoiding Impacts on Nesting Birds During Construction and Revegetation Projects*") (Attachment E).
- Developed "Desired Future Conditions" for over half of the City's natural area parks, including conditions favorable to migratory birds.
- Monitored the Streaked Horned Lark, a federal candidate species for listing. Participated on the Streaked Horned Lark Working Group.

- Conducted point-counts at a number of sites that are undergoing habitat restoration project work (pre- and post-implementation).
- Developed an Avian BII (Bird Integrity Index) and monitoring birds as indicators of watershed health over time.
- Developed an updated draft of the City's Natural Resource Inventory, building and improving on Metro's Title 13 inventory of regionally significant riparian corridors and wildlife habitat.
- Overhauled the City's tree-related regulations to improve tree preservation and planting, and strengthened City codes to improve control of invasive plants.
- Participated in the expansion of the Backyard Habitat Program in partnership with the Audubon Society of Portland, the Columbia Land Trust (formerly Three Rivers Land Conservancy) and the Multnomah County Soil and Water Conservation Districts.
- Rerouted the trail system at Maricara Natural Area to protect wetland habitat.

Reducing Hazards

- Developed guidelines and conducted training workshops for BES and PP&R staff to inform habitat management decisions and project timing, selection, design and maintenance so as to avoid impacts on nesting birds ("*Avoiding Impacts on Nesting Birds During Construction and Revegetation Projects*") (Attachment E). The BES staff have been implementing these guidelines in watershed restoration and revegetation projects.
- Conducted a citywide campaign aimed at reducing disturbance to wildlife in parks and other sensitive areas. This included development of a "Dogs for the Environment" brochure and pledge form (Attachment F), a "Portland's Sensitive Wildlife and Your Dog" brochure (Attachment G) <http://www.portlandonline.com/bes/index.cfm?c=51344&a=353681> ; and employment of park rangers to help educate and enforce the City's dog-on-leash policy.
- Submitted a letter to the Oregon Zoo in support of Audubon Society of Portland's grant application to fund a fall pilot BirdSafe Portland window strike study to begin to quantify the magnitude of bird window collisions in the City of Portland
- Applied for, and was awarded, a grant from the USFWS to convene a working group and summit of architects, developers, representatives from other cities to help guide the development of Bird-Friendly Building Guidelines and to raise awareness about the risks associated with residential windows through demonstration projects, interpretive signage and brochures about birds and windows.
- Restored hundreds of acres of land with native vegetation that will benefit migratory birds.

Invasive Species Management

- Portland Parks & Recreation inventoried vegetation communities in all of Portland's natural areas and documented ecological health, presence of invasive species and management issues that need to be addressed.
- Portland City Council passed a resolution in 2005 to create a strategy for management of invasive plant species. It subsequently also passed a resolution calling for an assessment of invasive animal species.
- BES developed and has implemented a citywide "Invasive Plant Species Strategy".

- BES administers the City's early detection and rapid response efforts (ED/RR) which focus weed control efforts on newly-detected, high-risk invasive plant species to eliminate them before they spread and become established.
- Conducted an Invasive Animals Species Assessment, which will be the basis for an Invasive Animals Species Strategy (underway).
- Hired an Invasive Species Coordinator.
- Conducted numerous projects in all of the City's urban watersheds to reduce and eliminate invasive plant species.
- Invasive species have been removed in over 4,000 acres of natural area lands owned or managed by PP&R in the past three years. PP&R's Protect the Best Program removes invasive species in natural areas that have high ecological functions to ensure the habitat does not degrade. Contract crews, BES Revegetation Program, and residents work in other areas, depending on the level of infestation.
- BES conducts numerous trainings and workshops to inform the public, partners and other bureaus about invasive species biology and management.
- BPS led a project to update the City's Nuisance Plants List, strengthened code requirements to remove invasive plants on development sites, and established a "Required Eradication list" to prevent certain invasive plants from becoming widespread.

Education and Outreach

- Conducted training workshops for BES and PP& R staff on avoiding impacts on nesting birds (*"Avoiding Impacts on nesting Birds During Construction and Revegetation Projects"*).
- Served on the Steering Committee for the October 2010 regional "Managing Lands for Songbirds" conference held at the Oregon Zoo, and made several key presentations at the conference.
- Identified "Special Status Bird Species" in Portland, along with their habitat associations and limiting factors and threats (where known).
- Posted bird checklists developed by citizens for two of the City's premier bird areas—Oaks Bottom Wildlife Refuge and Mt. Tabor Park—on the City's BES website (Attachment H).
Mt. Tabor: <http://www.portlandonline.com/bes/fish/index.cfm?c=31006&a=280021>.
Oaks Bottom: <http://www.portlandonline.com/bes/fish/index.cfm?c=31006&a=280023>.
- Produced a poster, "Wildlife of Portland," that included information about bird species in Portland, their habitat associations, and things citizens can do to help birds and other wildlife (Attachment J). The City distributed nearly 4,000 of these posters to schools, agencies, and at public gatherings and conferences.
<http://www.portlandonline.com/bes/fish/index.cfm?c=31006&a=307484>
- Created the "Dogs for the Environment" Program which employs physical barriers, education and enforcement for natural area park users regarding the impacts of dogs on wildlife and their habitats.

Portland's Wildlife and Your Dog

You can help protect Portland's wild creatures by keeping your dog on a leash.

1. **Western Tule Wren**
One of two tulle wrens designated as critical and Oregon's emblem species. This tulle wren can tolerate riparian areas for nesting and is very sensitive to disturbances.
2. **North American Blunt-nose**
Live in and near streams and rivers. They are especially susceptible to environmental degradation when raising young. The Audubon Society of Portland reserves riparian habitats that are attacked by logs in local parks.
3. **House Wren**
Nests in shrubs. It's one of Portland's Special Status Species.
4. **Red-legged King**
This King is federally designated as a species of concern. It is dependent on stream, often riparian, ponds or wetlands and adjacent riparian vegetation. Eggs in water are easily disturbed.
5. **Northwestern Salamander**
Found in wet habitats from the north coast and east to 5,700 feet including grasslands, meadows, and forests. Eggs in water are easily disturbed.
6. **Skunk**
Nests on the ground in grassy areas. They are well camouflaged and easily hidden from view.
7. **White-bellied Owl**
Nests are built on the edge of forests, which use the undergrowth and grasslands that they prefer as food and that provides cover for safety. Deer eat many of the local oak leaves and often cause damage to these understory when they graze.
8. **Spotted Towhee**
Nests on or near the ground in shrubby areas, are well camouflaged and easily disturbed.
9. **American Kestrel**
When hunting, they catch insects. They nest in the ground to capture mice and moths. It's one of Portland's Special Status Species.
10. **Western Kingbird**
Nests in a horizontal tunnel made in a hole back in soil banks. Long, narrow passages always impact nest sites.

HIGH PRIORITY PORTLAND BIRD AGENDA ACTIONS

The City of Portland renewed its commitment to the conservation of migratory birds in February 2011, and embarked on development of this Portland Bird Agenda (Attachment D). Under a new interbureau arrangement between the Portland Parks & Recreation and the Bureau of Environmental Services, the City hopes to expand and draw upon additional resources.

Although there are numerous actions that are needed to address migratory birds, the City has limited resources, and recognizes the importance of selecting and prioritizing actions that will have the most benefit. For these reasons, the City's initial Bird Agenda focuses on high priority actions that the City is committed to over the next five years. It is anticipated that the City of Portland will review its progress towards implementing high priority actions, and update the Bird Agenda from time to time.

Although actions and commitments from Treaty partners are very important, this initial Bird Agenda is limited to City commitments. It does, however, include suggested actions that might be taken by Treaty Partners as well as citizens. It is recommended that the next iteration of the Portland Bird Agenda incorporate the work and address the additional commitments of Treaty Partners to the extent that partners are interested. A priority identified in this initial Bird Agenda is to work with Treaty Partners to coordinate efforts to maximize effectiveness of resources and results.

The high priority actions identified in this Bird Agenda are organized according to the four Treaty program **action categories**:

- Habitat protection and improvement
- Reducing hazards
- Invasive species management
- Education and outreach

Habitat Protection and Improvement

Nesting Bird Guidelines

Many City activities and projects can potentially impact nesting birds. Stream enhancement; revegetation; mowing; construction, removal and maintenance of structures; water-level management; and projects that include native or non-native invasive vegetation removal, may disrupt bird nesting. Assessing bird use in areas prior to project implementation and altering the timing of projects is important. Planning projects and scheduling activities outside the nesting season is the most effective way of avoiding disturbance. However, the nesting season is not the same for all bird species, and different kinds of projects and activities have differing impacts.

In 2010, the City of Portland's Bureau of Environmental Services issued a document, "*Avoiding Impacts on Nesting Birds During Construction and Revegetation Projects*" (Attachment E) <http://www.portlandonline.com/bes/fish/index.cfm?c=31006&a=322164>. It provides information about nesting bird species in Portland; and guidance to inform habitat management decisions, project timing, selection, design and maintenance. Intended "audiences" include BES (including

its watershed management teams and revegetation team) and PP&R. The guidelines are best management practices that are intended to minimize the chances of City activities (e.g., stream enhancement construction projects, invasive plant species removal and revegetation efforts) result in a “take” of nesting birds. The advisory guidelines also include ways to improve habitat for native birds.

A number of brown-bags, workshops and training sessions about “bird basics” and use of the guidelines were provided for city staff in 2010, and the guidelines are now being implemented by BES watershed and revegetation teams.

In October 2010, a one-day regional workshop—“Managing Land with Minimal Impact to Birds”—was held at the Oregon Zoo. Over 200 people, representing regional municipalities, state and federal agencies, soil and water conservation districts, parks and recreation managers, and others attended. The impetus for the workshop were the City’s nesting bird guidelines.

Next Steps:

- Continue to implement the nesting bird guidelines as BES plans, designs and implements construction and revegetation and other habitat improvement projects (ongoing)
- Expand use of the nesting bird guidelines to other bureaus such as Portland Bureau of Transportation, Portland Parks & Recreation, and Water Bureau (2011).
- Share the guidelines with other local jurisdictions and partners, and make them available to others both within and outside of the region by responding to requests for copies and making them available on the City’s website (ongoing).
- Modify the guidelines as necessary to reflect new information, techniques and “lessons learned” (annually)

Other Guidelines

The Bureau of Environmental Services is taking the lead in developing additional guidelines to improve habitats for birds and other wildlife, with assistance from Portland Parks & Recreation. *Living with Beavers Guidelines* were completed in 2011⁵ Additional guidelines underway include:

- Wildlife Trees, Snags, Down Wood and Brushpiles for Wildlife
- Oak Habitat Conservation and Restoration

Guidelines that are highly desired include those for Wetlands and for Grassland-Associated Bird Species (e.g., Streaked Horned Lark, Western Meadowlark).

Next Steps:

- Complete development of management guidelines for:
 - Wildlife Trees, Snags, Down Wood and Brushpiles for Wildlife (2011)
 - Oak Habitat Conservation and Restoration (2011)
 - Wetlands (2012)

⁵ The American beaver is a “keystone species” whose presence benefits bird habitat.

- Beta-test these guidelines and revise them as needed
- Develop additional guidelines for Wetlands (2011) and for Grassland-Associated Bird Species (TBD)
- Train City staff in the principles behind these guidelines and in their application in City projects and actions
- Implement the new guidelines as they are developed

Streaked Horned Lark Monitoring

The Streaked Horned Lark is a federal candidate for listing, and monitoring of known sites in Portland in 2009 revealed only two remaining breeding populations. Monitoring continued in 2010 and 2011 at those sites by Dr. Randy Moore (under contracts with the City of Portland). This information is being used to inform the discussions regarding the Airport Futures Project and the City's Natural Resources Inventory. It is also informing discussions and recovery planning by the Streaked Horned Lark Working Group, which is a partnership of local governments, agencies and organizations aimed at sharing information and working to conserve streaked horned larks.

Next Steps:

- Continue monitoring remaining populations of the Streaked Horned Lark within the City
- Work with partners to conserve populations and enhance suitable habitat

Land Acquisition/Habitat Restoration of Sites Important to Birds

Through the Grey to Green (G2G) Initiative (described in more detail below) and Portland Local Share of the Metro Natural Areas Bond, BES and PP&R are collaborating to identify, preserve, and restore natural areas. Key criteria include protecting large, intact areas, protecting sites with exceptional biodiversity values; and improving connectivity between habitat patches.

Next Steps:

- Acquire at least 300 acres of natural area to protect habitat important to avian and other species. These will include a diversity of habitat types to benefit numerous species. Target habitat types include interior forest, oak woodland, floodplain, wetland, and riparian areas.
- Implement stabilization, restoration and management actions on newly acquired natural areas that address the watershed-specific TEES objectives, including enhancing habitat conditions and key ecological functions to improve productivity, diversity, capacity, and distribution of native wildlife populations.

Grey to Green Initiative

Portland's Grey to Green (G2G) initiative expands the City's green infrastructure to sustainably manage more stormwater runoff, reduce the spread of invasive plants, restore native vegetation, protect sensitive natural areas, and replace culverts that impede fish passage. Among other things, G2G investments improve water quality, and preserve and restore habitat for birds and other wildlife.

The Tree Program of G2G works with a variety of partners to plant a diversity of tree types (small, large, native, evergreen) in a variety of locations (residential streets, highway rights-of-way, schools, parks, commercial and industrial areas), maximizing urban forest canopy coverage, connectivity and habitat in the built environment. Where practicable, the Tree Program plants Portland area and Willamette Valley native species.

The City began funding the initiative on July 1, 2008, with a 5-year planned investment of \$55 million. New public and private partnerships help achieve G2G goals. The Initiative's five-year goals, and progress as of August 2010, include:

Revegetation

Five-year goal: 350 new acres of revegetation initiated; 175,000 natural area trees planted

- Restoration work has been initiated on more than 1,300 new acres, including ivy removed from trees on more than 1,000 acres in Forest Park to protect the existing forest canopy
- Nearly 70,000 tree seedlings have been planted in natural areas

Yard and Street Trees

Five-year goal: 33,000 new yard trees and 50,000 new street trees

- 8,487 yard trees planted (5,487 through Grey to Green efforts)
- 8,909 street trees planted (5,909 through Grey to Green efforts)
- Key partners include Friends of Trees, Verde, Portland Parks & Recreation
- Treebate incentive for homeowners to plant yard trees exceeded expectations (1,100 trees planted in first season)

Invasive Plants

Five-year goal: 800 acres of new Early Detection Rapid Response (EDRR) treatment plus ongoing management

- Invasive Plant Management Strategy and code changes adopted
- Priority invasive plant species treated on more than 500 acres of rights-of-way and private property through EDRR program
- Treated 2,700 acres and re-treated 1,700 acres of invasive vegetation on Portland Parks & Recreation property through Protect the Best, with ongoing treatment on hundreds of additional acres

Land Acquisition

Five-year goal: 419 acres purchased for protection. Priority areas for acquisition include land with tributaries, confluences, floodplains, riparian areas, off-channel habitats, seeps, springs, steep slopes, forested areas, grasslands and meadows, wetlands, and riverine islands. In addition, BES seeks acquisition opportunities that improve connectivity and build outward from existing habitats by focusing on

properties that are contiguous with existing protected functioning habitats, or that provide corridors between existing habitats.

- 107 acres purchased to date, including floodplain, riparian corridors, wetlands, oak woodland, and interior forest
- Partnerships secured with Portland Parks & Recreation, Metro, Trust for Public Land, and Columbia Land Trust

Next Steps:

- Continue to work with a variety of partners to plant a diversity of tree types (small, large, native, evergreen) in a variety of locations (residential streets, highway rights-of-way, schools, parks, commercial and industrial areas), maximizing urban forest canopy coverage, connectivity and habitat in the built environment. Where practicable, plant Portland and Willamette Valley native species.
- Work with watershed teams, PP&R City Nature staff, and other partners to identify and assess candidate parcels for habitat features and potential acquisition.
- Integrate habitat features onto newly-acquired parcels to enhance habitat features for birds, including removing invasives, increasing native plant palette, and installing bird boxes or other nesting structures.

Elk Rock Island Oak Release Bird Monitoring

Elk Rock Island in the Willamette River is one of the last remaining oak habitats in the vicinity of Portland. To benefit the oak community (including rare plants and associated bird species), the City of Portland performed an “oak release” project in September 2010 (i.e., 40 invading Douglas-firs were felled, girdled, or made into snags). Prior to project implementation, bird surveys were conducted to establish baseline information. Subsequent bird monitoring will reveal responses to the project.

Next Steps:

- Monitor birds to determine response to the 2010 treatment.
- Manage public access to minimize disturbance to birds and other island amenities through education, signage and trail realignments.

Ross Island Important Bird Area

Among over 100 internationally-recognized Important Bird Areas in Oregon, the 404-acre Ross Island stands out because of its proximity to downtown Portland. A Ross Island Vision Team formed in 2004, comprised of the Audubon Society of Portland, Urban Greenspaces Institute, Willamette Riverkeeper, GreenWorks and independent landscape designers) developed a long-term vision for the ecological and recreational future of Ross Island. In 2007, a vision of public ownership, first laid out by the Olmsted Brothers in their 1903 Report to the Park Board, became a reality when 45 acres of Ross Island were transferred by the Ross Island Sand and Gravel Company to the City of Portland.

More than 100 bird species use the Island along their Pacific Flyway migratory path. A pair of Bald Eagles has nested and raised young on the Island since the 1990s, and a heron rookery also existed on the Island and at one time had as many as 66 nests.

Future reclamation work by the Ross Island Sand & Gravel Company will include creation of shallow water habitat and emergent wetlands. Invasive species have been removed over the past three years, and native species plantings will begin in the Spring of 2012. Portland Audubon Society has started bird monitoring on Ross Island.

Next Steps:

- Work with Friends of Ross Island to engage the public in conservation and restoration activities on Ross Island
- Develop a habitat management plan for the acres owned by Portland Parks & Recreation
- Implement actions that enhance habitat in the Ross Island Important Bird Area
- Partner with the Audubon Society of Portland to conduct seasonal point counts on Ross Island
- Support implementation, monitoring and enforcement of the no-wake zone that was established in 2011 on the South Holgate Channel and Ross Island Lagoon
- Support establishment of a reduced noise zone in the Holgate Channel and Ross Island Lagoon
- Continue to remove invasive species and plant native vegetation

Tryon Confluence Project

The confluence of Tryon Creek and the Willamette River is a site rich in bird habitat and current avian use. It is also an important site for passage of Willamette River fish (salmonids and potentially lamprey) into the Tryon Creek system. Because of the aquatic resources, the site is a focal point for in-stream and riparian area restoration work. Currently in public ownership (Metro, City of Lake Oswego and City of Portland) the property has ongoing restoration activities and major future plans including developing it as a park with a regional trail and possibly replacing the culvert (under Hwy 43 and the railroad) with a bridge. In 2007 and 2009, the site hosted restoration projects. The first was to improve the in-stream approach to the culvert and to retrofit the baffles inside the culvert for better fish passage and the second was to enhance the stream segment at the mouth to provide off channel habitat for salmon. The 2009 effort included grading back the banks, which removed some native vegetation with documented bird nesting use. To minimize the impact on bird nesting, the trees and shrubs were removed outside of the bird nesting window (April 15 – July 30) and bird boxes were installed on the south side of the stream, where no work was being done.

Next Steps:

- Continue to remove invasive species and plant native vegetation.
- Continue to work with multiple jurisdictions to advocate for the enhancement of bird habitat during future restoration efforts.

Powell Butte Bird Study

Powell Butte is one of the most important sites in the City of Portland for raptors and other grassland birds. A volunteer bird survey is being established by PP&R and would begin in the spring of 2012. The purpose is to determine which species are using the Butte, what habitat areas they are using (e.g., forest, grassland), and in what ways they are using these areas. This information will be useful for future management of the site.

Next Steps:

- Establish annual volunteer bird surveys (to begin spring 2012)
- Partner with the Audubon Society of Portland and other PP&R volunteers to conduct point counts on Powell Butte

Oaks Bottom Habitat Restoration

Oaks Bottom Wildlife Refuge was designated as Portland's first urban migratory bird park through a City Council Resolution passed on May 5, 2004. It is a 170 acre complex of meadows, woodlands and wetlands on the east bank of the Willamette River, just north of the Sellwood Bridge. The refuge is the largest remaining natural area within in the Lower Willamette River floodplain and provides important habitat for fish and wildlife, including threatened salmon and over 175 bird species. Oaks Bottom supports many wildlife species that are considered "Special Status" because they are in decline on a regional or statewide scale. These include 44 bird species.

BES and PP&R City Nature are working together on design of a large-scale habitat enhancement project to benefit wildlife and people. The project will enhance 75 acres of wetland habitat by:

- Replacing an existing culvert with a larger box culvert to enhance fish passage and significantly improve the flow of Willamette River water in and out of the refuge
- Excavating tidal slough channels and enhancing wetland habitats at the south end of the refuge to provide off-channel refuge for ESA-listed salmon
- Removing invasive vegetation, such as purple loosestrife, and revegetating with native species to improve wildlife habitat
- Enhancing opportunities for environmental education and interpretation of the refuge from the Springwater on the Willamette Trail
- Designing the project to ensure sufficient open water area for optimal water bird habitat

As part of this project, Portland Audubon Society, in partnership with BES, is monitoring nesting bird and waterbird use of Oaks Bottom for three years. This work directs the City to conduct invasives removal work at times when the least disruption to birds will occur.

Next Steps:

- Implement project construction in 2013
- Continue baseline monitoring for nesting and waterbirds
- Monitor post-project for bird and other wildlife use of the enhanced refuge area
- Install bird viewing platforms along Springwater Corridor

Mt. Tabor Revegetation Project

The Mt. Tabor Revegetation Project is part of the larger Tabor to the River Program⁶, and is particularly focused on improving stormwater management, ecological conditions and wildlife habitat for birds. Thus far, invasive shrubs and vines have been removed on 19.5 acres, and nuisance trees have been removed on over 70 acres (fall 2010). Over 1,000 native shrubs and trees were planted (February 2011).

The project recently received additional funding from the East Multnomah Soil and Water Conservation District Partners in Conservation Grant, Portland Parks & Recreation, and the Bureau Environmental Services. These funds will be used to remove invasive shrubs and vines and plant native plants on an additional 37 acres of natural area (starting in summer 2011).

Breeding bird surveys and winter bird surveys have taken place at the project site for three years (2009, 2010, 2011) and will continue annually. This will help BES avoid impacts to bird species, provide baseline and effectiveness monitoring data, and track any changes in bird species use of the park with changes in vegetation.

Next Steps:

- Invasive plant control (Spring/Fall 2011 and ongoing)
- Native grass and forb seeding and planting (Fall 2011)
- Primary native tree and shrub planting (February 2012)
- Invasive plant control and planting area maintenance (Spring/Fall 2012 and ongoing)
- Conduct annual breeding bird surveys and winter bird surveys
- Partner with the Audubon Society of Portland to conduct point counts to assess the efficacy of restoration efforts for migratory birds

Mason Flats Wetland Enhancement Project

The City of Portland is constructing a stormwater treatment and habitat enhancement project at Mason Flats in the Columbia Slough watershed. The 25-acre project will restore a wetland that is currently dominated by non-native reed canarygrass. Planting a variety of native wetland plants will increase vegetation diversity, and increase native shrub canopy and hopefully benefit willow flycatchers and yellow warblers.

Next Steps:

- Construct the project in late summer 2011 and plant during the following rainy season.
- Monitor birds at the site.

Natural Resources Inventory (NRI)

Portland's Bureau of Environmental Services and Bureau of Planning and Sustainability have updated and refined species lists used in the City's NRI methodology. These lists highlight rare and declining birds and other species in our region. "Special Habitat Areas" (SHAs) are an

⁶ The Tabor to the River Program improves sewer system reliability and promotes natural watershed functions over a 2.3 square mile area from Mt. Tabor Park to the Willamette River between SE Powell and SE Hawthorne boulevards.

element of the Wildlife Habitat Model in the NRI. Updated “At Risk” species and “Grassland Associated” species lists have been completed for the SHA criteria. These updated species lists and criteria have been recently or are currently being applied in four area-specific NRIs: Airport/Middle Slough, River Plan/North Reach, River Plan/Central Reach, and Hayden Island.

Next Steps:

- Continue application of updated SHA criteria in area-specific and citywide natural resources inventories

“At Risk” Bird Species in the City of Portland	
<u>Common Name</u>	<u>Genus & Species</u>
American White Pelican	<i>Pelecanus erythrorhynchos</i>
Bald Eagle	<i>Haliaeetus leucocephalus</i>
Band-tailed Pigeon	<i>Columba fasciata</i>
Bufflehead	<i>Bucephala albeola</i>
Common Nighthawk	<i>Chordeiles minor</i>
Loggerhead Shrike	<i>Lanius ludovicianus</i>
Long-billed Curlew	<i>Numenius americanus</i>
Merlin	<i>Falco columbarius</i>
Olive-sided Flycatcher	<i>Contopus cooperi</i>
Peregrine Falcon	<i>Falco peregrinus</i>
Pileated Woodpecker	<i>Dryocopus pileatus</i>
Purple Martin	<i>Progne subis</i>
Red-necked Grebe	<i>Podiceps grisegena</i>
Streaked Horned Lark	<i>Eremophila alpestris strigata</i>
Swainson's Hawk	<i>Buteo swainsoni</i>
Vesper Sparrow (Oregon)	<i>Pooecetes gramineus</i>
Western Meadowlark	<i>Sturnella neglecta</i>
White-breasted Nuthatch (Slender-billed)	<i>Sitta carolinensis aculeata</i>
White-tailed Kite	<i>Elanus leucurus</i>
Willow Flycatcher (Little)	<i>Empidonax traillii brewsteri</i>
Yellow-breasted Chat	<i>Icteria virens</i>

Grassland-Associated Bird Species in the City of Portland	
<u>Common Name</u>	<u>Genus & Species</u>
American Kestrel	<i>Falco sparverius</i>
Chipping Sparrow	<i>Spizella passerina</i>
Common Nighthawk	<i>Chordeiles minor</i>
Northern Harrier	<i>Circus cyaneus</i>
Oregon Vesper Sparrow	<i>Pooecetes gramineus affinis</i>
Savannah Sparrow	<i>Passerculus sandwichensis</i>
Short-eared Owl	<i>Asio flammeus</i>
Streaked Horned Lark	<i>Eremophila alpestris strigata</i>
Western Meadowlark	<i>Sturnella neglecta</i>
White-tailed Kite	<i>Elanus leucurus</i>

Backyard Habitat Certification Program

An increasing body of science indicates that small pockets of habitat can be critical in assisting migratory birds as they cross urban landscapes. Private residential lots comprise nearly 40% of the land area in Portland, but often are overlooked when it comes to urban conservation initiatives.

The Columbia Land Trust (formerly Three Rivers Land Conservancy) and the Audubon Society of Portland joined forces to create the Backyard Habitat Certification Program (BHCP) in January 2009 to help improve habitats for birds and other wildlife. Through citizen education and involvement, technical assistance to small lot private property owners, native wildlife habitat is being restored in backyards throughout the City of Portland.

The BHCP focuses on the removal of aggressive weeds, Naturescaping with native plants, stormwater management and wildlife stewardship, and assists property owners through three levels of advanced habitat restoration. Citizens who voluntarily enroll in this program receive technical assistance, increase their level of knowledge specific to their neighborhood ecology, and develop and implement site-specific plans that address desired habitat conditions. The certification process involves a site visit from a trained habitat technician followed by a written report advising them about site specific habitat enhancements that could be implemented. They also receive continuing technical support as they restore their property, access to a variety of incentives to assist with their restoration efforts, and a sign identifying their property as “certified wildlife habitat” when the process is completed.

The City of Portland has helped with the expansion of the Backyard Habitat Certification Program in partnership with the Audubon Society of Portland, the Columbia Land Trust and the Multnomah County Soil and Water Conservation districts. Since this program was initiated in 2009, more than 1000 site visits have been conducted and more than 400 properties have been certified as “backyard habitat”.

Next Steps:

- Continue to promote the Backyard Habitat Certification Program through various efforts, including the Watershed Stewardship Program and Grey to Green
- Integrate the Backyard Habitat Certification Program into the City’s Greenstreets/ Bike Boulevards Program through joint promotional and funding efforts
- Support expansion of the program to other parts of the City
- If funding is available, support the Backyard Habitat Certification Program



Portland Area Watershed Monitoring and Assessment Program (PAWMAP)

Breeding birds are included in the City's PAWMAP Program, a watershed health monitoring effort based on the EPA's nationwide methodology. Starting in 2011 and continuing annually, birds are sampled for PAWMAP as an indicator of riparian habitat health. A Riparian Bird Integrity Index for the Willamette Valley is used to generate a relative score for Portland's watersheds as part of the data analysis. By incorporating birds as an upland indicator, the City is both directly monitoring birds, and assessing terrestrial habitat for a holistic look at watershed health.

Next Steps:

- Continue field sampling in 2012
- Analyze and report 2011 data
- Determine long-term trends in local birds as an indicator of watershed conditions

Urban Forestry

Portland Parks & Recreation completed the *Urban Forest Action Plan* in 2007. The plan was developed to implement the goals established in the 2004 Portland Urban Forest Management Plan. The Action Plan details priority actions for the three main goals:

- Protect, preserve, restore and expand Portland's urban forest;
- Develop and maintain support for the urban forest;
- Manage the urban forest to maximize community benefits for all residents.

The 2004 plan sets the canopy goal of 35-40% for residential areas, 15% for commercial/industrial areas, 30% for developed parks and open spaces, and 35% for rights-of-way. In FY 2009-2010, a total of 27,491 trees were planted (recorded through permits, Friends of trees, schools and at City-owned sites). The City and non-governmental organizations have been working on a variety of actions to maintain and increase the canopy. These actions include changes to the City's tree regulations, plantings in rights-of-way, natural areas and parks, and encouraging residents to Naturescape. Maintaining and increasing the urban canopy benefits migratory birds by providing additional feeding and resting areas. PP&R is working with neighborhood stewards to inventory, plant and care for trees in their areas.

Next Steps:

- Continue the Neighborhood Tree Steward Program that trains participants to be leaders and resources for tree advocacy in their neighborhoods.
- Create Neighborhood Stewardship plans that inventory, plant and maintain street trees
- Continue to plant native species in natural areas and parks.

What partners can do – Protect and Improve Habitat

- ☑ Identify, protect and restore important habitats
- ☑ Adapt Portland's nesting bird and other guidelines for your own location and activities
- ☑ Educate your staff about ways they can improve habitat for birds
- ☑ Participate in, and promote, the Backyard Habitat Certification Program
- ☑ Work with BES and PP&R to identify candidate natural areas that increase habitat for avian species
- ☑ Partner with the City of Portland on acquisition and restoration of natural areas to leverage limited local funding

What citizens can do – Protect and Improve Habitat

- ☑ Plant native tree, shrub and other plant species in your yard
- ☑ When possible, leave snags and down wood
- ☑ Reduce lawn cover
- ☑ Seek natural alternatives to, and reduce the use of, pesticides, herbicides and fertilizers, when practical
- ☑ Volunteer in a neighborhood invasive plant species removal project (e.g., ivy pull)
- ☑ Participate in the Backyard Habitat Certification Program
- ☑ Take a "Naturescaping" class and landscape your yard to be bird-friendly
- ☑ Notify BES if you own or know of vacant parcels in the City of Portland that may be candidate natural area acquisitions. Of interest are tributaries, stream confluences, floodplains, riparian areas, off-channel habitats, seeps, spring, steep slopes, forested areas, grasslands and meadows, wetlands, and riverine islands. Contact: Shannah Anderson at 503/823-2605 or shannah.anderson@portlandoregon.gov.

Reducing Hazards

Bird-Friendly Building Guidelines

Since September 2009, the Audubon Society of Portland has coordinated seasonal BirdSafe Portland surveys (a largely volunteer effort) to quantify the magnitude of Portland's window strike rate. September 2009 pilot surveys included 44 buildings, 4 skybridges and the base of the Oregon Health State University (OHSU) tram tower. Surveys conducted in the Spring and Fall of 2010 and in the Spring 2011 included a subset of the original sample: 21 buildings and the base of the tram tower. These continue to be surveyed. Outreach to building owners and managers has raised awareness about strike hazards, and the survey effort is yielding critical reports from staff and tenants on site. This results in more comprehensive data collection. BirdSafe surveyors have encountered 26 native species of birds that have struck windows in three seasons of surveys, while the Audubon Wildlife Care Center has admitted 69 species of birds that have hit windows since the inception of BirdSafe surveys. This discrepancy is indicative of the myriad of obstacles to finding strike victims, which can end up on rooftops, balconies, or in backyards and courtyards.

Numerous cities, including Toronto, Chicago, New York, San Francisco, and the State of Minnesota have used local surveys to demonstrate the need for the development of Bird-Friendly Building Guidelines (BFBGs). BFBGs address the elements of building architecture (materials and design) which pose the greatest hazards to birds. Among the potential solutions included in BFBGs are: creating visual markers on transparent or reflective glass; avoiding design traps such as window glass extended to building corners, and breezeways or skybridges bounded by unmarked glass, minimization of rooftop and architectural lighting schemes; proper shielding on light fixtures to reduce light scatter (light trespass) and sky glow.

Next Steps:

- Develop Bird-Friendly Building Guidelines. Collaborate with the Audubon Society of Portland efforts to develop voluntary guidelines. To facilitate the development of the guidelines, the City of Portland will:
 - help plan and hold a one-day workshop with experts from other cities, local architects, lighting engineers, planners, developers, etc.
 - participate with the Audubon Society of Portland and others in a group of local advisors to help guide the development of bird-friendly building guidelines. Advisors will include Bird Treaty partners, local architects, building contractors and developers, lighting engineers, and other stakeholders.
- To demonstrate the types of building designs that can be used to reduce hazards, Portland Parks & Recreation will showcase window-strike mitigation approaches at several City community centers. Interpretive signage will accompany these demonstration projects to inform homeowners and others (up to 1,000 people use these facilities daily). Initially, modifications will be made at two centers, with the goal of installing features at nine of the total eleven community centers in the City.
- Explore options for addressing bird-friendly building and illumination policies in the Portland Plan or Comprehensive Plan update and through voluntary efforts.
- Seek feedback and endorsement of the BFBG measures from City bodies including the Planning and Sustainability Commission and Portland City Council.

Lights Out Campaign

Neotropical migratory birds travel remarkable distances, often flying at night to avoid predators, save energy (the atmosphere is less turbulent), and use the moon and stars as guides. This allows them to forage by day, a necessity for replenishing the vital energy stores that fuel their long-distance migrations.

Migration begins just after sunset for many birds traveling from their wintering grounds as far south as South America to their breeding grounds as far north as the Arctic tundra. Night flight brings birds over ever-expanding urban areas across the landscape. Researchers estimate that 85% of annual mortality in songbirds occurs during migration. Birds' already perilous journeys are made more deadly by night-lit structures, which can both confuse and attract them. Hundreds of millions (upward estimates are over a billion) of birds die every year after hitting windows, both during the day and at night. In response, 21 U.S. cities have instituted voluntary Lights Out programs from dusk until dawn during spring and fall migrations. Lights Out programs do not affect street lights or safety lighting, however, proper shielding of all light fixtures is necessary to reduce impact on the circadian rhythms that drive migration, breeding, and feeding cycles, and influence predator-prey relationships across multiple taxa.

A Portland Lights Out Program would ask building owners and managers to participate from August 25 through November 15, and March 15 through June 7, from dusk until dawn.

Next Steps:

- Explore opportunities to participate in a pilot Lights Out project (e.g., Portland Building, 1900 Building)
- Review Lights Out program messages and explore opportunities to provide information to building owners and managers and the public
- Coordinate with the Mayor and City Council members in support of a proclamation to launch a Portland Lights Out Program
- Explore options for addressing bird-friendly building and illumination policies in the Portland Plan or Comprehensive Plan update and through voluntary efforts

Cats Indoors Campaign

Cats pose a significant threat to resident and migratory birds in urban ecosystems, especially in pockets of habitat where birds congregate as they pass through the urban landscape, and when young birds are on the ground before they can fly. In many cities, cat advocates and bird advocates have found little common ground. However, in Portland, the Audubon Society of Portland and the Feral Cat Coalition of Oregon have been working together to spread a unified message about responsible pet ownership. This has included public service announcements, educational materials and presentations focused on housing cats indoors or in enclosures, and on leash when outside. The Feral Cat Coalition encourages people to "spay/neuter your cat and make sure that all feral cats are spayed/neutered".

The joint Audubon/Feral Cat Coalition effort was recently featured on an episode of *Oregon Field Guide* and has been presented at the American Ornithologists and the Humane Society of the United States "Taking Action For Animals" Conference. At the request of the USFWS, Audubon Society of Portland staff presented their approach to this issue in Hawaii where

biologists are struggling to protect some of the most imperiled bird species on the planet. This approach recognizes that keeping cats indoors reduces risks to pets, prevents increases to feral cat populations and protects wildlife.

Next Steps:

- Educate the public about the negative impacts cats have on birds, and stress the importance of keeping pet cats indoors, in enclosures or on leash when outside
- Support the efforts of the Audubon Society of Portland through distribution of educational materials
- Support efforts to report feral cat colonies that become established on local natural areas

Dogs in Natural Areas

The City of Portland recognizes that responsible pet ownership means more than licensing and vaccinating dogs; it means controlling dogs' interactions with wildlife and natural areas. Unleashed dogs can harm birds, disturb breeding areas, or harass wintering birds, causing them to use valuable energy reserves. Dogs running loose also trample plants and habitat. Portland City Code requires that all dogs in parks must be kept on a leash unless in one of 31 designated off-leash areas. City Code also requires that all poop be picked up and disposed of in proper receptacles. Violation of either leash or scoop laws results in a \$150 fine. To educate the public about these problems and City Codes, several brochures and informational pieces were created:

The "Dogs For the Environment" Brochure and Pledge Form (Attachment F) includes basic information about responsible pet ownership and City Code requirements. It also includes a pledge form for owners, signifying they will keep their dog on leash and on trails in natural areas; scoop and properly dispose of poop; and avoid contact with streams and wildlife. In recognition of signing the pledge form, owners are sent a green bandana for their pet to wear.



A "Portland's Sensitive Wildlife and Your Dog" Brochure and poster were developed to inform people about the importance of keeping dogs on-leash in natural areas to reduce disturbance to birds and other wildlife (Attachment G). A number of native birds nest on, or near the ground, and are particularly susceptible to harm by off-leash dogs. Ranger patrols were established to educate the public, and to help enforce City Codes.

Next Steps:

- Continue to inform the public about the importance of keeping dogs on-leash in natural areas through signage and rangers
- Continue to patrol natural areas and enforce City Codes regarding on-leash and poop scoop laws

**Public Activity in Sensitive Areas**

Many of the most sensitive habitats in Portland are publicly-owned. Habitat Management and Trail plans for the City's natural areas are developed by PP&R, with habitat protection and restoration as the highest priorities. Public use and access are addressed so that habitat values do not become diminished due to human disturbances and habitat degradation. PP&R also works with neighbors and local schools on stewardship activities to enhance and restore natural areas.

Next Steps:

- Continue to develop and implement Habitat Management and Trail plans for City natural areas to minimize human disturbances to birds and their habitats.
- Continue to work with neighbors and local schools on stewardship activities to enhance and restore City natural areas.

What partners can do – Reduce Hazards

- ☑ Educate your staff about ways they can minimize impacts on nesting birds and make habitat safe for birds
- ☑ Install bird-friendly lighting, and turn off unnecessary lights at night
- ☑ Start your own “lights out” campaign
- ☑ Partner with Audubon Society of Portland’s Cats Indoors Campaign
- ☑ Start your own “keep dogs on leash” campaign

What citizens can do – Reduce Hazards

- ☑ Use the “scarecrow” technique around windows frequently struck by birds. The most effective techniques involve hanging items in front of windows to catch their attention before they collide. Reflective Mylar streamers and hawk silhouettes hung from string (so they move in the breeze) work best.
- ☑ Place birdfeeders at least 8 feet away from windows. At this distance, birds are unlikely to have the momentum to strike a window.
- ☑ Do not let your housecats roam freely. Keep cats indoors.
- ☑ Don’t feed feral cats.
- ☑ Do not abandon cats.
- ☑ Spay/neuter your cat, and make sure feral and stray cats are spayed/neutered.
- ☑ Keep dogs on leash and entirely out of natural area parks
- ☑ Stay on trails.
- ☑ Support limiting access to sensitive habitats in natural areas.

Invasive Species Management

Invasive Species in Urban Natural Areas

Portland has three bureaus actively involved in the management of invasive vegetation: BES, PP&R and the Portland Water Bureau. These bureaus all are controlling vegetation in urban natural areas in concert with one another and with multiple partners at the local, state and federal levels. The various programs administered by these bureaus are gradually and successfully restoring native habitat that native bird species depend on for survival. Management activities are varied and range from outreach to the public to large-scale removal of tons of non-native vegetation in certain areas.

An issue related to managing invasive vegetation is how and when the management activities occur. Removing invasive species during the nesting season can be disruptive or even cause nest failure for the few native species capable of nesting in dense thickets of Himalayan blackberry or English or Irish ivy. It is important to plan and implement invasive species removal to coincide with times best for eradication *and* to avoid disturbance to nesting birds. The City's *Nesting Bird Guidelines* provide managers and practitioners the guidance to effectively deal with invasive vegetation while minimizing negative impacts to birds.

The Bureau of Environmental Services has started crafting the invasive Animal Strategy to address the negative impacts caused by invasive animals to native habitat and wildlife. Invasive bird species can have direct, significant impacts on native birds. Invasive birds are also a vector for avian diseases which native birds may have had no prior exposure. Other invasive animals degrade habitat. For example, nutria can severely alter shoreline habitat. Feral domestic animals such as cats have severe negative impacts on bird populations. In addition, invasive invertebrate species have the potential to significantly alter habitats across the City, threatening resident and migratory bird populations.

Next Steps:

- Continue to incorporate *Nesting Bird Guidelines* into the City's vegetation management activities. The City's *Nesting Bird Guidelines* contain recommendations for managing a variety of invasive plant species while minimizing impacts on nesting birds.
- Continue to implement invasive vegetation removal efforts and replant native vegetation across City properties.
- Assist private landowners with significant bird habitat in controlling and managing invasive vegetation on their properties.
- Continue composing and implementing Portland's Invasive Animal Strategy and working with City partners in mitigating the negative effects of invasive animals on native birds and other wildlife.
- Identify municipal properties in the Portland Metro Area which provide essential habitat for at-risk native bird species and address these species in management and landscape activities.
- Continue programs such as PP&R's "Protect the Best," BES' Revegetation Program, and other invasive species removal efforts.

Exotic Ducks and Geese in Local Parks and Natural Areas

Birdwatchers and the general public enjoy watching geese, ducks, and other waterfowl. However, in many areas of the country, including the City of Portland, and many areas of the country, populations of nonmigrating, or resident, domestic ducks and geese are increasing.

Domestic ducks and geese are common in parks and open spaces in the City of Portland, especially in areas with man-made ponds and grass fields. The overpopulation of these resident birds contributes to overcrowding, malnutrition and disease, environmental degradation, and water pollution.

Many of the domestic ducks and geese in urban parks are flightless and unable to escape predators or withstand the breeding season; those animals that are able to survive often displace native wildlife, destroy valuable habitat, and have the potential to introduce diseases and parasites to native populations. Many of these birds then successfully breed in the wild.

Although most people find a few birds acceptable, problems quickly develop as bird numbers increase. These problems include: overgrazing of grass and ornamental plants; accumulation of droppings and feathers; attacks on humans by aggressive birds; and the fouling of reservoirs, swimming areas, docks, lawns, and recreational areas. Domestic ducks and geese have usually escaped from homes or are deliberately released or abandoned. Overpopulation causes erosion and the accumulation of waste matter in parks and open spaces reduces oxygen levels, reducing the viability of aquatic life in the water.

The City of Portland is committed to improving habitat for native wildlife, protecting human health, and protecting our parks and open spaces from degradation. The Bureau of Environmental Services and the Portland Parks & Recreation are currently working with Audubon Society of Portland to develop a long-term plan to minimize and manage non-native waterfowl, including an education campaign to reduce feeding of waterfowl by park users and domestic duck and goose abandonment.

Next Steps:

- Partner with Audubon Society of Portland and organizations and agencies, such as the Humane Society and U.S. Department of Agriculture – Wildlife Services to manage populations of domestic ducks and geese at local parks and natural areas.
- Design environmental restoration projects to improve the habitat for native waterfowl and deter the congregation of domestic ducks and geese.
- Develop and implement an education campaign to advise public against feeding waterfowl in parks and natural areas, including a brochure and signage at parks and natural areas. Use existing outreach materials from the Audubon Society of Portland, USFWS and others as available.
- Develop and implement an ongoing educational outreach campaign to pet and feed stores to encourage them to inform customers that domestic and exotic animals should never be released into the wild.
- Utilize partnerships with Portland State University (PSU) and other community organizations to develop and implement educational campaigns.

What partners can do – Invasive Species

- ☑ Work with your local birding community to adapt Portland's nesting bird and other guidelines for your own location and activities
- ☑ Educate your staff about ways they can minimize impacts on nesting birds and improve habitat for birds
- ☑ Participate in the Backyard Habitat Certification
- ☑ Educate the public about buying and releasing ducks at parks and natural areas
- ☑ Support invasive species legislation and policy

What citizens can do – Invasive Species

- ☑ Follow the City's Nesting Bird Guidelines
- ☑ Participate in the Backyard Habitat Certification Program
- ☑ Attend invasive species training opportunities offered by the City of Portland and its partners
- ☑ Volunteer for an invasive species removal project in a nearby natural area.
- ☑ Naturescape your yard
- ☑ Inform your neighbors about invasive species
- ☑ Don't buy a pet duck or goose unless you will provide it with a permanent home; never let a pet such as a duck or goose go free
- ☑ Do not feed domestic, exotic or wild ducks and geese
- ☑ Volunteer for an invasive species removal project in a nearby natural area
- ☑ Naturescape your yard
- ☑ Inform your neighbors about invasive species
- ☑ Support invasive species legislation and policy

Education and Outreach

Migratory Bird Festival

As an outreach action under the Urban Migratory Bird Conservation Treaty, an annual International Migratory Bird Day Festival of the Birds was started in 2004, and has been held annually at Sellwood Park in southeast Portland. The festival includes birding walks into Oaks Bottom Wildlife Refuge and family-friendly activities and local bird information. The City of Portland (lead by PP&R Environmental Education), USFWS and Audubon Society of Portland began by planning and hosting this event with many treaty partner organizations participating. Over the years, attendance has risen to around 1,000. For recent festivals, the City and USFWS have taken the lead on organizing and publicizing activities, and the City has provided all of the funding for the event. Partners, volunteers and businesses have supported the festival by hosting activity stations, leading bird and other nature-related walks, and by donating food and supplies

Next Steps:

- Continue to hold annual Migratory Bird Festivals in partnership with the Audubon Society of Portland, the U.S. Fish and Wildlife Service, and treaty partners.
- Look for sponsorship funding or donations of tents and signs, making it possible to hold an outside event during rainy weather.
- Develop methods to evaluate the festival's true attendance, best methods for publicizing the event, and outreach outcomes.
- Make use of the annual festival bird counts to learn how habitat changes in Oaks Bottom are affecting the refuge's bird population.

Staff Training

The three training sessions regarding birds and the nesting bird guidelines were held in March 2010 for Bureau of Environmental Services staff, and were highly successful. In addition, abbreviated "trainings" tailored for specific program teams in BES (e.g., several in Engineering Services) were held upon request. The guidelines are now being used routinely in project planning and implementation.

In October 2010, a number of BES staff, including many from BES Reveg, attended a one-day workshop that focused on migratory birds and the City's nesting bird guidelines.

Next Steps:

- Continue to provide training for BES staff about the nesting bird guidelines.
- Hold trainings for Portland Parks & Recreation, other city bureaus
- Provide the City's nesting bird guidelines to other public agencies, and hold trainings for them as time allows.

Portland Migratory Bird Website

Information about birds, bird population trends, impacts of activities on bird habitats, and volunteer or recreational activities supporting birds in the Portland area is available, but spread throughout many entities. It is therefore difficult to find information, including local events, and may require significant time searching through a variety of websites. The City of Portland's migratory bird treaty action plan in 2004 identified the need to develop a publicly-accessible website that provides local information about migratory birds, links to partner and other websites with bird-related topics, and a calendar of events focusing on migratory and resident native birds.

A preliminary website was uploaded in 2005. The intention has been to update the content and organization of this website to give a more comprehensive picture of bird actions throughout the region. A new design has been proposed by a local graphic designer, which includes the development of additional content and linkages between pages and to other websites. Converting these files to the portlandonline format needs to take place before implementing the website.

Next Steps:

- Convert files to website design and present it to treaty partners for their comments.
- Establish a routine and identify a staff person responsible for adding calendar items and other information to the website.

Parks' Building Demonstration Project

Most people experience bird window strikes as rather isolated incidents at home and at work. Often this limited experience does not translate into an understanding of the big-picture impact this is having on many of our familiar backyard birds. It is therefore important to raise awareness about the magnitude of window strikes.

Next Steps:

- Install demonstration windows on high visibility windows at Southwest Community Center and the East Portland Community Center, with an eye toward replicating this model at other Parks' centers. Window treatments will demonstrate at least four different easy solutions for residents to apply to windows to deter strikes.
- Develop interpretive signage in conjunction with the demonstration windows,
- Make brochures and other written take-away materials locally-relevant and available to residents who are interested in implementing their own window treatments.
- Demonstrate appropriate lighting strategies (i.e., properly shielded lights that eliminate light trespass) at demonstration sites.
- Ensure that staff at Parks' visitor centers are trained in appropriate messaging and can re-direct visitors to appropriate resources for more information (e.g., Audubon Society of Portland, Cornell Laboratory, National Wildlife Federation and other websites).
- Consult with the Audubon Society of Portland on demonstration projects and messaging.

Teacher Training (Flying WILD)

In 2008, PP&R received funding through the Grey's Family Fund of the Oregon Community Foundation to provide bird-based environmental education. PP&R's Environmental Education staff affiliated with the National Bird Education network and now participates as a treaty city partner in disseminating the Flying WILD curriculum. This teacher-training program has demonstrably shown the spread of interest in birds by both teachers and students. Providing motivation for teachers to use this curriculum to meet benchmarks in the classroom has been one of the goals of Portland's educational efforts under the Treaty program. Providing opportunities to use the Flying WILD curriculum in schools and other venues is seen as a way to increase local support for the Migratory Bird Treaty Program and develop a greater understanding of Portland's birding areas.

Next Steps:

- Develop a standardized program of Flying WILD training for preschool teachers as part of their certification process. Obtain funding so that the process of including bird-focused activities by these teachers does not become a monetary burden.
- Continue to offer Flying WILD curriculum to region-wide classroom and informal science teachers, and track their requests for using bird field trips and attendance at the bird festival as means to determine the continued use of the bird curriculum in the classroom.
- Provide bird activities to leaders of youth groups (Boy Scout, Campfire, etc.) based on the Flying WILD curriculum.
- Establish bird-focused stewardship projects for service learning opportunities.

What partners can do — Outreach and Education

- ☑ Hold a Migratory Bird Festival...or participate as a partner in Portland's Festival of the Birds
- ☑ Educate your staff about ways they can minimize impacts on nesting birds and improve habitat for birds
- ☑ Post information about birds on your website or provide links to other websites or sources of information
- ☑ Link to the portlandmigratorybird.org website when it's completed

What citizens can do – Outreach and Education

- ☑ Attend a Migratory Bird Festival
- ☑ Educate your neighbors
- ☑ Volunteer to help with events where there is an opportunity to inform others
- ☑ Learn more about birds that are visiting your yard and evaluate their habitat for hazards and restoration possibilities
- ☑ Involve neighbors, local school students and others in observing birds with you

Attachments

- A** Letter to USFWS from Portland Mayor Vera Katz, February 7, 2003
- B** Portland's 2003 Urban Migratory Bird Program Treaty with the USFWS and regional partners
- C** Treaty Partners: Urban Conservation Treaty for Migratory Birds
- D** Letter to Paul Henson, USFWS, from BES and PP&R, February 14, 2011
- E** Portland's Guidelines: "Avoiding Impacts on Nesting Birds During Construction and Revegetation Projects"
- F** "Dogs for the Environment" brochure and pledge form
- G** "Portland's Sensitive Wildlife and Your Dog" brochure
- H** Bird Checklists for Oaks Bottom and Mt. Tabor
- I** "Wildlife of Portland" poster

Attachment A



The office of
Vera Katz
 Mayor Portland Oregon The City That Works

Oregon Fish & Wildlife Commission

FEB 14 2003

February 7, 2003

Julie St. Louis
 Division of Migratory Bird Management
 U.S. Fish and Wildlife Service
 4401 North Fairfax Drive, Suite 634
 Arlington, VA 22203

Dear Ms. St. Louis:

Thank you for the exciting invitation to become a pilot city for the U.S. Fish and Wildlife Service's Urban Conservation Treaty for Migratory Birds Program (Treaty). The City of Portland cordially accepts, and we plan to involve several of our bureaus including the Bureau of Environmental Services, Parks and Recreation, and the Bureau of Planning. We also intend to work with a variety of other interested local partners, including Audubon Society of Portland, Portland Public Schools, Friends of Trees, and local watershed councils.

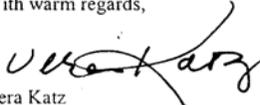
The technical assistance and \$50,000 in challenge funding offered through the Treaty program will help us to expand on a host of conservation efforts the City has already initiated, such as the Watershed Revegetation Program, Salmon Safe Parks, Clean Rivers Plan (improving water quality/watershed health) and River Renaissance to name a few. It will also open opportunities for us to support other migratory bird conservation projects initiated by our partners such as Great Blue Heron Week, Migratory Songbird Festival and Wild-in-the-City.

Portland is committed to the conservation of all native species, including migratory birds. In fact, I officially proclaimed that October 5th be Audubon Society of Portland (ASOP) day to celebrate their 100-year anniversary in 2002. We have been working with ASOP over many years to promote the enjoyment, understanding, and protection of native birds, other wildlife, and their habitats throughout the City. Certain birds in our community, such as Neotropical migratory birds, help us to understand the overall health of our ecosystem and provide an excellent avenue to educate the public about environmental issues.

Over the next several months, we plan to work with US Fish and Wildlife Service staff and other partners to identify and select worthy projects that will leverage the Service's challenge funding in each of the four Treaty categories: 1) education and outreach; 2) habitat creation, protection and restoration; 3) hazard reduction; and 4) non-native, invasive or nuisance animal and plant species management. We hope to develop a pilot program that will demonstrate the importance of this unique, urban-focused initiative. It is our goal to have a proposal developed in time to have a "Treaty" signing ceremony as part of the International Migratory Bird Treaty festivities in May 2003.

Thank you again for offering us this opportunity. We look forward to working with you. If you would like to reach us to discuss this program further, please contact Margaret Nover, the City's coordinator for the Treaty, at (503) 823-7623.

With warm regards,


 Vera Katz
 Mayor



1221 SW 4th Avenue, Suite 340
 Portland, Oregon 97204-1995
 Phone: 503-823-4120 Fax: 503-823-3588
 TDD: 503-823-6868 www.ci.portland.or.us/mayor/

The City of Roses

Portland designed by Ray Kaskey. Printed by Stewart Harvey

Attachment B

Portland's Urban Migratory Bird Program

A regional partnership between

The U.S. Fish and Wildlife Service - Department of Interior,

The City of Portland,

and

Regional community partners, named below

Parties Recognize that Migratory Birds:

- Are an excellent indicator of the overall health of an ecosystem and are an irreplaceable part of the natural systems of the earth;
- Are a valuable resource, contributing aesthetically, culturally, scientifically, and economically to America's citizens;
- Represent, for the vast majority of people, the sole everyday contact with wildlife. Birds connect all of us to the environment;
- Cross boundaries and ecosystems. Protecting them must be a cooperative effort among city and state planners, environmental organizations and federal conservation agencies;
- Face serious challenges. Many species are in decline because of habitat loss, collisions with human-made objects and contaminants.

Convinced of the urgency of taking appropriate measures to protect and promote migratory birds, the U.S. Fish and Wildlife Service, the City of Portland and our regional partners (noted below) enter into a partnership for the purpose of conserving migratory birds through education and outreach, habitat restoration, invasive removal and hazard reduction in the Greater Portland Region.

U.S. Fish and Wildlife Service

City of Portland

By: _____

By: _____

*Dave Allen
Regional Director, U.S. Fish &
Wildlife Service*

*Jim Francesconi
Commissioner, City of Portland*

Date: _____

Date: _____

Portland's Urban Migratory Bird Program Partners – 2003:

Organization

Delegate signature

Attachment C

Treaty Partners Urban Conservation Treaty for Migratory Birds Partners

Signatory Partners – 2003

American Bird Conservancy
Audubon Society of Portland
City of Portland
Columbia Slough Watershed Council
Corps Restoring the Urban Environment
Ecotrust
Friends of Forest Park
Friends of Kellogg and & Mt. Scott Creeks
Friends of Portland Community Gardens
Friends of Rock, Bronson, Willow Creeks
Friends of Trees
Friends of Tryon Creek State Park
Johnson Creek Watershed Council
Mazamas
Metro Regional Parks and Greenspaces
Northwest Ecological Research Institute (NERI)
Oregon Department of Fish and Wildlife (ODFW)
Portland Chapter, Native Plant Society of Oregon
Stop Oregon Litter & Vandalism (SOLV)
Three Rivers Land Conservancy
Tualatin Riverkeepers
Wolfree

Signatory Partners – 2006

Berry Botanic Garden
East Multnomah Soil & Water Conservation District
Friends of Oaks Bottom Wildlife Refuge
Friends of Smith & Bybee Lakes
Jackson Bottom Wetlands Preserve
Oregon State University, 4-H Wildlife Stewards
Sunnyside Environmental School
USDA Forest Service, Mt. Hood National Forest
Urban Greenspaces Institute
Willamette Riverkeeper

Attachment D

CITY OF PORTLAND



ENVIRONMENTAL SERVICES
CITY OF PORTLAND
working for clean rivers



PORTLAND PARKS & RECREATION
Healthy Parks, Healthy Portland

Dean Marriott, Director

Zari Santner, Director

1120 SW Fifth Avenue, Portland Oregon 97204

February 14, 2011

Paul Henson, State Supervisor
U.S. Fish and Wildlife Service
Oregon Fish and Wildlife Office
2600 SE 98th Avenue
Suite 100
Portland, OR 97266-1398

RE: Portland Bird Treaty

Dear Mr. Henson:

It was an honor for the City of Portland to be selected by the U.S. Fish and Wildlife Service as an Urban Conservation Treaty for Migratory Birds Program Partner. As you know, the Portland City Council officially signed the Treaty in May 2003. The intent of signing the Treaty was to:

- Raise awareness of migratory birds in Portland's urban ecosystems,
- Share and increase knowledge of the needs and ecological functions of migratory birds,
- Recognize and promote existing efforts to conserve and enhance the health of migratory bird populations,
- Identify and pursue new actions to maintain the diversity of migratory birds through time,
- Instill a sense of stewardship and responsibility in the City and its citizens, and
- Identify specific measure the City and its citizens can take to ensure migratory birds remain an important element in the urban landscape.

Since 2003, the Portland Parks & Recreation Bureau has been the lead entity for coordinating the City's Treaty activities. With the original grant from the USFWS for the City to launch the program, we have accomplished a number of things that address the intent of the Treaty:

- Designated Oaks Bottom Wildlife Refuge as Portland's first urban migratory bird park.
- Held annual Migratory Bird Festivals to celebrate migratory birds and raise public awareness about the plight of migratory birds.
- Garnered the support of 31 agencies and organizations as Urban Conservation Treaty for Migratory Birds Program Partners. By joining this effort, partners have made long-term commitments to help protect and conserve migratory birds.
- Began development of a Portland Migratory Bird website framework and concept.

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Letter to Paul Henson, USFWS
February 14, 2011

- Created a CD, "On the Great Pacific Flyway - Songs and Stories Celebrating Portland's Migratory Birds".
- Produced Public Service Announcements.
- Developed "Living with Birds" brochures.
- Conducted bird-focused youth activities in Portland Parks.
- Developed Portland's version of the "Flying Wild" Program and trained 200 local teachers in using bird-oriented activities in their curriculum.
- Submitted comments to the FCC regarding impacts of communication towers on birds.
- Created a bird habitat garden in Oaks Bottom as an educational site.

The City of Portland has embarked on a number of other activities that compliment the Treaty activities to promote the conservation of migratory birds. These actions have been conducted as part of the Portland Watershed Management Plan (PWMP) implementation, and specifically as part of the Terrestrial Ecology Enhancement Strategy (TEES), which is part of the PWMP. The Terrestrial Ecology Enhancement Strategy is coordinated through the Science, Fish and Wildlife program of the Bureau of Environmental Services. For example, the City:

- Monitored the Streaked Horned Lark, a federal candidate species for listing.
- Conducted point-counts at a number of sites that are undergoing habitat restoration project work (pre- and post-implementation). For example:
 - Mt. Tabor
 - Stephens Creek Confluence Project
 - Ramsey Pacific Willow Wetland & Refugia
 - Columbia Slough Confluence Project
 - Elk Rock Island Natural Area
 - Oaks Bottom
 - Kelley Point Park
 - Winmar Wetlands
- Conducted a citywide campaign aimed at reducing disturbance to wildlife in parks and other sensitive areas. This included development of a "Dogs in the Environment" brochure, and employment of park rangers to help educate and enforce the dog on leash policy.
- Supported Audubon Society of Portland's pilot Bird Strike Study to document and determine the extent of bird collisions with tall, reflective buildings in the City.
- Developed and is implementing a citywide "Invasive Plant Species Strategy".
- Conducted an Invasive Animals Species Assessment, which will be the basis for an Invasive Animal Species Strategy (underway).
- Developed guidelines and conducted training workshops for Bureau of Environmental Services and Portland Parks & Recreation staff to inform habitat management decisions and project timing, selection, design and maintenance ("Avoiding Impacts on Nesting Birds During Construction and Revegetation Projects").
- Served on the steering committee for the October 2010 "Managing Lands for Songbirds" conference held at the Oregon Zoo, and made several key presentations at the conference.
- Restored hundreds acres of land with native vegetation that will benefit migratory birds.
- Identified "Special Status Bird Species" in Portland, along with their habitat associations.
- Developed bird checklists for two of the City's premier bird areas—Oaks Bottom Wildlife Refuge and Mt. Tabor Park.
- Developed "Desired Future Conditions" for several City natural area parks, including conditions favorable to migratory birds.

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- Developed an Avian IBI (Integrity Bird Index) and will be monitoring birds as indicators of watershed health over time.

The above activities could fit under a plan of action we have begun to draft for our bird conservation efforts, which we refer to as the "Portland Bird Agenda". Because many of the objectives and actions of the TEES support the intent of the Treaty, we believe that it would be most effective to coordinate the technically-based Portland Bird Agenda activities under the TEES "umbrella". Because Portland's Parks & Recreation Bureau has been coordinating the annual Migratory Bird Festival and other outreach efforts, it makes sense for that bureau to continue that focus.

Under this modified arrangement for the sharing of Treaty activities, the City is renewing its commitment to the conservation of migratory birds in Portland. We are looking forward to updating and finalizing the draft Portland Bird Agenda, and hope to continue working with the USFWS and other partners on more bird conservation efforts. We intend to accomplish this work as follows.

The Bureau of Environmental Services' priorities will include:

- Updating and finalizing the Portland Bird Agenda, and submitting it for adoption by the Portland City Council.
- Updating (as necessary) and implementing the City of Portland's guidelines, *Avoiding Impacts on Nesting Birds During Construction and Revegetation Projects*. Continue to train city staff and raising awareness among city employees about migratory birds and the impacts of our habitat restoration activities on these species and their habitats.
- Developing guidelines for conservation of wildlife trees, snags, down wood and brushpiles for birds and other wildlife.
- Developing guidelines for management of oak habitats.
- Partnering with the Audubon Society of Portland to conduct point-counts at project sites in order to determine the effectiveness of habitat restoration actions.
- Embarking on long-term monitoring of avian communities as indicators of the health of terrestrial communities in the City.
- Continuation of monitoring of the Streaked Horned Lark populations in Portland, and working with the Streaked Horned Lark Working Group to improve the status of that species.
- Supporting Portland Audubon Society's "Cats Indoors" campaign.

The Portland Parks & Recreation Bureau will focus on:

- Public outreach and education through the annual Migratory Bird Festival.
- Ensuring communication and coordination among the signatory Migratory Bird Treaty Partners.
- Implementation of Parks "Natural Areas Restoration Plan", Published October 2010.
- Developing guidelines for bird-safe buildings.

We are currently developing a grant proposal to apply for funding from the USFWS that is available to existing Treaty cities this year. If additional resources become available in the future from the USFWS or another source, the City would be interested in conducting additional bird monitoring, staff training, on-the-ground conservation projects, and public outreach activities to further benefit migratory birds.

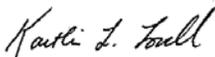
Letter to Paul Henson, USFWS
February 14, 2011

Thank you for your past and ongoing support. The primary contacts for future Treaty activities will be:

Claire Puchy, Science, Fish and Wildlife Program, Bureau of Environmental Services
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Sincerely,



Kaitlin Lovell
Science, Fish and Wildlife Program



David McAllister
City Nature, Portland Parks & Recreation

cc: Claire A. Puchy, BES
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Zari Santner, Parks & Recreation
Sue Thomas, Parks & Recreation
Jennifer L. Thompson, USFWS

Attachment E
TERRESTRIAL ECOLOGY ENHANCEMENT STRATEGY
GUIDANCE:



Anna's Hummingbirds
Photo by Phillip G.Engstrom

*Avoiding Impacts on Nesting Birds
During Construction
and
Revegetation Projects*

*Version 2
October 2010*



ENVIRONMENTAL SERVICES
CITY OF PORTLAND

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INTRODUCTION

The Terrestrial Ecology Enhancement Strategy (TEES) is part of the City of Portland’s Watershed Management Plan (PWMP), and is intended to help achieve the watershed health goals and objectives in the PWMP, particularly those for biological communities. Information about, and agreed-upon conservation and restoration priorities for, terrestrial plant and animal species and habitats in Portland inform the ongoing implementation of the PWMP.

The main elements of the TEES include:

- Identification of priority plant and animal species and terrestrial habitats in need of protection, conservation and/or restoration
- Identification and prioritization of key management issues
- Recommendations for watershed-specific objectives
- Identification of priority strategies and actions
- Selection of species and habitats to be monitored
- *Guidance to city bureaus and citizens for improving habitat and addressing plant and wildlife management issues*

This document provides information about nesting bird species in Portland and guidance that can inform habitat management decisions and in project timing, selection, design and maintenance. Intended audiences include: the Bureau of Environmental Services and Portland Parks & Recreation⁷. Following these guidelines may minimize the chances of City activities (e.g., stream enhancement construction projects, invasive plant species removal and revegetation efforts) resulting in a “take” of nesting birds.

It should be noted that these guidelines are advisory only, and simply present some precautionary actions to avoid the “take” of native birds. They are intended to help facilitate project implementation—not hinder it. If followed, the guidelines will help you avoid conflicts and last-minute delays. You can think of these as “Best Management Practices” for stream and upland restoration projects and revegetation activities. In order to safeguard migratory birds, employees are encouraged to practice as much due diligence as can reasonably be expected while carrying out their activities. Because every project presents its own set of challenges (e.g., funding deadlines, weather, public safety), this document recognizes the need for flexibility in selecting strategies. It is recognized that there may be a variety of possible options for consideration on a project-by-project basis.

⁷ These guidelines have not been written to apply to Portland Bureau of Transportation (PBOT). PBOT employees should instead refer to the Oregon Department of Transportation’s Highway Division Directive #ENV 01-01.

BIRDS IN PORTLAND

There are over 200 bird species that spend all—or part—of their lives in Portland. Some are “resident” species, meaning they are non-migratory. For example, birds (such as scrub jays) spend their whole life in the same neighborhood and never migrate. Others (such as warblers) are migratory; they spend winters in Central and South America, but may breed here. Still others (such as some shorebirds) pass through this area on their migratory routes to feed and rest.

In addition to native bird species, there are some non-native bird species in Portland. These include rock pigeons (city or “street” pigeons), house sparrows, European starlings ring-necked pheasant, domestic ducks and geese, and peacocks. These guidelines do not apply to non-native species.

The City has developed a *Special Status Species* list that includes over 50 birds. These are species that have been placed on Threatened, Endangered, and Sensitive lists or other “watch lists” by agencies and organizations (e.g., U.S. Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Partners In Flight). This list includes some birds that regularly nest in neighborhoods, parks and natural areas, like rufous hummingbirds, willow flycatchers and Vaux’s swifts. Because their populations are in decline, any disturbance to individuals or their breeding habitat is a significant concern.

NESTING BEHAVIOR OF PORTLAND BIRDS

Birds can be found nesting anywhere, even in the most developed areas. This guidance document describes those times of the year that birds are more likely to be present or nesting in a project area within the City of Portland. It also describes actions that minimize the risk of taking an actual bird or disturbing a nest without stopping a project. This guidance follows the adage that a little advanced planning can go a long way, and minimize problems later on. While these guidelines are directed at restoration and revegetation programs, they may be appropriate for a range of BES and Parks’ projects.

TIMING

The best way to avoid disturbing birds is to schedule activities outside the nesting season. The nesting season is not the same for all species, and not all sites will have nesting birds present during the entire nesting season. Furthermore, about 100 species of birds build nests, lay eggs and raise young in the City. Determining what can or cannot be done can be challenging. However, here is some guidance so that you don’t have to know the particulars of each species. (But if you *are* interested in individual species, **Appendix A** is a list of average Spring arrival dates of birds in the Portland Metro Area).

Non-nesting Season: August 1 – January 31

Nesting Season: The nesting season can be divided into two major time-frames:

Early Nesting Season: February 1 – April 15

Raptors (owls, eagles, falcons and hawks), herons, geese, and hummingbirds are early nesters. Great-horned owls are exceptionally early nesters and may lay eggs in January. Many early nesters have longer breeding cycles and most will not complete breeding until June or July.

Primary Nesting Season: April 15 - July 31

This includes songbirds and the majority of species. Willow flycatchers are late nesters, often extending to the end of August.

As they leave the nest, young birds go through the fledgling phase. They are often seen on the ground, flightless and unable to fend for themselves, however the adults are nearby and tending to them. June and July are peak months for fledgling activity. They often take shelter in *low vegetation* and are highly vulnerable to a variety of human disturbances at this critical time.

NESTING HABITATS

Trees: Stick nests of hawks, crows, and jays placed in tree canopies are among the most conspicuous and familiar signs of nesting birds on the City. These are the easiest to detect and the easiest to avoid.

Shrubs: The majority of nesting birds build a cup nest in dense vegetation in the shrub layer, often close to the ground. These species – sometimes called “tangle nesters” – complicate reasonable efforts to avoid taking protected birds. Willow flycatcher, a species in decline, actually builds nests in Himalayan blackberry, an invasive plant species heavily managed in the City.

Ground: Many species place a well concealed nest on the ground in either open areas or forested habitats. Examples include meadowlarks, harriers, killdeer and Wilson’s warblers.

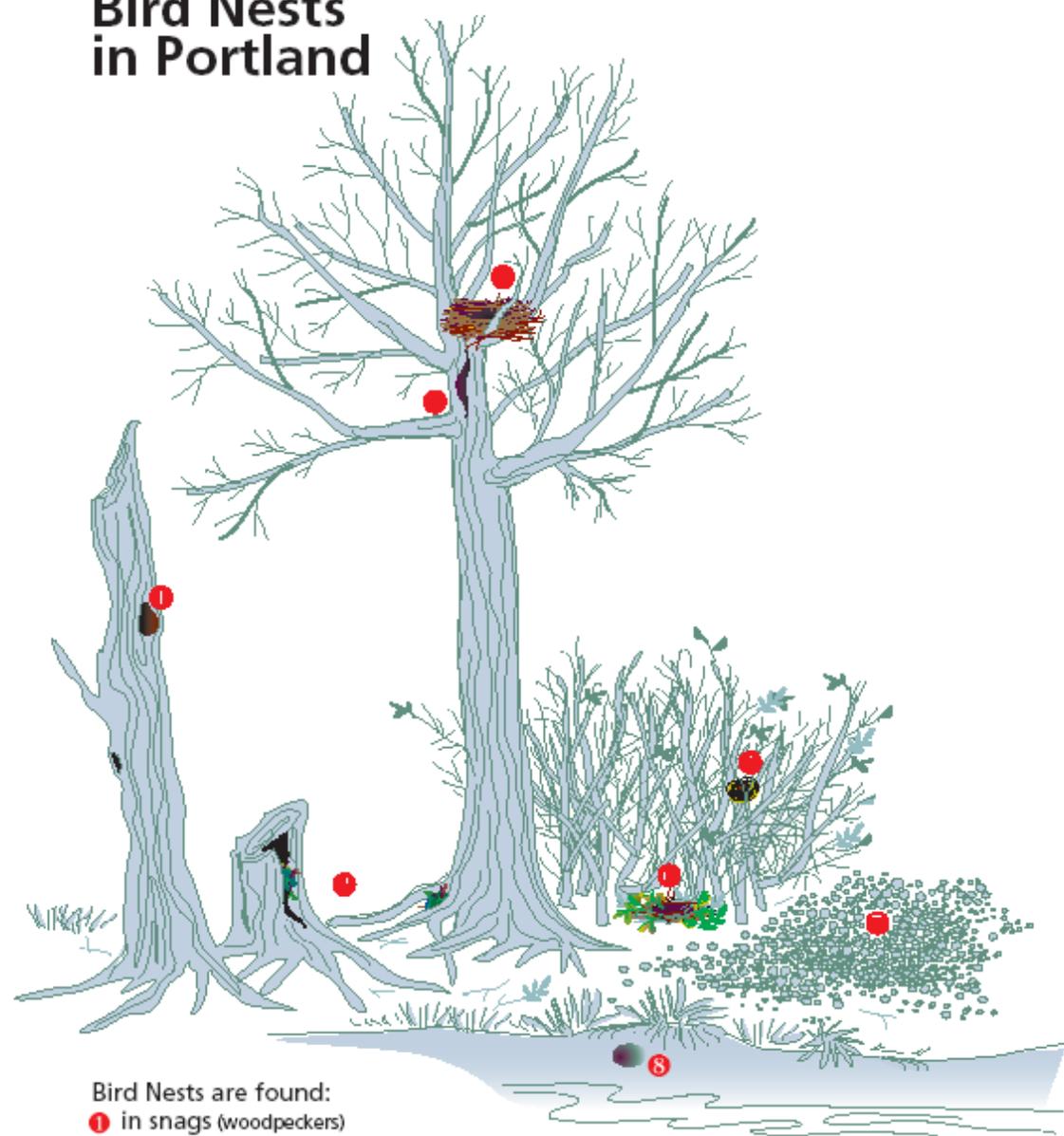
Cavity: Rather than concealing a nest in vegetation, dozens of local species use cavities. These are often in dead or dying trees, but can also be in the ground or in a variety of structures in the urban environment. Tree swallows, Bewick’s wrens and downy woodpeckers are common cavity nesters.

Streambanks: The northern rough-winged swallow and the belted kingfisher are “cut bank” nesters, meaning they use holes excavated in streambanks for nesting. Sometimes they even use holes on steep slopes of dirt stock piles.

Structures: Many birds use human-made structures for nesting. In addition to using bird boxes that are intended for such use, birds will nest on bridges, under house eaves, on building ledges, utility and light poles, on railroad tracks and even on gravel roads.

Appendix B provides a list of Portland area birds and the types of habitats they use for nesting.

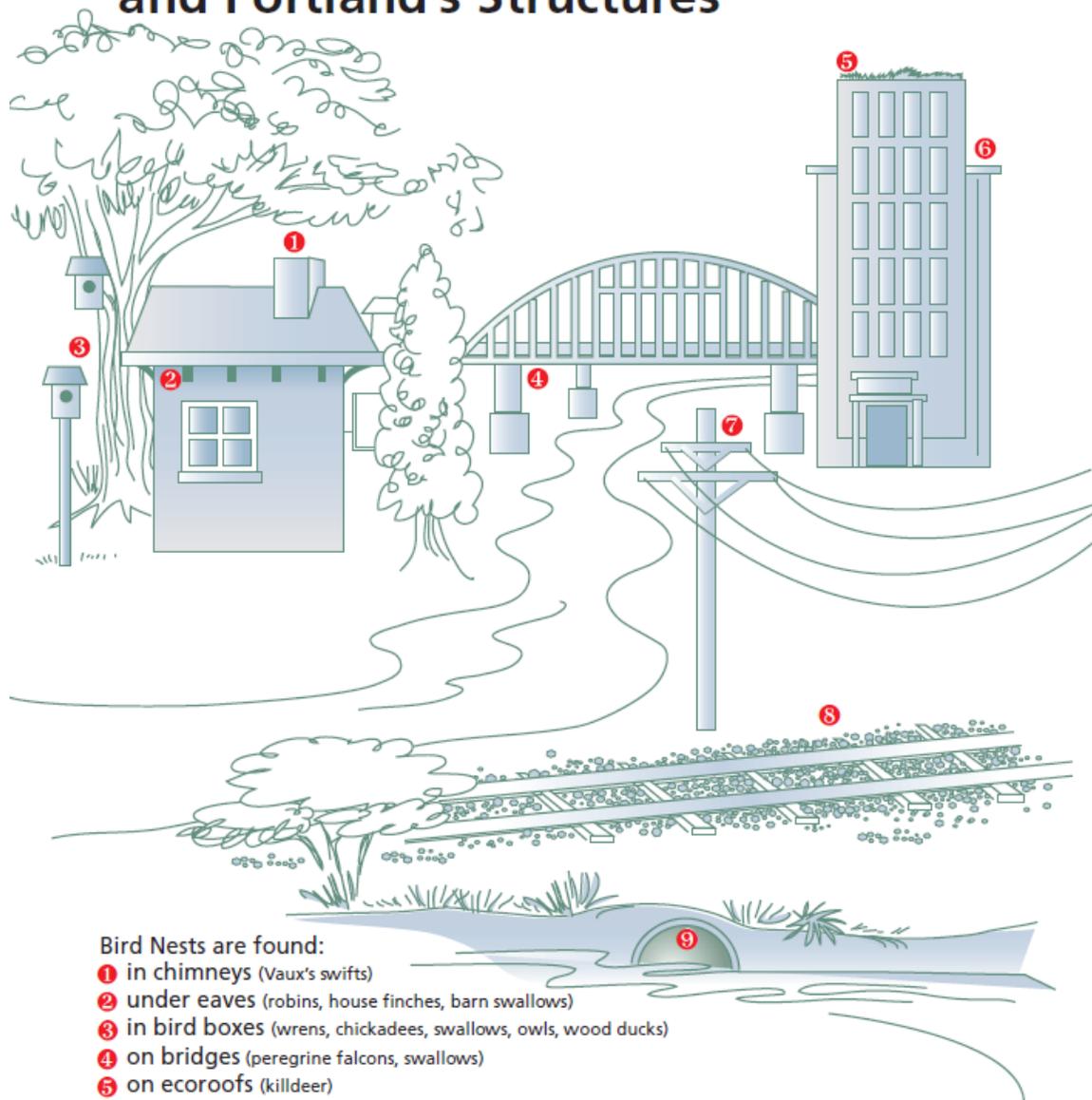
Bird Nests in Portland



- Bird Nests are found:
- ❶ in snags (woodpeckers)
 - ❷ in log and stump crevices, and around roots (winter wrens)
 - ❸ in tree crevices (chickadees, brown creepers)
 - ❹ in tree branches (jays, crows, herons)
 - ❺ in shrub branches (hummingbirds, warblers, song sparrows)
 - ❻ on ground under shrubs (spotted towhees)
 - ❼ in open gravel (killdeer)
 - ❽ in streambanks (kingfishers)

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Bird Nests and Portland's Structures



Bird Nests are found:

- ① in chimneys (Vaux's swifts)
- ② under eaves (robins, house finches, barn swallows)
- ③ in bird boxes (wrens, chickadees, swallows, owls, wood ducks)
- ④ on bridges (peregrine falcons, swallows)
- ⑤ on ecoroofs (killdeer)
- ⑥ on ledges (red-tailed hawks, mourning doves, crows)
- ⑦ on utility and light poles (ospreys, Canada geese)
- ⑧ on railroad tracks and gravel roads (killdeer, spotted sandpipers)
- ⑨ in culverts (barn swallows)

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GENERAL GUIDELINES

While many City activities and projects can potentially impact nesting birds, especially construction and maintenance, this guidance focuses on stream enhancement and revegetation projects, mowing, removal and maintenance of structures, and water-level management. Any projects that include removal of live trees or standing dead trees (snags), native or non-native invasive vegetation removal, grubbing and clearing may disrupt bird nesting. Assessing bird use in the project area prior to construction and altering the timing of plant removal are recommended.

Here are some general guidelines to help you plan project activities *(for a summary overview, please refer to page 21 of this document)*:

When to Plan Disturbance (see Appendix C):

August 1 – January 31 is the best time to plan for tree removal, invasive plant species management, and grubbing and clearing.

When to Avoid Disturbance (see Appendix C):

February 1 – April 15 is the early nesting season. Disturbance to vegetation, especially trees, should be avoided during this time.

April 15 – July 31 is the primary nesting season. Disturbance to vegetation should be avoided during this time.

Note: If birds are not present during nesting season, vegetation removal and other disturbance activities may proceed.

WHAT IF WORK MUST OCCUR DURING AVOIDANCE PERIODS?

If work must occur in the recommended avoidance time frames, the project area and specific vegetation impacted should be surveyed for nesting birds. **Appendix D** is a Bird Nesting Assessment Form that can be used. If an active nest is found, avoid it until the young have fledged. “Active” nests are defined as those with eggs or young.

WHO CONDUCTS A NESTING BIRD SURVEY?

BES and Parks personnel who can identify bird species are encouraged to fill out the Bird Nesting Assessment Form. However, because some teams may not have the technical expertise or time to conduct bird surveys, there are several other options:

- Terrestrial Ecology Enhancement Team (TEES) members may be called upon.
- The services of an on-call contractor may be used (this is encouraged for projects that cover large areas or large numbers of trees).

SPECIFIC GUIDELINES

Below are some recommended guidelines for four broad types of actions—stream enhancement projects, invasive plant species removal, other vegetation removal, and other management activities. These are summarized in matrix format in **Appendix E**.

STREAM ENHANCEMENT CONSTRUCTION PROJECTS

Since many City projects have in-water work windows from June 1 to October 31 (see **Appendix C**), the bird nesting period can best be avoided if:

- Vegetation removal and erosion control occurs prior to February 1 *or*
- All construction activities begin after July 31.

If vegetation disturbance, removal or other work must occur during nesting season, please confer with the Terrestrial Ecology Enhancement Strategy (TEES) team for project-specific guidance.

INVASIVE SPECIES MANAGEMENT

There are a number of programs and efforts that are specifically aimed at removing invasive plant species (e.g., BES Watershed Revegetation Program, BES Early Detection and Rapid Response Program, Parks' Protect the Best Program, Parks' Volunteer Stewards, Parks' Ecologists). It is important to plan invasive species removal to coincide with times best for eradication *and* to avoid disturbance to nesting birds. The following recommended guidelines will help avoid disturbance to nesting birds:

Blackberry – One of the most beneficial invasive plants for native birds. Heavily used by a myriad of species for nesting, foraging and winter cover.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – Blackberry spraying and removal is generally fine EXCEPT for areas with willow flycatchers (such as Johnson Creek, Columbia Slough and Powell Butte areas). The willow flycatcher is a sensitive species in serious decline and a late nester, often until the end of August.
- Early Nesting Season (February 1 – April 15) – Blackberry spraying and removal is OK. Watch for Anna's hummingbirds which are early nesters and defend their territory with displays that are easily heard and seen.
- Primary Nesting Season (April 15 – July 31) – Avoid major spray and removal. Maintenance management and volunteer efforts are OK, but watch for song sparrow, spotted towhee and California quail nests, which are on ground or in blackberry plants. AVOID if present.

- Remember: Willow flycatchers' nesting season extends through August. Therefore, avoid April 15 – August 31 in riparian and wetland habitats

Clematis – Growth form provides the type of cover many nesting birds are seeking. Although not well-documented, it is likely that many local species are placing nests in or under clematis clumps

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – Air gapping and root grubbing is OK.
- Early Nesting Season (February 1 - April 15) - Air gapping and root grubbing is OK. Be sure to leave vines in trees to decompose in case there is an early tree nester.
- Primary Nesting Season (April 15 – July 31) – Air gapping is OK. Avoid root grubbing and pulling vines down. Watch for nearby active nests on the ground and in shrubs.

Garlic Mustard – There is no known use of garlic mustard by nesting birds. However, garlic mustard is typically treated with spot spraying or hand pulling in the nesting season, and there may be nests nearby in other plant species.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – Spraying and hand pulling is OK.
- Early Nesting Season (February 1 - April 15) - Spraying and hand pulling is OK. Watch for ducks, killdeer or other ground nesters when treating garlic mustard along streams or along parking areas.
- Primary Nesting Season (April 15 – July 31) – Spot spraying and hand pulling is OK. Watch for nests low to the ground. If a nest is found, leave the surrounding vegetation.

Hawthorne – Cedar waxwings and American robins are two species that commonly build open cup nests in hawthornes.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – Generally removal is OK. However, if removing hawthornes in willow flycatcher areas such as Powell Butte, avoid removal **until after August 31**.
- Early Nesting Season (February 1 - April 15) – Girdling is OK. Avoid tree removal.
- Primary Nesting Season (April 15 – July 31) – Avoid removal.

Holly and Laurel – Although these invasive trees are a threat to native habitats, many birds will use them to build nests and raise young.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – This is the best time for intensive first treatments to areas with dense holly and laurel stands.
- Early Nesting Season (February 1 - April 15) – Removal is likely OK. Watch for nesting behavior and avoid if observed.
- Primary Nesting Season (April 15 – July 31) – Avoid intensive first treatments. If removal is required, visually inspect smaller trees (i.e., under 10 feet) for small cup nests. If there are larger specimens to be removed, a more thorough survey is recommended. Watch for robin and other nests and avoid if present.

Ivy: Ground Ivy – There are no native birds known to exclusively use ground ivy, but typical ground and low shrub nesters are spotted towhees and song sparrows. Pulling ivy in the primary nesting season could disturb native vegetation, or the presence of a group of people for an extended period of time could cause nest to be abandoned.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – Foliar spray and hand pulling is OK
- Early Nesting Season (February 1 - April 15) – Foliar spray and hand pulling is OK.
- Primary Nesting Season (April 15 – July 31) - Avoid pulling and foliar spraying if possible. Hand pulling can take place, but with caution. Look and listen for winter wrens, and watch for nesting birds nearby. If there is an active nest in the area, do not work in there.

Ivy: Tree Ivy – There are no native birds known to exclusively use tree ivy, though there are many that use branches on the infested tree such as robins and vireos. Pulling ivy down after cutting could pull active nests down.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – Air-gapping is OK.
- Early Nesting Season (February 1 - April 15) - Air-gapping is acceptable, but leave ivy in trees to decompose slowly.
- Primary Nesting Season (April 15 – July 31) - Air-gapping is acceptable, but leave ivy in trees to decompose slowly. Watch for nearby active ground and shrub nests and avoid if present.

Knapweed, Tansy, and Thistle – Grassland birds will use non-native, weedy areas for nesting.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – Spot spraying is OK.
- Early Nesting Season (February 1 - April 15) – Spot spraying is OK, but watch for killdeer nests on the ground. Birds will flush and perform a loud distraction display. Avoid area if present.
- Primary Nesting Season (April 15 – July 31) - Spot spraying of herbicides is acceptable any time, but watch for Savannah sparrows, common yellowthroats, American goldfinches and nests in nearby shrubs and grasses. Avoid if present.

Knotweed – Use by native birds is not well-known.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – This is a good time for foliar spray or injection.
- Early Nesting Season (February 1 - April 15) – This is a good time for foliar spray or injection.
- Primary Nesting Season (April 15 – July 31) – Treatment is likely OK, but watch for nearby nests.

Purple Loosestrife – Wetlands are important to many native nesting birds, and therefore, actions to control purple loosestrife may have the potential to affect them.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – This is a good time to treat loosestrife.
- Early Nesting Season (February 1 - April 15) – Herbicide application is OK until March 1. Watch for ducks in wetlands, as they tend to breed early – typically in March.
- Primary Nesting Season (April 15 – July 31) – Avoid vegetation management. If mid-summer treatment is advised, watch for red-winged blackbirds and American goldfinch nests in plants, and watch for ducks on the ground.

Reed Canarygrass – Common yellowthroats, mallards and cinnamon teal have been documented nesting in reed canarygrass at a wetland adjacent to the Columbia Slough. Growing and treatment season for reed canarygrass is March through August, which may conflict with nesting birds, since it's typically mowed in May and June.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – This is a non-conflict time to cut, spray or grub.

- Early Nesting Season (February 1 - April 15) – Typical treatment (hand-spraying) is OK in March and April. Watch for nesting ducks such as cinnamon teal.
- Primary Nesting Season (April 15 – July 31) – Avoid vegetation management. Conduct nest survey if mowing is advised.

Yellow Flag Iris – Red-winged blackbirds have been known to nest in patches of yellow flag iris.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – This is a good time for herbicide application and mechanical removal.
- Early Nesting Season (February 1 - April 15) – Herbicide application and mechanical removal is OK until March 1. Watch for duck nests along the shore after March 1, and avoid if present.
- Primary Nesting Season (April 15 – July 31) – Avoid vegetation management. Watch for red-winged blackbird and duck nests along the shore and in reeds.

OTHER VEGETATION MANAGEMENT

At times, it is necessary to remove non-invasive, non-native—or even native—trees, snags, shrubs and ground cover. If so, the following recommendations should be followed.

Live Tree Removal (Native and Non-Native) – Native, as well as non-native, live trees can host nesting birds any time from February 1 to August 31. Many of the early nesters are larger birds (e.g., herons, raptors) with larger nests that are easier to detect early in the season prior to leaf-out.

Management Recommendations:

- Non-nesting Season (August 1 - January 31) – Tree removal and girdling is OK.
- Early Nesting Season (February 1 – April 15) – Avoid tree removal, but girdling is OK. If trees must be removed, watch for early nesters: owls, hawks and Anna’s hummingbird (and killdeer on the ground). Scan canopies for any possible nests; if any are found seek assistance to determine if they are active.
- Primary Nesting Season (April 15 – July 31) – Avoid tree removal, but girdling is OK.

Snag Removal – Snags (standing dead trees) and standing dead wood play critical roles for many bird species. Snags attract insects, which are a vital source of food for woodpeckers and others birds. They provide perches, and are often the only source of cavities for cavity-nesting birds. In general, the following steps are recommended:

- Leave snags when possible.
- If there is a public safety concern, trim offending branch(es), leaving as much of the snag as possible.
- If all branches are unsafe, trim branches and leave the trunk.
- If the trunk is very tall and considered unsafe, leave 20 – 40 feet.
- If removal is unavoidable and there are no nearby trees appropriate for girdling, consider auguring the removed dead tree trunk into the ground. Use the tree branches for terrestrial habitat elements within the project site so that food sources and perch sites remain in the area.

Management Recommendations (if a snag must be removed, or if there is a public safety issue):

- Non-nesting Season (August 1 – January 31) – This is the best time for snag removal.
- Early Nesting Season (February 1 - April 15) – Watch for early snag nesting birds such as owls, and avoid removal if possible.
- Primary Nesting Season (April 15 – July 31) – Avoid snag removal if possible.

Shrub Removal (Native and Non-Native) – Low, dense shrub cover is vitally important nesting habitat and supports more breeding birds than trees do in the Portland area. Birds will nest at a variety of heights in the shrub layer. For example, spotted towhees build nests from ground level up to about 15 feet.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – This is the best time for vegetation removal.
- Early Nesting Season (February 1 - April 15) – Watch for early nesters such as Anna’s hummingbirds in shrubs; they often produce loud visual displays near their nests. Watch for killdeer which nest on open ground and make loud displays to distract predators from the nest. Be aware of ducks or other birds flushing suddenly off the ground.
- Primary Nesting Season (April 15 – July 31) – Avoid vegetation impacts and removal.

Grassland Mowing and Ground Cover Removal (Native and Non-Native) – Many species only build their nests on the ground. Some will build below dense shrub cover (e.g., Wilson’s warbler), while others will conceal their nest in grass (e.g., Savannah sparrow, Western meadowlark). Still others will build an exposed nest on gravel or bare ground (e.g., horned lark, killdeer). Ground nesters are vulnerable to a variety of disturbances.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – This is the best time for ground cover removal or disturbance like road building.
- Early Nesting Season (February 1 - April 15) – Proceed with caution: Be aware of killdeer, often calling loudly and feigning injury when you are near their nest. Be aware of ducks or other birds flushing suddenly off the ground.
- Primary Nesting Season (April 15 – July 31) – Avoid mowing and removal of ground cover.

Controlled Burn – This is a useful technique for controlling some plant species and encouraging native grasses. Some birds, such as horned larks and Western meadowlarks, nest in grasslands, however.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – OK to burn.
- Early Nesting Season (February 1 - April 15) – OK to burn.
- Primary Nesting Season (April 15 – July 31) – Avoid burning.

OTHER MANAGEMENT ACTIVITIES

Several activities that can affect nesting birds do not involve vegetation treatment or management. These include removing structures and manipulating water levels.

Removing and Maintaining Structures – Some birds use structures for winter roosting, but may also use them for nesting. Removing structures and maintenance activities (e.g., pressure-washing, painting and repair work) is another activity that can disrupt nesting birds. Osprey nests are often found on artificial structures near water. Barn owls, cliff swallows, barn swallows and Vaux's swifts are examples of protected species that readily use buildings for nesting. From February 1 to July 30, building demolitions should include a survey for nesting birds.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – OK to remove structures, but if birds are using the building for winter roosting, flush the bird from the building and allow them an opportunity to exit (e.g., make loud noises). If removing a roost chimney used by Vaux's swifts, wait until October 10 or later until birds migrate south for the winter.
- Early Nesting Season (February 1 - April 15) – Survey for owls, which nest on beams and platforms in old buildings. If present, wait until the young are fully fledged.
- Primary Nesting Season (April 15 – July 31) – Survey for nests of birds such as cliff and barn swallows, which make mud nests in eaves and on ledges. Survey for swifts in chimneys and for house finches in eaves and

cavities. Avoid structure removal if possible, or wait until the young fledge.

Manipulating Water Levels – Lowering water levels or flooding areas can have impacts on nesting birds such as waterfowl, red-winged blackbirds, common yellowthroats and marsh wrens, which nest in wetlands. Birds such as kingfishers make nests in streambanks which could be flooded by high water.

Management Recommendations:

- Non-nesting Season (August 1 – January 31) – OK to manipulate water levels.
- Early Nesting Season (February 1 - April 15) – Consider ducks and other waterfowl which are early nesters (as early as March 1). Duck nests are near or on the ground in wetland habitats.
- Primary Nesting Season (April 15 – July 31) – If inundating wetlands, consider impacts to red-winged blackbirds and other species, which nest in reed canarygrass, cattails and tall reeds.

SENSITIVE AREAS

Certain habitats within the City are recognized by state and federal agencies as being ecologically important and sensitive to disturbance. They are also home to unique nesting species that can be overlooked. These “Special Status Habitats” include wetlands, grasslands, oaks, interior forests (especially late-successional conifer forests), bottomland hardwood forest and riparian habitats, and aquatic habitats (e.g., lakes, rivers and streams). The Special Status Habitats and the Special Status Bird Species most closely associated with them are presented in **Appendix F**.

Specific habitats of concern are wetlands and grasslands, which are often home to ground nesting birds, including Western meadowlarks, rails and other species. Riparian areas – the forest along streams and rivers – host a diverse array of nesting species using all four nesting habitats: ground, shrub, tree and cavity. It is important to be particularly vigilant in these areas to avoid impacts to nesting birds.

SPECIAL CONSIDERATIONS

SPECIES

There are some species that—because of their status or unusual nesting season—deserve special consideration. The following guidelines (which are also summarized in **Appendix E**) will help avoid disturbing these birds:

Willow flycatchers are a Special Status Species, and are listed by the State of Oregon as Sensitive-Vulnerable. These small songbirds are among the latest nesting species in the City, often extending their breeding activities to the end of August. They occur in riparian and wetland habitats in most of the City's watersheds, sometimes choosing to build nests in Himalayan blackberry, an invasive plant species. If Willow flycatchers are known or suspected in the project area, the primary nesting season window should be extended to August 31.

Anna's hummingbirds are early nesters. Females build tiny nests of lichens and spider webs placed on small branches of shrubs and trees. They can lay eggs as early as mid-February. Nests are very difficult to find, but the presence of a territorial male from February to May is an indication that a nest is nearby and vegetation disturbance should be avoided.

Killdeer lay their eggs in gravel areas on the ground and out in the open. Vacant lots, gravel access roads, margins of farm fields, and street shoulders in open grassy areas are likely to have killdeer nests. They are early nesters, usually laying eggs in March and April. Due to the location of their nest, they are highly vulnerable to disturbance. Killdeer are often conspicuous and if they are observed in a project area March to May it should be assumed there is a nest nearby. Once a nest is located it can usually be flagged or fenced with exclusion zone fence and avoided.

Great-horned owls are very early nesters, often laying eggs in January and February. In our area, they use stick nests in trees and can often be found by conducting an early season nest survey of the project area.

Bald eagles nest high in trees from January 1 to September 1. As of 2010, there are five bald eagle nest sites in the Portland area: East Hayden Island, West Hayden Island, Ross Island, areas adjacent to Elk Rock Island, Ramsey, and Smith and Bybee Lakes. The most recent bald eagle survey data from the Oregon Cooperative Fish and Wildlife Research Unit at Oregon State University will be consulted to determine project proximity to known bald eagle nests. Restoration activities (i.e., above local ambient noise and visual activity levels) cannot occur within 0.25 miles (or 0.5 miles line-of-site) from an occupied nest during the critical nesting period from January 1 to September 1, or known winter roost areas from October 31 to April 30.

OTHER THINGS TO KEEP IN MIND

Every project is unique and presents its own set of challenges. Here are just a few things to keep in mind as you plan your project:

Impacts on neighboring properties

Aesthetics and public perception

Contractor schedules, permits and funding deadlines

Human safety

Every project has the potential to inform and educate others!

WHAT IF YOU FIND AN ACTIVE NEST ON A PROJECT SITE DURING PROJECT IMPLEMENTATION?

What should you do if you have followed the above guidelines, have planned activities to avoid disturbance to nesting birds, and you find an active nest during project implementation? “Active” nests are those with eggs or young in them. **Attachment H** will help you make the most appropriate decision.

WHAT IF YOU FIND A BABY BIRD OUT OF ITS NEST?

It is normal for many bird species such as scrub jays, robins, crows and owls to leave the nest and spend as many as 2-5 days on the ground before they can fly. Parents will care for them during this period. Unless a bird is injured, it is important that it NOT be taken into captivity, since this will deny them the opportunity to learn survival skills (e.g., finding food, identifying predators, flying) from their parents.

Attachment G will help you make the right decision, should you find a baby bird during project implementation.

SUMMARY OF RECOMMENDATIONS FOR AVOIDING IMPACTS ON NESTING BIRDS DURING CONSTRUCTION AND REVEGETATION PROJECTS

BEST

You have at least a year to plan your project.

- Plan your project at least a year in advance.
- Plan disturbance to occur during the non-nesting season (August 1 – January 31) or complete site preparation prior to April 15.
- Refer to specific guidelines in this document for different kinds of actions/projects.

NEXT BEST

*You do not have time to plan ahead
and work must occur during the nesting season.*

- Refer to the specific guidelines in this document for different kinds of actions/projects.
- Survey for nesting birds, using the Bird Nesting Assessment Form in this document (Appendix D).
- If survey reveals nesting birds, avoid action until young have fledged.
- If survey reveals no nesting, proceed with action.
- If the survey found no evidence of nesting, but a nest is found during project implementation, refer to Appendix G.

ADDITIONAL THINGS YOU CAN DO TO HELP NATIVE BIRDS

In addition to the above management recommendations, there are other things that project managers and field crews can do to help native birds. Some of these are important regardless of habitat type; others are habitat-specific. These are summarized in [Appendix I](#).

Appendix A

Average Arrival Dates for Birds in the Portland Metro Area

(Note: Many local species, such as the winter wren, are not listed here because they are year-round residents.)

<u>Average Arrival</u>	<u>Species</u>
Feb 09	Tree Swallow
Feb 25	Rufous Hummingbird
Mar 03	Violet-green Swallow
Mar 04	Turkey Vulture
Mar 16	Osprey
Mar 19	Orange-crowned Warbler
Mar 21	Cinnamon Teal
Apr 02	Cliff Swallow
Apr 04	Common Yellowthroat, Northern Rough-winged Swallow
Apr 05	Black-throated Gray Warbler
Apr 08	Brown-headed Cowbird, Barn Swallow
Apr 12	Cassin's Vireo, Vaux's Swift
Apr 13	Purple Martin
Apr 16	Yellow-headed Blackbird
Apr 18	Chipping Sparrow
Apr 19	Hammond's Flycatcher, Wilson's Warbler
Apr 20	House Wren
Apr 22	MacGillivray's Warbler
Apr 24	Pacific-slope Flycatcher
Apr 26	Warbling Vireo, Western Tanager, Western Kingbird, Bullock's Oriole
Apr 27	Black-headed Grosbeak, Yellow Warbler
Apr 29	Calliope Hummingbird
May 01	Swainson's Thrush
May 02	Olive-sided Flycatcher, Western Wood-Pewee
May 05	Lazuli Bunting
May 13	Yellow-breasted Chat
May 14	Willow Flycatcher
May 28	Eastern Kingbird
May 31	Red-eyed Vireo
Jun 08	Common Nighthawk

Appendix B

Nesting Birds by Habitat in Portland

Note: For nesting habitat, trees are generally defined as greater than 7m (~20 feet) and shrubs are less than 7m (~20 feet). The categories below are based on typical nest sites; however some “shrub nesters” will nest in trees and likewise some “tree nesters” can chose a site closer to the ground.

* On the City of Portland’s “Special Status Species” List, meaning the species has been listed by the U.S. Fish and Wildlife Service, Oregon Department of Fish and Wildlife, or another entity because it is rare, in decline or otherwise of special concern.

Tree Nesting Birds in Portland

American Crow	Great-horned Owl
Bald Eagle*	House Finch
Band-tailed Pigeon*	Mourning Dove
Barred Owl	Olive-sided Flycatcher*
Black-headed Grosbeak	Osprey
Black-throated Gray Warbler*	Pine Siskin
Bullock’s Oriole*	Purple Finch*
Cedar Waxwing	Red Crossbill*
Common Raven	Red-shouldered Hawk
Cooper’s Hawk	Red-tailed Hawk
Double-crested Cormorant	Sharp-shinned Hawk
Eastern Kingbird	Steller’s Jay
Evening Grosbeak	Western Kingbird
Golden-crowned Kinglet	Western Tanager
Great Blue Heron*	

Shrub Nesting Birds in Portland

American Goldfinch	Pacific Slope Flycatcher*
American Robin	Red-winged Blackbird
Anna’s Hummingbird	Rufous Hummingbird*
Brewer’s Blackbird	Scrub Jay
Brown-headed Cowbird	Song Sparrow
Bushtit*	Swainson’s Thrush*
Cassin’s Vireo	Warbling Vireo
Green Heron*	Western Wood Pewee*
Hutton’s Vireo*	Willow Flycatcher*
Lazuli Bunting	Yellow Warbler*
Lesser Goldfinch	Yellow-breasted Chat*
MacGillivray’s Warble	Yellow-headed Blackbird

Ground Nesting Birds in Portland

American Bittern*	Orange-crowned Warbler*
American Coot	Pied-billed Grebe
Blue-winged Teal	Ring-necked Pheasant
California Quail	Ruddy Duck
Canada Goose	Savannah Sparrow
Chipping Sparrow*	Sora*
Cinnamon Teal	Spotted Sandpiper
Common Nighthawk*	Spotted Towhee
Common Yellowthroat*	Streaked Horned Lark*
Dark-eyed Junco	Turkey Vulture
Killdeer	Virginia Rail
Mallard	Western Meadowlark*
Marsh Wren	White-crowned Sparrow
Northern Harrier*	Wilson's Snipe
Northern Shoveler	Wilson's Warbler

Standing Snag and Live Tree Cavity Nesting Birds in Portland

American Kestrel*	Northern Flicker
Black-capped Chickadee	Northern Pygmy Owl
Barn Owl	Northern Saw-whet Owl
Barred Owl	Pileated Woodpecker*
Brown Creeper*	Purple Martin*
Bufflehead*	Red-breasted Nuthatch
Chestnut-backed Chickadee	Red-breasted Sapsucker
Common Merganser	Tree Swallow
Downy Woodpecker*	Violet-green Swallow
European Starling (non-native; not protected by laws; OK to destroy)	Vaux's Swift*
Hairy Woodpecker	Western Screech Owl
Hooded Merganser*	White-breasted Nuthatch*
House Wren*	Wood Duck*
House Sparrow (non-native; not protected by laws; OK to destroy)	

Ground Cavity Nesting Birds in Portland

Two wrens are “nook and cranny” nesters, using cavities on or near the ground in decaying logs, under logs, in root wad tangles, or in the ground at the base of shrubs:

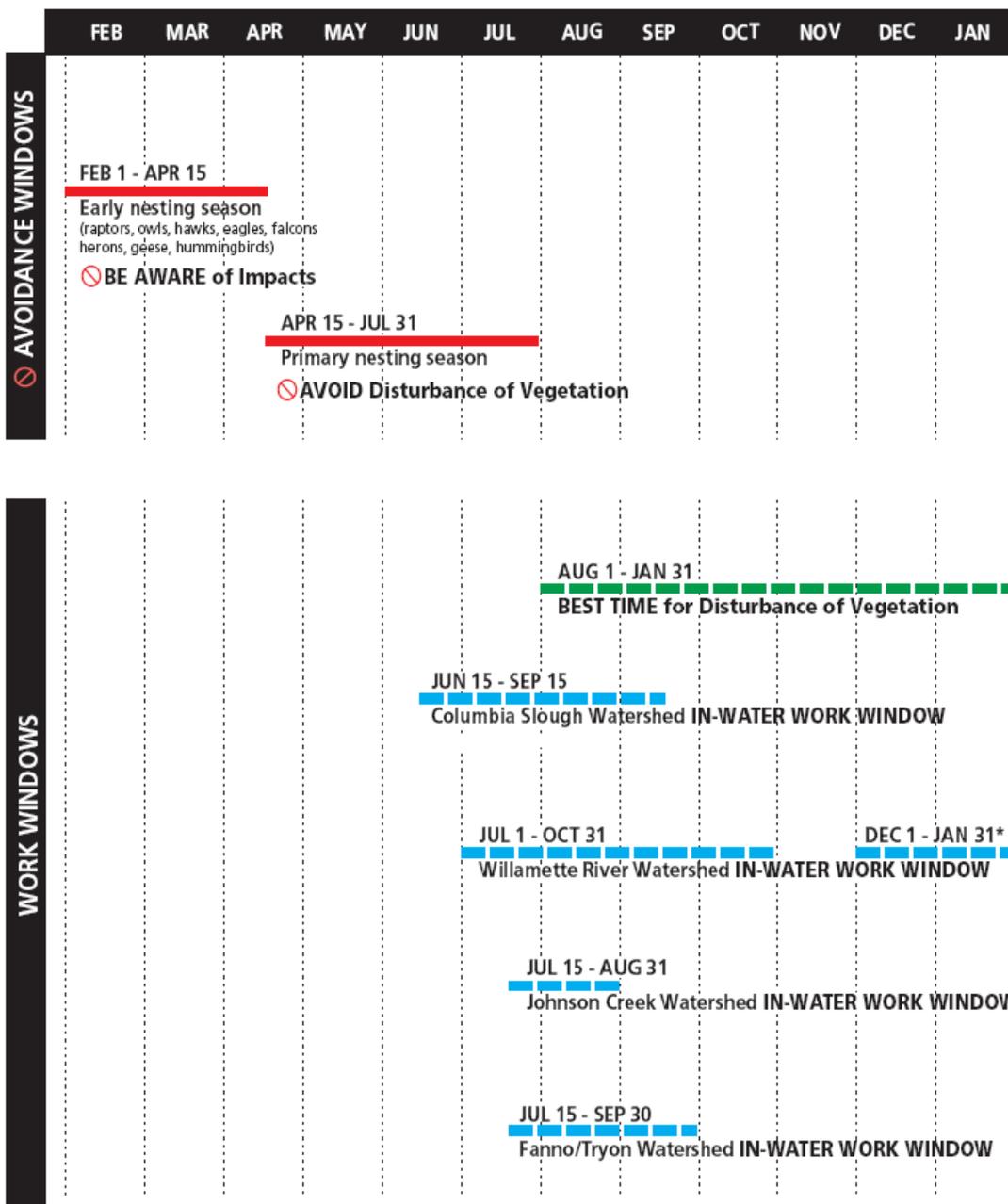
Winter Wren*
Bewick’s Wren

These two birds are “cut bank” nesters that use holes excavated in stream banks or even on steep slopes of dirt stock piles:

Northern Rough-winged Swallow
Belted Kingfisher

Appendix C

Bird Nesting Season and Work Windows



* The Oregon Department of Fish and Wildlife acknowledges the in-water work window for the Willamette, and therefore it is officially available. However the National Marine Fisheries Services currently is not approving the winter in-water work window in the Willamette. Realistically therefore it is difficult to get approvals for the winter period.

Appendix E

Vegetation and Other Management Recommendations *

**Ideally, all vegetation disturbance/removal should be scheduled to occur between August 1 and January 31. If work cannot occur in this window, please consider the following recommendations. For questions and additional guidance in following these recommendations, contact a member of the TEES Team.*

Stream Enhancement Construction Projects		
Action	February 1 through April 15 Early Nesting Season	April 15 through July 31 Primary Nesting Season
Vegetation removal	Refer to tables, below.	Refer to tables, below.
Construction activities	Refer to tables, below, if vegetation will be disturbed.	Refer to tables, below, if vegetation will be disturbed.

Invasive Species Management		
Action	February 1 through April 15 Early Nesting Season	April 15 through July 31 Primary Nesting Season
<p>Blackberry Removal</p> <p><i>A beneficial invasive plant for native birds. Heavily used by a myriad of species for nesting, foraging and winter cover.</i></p>	<p>First treatment for overgrown areas – foliar spraying (mash and spray) and mechanical removal – OK</p> <p>Watch for Anna’s hummingbirds, which are early nesters, and defend their territories with displays that are easily seen and heard.</p>	<p>Avoid major spray and removal.</p> <p>Maintenance management and volunteer hand removal work are OK, but watch for active nests (spotted towhee, song sparrow, California quail) and avoid if present. Nests are mostly cups of fine plant material in blackberry, or on the ground.</p> <p>In August, watch for willow flycatchers, which are found especially in Johnson Creek, Powell Butte and Columbia Slough areas; avoid if present. Willow flycatchers sit out prominently and call “fitz-bew” (easy to learn with some practice). Avoid blackberry removal in August in willow flycatcher territory.</p>
<p>Clematis Removal</p> <p><i>Growth form provides the type of cover nesting birds are seeking. Likely that many local species nest in or under clematis clumps.</i></p>	<p>Air gapping and root removal (grubbing) – OK</p> <p>Leave vines in trees to decompose in case there is an early tree nester.</p>	<p>Air gapping – OK</p> <p>Avoid root grubbing and pulling down vines.</p> <p>Watch for winter wrens, spotted towhees and other nearby active ground and shrub nests; avoid if present.</p>
<p>Garlic Mustard Removal</p> <p><i>There is no known use of garlic mustard by nesting birds, but there may be nests in nearby plants.</i></p>	<p>Spot spraying – OK</p> <p>Hand pulling – OK</p> <p>Watch for early nesters (e.g., killdeer, ducks) and nests low to the ground</p> <ul style="list-style-type: none"> ▪ Killdeer nest on the ground in gravel. Loud adult display to distract predators from nest is a good sign to watch for. ▪ If nest is found, leave surrounding vegetation. 	<p>Spot spraying – OK</p> <p>Hand pulling – OK</p> <p>Watch for nearby active ground and shrub nests. Avoid if present.</p>

Invasive Species Management		
Action	February 1 through April 15 Early Nesting Season	April 15 through July 31 Primary Nesting Season
<p>Holly and Laurel Removal</p> <p><i>Many birds use these for nesting and raising young. In the fall and winter, berries provide food for many species, including American robin and varied thrush.</i></p>	<p>Removal (by cut and stump treatment) – likely OK.</p> <p>Watch for nesting behavior and avoid if observed.</p>	<p>Avoid intensive first treatments.</p> <p>If removal is required, visually inspect small trees (< 10') for small cup nests. If there are larger specimens to be removed, a more thorough survey is recommended.</p> <p>Watch for active robin nests and avoid if present.</p>
<p>Ivy: Ground Ivy Removal</p> <p><i>No native birds are known to exclusively use ground ivy, but typical and ground and low shrub nesters are spotted towhees and song sparrows.</i></p>	<p>Foliar spraying and hand pulling – OK</p>	<p>Avoid pulling and foliar spraying if possible. Pulling ivy can disturb native vegetation, and the presence of people for an extended period of time can cause nearby nests to be abandoned.</p> <p>Hand pulling OK with caution. Watch for birds. If an active nest is found, do not work in that area.</p> <p>Look and listen for winter wrens.</p>
<p>Ivy: Tree Ivy Removal</p> <p><i>No native birds are known to exclusively use tree ivy, though many use branches on infested trees, such as American robins and vireos.</i></p>	<p>Air gapping – OK</p> <p>Leave ivy in tree – pulling down ivy might result in pulling down nests.</p>	<p>Air gapping – OK</p> <p>Leave ivy in trees.</p> <p>Watch for nearby active ground and shrub nests. Avoid if present</p>

Invasive Species Management		
Action	February 1 through April 15 Early Nesting Season	April 15 through July 31 Primary Nesting Season
<p>Knotweed Removal</p> <p><i>Use by native birds is not well-known.</i></p>	Foliar spraying and injection – OK	Treatment is likely OK, but watch for nearby nests prior to treatment.
<p>Purple Loosestrife Treatment</p> <p><i>Used by red-winged blackbirds and American goldfinches for nesting. Also, ducks may nest on the ground nearby.</i></p>	<p>Herbicide application and mechanical removal – OK prior to March 1.</p> <p>Avoid cutting, spraying and grubbing after March 1.</p> <p>Watch for ducks in wetlands, as they tend to breed early (typically in March).</p>	<p>Avoid cutting and spraying.</p> <p>If mid-summer treatment is advised, watch for red-winged blackbirds and American goldfinch nests in plants.</p> <p>Also watch for ducks on the ground.</p>
<p>Reed Canarygrass Removal/Spray</p> <p><i>Common yellowthroats, mallards and cinnamon teal have been documented nesting in Reed canarygrass in the Slough.</i></p>	Typical treatment (hand spraying) in March and April – OK. Watch for early nesting ducks , and avoid if present.	Avoid any vegetation management. Conduct nest survey if mowing is advised.
<p>Yellow Flag Iris</p> <p><i>Red-winged blackbirds have been known to nest in patches of this plant.</i></p>	<p>Herbicide application and mechanical removal – OK until March 1.</p> <p>Watch for duck nests along shore and in reeds after March 1 and avoid if present.</p>	Avoid herbicide application and mechanical removal.

Other Vegetation Management		
Action	February 1 through April 15 Early Nesting Season	April 15 through July 31 Primary Nesting Season
<p>Live Tree Removal (native and non-native)</p> <p><i>Trees can host nesting birds any time between February 1st – August 31st. Many early nesters are larger birds (e.g., herons and raptors).</i></p>	<p>Tree removal – Avoid</p> <p>Tree girdling – OK, and preferred to removal, if equally effective for control.</p> <p>If trees must be removed: Watch for early nesters: owls, hawks, Anna’s hummingbirds, and killdeer – Avoid if present</p> <ul style="list-style-type: none"> ▪ Raptors have large stick nests—easy to see before trees leaf out. ▪ Killdeer nest on the ground in gravel. Loud adult display to distract predator from nest is a good sign to watch for. ▪ Anna’s hummingbirds have tiny camouflaged nests, but males defending their territory are detected visually and audibly. 	<p>Tree girdling – OK</p> <p>Tree removal – Avoid</p>
<p>Snag Removal</p> <p><i>Snags (standing dead trees) play critical roles for many bird species. Snags attract insects, which are a vital source of food for woodpeckers and other birds. They provide perches, and are often the only source of cavities for cavity-nesting birds.</i></p>	<p>Watch for early snag nesting birds such as owls, and avoid removal if possible.</p>	<p>Avoid snag removal if possible.</p>

<p>Shrub Removal (native and non-native)</p> <p><i>Shrubs support more breeding birds than trees do in the Portland area.</i></p>	<p>For construction access or other purposes – OK, but watch for early nesters and nesting behavior. For example:</p> <ul style="list-style-type: none"> ▪ Killdeer nest on the ground in gravel. Loud adult display to distract predators from nest is a good sign to watch for. ▪ Anna's hummingbirds have tiny camouflaged nests, but males defending their territory are detected visually and audibly. ▪ Be aware of ducks or other birds flushing suddenly off the ground. 	<p>Avoid.</p>
<p>Other Vegetation Management</p>		
<p>Action</p>	<p>February 1 through April 15 Early Nesting Season</p>	<p>April 15 through July 31 Primary Nesting Season</p>
<p>Grassland Mowing and Ground Cover Removal (native and non-native)</p> <p><i>Many species build nests only on the ground. Some will build below a dense, shrub cover, while others conceal their nest in grass.</i></p>	<p>For construction access or other purposes – OK</p> <p>Watch for nests (e.g., Wilson's warbler, savannah sparrow, western meadowlark, horned lark) and nesting behavior. For example:</p> <ul style="list-style-type: none"> ▪ Killdeer nest on the ground in gravel. Loud adult display to distract predators from nest is a good sign to watch for. ▪ Be aware of ducks or other birds flushing suddenly off the ground. 	<p>Avoid mowing and removal of ground cover.</p>
<p>Controlled Burn</p>	<p>OK</p>	<p>Avoid</p>

Other Management Activities		
Action	February 1 through April 15 Early Nesting Season	April 15 through July 31 Primary Nesting Season
<p>Removing and Maintaining Structures</p> <p><i>In addition to winter roosting, structures are used for nesting.</i></p>	<p>Watch for owls on beams and platforms in old buildings. Delay removal until young are fully fledged.</p>	<p>Watch for:</p> <ul style="list-style-type: none"> ▪ mud nests of cliff and barn swallows in eaves and on ledges ▪ Vaux's swifts in chimneys ▪ house finches in eaves and cavities <p>Avoid removing structure until birds have fledged.</p>
<p>Manipulating Water Levels</p> <p><i>Lowering or raising water levels can impact waterfowl and red-winged blackbirds in wetlands, and kingfishers along streambanks.</i></p>	<p>Watch for duck and other waterfowl nests after March. Avoid water manipulation if birds are present and activity could impact nests.</p>	<p>Avoid inundating wetlands if red-winged blackbirds are nesting in cattails and tall reeds.</p>

Appendix F

City of Portland Special Status Bird Species Most Closely Associated with Special Status Habitats

Wetlands

Wetlands are covered or saturated with water during all or part of the year. Permanently wet habitats include backwater sloughs and marshes, while seasonally wet habitats include forested and/or scrub shrub wetlands, emergent marsh, headwater seeps and springs, and wet prairies. Marshes (including emergent marshes) occur in depressions (topographic low areas), fringes around lakes and along slow-flowing streams, especially in valley bottoms. Marshes are seasonally or continually saturated and have water-adapted plants such as sedges, rushes, cattails, and floating vegetation. Marshes can have mucky soils resulting in water with high mineral content. Off-channel habitat (oxbow lakes, stable backwater sloughs, and flooded marshes) is created as rivers and streams change course. In these areas, water moves slowly, providing quiet aquatic habitats important for fish and wildlife. In these off-channel wetland areas, vegetation around the fringe often includes shrub and tree species, such as spirea, ninebark, rose, dogwood, willow, and ash.

Closely Associated Special Status Bird Species: American bittern, great blue heron, green heron, wood duck, bufflehead, northern harrier, sora, dunlin, short-eared owl, common yellowthroat

Aquatic Habitats – Lakes, Rivers and Streams

Freshwater aquatic habitats include rivers, streams, ponds, lakes, springs, seeps and reservoirs. They occur above the influence of tides and salinity fluctuations. Freshwater aquatic habitats typically contain water year-round (whereas wetlands may dry out through the season).

Closely Associated Special Status Bird Species: great blue heron, green heron, wood duck, bufflehead, hooded merganser, bald eagle, dunlin, Vaux's swift, purple martin, yellow warbler

Grasslands

Willamette Valley grasslands, or upland prairies, are dominated by grasses, forbs, and wildflowers. Grasslands have well-drained soils and often occur on dry, south facing slopes or shallow-soiled balds. These grassland habitat types are often associated with low-density tree cover (5-30%) savannahs. Historically prairies were maintained by the Native American practice of setting frequent low-intensity fires. With fire suppression (or in abandoned pastures), many such areas have succeeded to forest. The dominant vegetation of these native grasslands were perennial bunchgrasses such as Roemer's

fescue and California oatgrass, with abundant and diverse herbaceous plants. Scattered, open-growth trees such as Oregon white oak, Douglas fir, or ponderosa pine within the grassland characterize a savannah. Uncommon now, such savannahs and grasslands once covered about 1/3 of the Willamette Valley.

Closely Associated Special Status Bird Species: northern harrier, American kestrel, streaked horned lark, vesper sparrow, western meadowlark

Oak Woodlands

Oak woodlands are characterized by an open canopy dominated by Oregon white oak. In general, the understory is relatively open with shrubs, grasses and wildflowers. Oak habitats can be found in drier landscapes, such as south facing slopes. In Portland, oak woodlands are found in small isolated pockets.

Closely Associated Special Status Bird Species: band-tailed pigeon, western wood-pewee, Hutton's vireo, white-breasted nuthatch, black-throated gray warbler, chipping sparrow, Bullock's oriole

Bottomland Hardwood Forest (Riparian Habitats)

Riparian habitats are those adjacent to rivers and streams or occurring on nearby floodplains and terraces. Riparian habitats are shaped and maintained through seasonal flooding, scour, and soil deposition. Riparian habitats vary from sparsely vegetated areas to cottonwood gallery forests. Plant composition is influenced by elevation, stream gradient, floodplain width, and flooding events. Floods replenish nutrients, recharge groundwater, and reset successional processes. Riparian vegetation is mostly dominated by deciduous trees and shrubs, such as big leaf maple, red alder, black cottonwood, Oregon ash, red-osier dogwood, and numerous willow species.

Closely Associated Special Status Species: great blue heron, green heron, wood duck, hooded merganser, bald eagle, band-tailed pigeon, downy woodpecker, pileated woodpecker, willow flycatcher, red-eyed vireo, brown creeper, Swainson's thrush, orange-crowned warbler, yellow warbler, black-throated gray warbler, common yellowthroat, Wilson's warbler, yellow-breasted chat, Bullock's oriole

Interior Forest (especially Late-successional Conifer Forests)

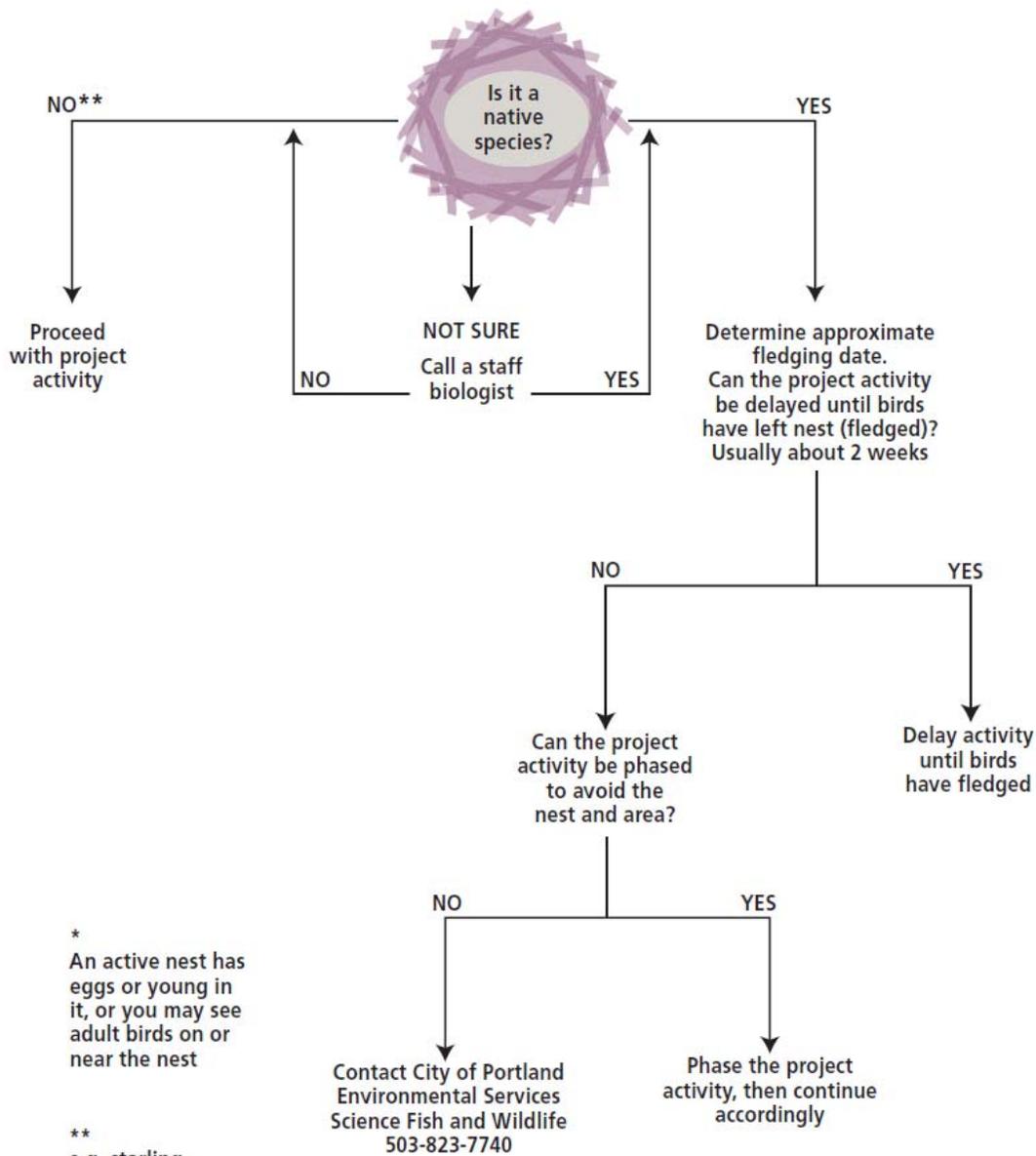
Late successional conifer forests are defined by plant species composition, overstory tree age and size, and forest structure. They include characteristics such as multi-layered tree canopy, shade-tolerant tree species growing in the understory, large-diameter trees, and a high volume of dead wood such as snags and logs. Douglas fir is generally the dominant species, but other species found in these forests, at various stages of succession, include western hemlock, western red cedar, big leaf maple, vine maple, and red alder.

Closely Associated Special Status Bird Species: band-tailed pigeon, pileated woodpecker, olive-sided flycatcher, Hammond's flycatcher, Pacific-slope flycatcher, brown creeper, winter wren, Swainson's thrush, varied thrush, black-throated gray warbler, hermit warbler, Wilson's warbler, red crossbill

Note: There are several species are Special Status Bird Species found in Portland that are associated with several habitat types. In some cases, they may be more closely associated with a specific feature that occurs in several habitats, rather than the vegetation of the habitat itself. These species include: merlin, peregrine falcon, common nighthawk, rufous hummingbird, bushtit, house wren, and Nashville warbler.

APPENDIX G

If you find an active* nest on a project site during project implementation



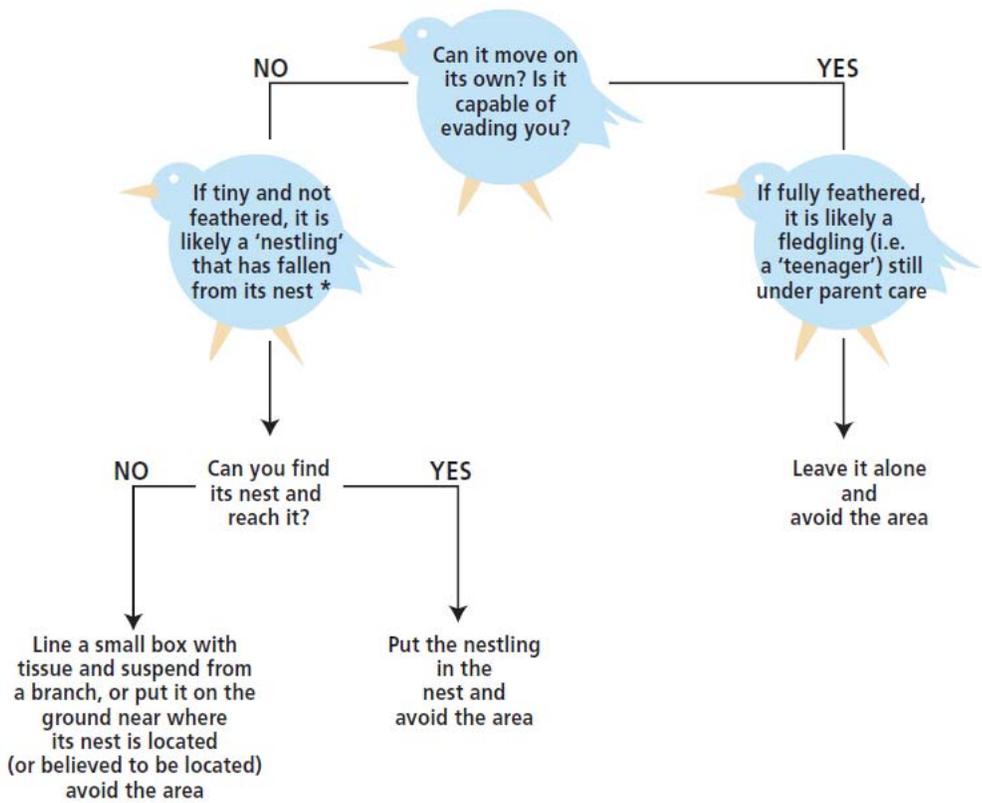
* An active nest has eggs or young in it, or you may see adult birds on or near the nest

** e.g. starling, house sparrow or rock pigeon

WS 1045 Sept 2010 © Environmental Services City of Portland

APPENDIX H

If you find a baby bird out of its nest on a project site



*
If CLEARLY injured or KNOWN to be orphaned, you may take it to the Audubon Society of Portland Wildlife Center, 5151 NW Cornell Road, 9 am - 5 pm, 7 days a week

Appendix I

ADDITIONAL THINGS YOU CAN DO TO HELP NATIVE BIRDS

ANY HABITAT TYPE

- Be aware of what birds are doing!
 - ♦ Are they carrying nesting material in their beaks and bills? If so, watch where they take it; you might be able to identify the specific tree or clump of bushes where a nest is being built. Avoid disturbing that area.
 - ♦ Are they carrying insects in their beaks and bills? If so, watch where they take them; they are probably feeding baby birds. Avoid disturbing that area.
- Minimize disturbance to large habitat patches to the extent possible. Some species require interior habitats and have large territories.
- Maintain as much connectivity as possible—between habitat patches and to water sources. Migratory birds (as well as other native animals) need corridors for safe travel, foraging, nesting, raising young, hiding from predators, gene flow between populations, and for other life functions.
- Use native tree, shrub and other plant species in restoration projects, and provide a diversity of species and age classes.
- Birds nest in a variety of places—on the ground to the tops of trees. Different species nest in different areas. Therefore, leave herbaceous plants for ground-nesting species, shrubs for “open-cup” nesters, dead trees and snags for cavity-nesters, and trees for canopy-nesters.
- Let seed-bearing plants and dead tree snags stand through the winter to provide habitat, perches, food and shelter.
- Consider leaving dead standing wood (snags). If this presents a safety concern, leave as much of the snag as possible. A trunk that is 20 – 30 feet high can be an important food source, perch, and/or nesting site. If the entire snag must be removed, consider placing part of the tree in another area for wildlife to use. This can make the landscape visually interesting!
- When possible, girdle invasive trees to create snags, rather than removing them. (Note: This approach may not be effective control for some invasive tree species).
- Reduce lawn cover; when possible allow leaves and twigs to decompose on-site.

- Seek natural alternatives to, and reduce the use of, pesticides, herbicides and fertilizers, when practical.
- Seek to minimize people/wildlife conflicts. For example:
 - ♦ Site trails, picnic areas and garbage cans away from nesting habitat.
 - ♦ Hold outdoor concerts and other public events in natural area parks after birds have fledged.
 - ♦ Provide wildlife viewing opportunities at safe distances from wildlife.
- If a site lacks water, consider putting in a water feature, such as a small pond.
- During project implementation, reduce hazards such as landscape netting and other litter, in which birds can become entangled.
- If you come across a baby bird on the ground, don't attempt to return it to the nest; just avoid them, allowing their parents to attend to them. Be careful to not trample vegetation around the bird or the nest, since that can alert predators to their presence.

GRASSLAND HABITATS

- Large open fields with several kinds of grasses of varying heights and densities are ideal. Grasses provide places for nesting, hiding, and feeding; and more variety means they will be attractive to more species that have different nesting and foraging needs.
- Wildflowers attract different insects than do grasses. A variety of native wildflowers means a variety of insects—and that will benefit insect-eating birds.
- It's OK to leave some patches of bare ground. Bare ground is important for some birds for dusting and foraging—and sometimes nesting.
- Create singing perches. Singing perches are important for defending territories and attracting mates. Singing perches should extend above the surrounding plants so that males can be seen and heard. A few shrubs or solitary trees (< 10% cover/area) will help males establish breeding territories. Fence poles, wires, brush and rock piles also work well.
- Mowing is OK if timed to allow for nesting to occur and young fledged.
- Consider fire as a management tool to help restore and maintain this important habitat type.

- Some species that may benefit: Western meadowlark, American kestrel, Savannah sparrow, American goldfinch, Oregon vesper sparrow.
- Want more information? Take a look at *Landowner's Guide to Creating Grassland Habitat for the Western Meadowlark and Oregon's Other Grassland Birds* (a publication of the Oregon Department of Fish and Wildlife).

RIPARIAN AREAS

- Maintain a vegetative riparian buffer zone of native species along streams (at least 100 feet wide, if possible).
- Maintain snags along stream edges for species such as the belted kingfisher. This is important for nesting as well as perching.
- Maintain or create a dense riparian shrub layer of native plants, which will benefit song sparrows, and several kinds of warblers.
- Because breeding and migratory bird densities in cottonwood habitats are generally the highest of all habitat types in North America, retain all large cottonwood trees. They are important to cedar waxwings, western wood-pewees, brown creepers, and finches—as well as larger birds that need big trees for nests (e.g., bald eagles, great-horned owls, and great blue herons).
- Avoid locating walking and biking trails within the riparian area—both to minimize direct disturbance to birds, but also to reduce the amount of vegetation that is removed.
- Some species that may benefit: belted kingfisher, great blue heron, willow flycatcher, Western wood-pewee, yellow warbler, Bullock's oriole, purple martin.
- Want more information? Take a look at *Riparian Areas: Fish and Wildlife Havens* (a publication of the Washington State University Extension's Woodland Fish & Wildlife Bulletin Series, <http://WoodlandfishandWildlife.org>).

FORESTED HABITATS

- Retain existing large coniferous and deciduous trees and large snags for nesting. But retain smaller snags, too, if possible, since these provide important features for many species—for example, perches for resting and from which to hunt insects, branches that are used for nest-building.

- Create snags through topping and girdling of some green trees. Green replacement tree snags are as important as existing snags because eventually they will replace snags that fall over.
- Retain existing down logs, especially large ones.
- Retain berry and nectar-producing trees and shrubs, and plant additional ones.
- Retain shrub patches.
- Consider creating brush piles, which can provide cover and serve as signing perches.
- Manage for a diversity of native tree species, understory plants and ground cover. Vegetative diversity is usually more important to birds than are plantings of one species.
- Where it's not possible to protect larger trees or create snags, nest boxes might provide some short-term artificial cavities for some species. A useful book is *Birds in Nest Boxes* by Charlotte Corkran (Naturegraph Publishing, Inc. 2004).
- Species that will benefit: pileated woodpecker, hairy woodpecker, Western screech owl, pygmy owl, Vaux's swift, red-breasted nuthatch.
- Want more information? Take a look at:
 - ♦ *Managing Small Woodlands for Cavity Nesting Birds* October 1991 (a publication of the World Forestry Center).
 - ♦ *Rainforest Birds: A Land Manager's Guide to Breeding Bird Habitat in Young Conifer Forests in the Pacific Northwest* – Scientific Investigations Report 2006-5304 (a publication of the U.S. Department of the Interior, the U.S. Geological Survey and the American Bird Conservancy).
 - ♦ *Managing Forest Habitats for Migrant Songbirds* (a publication of the Washington State University Extension's Woodland Fish & Wildlife Bulletin Series, <http://WoodlandfishandWildlife.org>).

HIGHLY-URBANIZED AREAS

- Don't underestimate the value of retaining even single mature big-leaf maple trees or oaks for birds! Big-leaf maples are among the earliest to leaf-out in the Spring, and therefore one of the first trees to support herbivorous insects—an important food for early spring forest migratory birds, such as yellow-rumped, hermit and Townsend's warblers.

- Plant native shrubs, including fruit, seed and nectar-producers.
- Connect small habitat patches to other small habitat patches by planting vegetated “corridors”.
- Some species that will benefit: warblers, spotted towhee, house finch, Bewick’s wren, song sparrow.

Questions? Contact:

Claire Puchy, Bureau of Environmental Services—Science, Fish and Wildlife Program
503-823-3045; clairep@bes.ci.portland.or.us

Dave Helzer, Bureau of Environmental Services—Columbia Slough Watershed
503-823-5760; davidhelzer@bes.ci.portland.or.us

Jennifer Devlin, Bureau of Environmental Services—Fanno/Tryon Creek Watersheds
503-823-6182
jenniferd@bes.ci.portland.or.us

Find injured or orphaned birds? Contact:

Audubon Society of Portland Wildlife Care Center
503-292-0304

Attachment F



Take the pledge for the environment!



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Parks Off-leash Areas
 Unleashed dogs are never allowed in natural areas. However, Portland has areas in 31 parks where dogs and their owners can exercise and play off-leash. Some sites are fenced, others are unfenced with markers designating the boundaries. Off-leash hours are specific to each park.

<p>NORTH Arbor Lodge Park N. Bryant and Delaware Cathedral Park N. Edson and Pittsburg Chalmers Park 5300 N. Columbia Blvd Delta Park N. Denver and M.K., Jr Blvd Overlook Park N. Fremont and Interstate Portland International Raceway N. Denver and Victory Blvd</p>	<p>SOUTHEAST Hawthood Park SE 60th and Duke Cherry Park SE 110th and Stephens Craton Park SE 44th and Powell Blvd Laurelhurst Park SE 39th and Stark Lents Park SE 92nd and Holgate Lynchwood Park SE 170th and Haig Mt Tabor Park SE 110th, east of SE 64th Solwood Blueford Park SE Spokane and Oaks Play Sewallcrest Park SE 31st and Market Woodstock Park SE 47th and Steele</p>
<p>NORTHEAST Alberta Park NE 22nd and Killingsworth Argoy Park NE 141st and Falling East Holladay Park NE 130th and Wasco Farnhill Park NE 37th and Almsworth Frazer Park NE 52nd and Hassalo Grant Park NE 33rd and U.S. Grant Place Irving Park NE 75th and Fremont Monomadia Park NE 57th and Halcy Sacajawea Park NE 75th and Alberta Willshire Park NE 33rd and Skidmore</p>	<p>SOUTHWEST Council Crest Park SW Grand Crest Dr Gabriel Park SW 45th and Vermont Hilldale Park SW 27th and Hilldale Hwy Willamette Park SW Macadam and Nebrauka</p>

Partners:
 Portland Parks & Recreation,
 Bureau of Environmental
 Services, Audubon Society,
 Multnomah County Animal
 Services, and the Oregon
 Humane Society

i'm for the environment!



City of Portland Dogs for the Environment

Responsible pet ownership
 means more than licensing and vaccinating your pet, it means controlling your dogs' interactions with people, wildlife, and natural areas. Here are some actions you and your dog can take to keep our beautiful city clean, green, and safe.

Leash your dog
 While your dog is your friendly, furry companion, other animals and even people may view dogs as a threat. Unleashed dogs can harm birds, amphibians, fish, and other wildlife. They may also disturb breeding areas or harass wintering wildlife causing them to use valuable energy reserves. Dogs running loose in natural parks also trample plants and create inappropriate trails. Worse, they can endanger themselves, other dogs, and people. Portland City Code requires that all dogs in parks must be kept on a leash unless in a designated Off-leash Area.

Scoop the poop
 Dog poop is essentially raw sewage; it contains harmful organisms like E. coli, Leptospira, and Roundworms. These organisms can be contracted by other dogs, wildlife, and even children. Bacteria from dog poop can wash into rivers and streams when it rains. City Code also requires that all poop must be picked up and disposed of into the proper receptacle. Violation of either leash or scoop laws will result in a \$150 fine.

Off-leash Areas
 Every dog deserves the freedom to run, play, and socialize with other dogs. The City of Portland manages 31 Off-Leash Areas, ranking first in the country for dog parks per capita, according to Forbes Magazine.

Dogs are never allowed off-leash in Natural Area Parks

Parks are for everyone
 Our parks and natural areas not only provide recreation and relaxation for people, children, and dogs, they also provide important habitat for fish and wildlife. Our parks are home to threatened salmon, salamanders, and birds. To protect these valuable resources, parks sometimes undergo restoration. You may notice fences going up near trails and streams; these fences are to protect parks from further degradation, and ensure the success of restoration efforts. Between 2002 and 2007, 36,500 volunteers gave 146,000 hours of their time to help restore Portland's natural areas. If you would like to get involved, volunteer opportunities are available throughout the city.

Visit the Portland Parks & Recreation website for more information about Dogs for the Environment, dog off-leash areas and volunteer opportunities:
www.PortlandParks.org

i'm for the environment!

pledge

Human: I pledge to be environmentally responsible by:

- Keeping my dog on leash and on the trail in natural areas
- Scooping and properly disposing of poop
- Avoiding contact with streams and wildlife

signature: _____

Dog: I pledge to do my part to be environmentally responsible and earn the right to proudly wear my green bandana.

paw: _____

To receive your green bandana, please sign the pledge, cut it out, and send it to:

Dogs for the Environment
 1120 SW 5th Avenue, Suite 1000
 Portland Oregon 97204



Please send my bandana to this address:

name: _____
 address: _____
 city/state/zip: _____

Attachment H

Species	s	S	F	W	Species	s	S	F	W
Flycatchers (continued)					Pipits to Waxwings				
*Willow Flycatcher	u	u	u		American Pipit	o	o		
Hammond's Flycatcher	u	o			*Cedar Waxwing	f	f	f	f
Dusky Flycatcher	x				Wood Warblers				
Pacific-Slope Flycatcher	u	o			Orange-crowned Warbler	f	o	f	x
Say's Phoebe	r				Nashville Warbler	o	r		
Ash-throated Flycatcher			x		Yellow Warbler	u	r	u	
Western Kingbird	x	x			Yellow-rumped Warbler	c	u	o	f
Eastern Kingbird		x			Black-throated Gray Warbler	f	u	x	
Shrikes to Vireos					Townsend's Warbler	u	u	u	
Northern Shrike			x		Blackpoll Warbler	x			
Cassin's Vireo	o	r			MacGillivray's Warbler	r			
*Hutton's Vireo	u	u	u	u	*Common Yellowthroat	f	f	f	r
Warbling Vireo	u	o	u		Wilson's Warbler	u	o	u	x
Corvids					Yellow-breasted Chat	x			
*Stellar's Jay	u	u	u	u	Tanagers				
*Western Scrub-Jay	o	o	o	o	Western Tanager	u	u		
Common Raven	x				Sparrows				
*American Crow	o	o	o	o	*Spotted Towhee	c	o	c	f
Swallows					Brewer's Sparrow	x			
*Purple Martin	f	f	f		Savannah Sparrow	r	r	r	f
Tree Swallow	u	o	u	r	Fox Sparrow	f	f		
*Violet-Green Swallow	c	f	c		*Song Sparrow	c	o	c	o
Northern Rough-winged Swallow	u	o	u		Lincoln's Sparrow	o	o	o	o
Cliff Swallow	u	o	u		Swamp Sparrow	x		x	
*Barn Swallow	c	o	c	x	White-throated Sparrow	o	o	o	o
Chickadees to Bunchies					White-crowned Sparrow	u	o	o	
*Black-capped Chickadee	c	o	o	o	Golden-crowned Sparrow	c	o	c	f
Chestnut-backed Chickadee	u	u	u	u	*Dark-eyed Junco	c	u	c	c
*Bushy-tit	c	o	c	o	Grosbeaks to Buntings				
Nuthatches to Creepers					*Black-headed Grosbeak	f	u	u	
Red-breasted Nuthatch	u	u	u	u	Blue Grosbeak	x			
White-breasted Nuthatch	f	u	f	f	Lazuli Bunting	x			
*Brown Creeper	f	f	f	f	Icterids				
Wrens to Kinglets					*Red-winged Blackbird	c	c	c	f
*Bewick's Wren	c	o	c	o	Western Meadowlark	x	x	x	
House Wren	r				Brewer's Blackbird	o	o	o	o
Winter Wren	f	f	f		*Brown-headed Cowbird	o	o	o	o
Marsh Wren	o	o	o		Bullock's Oriole	r			
Rock Wren	x				Finches				
Golden-crowned Kinglet	f	r	f	f	Purple Finch	o	o	o	
Ruby-crowned Kinglet	c	o	c	o	*House Finch	c	c	c	c
Thrushes					Red Crossbill	o	r	o	o
Townsend's Solitaire	x		x		Common Redpoll	x	x	x	x
Swainson's Thrush	u	o	u		Pine Siskin	u	r	u	u
Hermit Thrush	u	u	u	u	*Lesser Goldfinch	c	c	c	c
*American Robin	c	o	c	o	*American Goldfinch	c	c	c	c
Varied Thrush	u	u	u	u	Evening Grosbeak	u	u	o	o
Starling					Old World Sparrows				
*European Starling	c	o	c	o	House Sparrow	u	u	u	u

Oaks Bottom Bird List



Portland, OR

Illustrated and compiled by Christopher Hinkle January 2010

Symbols:
 s=spring - usually March through May
 S=summer - usually June to mid-August
 F=fall - usually mid-August to November
 W=winter - usually November through February
 *Nesting confirmed or very likely
Abundance:
 c=common; almost always present in proper habitat
 f=fairly common; often seen
 u=uncommon; sometimes seen
 o=occasional; only a handful of records each year
 r=rare; rarely occurs and usually not every year
 x=extremely rare; fewer than five records

Despite its urban surrounding in SE Portland, 160-acre Oaks Bottom is a true birding hotspot, with over 185 species recorded. This list covers Oaks Bottom Wildlife Refuge and the adjacent section of Willamette River, encompassing various habitats including a large shallow central lake, mixed maple and oak woodlands, riparian cottonwood, ash and willow forests, patches of shrubs, small fields and clearings, and open waters of the Willamette River. The Springwater Corridor multi-use trail passes through the refuge paralleling the river and offers views of the lake from its west shore. A one-mile trail loops around the east side of the lake. Short side trails lead up the bluff to Sellwood Park to the south, and the refuge parking lot to the north. The refuge is also accessible from Oaks Amusement Park.

Species	s	S	F	W
Waterfowl				
Greater White-fronted Goose	o	o		
*Canada Goose	c	o	c	o
Cackling Goose	u	o	u	
Trumpeter Swan	r	x		
Tundra Swan	f	f	f	
*Wood Duck	f	f	f	
Eurasian Wigeon	o	o	o	o
American Wigeon	f	f	f	
Gadwall	c	o	c	o
*Mallard	c	o	c	o
Blue-winged Teal	r	r	r	x
Cinnamon Teal	o	o	o	
Green-winged Teal	c	o	c	o
Northern Shoveler	c	o	c	o
Northern Pintail	c	o	c	o
Carruschock	o	o	o	o
Redhead	x	x	x	x
Ring-necked Duck	f	f	f	
Greater Scaup	x	x	x	
Lesser Scaup	f	f	f	

Species	s	S	F	W
Waterfowl (continued)				
Surf Scoter		x	x	
Bufflehead	c	o	o	
Common Goldeneye	o	o	o	
Hooded Merganser	u	u	u	u
Common Merganser	f	f	f	f
Ruddy Duck	o	o	o	o
Pheasants & Quail				
Ring-necked Pheasant	r	r	r	r
California Quail	r	r	r	r
Grebes				
*Pied-billed Grebe	f	f	f	f
Horned Grebe	r	r	r	
Red-necked Grebe	r	x	x	
Eared Grebe	x			
Western Grebe	r	x	r	r
Pelicans to Cormorants				
American White Pelican	x	x	x	
Brown Pelican	o	o	x	
Double-crested Cormorant	c	f	c	o
Egrets & Herons				
Great Blue Heron	c	o	c	o
Great Egret	r	o	r	
Snowy Egret	u	x		
Green Heron	u	u	o	
Black-crowned Night-Heron	x			
Vultures				
Turkey Vulture	f	f	f	r
Osprey, Hawks & Falcons				
*Osprey	c	o	c	
Bald Eagle	u	u	u	u
Northern Goshawk	x			
Sharp-shinned Hawk	u	u	u	u
*Cooper's Hawk	u	u	u	u
Red-shouldered Hawk	x	x	x	
Red-tailed Hawk	f	f	f	f
Northern Harrier	x	x	x	x
American Kestrel	o	o	o	o
Merlin	o	o	o	o
Peregrine Falcon	u	u	u	u
Rails to Cranes				
Sora	x			
Virginia Rail	o	o	o	
American Coot	c	o	c	o
Sandhill Crane	r	r	r	
Shorebirds				
Semipalmated Plover	o			
*Killdeer	f	f	f	u
Greater Yellowlegs	o	r	u	
Lesser Yellowlegs	r			

Species	s	S	F	W
Shorebirds (Continued)				
Solitary Sandpiper	x			
*Spotted Sandpiper	u	u	u	u
Marbled Godwit	o	x		
Western Sandpiper	o	r	u	
Least Sandpiper	o	o	u	
Baird's Sandpiper	x			
Pectoral Sandpiper	r	r	r	r
Dunlin	r	r	r	r
Short-billed Dowitcher	o	x		
Long-billed Dowitcher	o	r	u	
Wilson's Snipe	o	o		
Wilson's Phalarope	o	x		
Red-necked Phalarope	x			
Gulls & Terns				
Bonaparte's Gull	u	x		
Mew Gull	u	u	u	
Ring-billed Gull	f	o	f	f
California Gull	c	u	c	c
Herring gull	u	u	u	u
Thayer's Gull	u	u	u	u
Glaucous Gull	x	x	x	x
Glaucous-winged Gull	o	u	o	o
Western Gull	u	u	u	u
Caspian Tern	x			
Black Tern	x			
Pigeons & Doves				
Rock Pigeon	f	f	f	f
Band-tailed Pigeon	o	o	o	r
Eurasian Collared-Dove	x	x	x	
Mourning Dove	o	o	o	o
Owls				
*Western Screech-Owl	u	u	u	u
*Great Horned Owl	r	r	r	r
Barred Owl	x			
Swifts to Hummingbirds				
Vaux's Swift	c	o	c	o
*Anna's Hummingbird	c	o	c	o
*Rufous Hummingbird	c	o	c	o
Kingfisher				
*Belted Kingfisher	f	f	f	f
Woodpeckers				
*Red-breasted Sapsucker	u	u	u	u
*Downy Woodpecker	c	o	c	o
Hairy Woodpecker	o	o	o	o
Pileated Woodpecker	o	o	o	o
*Northern Flicker	c	o	c	o
Flycatchers				
Olive-sided Flycatcher	o	o		
*Western Wood-Pewee	f	f	f	

Species	S	F	W	Species	S	F	W
Jays & Crows				Warblers (continued)			
*Stellar's Jay	c	c	f	Blackpoll Warbler			x
*Western Scrub-Jay	c	c	c	MacGillivray's Warbler	u		o
*American Crow	c	c	c	*Wilson's Warbler	c		o
Swallows				Hooded Warbler	x		
Tree Swallow	r		r	Tanagers			
Violet-green Swallow	f	f	f	*Western Tanager	c	u	u
Northern Rough-winged Swallow			x	Summer Tanager	x		
Cliff Swallow	r		r	Sparrows			
*Barn Swallow	c	c	c	*Spotted Towhee	c	c	u
*Purple Martin	x		x	Chipping Sparrow	o		r
Chickadees				Savannah Sparrow			x
*Black-capped Chickadee	c	c	c	Fox Sparrow	f	f	f
*Chestnut-backed Chickadee	c	c	c	*Song Sparrow	c	c	c
Bush-tits				Lincoln's Sparrow	o		r
*Bush-tit	c	c	c	White-throated Sparrow	r	r	r
Nuthatches				*White-crowned Sparrow	u	o	r
*Red-breasted Nuthatch	c	c	c	Golden-crowned Sparrow	f	f	f
Creepers				*Dark-eyed Junco	c	c	c
*Brown Creeper	c	c	c	Grosbeaks			
Wrens				*Black-headed Grosbeak	f	f	f
*Bewick's Wren	c	c	c	Rose-breasted Grosbeak	x		
House Wren	x	x		Buntings			
*Winter Wren	c	o	c	Lazuli Bunting	r		x
Kinglets				Blackbirds			
Golden-crowned Kinglet	c	u	c	Brewers Blackbird	x	x	x
Ruby-crowned Kinglet	c		c	Red-winged Blackbird	x		x
Thrushes				Brown-headed Cowbird	f	f	u
Townsend's Solitaire	u	r	r	Orioles			
Swainson's Thrush	c	o	c	Bullock's Oriole	r	x	
Hermit Thrush	c	c	f	Finches			
*American Robin	c	c	c	Purple Finch	f	u	r
Varied Thrush	c		c	*House Finch	c	c	c
Starlings				Red Crossbill	u	o	o
European Starling	f	f	f	*Pine Siskin	f	u	f
Waxwings				*Lesser Goldfinch	c	c	u
*Cedar Waxwing	u	u	u	*American Goldfinch	u	u	u
Warblers				Evening Grosbeak	f	o	r
Northern Parula	x			Pine Grosbeak			x
*Orange-crowned Warbler	c	o	c	Old world Sparrows			
Tennessee Warbler	x			House Sparrow	u	u	u
Nashville Warbler	u		r				
Yellow Warbler	r		r				
*Yellow-rumped Warbler	c	o	u				
Black-throated Gray Warbler	c	o	u				
Townsend's Warbler	c	r	f				
Hermit Warbler	u		o				

Mt. Tabor Park Bird List



Portland, OR

Illustrated and Compiled by
Adriah Hinkle
January 2010

Species	S	F	W	Species	S	F	W
Geese & Ducks				Pigeons & Doves			
Greater White-fronted Goose			x	*Band-tailed Pigeon	c	c	o
Cackling Goose			x	Rock Pigeon	f	f	f
Canada Goose	u	u	u	*Mourning Dove	o	o	o
Wood Duck			x	Owls			
Gadwall			x	*Great-horned Owl	o	o	o
American Wigeon			x	Snowy Owl			x
*Mallard	f	f	f	Barred Owl			x
Ring-necked Duck	x	x	x	*Western Screech-Owl	f	f	f
Lesser Scaup	x		x	Short-eared Owl	x		
Bufflehead	u	u	u	Nightjars			
Common Goldeneye			x	Common Poorwill	x		
Hooded Merganser			x	Swifts			
Ruddy Duck			x	Vaux's Swift	f	f	f
Grebes				Hummingbirds			
Pied-billed Grebe	x			*Anna's Hummingbird	c	c	c
Red-necked Grebe			x	Calliope Hummingbird	r	x	x
Horned Grebe			x	Costa's Hummingbird			x
Cormorants & Herons				Black-chinned Hummingbird	x	x	
Double-crested Cormorant	r	r	r	Rufous Hummingbird	u	u	c
Great Blue Heron	r	r	r	Kingfishers			
New world Vultures				Belted Kingfisher	x	x	
Turkey Vulture	u	u	x	Woodpeckers			
Hawks & Falcons				Red-breasted Sapsucker	o	o	o
Osprey	o	o	o	Red-naped Sapsucker	x	x	
Bald Eagle	r	r	r	Williamson's Sapsucker			x
Sharp-shinned Hawk	u	u	u	Hairy Woodpecker			x
*Cooper's Hawk	u	u	u	*Downy Woodpecker	u	u	u
Northern Goshawk	x	x		*Northern Flicker	c	c	c
*Red-tailed Hawk	f	f	f	Pileated Woodpecker	x	x	
Northern Harrier	x	x		Flycatchers			
American Kestrel	r	r	r	Olive-sided Flycatcher	u	o	u
Merlin	u	u	u	*Western Wood-Pewee	c	f	c
Peregrine Falcon	r	r	r	*Pacific-slope Flycatcher	c	u	c
Flovers & Sandpipers				Willow Flycatcher	o	r	o
Killdeer	x	x		Hammond's Flycatcher	f	r	u
Spotted Sandpiper	r	o	r	Dusky Flycatcher	r	r	
Least Sandpiper	x			Gray Flycatcher	x	x	
Gulls				Say's Phoebe	x		
Lesser Gull	r	r	r	Vireos			
Ring-billed Gull	r	r	r	Warbling Vireo	c	o	c
California Gull	o	r	o	*Hutton's Vireo	f	f	f
Herring Gull	r	r	o	Red-eyed Vireo	x		
Taylor's Gull	r	r	o	Cassin's Vireo	f	o	u
Western Gull	r	r	o	Blue-headed Vireo	x		
Glaucous-winged Gull	u	u	f	Plumbeous Vireo	x		

Symbolic and abundance:
 s=Spring -March to May
 S=Summer -June through early-August
 F=fall -Mid-August through mid-November
 W=Winter -Late-November through February
 * Nesting confirmed or suspected

C=common, almost always found in proper habitat
 F=fairly common, often found in good habitat
 U=uncommon, sometimes found in proper habitat
 O=occasional, found a few times every year
 R=rare, rarely occurs and usually not every year
 X=extremely rare, fewer than 5 records

Mt. Tabor is a small butte in Southeast Portland. Residential neighborhoods are found on the lower flanks and 200-acre Mt. Tabor Park is located atop the butte.

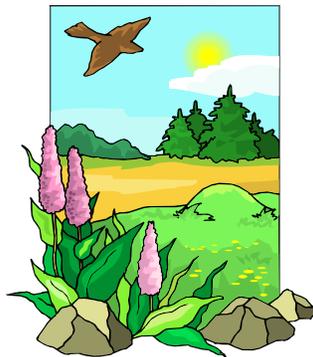
Most of the park's slopes are covered with stands of Douglas Firs and Bigleaf Maples. The understory on the north side of the park is dominated by grass and, in some places, native shrubs. The southern end of the park has a denser understory, mostly consisting of native plants and shrubs. Three reservoirs, which provide Portland with its drinking water, can be found on the south and west sides of the park. Access and birding vantage points are excellent, including trails, closed roads, and grassy fields.

The main birding attraction at Mt. Tabor is its many neotropical migrants. April to May and mid-August to early-October are the best times to view migrants. Especially from late-April to early-May, birders from across the Portland Metro Area visit the park every morning. Winter and summer are less productive, but still rewarding.

Portland's Migratory Bird Program Mission Statement

The City of Portland is an important part of the Pacific Flyway and provides critical resting, feeding and nesting habitat for migratory birds, both those that fly long distances and those that migrate shorter distances within the metropolitan region. Participation in the Urban Conservation Treaty for Migratory Birds demonstrates the City's long-term commitment to the protection and conservation of migratory birds. The Portland Urban Migratory Bird Program raises awareness of migratory birds in Portland's urban ecosystem; shares and increases knowledge of the needs and ecological functions of migratory birds; recognizes and promotes existing efforts to conserve and enhance the health of our migratory bird population; and identifies and pursues new actions that will ensure their diversity is maintained through time. The program instills a sense of stewardship and responsibility so that the City and its citizens take specific measures to co-exist with migratory birds and other species to ensure that they remain an important element in the urban landscape.

- Adopted by the Portland City Council, May 2003 -



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