



ROW RIVER NATURE PARK MASTER PLAN

**CITY OF COTTAGE GROVE, OREGON
ADOPTED DECEMBER 2010**



PROJECT TEAM

CITY OF COTTAGE GROVE
COMMUNITY DEVELOPMENT DEPARTMENT
Howard Schesser, Community Development Director
Amanda Ferguson, City Planner
Aaron Ray, Planning Intern

ROW RIVER NATURE PARK MASTER PLAN STEERING COMMITTEE
Pat French
Lindsey Haskell
Eric Johnson
Melissa Kirkland
Pam Reber, Coast Fork Willamette Watershed Council

ACKNOWLEDGEMENTS

Special thanks to Pat French for sharing photographs of the Park for use in this plan, including the cover image.

TABLE OF CONTENTS

1 SUMMARY AND BACKGROUND	4		
1.1 Master Plan Goals	4		
1.2 Relationship to Other Plans	4		
1.3 Partners	5		
1.4 Public Process	5		
2 LOCATION & CONTEXT	7		
2.1 Physical Characteristics	7		
2.2 Adjacent Land Uses	8		
2.3 History of the Park	9		
2.4 Role of the Park Within Cottage Grove’s Park System	9		
2.5 Role of the Park Within the Watershed	10		
3 ROW RIVER NATURE PARK TODAY	12		
3.1 Current Uses	12		
3.2 Park Amenities	14		
3.3 Park Infrastructure	15		
3.4 Vegetation	15		
3.5 Fish and Wildlife	16		
		4 KEY ISSUES, CHALLENGES, & OPPORTUNITIES	19
		4.1 Habitat Management	19
		4.2 Invasive Species	22
		4.3 River Access	25
		4.4 Educational Opportunities	26
		4.5 Park Facilities & Infrastructure	28
		5 RECOMMENDATIONS, IMPLEMENTATION, AND ASSESSMENT	36
		5.1 Guiding Principles and Long-Term Vision	36
		5.2 Management Recommendations	36
		5.3 Improvement Recommendations	39
		5.4 Master Plan Assessment and Revision	43
		6 APPENDICIES	44
		Appendix A Maps & Aerial Photography	44
		Appendix B Community Survey & Public Comments	46
		Appendix C BMX Facility Lease Agreement	49
		Appendix D Invasives Removal Project Zones Map	50
		Appendix E Species List	51
		Appendix F USACE Floodplain Restoration Study Maps	52
		Appendix G Annual Management Plan Outline	53
		Appendix H Current Annual Coordination Plan	54

1 SUMMARY AND BACKGROUND

Row River Nature Park is a unique and important natural and recreational resource both for the City of Cottage Grove and the broader region. Its 56 acres accommodate a diverse range of uses and needs, ranging from valuable habitat for sensitive species to BMX bicycle racing. This Master Plan is intended to guide management and maintenance activities in the Park, as well as providing a framework and context for decisions related to the Park over the next 20 years.

1.1 MASTER PLAN GOALS

The goals of the Row River Nature Park Master Plan are:

- To provide a clear direction for the future of the Park by defining a vision and guiding principles that represent the fundamental role of the Park within the City and the broader region;
- To recommend and prioritize specific actions necessary to preserve and improve Park resources;
- To build a foundation for planning and implementing future stewardship initiatives in the Park, including maintenance and management of habitat, vegetation, facilities, and infrastructure; and,
- To construct a framework for periodic reflection and refinement of recommendations and management practices within the Park.

1.2 RELATIONSHIP TO OTHER PLANS

Development and implementation of a Master Plan document for Row River Nature Park is required by Chapter 14.2.5.160 of the City of Cottage Grove Municipal Code, and is also a recommendation of the City's 2003 *Water to Woods* Parks Plan. The 2003 Parks Plan set a vision for the citywide system of parks resources within the City of Cottage Grove. The Row River Nature Park Master Plan uses the 2003 Parks Plan as its primary foundational document, and addresses its recommendations as related to Row River Nature Park. This Master Plan will be in alignment with the overall Parks Philosophy as outlined in the 2003 Plan, which is:

Cottage Grove offers its citizens a safe and healthy environment in which to live, work, and play. The City promotes the physical, mental and economic wellness of the community through recreational activities by developing existing and potential park and recreation facilities and resources for all ages, abilities and interests while preserving the community's natural, cultural, and historic environment.

In addition, the Row River Nature Park Master Plan refers to or integrates with a number of planning documents, including:

- Bikeway Master Plan (City of Cottage Grove, 1994)
- Comprehensive Plan (City of Cottage Grove, adopted 1980, periodic update 1993)
- Statewide Comprehensive Outdoor Recreation Plan (Oregon State Parks and Recreation Department, 2008)
- Total Maximum Daily Load Implementation Plan (City of Cottage Grove, 2008)

- Transportation System Plan (City of Cottage Grove, 2008)

1.3 PARTNERS

In addition to the City, a number of other agencies and organizations in the region are involved in planning and management of Row River Nature Park. These include:

- Coast Fork Willamette Watershed Council, which has been conducting invasive species removal and habitat restoration projects in the Park, under a grant awarded from the Oregon Watershed Enhancement Board;
- U.S. Army Corps of Engineers, which has identified Row River Nature Park as a potential project site in its Coast Fork Watershed Floodplain Restoration Project, as well as other projects related to Salmon habitat in the Row River;
- U.S. Forest Service, which has participated in habitat restoration and management activities in the Park;
- Students and staff of Kennedy High School, who have participated in invasive removal and native species restoration within the Park; and,
- Emerald Valley BMX Association, which operates a BMX race track facility in the Park.

1.4 PUBLIC PROCESS

The process of developing the Master Plan consisted of several elements, engaging the public, advisory committees, and staff from the City of Cottage Grove and other related agencies. These included:

- Personal interviews conducted with City staff, including the City Manager, Community Development Department, and Parks Maintenance Division and interviews with private citizens, U.S. Forest Service, and the Coast Fork Willamette Watershed Council. These interviews were used to gain insight and suggestions for improvements for the future development of Row River Nature Park.
- Public meetings held to obtain public input for the Row River Nature Park Master Plan. The first was held August 14, 2006 and the second was held October 24, 2007. The meetings were co-sponsored by the City and the Coast Fork Willamette Watershed Council, and were advertised in the local newspaper, the Friday Update, posted on the Watershed Council website, advertised with flyers around town and mailings to people identified as initial stakeholders. Seven members of the public attended the first meeting and 18 people attended the second meeting. At both meetings, attendees completed surveys and submitted suggestions for future improvements; the survey instrument is included in Appendix B and public comments are summarized and discussed in section 1.4.1 below.
- A guided tour held at Row River Nature Park on August 14, 2006 at 9:30am. This event was co-sponsored with the Coast Fork Willamette Watershed Council and gave private citizens the ability to make specific suggestions to staff about the park on site. Eleven people attended the tour, and gave valuable input to staff.
- An advisory steering committee convened in August 2010. The committee includes representatives from the partners listed in Section 1.3 in addition to representatives of the general public. The committee provided input to City staff in the identification of key issues and challenges within the Park. The group also reviewed suggested master plan recommendations, providing feedback on their

prioritization and suggesting additional recommendations to be added. The committee met on August 5 and August 30, 2010.

- A final public open house to gather input on the draft Master Plan held on November 1, 2010.
- A public hearing before the City of Cottage Grove Planning Commission meeting on December 15, 2010 for review and adoption.

1.4.1 PUBLIC COMMENT AND INPUT RECEIVED

A summary of comments is shown below. A full list of comments appears in Appendix B.

- Most people use the park for hiking and walking, nature watching, bicycling, swimming, and picnicking.
- The natural characteristics of the Park are frequently cited by users as the Park's greatest asset, including ponds, diversity of species, riparian areas, and the trail system. Some users cite the proximity of these environmental amenities to the City as the Park's greatest asset.
- Users generally recognize the importance of preserving habitat quality within the Park, particularly for sensitive species.
- Some users perceive the Park as under-maintained due to the high level of invasive species such as blackberries, and the modest level of improvements that have been made in the Park thus far.
- In some cases, users perceived the Park as unsafe, citing vandalism, low visibility, and its location.
- Public opinion about improvements such as picnic shelters was fairly evenly split, although many people who felt that these sorts of facilities would benefit the Park also expressed concern about preserving the natural characteristics of the Park.

2 LOCATION & CONTEXT

This chapter describes the Park in terms of its location and physical characteristics. It also discusses the context of the Park from a land-use perspective, as well as examining its history and role within the City.

2.1 PHYSICAL CHARACTERISTICS

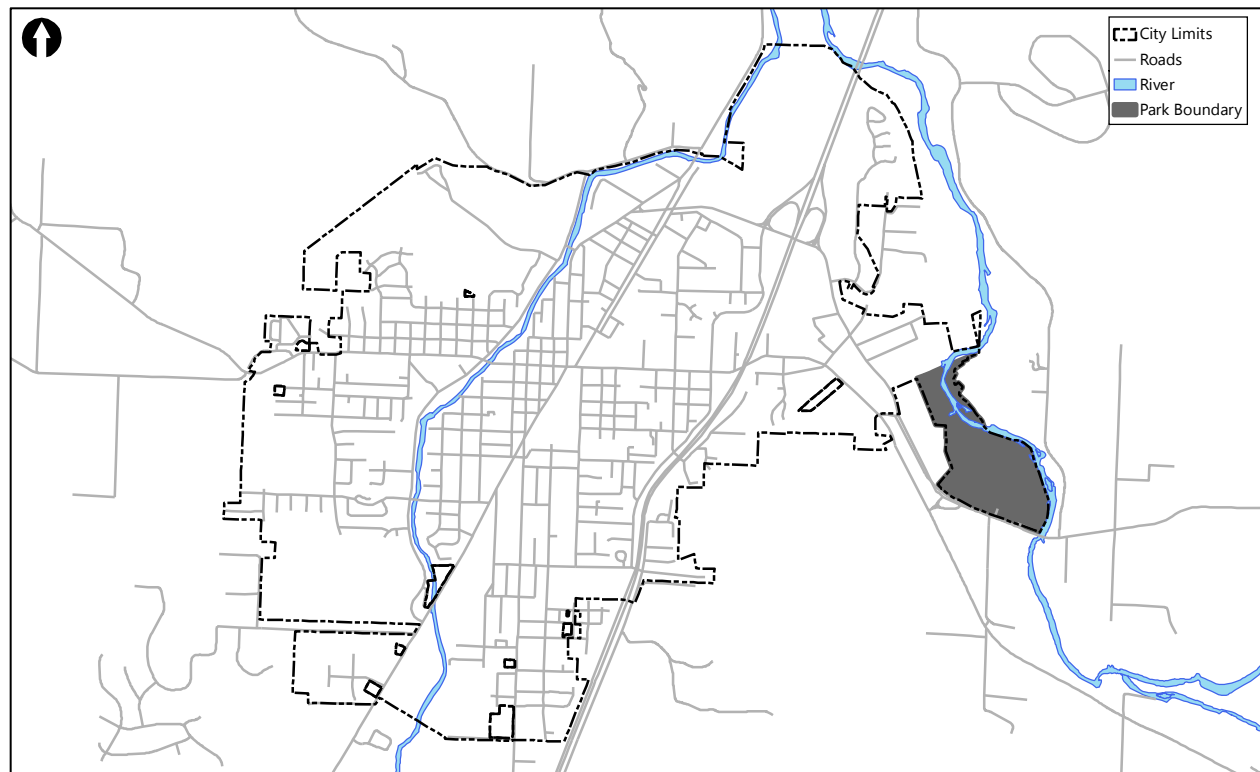
Row River Nature Park is in the easternmost portion of Cottage Grove, between the banks of the Row River and Row River Road. The Park totals 56.42 acres primarily consisting of ponds, meadows, and forested areas.

The Park is accessible by automobile on Row River Road, and by pedestrians and bicycles through an additional trailhead entrance on Davidson Avenue. A large parking area on the south side of the Park provides automobile parking space for Park and BMX facility users, as well as access to a river boat ramp and City public works facilities. These access points and parking facilities are shown in Figure 2.2.

The Park is mostly flat, ranging between an elevation of 640 to 650 feet. Winter flooding is common in many areas of the park: 44% of the Park's area lies within the Row River floodway, and 82% lies within the 100-year floodplain, as shown in Figure 2.3.

A full map and aerial photo of Row River Nature Park appears in Appendix A.

Figure 2.1. City of Cottage Grove map with shaded region indicating the location of Row River Nature Park.



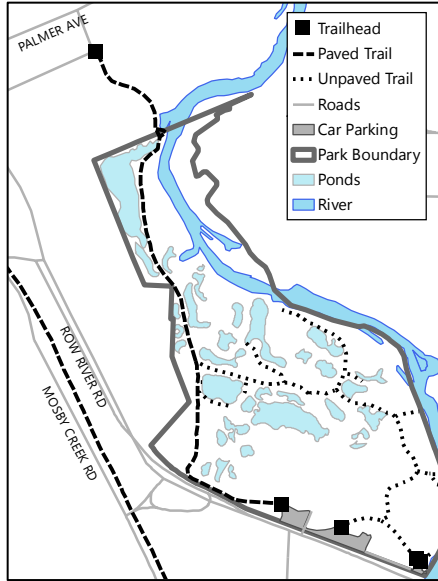


Figure 2.2. Car parking and trailhead access points.

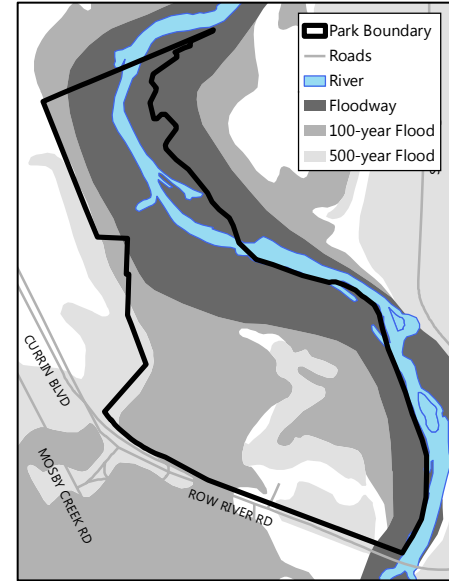


Figure 2.3. Flood plain boundaries.

2.2 ADJACENT LAND USES

The Park is the easternmost point within City limits and the City's Urban Growth Boundary (UGB), and is surrounded by land designated for industrial, residential, and public facilities uses, with a small amount of commercial use nearby. These include:

- **Residential Uses:** Areas to the south and east of the park, located outside of the City's UGB, but designated for Residential uses in the Lane County Rural Comprehensive Plan. Land to the west of the Park within the City's UGB also contain some current Residential uses, but are designated for long-term Industrial use in the City's Comprehensive Plan.
- **Commercial Uses:** No commercial uses are immediately adjacent to the Park but are located nearby on the Park's northwest and southern edges.
- **Industrial Uses:** Areas to the north and west of the Park are designated for Industrial uses in the City's Comprehensive Plan, with the areas to the north of the Park within City limits currently zoned for Heavy Industrial use.
- **Public Facilities:** Three significant public facilities are in the vicinity of the park:
 - Cottage Grove State Airport, located on the Park's northeast border;
 - Weigh station facilities operated by Lane County, immediately adjacent to the Park on its western edge; and,
 - A waste transfer station operated by Lane County across the Row River to the northeast.

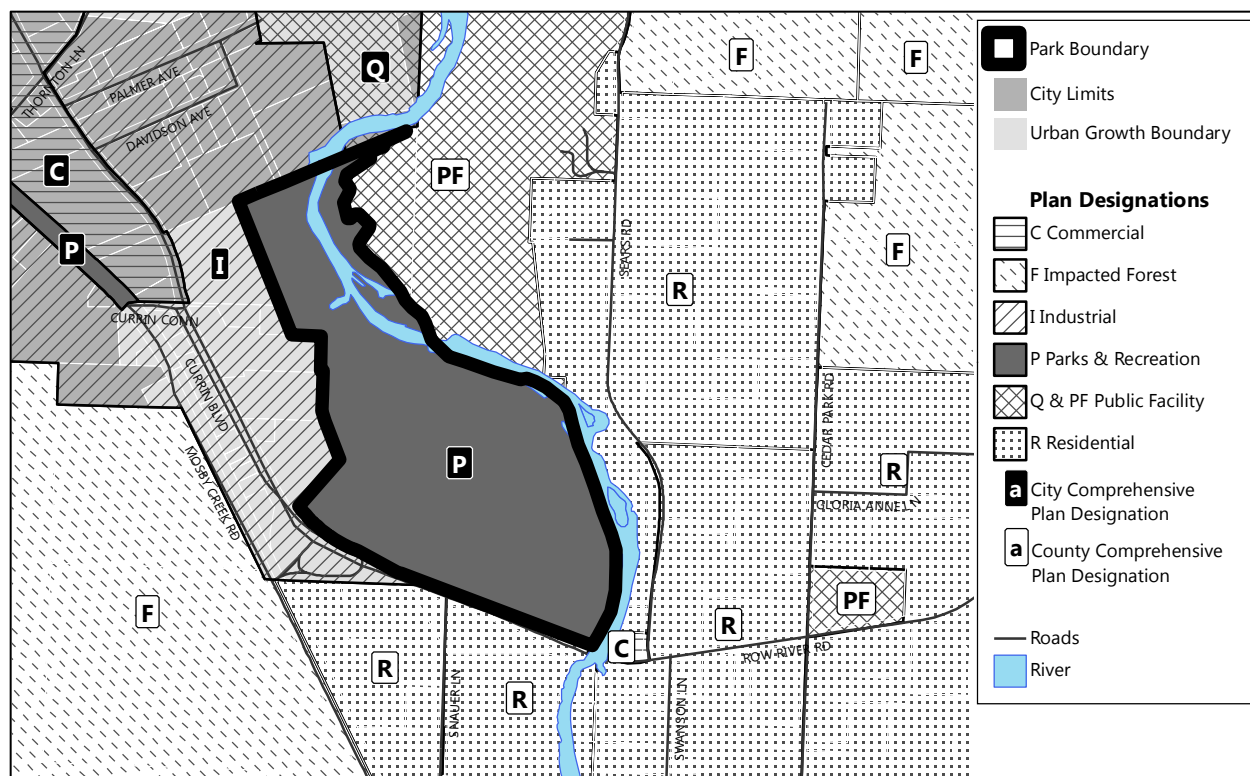


Figure 2.4. Map of City and County land use designations for areas adjacent to the Park.

2.3 HISTORY OF THE PARK

The Park was historically a gravel extraction site used to support the construction of Interstate 5 in the southern Willamette Valley, completed in 1966. The proximity of the gravel mine to the Row River has resulted in the pond system in the Park today. The City of Cottage Grove acquired the Park site from Mr. and Mrs. Vernon Olsen in three stages: 14.02 acres purchased by the City in 1973, and two parcels donated to the City in 1975 and 1976 (39.7 acres and 2.7 acres, respectively).

Minimal development of the park has occurred since its acquisition by the City, principally the paved trail through the park and some work to manage vegetation. The majority of City work in the Park has been to construct a Water Intake and Filtration facility, initially constructed in 1992 and expanded in 2008. In addition, the City entered into a lease agreement with the Cottage Grove BMX Association in 1984 to construct and operate a BMX track in the Park. The Association changed its name to the Emerald Valley BMX Association in 2008.

Originally named East Regional Park, the Park received its current name in 2010.

2.4 ROLE OF THE PARK WITHIN COTTAGE GROVE'S PARK SYSTEM

The City of Cottage Grove owns or maintains approximately 171 acres of parklands, including mini parks, neighborhood parks, community parks, natural areas, and greenways. A complete map of all City park resources is included in Appendix A. Most of the City's developed parks are mini-parks; many are either beautification areas along City streets or nodal parks along the Willamette River Greenway. The Willamette River Greenway, which is one of the strongest components of the City's park system, travels in a north/south

direction through the middle of the city along the Coast Fork of the Willamette River. There are no multi-use parks along the Coast Fork of the Willamette River. Traveling east/west is a second “Greenway” park, the recently developed Row River Trail.

Cottage Grove has a wealth of floodplain natural resource areas, particularly in Row River Nature Park and North Regional Park. Two parks, Fort Harrison and the undeveloped Stewart Orchard Park, serve the function of neighborhood parks. Four school parks, spread throughout the community, serve informally as neighborhood parks for neighborhoods without City Parks. Coiner Park serves as the only “Community Park”. The City’s community park and neighborhood parks are significantly undersized compared to national parks standards and are overused. The further development and promotion of Row River Nature Park will take stress off the other parks throughout the City.

Row River Nature Park is designated a Natural Resource area in the 2003 *Water to Woods* Parks Plan. The 2003 plan describes a Natural Resource area as “lands set aside for the preservation of significant natural resources, open space, and visual aesthetics”. The Park is one of only two such areas within the City, and accounts for more than one-half of the City’s designated natural resource areas and one-third of the City’s overall park land.

Two other notable parks and recreation resources are located nearby:

- Masonic Park, located immediately to the south of Row River Nature Park across Row River Road, a 2.01 acre mini park owned by the City but managed by the local Masonic Lodge; and,
- Row River Trail, a 15.6 mile paved trail connecting Downtown Cottage Grove to Dorena Lake and Culp Creek, constructed as a rails-to-trails project in the mid-1990s, located 0.2 miles to the south of Row River Nature Park. The City controls a 3.0 mile segment of the trail between Downtown and the Mosby Creek Trailhead, with the Bureau of Land Management controlling the remainder.

Formal connections between these adjacent resources and Row River Nature Park have not been established. In addition, bicyclists often ride between the Row River Nature Park trail system and North Regional Park, although connectivity between the two is interrupted by the Cottage Grove Airport property. Those wishing to ride between the two parks must rely on surface streets, and the pedestrian and bicycle route between the two is not currently signed.

2.5 ROLE OF THE PARK WITHIN THE WATERSHED

In addition to serving residents of the City, the Park serves residents of the region by contributing to the healthy function of the watershed, serving as a focal point to improve efforts to combat invasive species infestations in the region, and providing recreational and educational amenities that complement other recreation sites in the area.

Various studies have found that between 41% and 87% of the Willamette Valley’s historic riparian habitat has been lost to urbanization, agriculture, flood control measures, and the impacts of invasive species infestation (Pacific Coast Joint Venture Implementation Plans July 2002 Draft Willamette Valley Plan). The Willamette River Watershed, of which the Row River is a part, has been given high priority for riparian habitat and wetland restoration projects in the Oregon Statewide Comprehensive Outdoor Recreation Plan.

The importance of improving riparian function and wetlands quality in the region has also been recognized by the federal Environmental Protection Agency and state Department of Environmental Quality. The Row

River is currently listed on the DEQ's 303(d) list for failure to meet temperature standards. The City's Total Maximum Daily Load Implementation Plan calls for the preservation of riparian vegetation as a means of lowering river temperatures to acceptable levels, ultimately improving the river's water quality and ability to support native aquatic species. The Park's river frontage along the Row River provides a key area for implementing these strategies, and the 2003 Parks Master Plan sets numerous policies in place directing the preservation and enhancement of riparian vegetation in all City-owned parkland.

Riparian corridors such as those within the Park also play a critical role in controlling invasive species infestations within a watershed. Riparian areas can be particularly susceptible to invasive plant infestations, and the proximity of the river provides an ideal vector to propagate invasive and noxious weeds downstream throughout the watershed. Simply by carrying seeds downstream, invasive species in close proximity to rivers can rapidly spread to the point where eradication becomes unlikely or even impossible. Managing invasive infestations within the Park contributes to the overall effort to manage and eradicate invasive infestations across the region.

Finally, the Park offers a unique recreational and educational opportunity within the watershed, and provides an ideal gateway to other recreational opportunities along the Row River and near Dorena Reservoir to the east. The Park is one of the only sites of its kind in close proximity to the City, with amenities that complement other recreational sites operated by the City or other agencies.

3 ROW RIVER NATURE PARK TODAY

This chapter examines the current conditions of Row River Nature Park, including an overview of its prevailing uses, amenities in place today, infrastructure and facilities, and the Park's natural characteristics. These conditions shape the issues, challenges, and opportunities discussed in Chapter 4.

3.1 CURRENT USES

Current uses in the park generally fall within five categories: Habitat, Passive Uses, Active Uses, Public Works Uses, and the BMX Facility. Each of these categories describes a particular type of use, but they are by no means spatially exclusive of one another: many areas of the park fall within multiple categories. The characteristics and dependencies of these use categories within the Park are each described in additional detail below.

3.1.1 HABITAT

Due to the Park's designation as a Natural Resource, the entire area of the Park can be placed in the Habitat category. Habitat areas are managed to preserve and enhance the natural conditions in the park to support healthy and vibrant plant and animal populations. Habitat areas are generally intended for limited human use related to passive activities that minimize the disturbance to the natural areas. Management and maintenance of these areas generally include invasive species removal and native species restoration, animal habitat restoration and enhancement, and species monitoring.

Some areas of the Park have been identified as priority sites for habitat enhancement projects, primarily to support Western Pond Turtle nesting. Further discussion of Pond Turtle habitat needs appears in Chapter 4.

3.1.2 PASSIVE USES

Passive uses include items such as trails, wildlife viewing areas, and educational resources, all intended to be used in a way that does not significantly impact surrounding habitat. Within the Park, current passive uses include bicycling, hiking and walking, equestrian uses, and wildlife viewing, centered around the Park's trail system as shown in Figure 3.1.

Most of the Park's trails are semi-improved grass, mulch, dirt, or gravel paths, with one paved path connecting the parking area and fishing pond with the northern boundary of the Park. Users have improvised additional trails over the years to gain access to the Row River. Two concrete benches are provided along the trail system.

3.1.3 ACTIVE USES

Active uses generally have a higher impact on surrounding habitat, typically including items such as picnicking and play

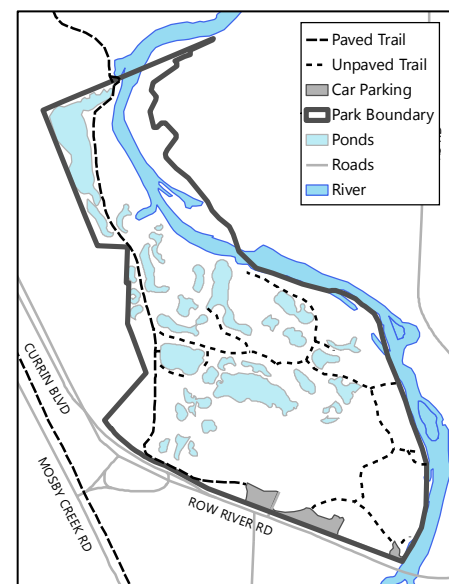


Figure 3.1. Current Park trail system.

areas, gathering areas or shelters, dog runs, fishing or swimming ponds, and other amenities designed to attract a higher volume or intensity of use within the Park. The Park has relatively few active uses at present, shown in Figure 3.2, including a single picnic table and a fishing pond, which includes a small dock. A boat ramp is also provided adjacent to water intake facilities near the BMX track.

Many users bring dogs to the Park, and although City regulations require these dogs to be leashed at all times, dogs are often let off leash on some trails and in remote areas of the Park. No designated off-leash area is provided. Signs are posted reminding dog users to keep dogs leashed and to clean up and dispose of waste.

3.1.4 PUBLIC WORKS USES

Public works uses stand apart from other active uses in that they are purpose-built facilities designed to serve citywide utility or infrastructure needs, and are generally closed to public access. The Water Filtration Plant and intake facilities are the primary public works uses within the Park, shown in Figure 3.3. The Water Filtration Plant also depends on an outlet and bioswale connecting the filtration ponds within the plant perimeter to the river bank.

The area designated for public works use represents both current facilities and land designated for future expansion. The boundaries of the public works areas are considered to be perimeters designed to prevent public access, secured either with fencing or with plant hedges precluding access on foot. Restricted public access makes some of the public works area an ideal site for certain habitat restoration activities, in particular the creation of nesting or other sensitive areas that should not be disturbed by human activity.

3.1.5 BMX FACILITY

The BMX Facility is a special type of active use representing perhaps the most intensive land use within the park. The BMX Facility includes a racetrack with graded obstacles, some perimeter fencing, buildings used for concession and support activities, sponsor signage, portable restrooms and garbage receptacles. The location of the BMX facility is shown in Figure 3.3. Parking for the BMX Facility is shared with other Park users.

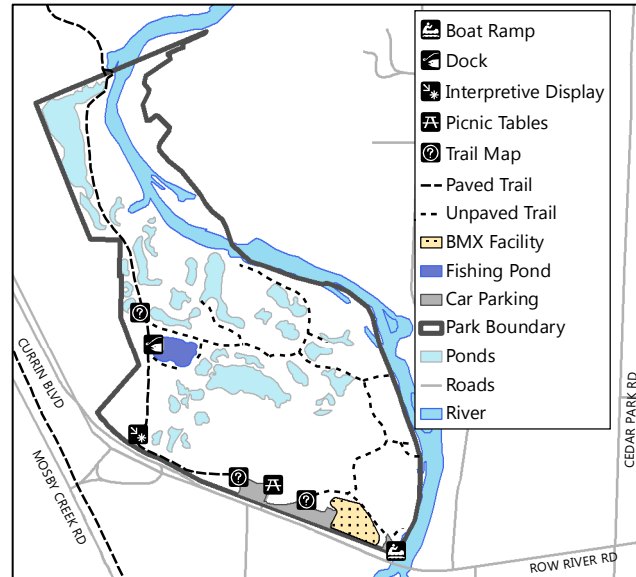


Figure 3.2. Current Park amenities and facilities supporting active uses.

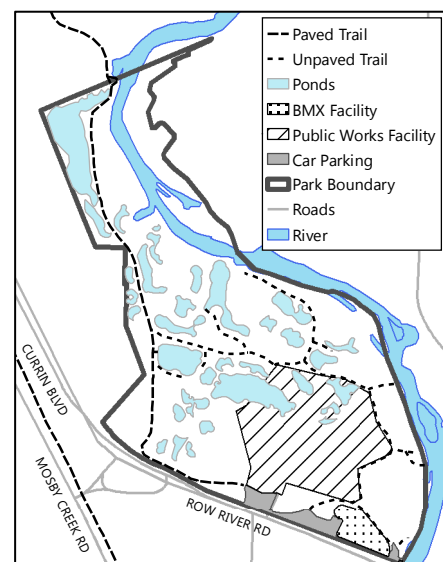


Figure 3.3. Location of public works and BMX facilities in the Park.

The Emerald Valley BMX Association manages and maintains the BMX Facility through a lease agreement with the City. Under the agreement, the City agreed to perpetually lease land in the eastern portion of the Park to the group for \$1 per year, provided that the group maintains and actively uses the facility, and manages it as a non-profit facility that is open for public use. If these terms are not adequately met, the land reverts to the City and the group is responsible for reasonably restoring it to its former condition. The lease agreement between the City and the Association is shown in Appendix C.

3.2 PARK AMENITIES

The Park has few amenities traditionally found in City parks, in large part due to its natural resource designation. The table below identifies which common amenities exist at Row River Nature Park, consistent with amenity inventories included in the 2003 Parks Plan.

AMENITY	IN PARK	AMENITY	IN PARK
Basketball Courts		Outdoor Public Meeting Area	
Benches	2	Parking (number of spaces)	Unmarked lot
Biking Trails	3,840 ft.	Picnic Tables	1
Boat Ramps	1	Play Equipment	
Camp Sites		Playing Fields	
Cooking Grills		Ponds	Numerous
Docks/Piers	1	Restrooms	See note 1
Dog On-Leash Area	Yes	Rivers	Yes
Drinking Fountains		RolleI-blade/Bike Friendly	See note 2
Educational (i.e. Historical)	See note 3	Sheltered areas	See note 1
Fences	See note 4	Signs	Yes
Floral/Gardening Display		Streams	
Garbage Receptacles	1 (See note 1)	Swings	
Hiking Trails	2.2 miles	Tennis Courts	
Horse Trails		Walking/Jogging Trails	2.2 miles
Horseshoe Pits		Waterway Access	Yes
Large Trees	Yes	Wetlands	Yes
Lawn/Play Space		Wildlife Habitat	Yes
Nature/Scenic	Yes	View	
		Volleyball Courts	

NOTES:

1. Restroom facilities, some waste receptacles, and shelter buildings currently in the Park are managed by the BMX Association and are not generally open during non-event hours. A portable restroom is also located at the adjacent County weigh station.
2. Although the paved trail is bike and rolleI-blade friendly, it is not obviously connected to other bike/pedestrian networks in the City.
3. An informational kiosk is currently present in the park but is not actively used.
4. The park boundary itself is not fenced. Fences in the park define the perimeter of the public works and BMX facilities.

3.3 PARK INFRASTRUCTURE

The park currently has very little installed signage, consisting mainly of Park rules and simple trail maps posted near trailheads. No entrance signage along Row River Road is installed for the Park. There are currently no interpretive or informational signs related to the Park's natural amenities. An informational kiosk has been recently constructed near the County weigh station, but it has yet to be extensively used.

Park users have access to a portable restroom located at the adjacent County weigh station. Only one publically-accessible waste receptacle is provided, near the fishing pond. Although additional portable restrooms and garbage receptacles are located near the BMX facility, they are generally locked outside of planned events at the BMX track.

Parking facilities are not improved, consisting of gravel lots near the Park entrances on Row River Road. A portion of the parking area is also used for access to the public works facilities; this path is scheduled for paving, although no further development of the parking area is currently planned. Near the parking area at the head of the paved trail, a concrete pad formerly used for a storage building is still in place.

Some incidents of vandalism have occurred in the park, primarily including consisting of defaced signage and graffiti. In some cases, these incidents have been more serious, including some more recent cases of arson that destroyed portable restrooms near the weigh station facility and BMX track.

3.4 VEGETATION

Vegetation in the Park includes a variety of trees, shrubs, and grasses in three primary habitat types:

- Riparian Floodplain Forest, including species such as black cottonwood, alder, ash, bigleaf maple, and other understory riparian plants;
- Wet Shrub/Pond Habitat, including species such as black cottonwood, Oregon ash, Pacific willow, and other wet shrub species; and,
- Upland Grass/Shrub Habitat, generally including grass and herbaceous species with some trees and shrubs.

Much of the Park is seriously overgrown with invasive species resulting largely from the disturbance of the floodplain within the Park by its historic use as a gravel mining site. In particular, these invasive species are present in the Park:

- Armenian Blackberry (*Rubus armeniacus*): perennial evergreen thorny shrub typically found in pastures, riparian areas, vacant and open lands, and roadsides.
- English Ivy (*Hedera helix*): rapidly-growing perennial evergreen vine typically found along the ground or climbing trees in open forests, forest edges, and fields. Plants may release chemicals from their roots that retard the growth of other species and commonly create large monocultures. Seeds are spread by birds.
- Reed Canarygrass (*Phalaris arundinacea*): tall, perennial grass typically found in wetlands, roadsides, ditches, and streams. Disturbed wetlands and industrial sites with poor soils are particularly susceptible to invasion by Reed Canarygrass. It propagates by seed and rhizome, and once established, is very difficult to eradicate.

- Scotch Broom (*Cytisus scoparius*): evergreen perennial shrub known to displace native plant species through rapid and aggressive growth. Seeds are viable for up to 50 years, and mature plants establish persistent seed banks that complicate eradication.
- Yellow Flag Iris (*Iris pseudacorus*): Aquatic perennial which propagates by lateral growth of rhizomes, commonly found in riparian areas. Flow in waterways can be severely impacted by this species.

Of these species, all but Reed Canarygrass are designated as type “B” noxious weeds by the Oregon Department of Agriculture Noxious Weed Control Program. Type “B” weeds are those that have an economic impact in many areas of the state, and that should be controlled on a site-specific, case-by-case basis.

A project to remove invasive vegetation and replace it with native species is currently underway, administered by the Coast Fork Watershed Council through a grant from the Oregon Watershed Enhancement Board and in association with students from Kennedy High School in Cottage Grove. The City has also partnered with the U.S. Forest Service to conduct invasives removal in the park. The Watershed Council has identified six zones within the Park to conduct vegetation removal and replanting, illustrated in Appendix D.

3.5 FISH AND WILDLIFE

The Park includes a range of wildlife, including mammals, reptiles, amphibians, insects, and birds, including some sensitive species formally listed for protection. The Park is known as a good location for bird-watching, listed as one of three birding locations along the Row River in the Willamette Valley Birding Trail Big River Loop. Annual bird expeditions by the local Audubon chapter are conducted in the Park due to its diversity of migrant and native bird species. The Park is also home to a variety of raptors, wading birds, waterfowl, shorebirds, and songbirds.

A complete list of species known to exist in the Park is shown in Appendix E. Select species of note are discussed in further detail below, including the Western Pond Turtle as a sensitive species, and potentially invasive and/or damaging species such as Nutria, American Bullfrogs, and North American Beavers. Brief discussion of sensitive Chinook Salmon habitat is also included.

3.5.1 SENSITIVE SPECIES

Row River Nature Park provides important habitat for two sensitive species: the Western Pond Turtle, found in the Park’s ponds and river banks, and Chinook Salmon, found in the river itself. Both species are listed on the Oregon Sensitive Species List. More specific discussion about each species appears

below:

Western Pond Turtle: The Western Pond Turtle (*Actinemys Marmorata*) is one of only two turtle species indigenous to the State of Oregon. It is designated as a Vulnerable species by the International Union for the Conservation of Nature and Natural Resources, the world’s primary authority on the conservation status of species. Vulnerable species are described by IUCN as those with a high risk of endangerment in the wild. The

Figure 3.4. Western Pond Turtle.



Western Pond Turtle was first listed on the IUCN's Red List of Threatened Species in 1996.

Row River Nature Park is a known high-value habitat for the Western Pond Turtle. The Oregon Department of Fish and Wildlife first documented adult and youth populations of Western Pond Turtles in Row River Nature Park in the 1990s. The turtle population in the Park is considered key to the species' survival in the region. Turtles are commonly observed in many of the Park's ponds, and a number of locations in the Park have been identified as prime existing or potential habitat to support nesting turtle populations. Some work has already been performed to improve these basking locations, as shown in Figure 3.5.

The key habitat for the Western Pond Turtle includes land and water. They require permanent slow moving water that has shallow and deep areas. They need hiding and basking sites, and undisturbed habitat for nesting. It is also important for the turtles to have safe and undisturbed travel corridors to move between areas within the habitat. According to the Oregon Department of Fish and Wildlife, the most important habitats for the Western Pond Turtle are:

- Permanent water bodies with slow moving waters for foraging;
- Shallow, near-shore waters with aquatic vegetation for hatchlings to hide from predators;
- Nearby, accessible, undisturbed upland sites with sparse vegetation and south-facing slopes for nests;
- Aquatic basking sites for temperature regulation; and
- Corridors such as streams, rivers, and riparian areas that allow movement between populations.

Chinook Salmon: In March 1999, the National Marine Fisheries Service listed Chinook Salmon in the Upper Willamette River as a Threatened Species under the Federal Endangered Species Act. Although Chinook Salmon (*Oncorhynchus tshawytscha*) are not, strictly speaking, found within the Park, the adjacent Row River has historically supported spawning migrations. More recently, flow rates from Dorena Dam and heightened water temperatures in the Row River have damaged salmon habitat quality.

The U.S. Army Corps of Engineers has proposed reconnecting many of the ponds in the Park to the Row River, as part of its Coast Fork Watershed Floodplain Restoration Project. The impetus for this project is to improve the function of the river and restore its natural conditions to the extent possible, in part to support native salmon populations. This project includes additional planned invasives removal and the creation of a number of channel connections to be cut into existing berms surrounding some ponds within the Park. Preliminary designs for this project are included in Appendix F. Although this proposal was conceived as part of a larger federal program, implementing these improvements may be more feasible if the project is structured as a local project administered by the City and the Coast Fork Watershed Council.

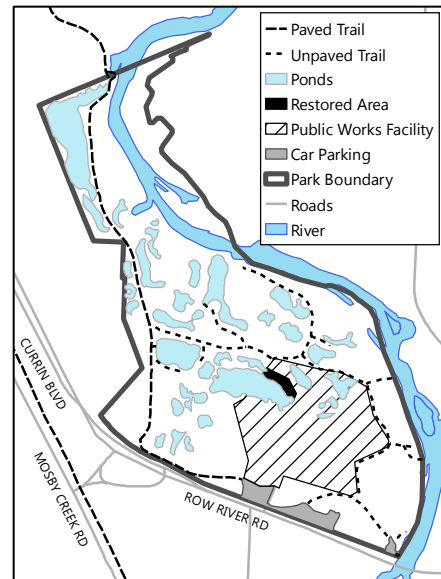


Figure 3.5. Location of prior turtle habitat restoration work.

3.5.2 INVASIVE AND DAMAGING SPECIES

Three species commonly found in the Park present a potential threat due to their invasive tendencies and/or their potential for damage to vegetation in the Park. These include nutria, bullfrogs, and beavers, each discussed individually below.

Bullfrogs: American Bullfrogs (*Rana catesbeiana*), frequently observed in the Park, are considered invasive. Bullfrogs are capable of rapid reproduction and maturation, and can overwinter on land. A bullfrog will eat nearly anything that it can overpower and fit into its mouth, with a specialized ability to capture submerged and large strong prey including young turtles or other species. This specialization has made bullfrogs one of the most significant predators of Western Pond Turtles.



Figure 3.6. American Bullfrog

Nutria: Nutria (*Myocastor coypus*) is an invasive rodent found in wetland and riparian habitats throughout the Pacific Northwest, including Row River Nature Park. Even small populations of Nutria are capable of inflicting significant erosion and vegetative damage in riparian habitats. Nutria often consume large amounts of aquatic, semi-aquatic, and riparian vegetation, focusing on the roots, rhizomes, and tubers of these plants. They are known to eat up to 25% of their body weight daily, but waste as much as 90% of their



Figure 3.7. Nutria.

harvested plant material. In addition, nutria burrows can weaken and collapse banks, promoting bank erosion. The resulting increase in turbidity in ponds can inhibit the viability of submerged aquatic vegetation, potentially harming fish and aquatic invertebrate populations. Nutria are also known to host *Strongyloides myopotami*, a parasite that results in ‘nutria itch’ in humans, a severe rash caused by larval roundworms that enter the skin of those who handle nutria fur.

4 KEY ISSUES, CHALLENGES, & OPPORTUNITIES

Chapter 4 explores the key issues, challenges, and opportunities facing Row River Nature Park over the next 20 years. This chapter provides the rationale for the recommendations made in Chapter 5, based upon a number of factors. These factors include the context and current conditions of the Park, community input, suggestions from partners, and staff recommendations.

The key issues confronting the Park can be placed into five general categories:

- Habitat Management, including issues related to sensitive species found within the Park;
- Invasive Species (including both vegetative and animal species);
- River Access;
- Educational Opportunities, including interpretive and experiential programs; and,
- Park Facilities and Infrastructure.

Each of these five categories is explored in this chapter. For each category, a summary of related challenges and opportunities is shown, along with additional detail and discussion. Actions to address these challenges and opportunities are offered where applicable, including maps of suggested improvements with the Park. Although these potential projects are sometimes discussed in fairly precise detail, the intent of this chapter is to provide the basis, rationale, and desired outcome of the projects. It is expected that specific parameters of individual programs or projects will be reviewed and refined in the future, and tailored to best address the needs and constraints in place at that time.

4.1 HABITAT MANAGEMENT

Although habitat restoration projects in the Park have been discussed and evaluated by a number of agencies and organizations in the past decade, a clearly-defined vision for the Park is necessary to coordinate these activities into a cohesive, long-term approach to habitat management. As a designated natural resource area, the primary goal of Row River Nature Park is to preserve and enhance the natural ecosystems within the Park, particularly habitat for sensitive species. The two most significant sensitive species found in or related to the Park are Western Pond Turtles and Chinook Salmon, both discussed in more detail below.

The Park is not an exclusive habitat conservation area, however. Habitat management strategies must be balanced with the needs of active and passive Park users in order to maximize the Park's effectiveness within the City's parks system. While many strategies to enhance habitat are highly complementary with other active and passive uses, and therefore are likely to have a low impact on Park users, the impacts can vary widely depending on the context of the proposed project. In all cases, habitat management and enhancement projects must be carefully evaluated as to the anticipated impacts on active and passive park uses, with alternatives designed to achieve a compatible balance of habitat and human needs.

4.1.1 WESTERN POND TURTLE

The decrease in turtle population can be mostly accounted for by loss of nesting habitat, loss of hatchling habitat, and predation on hatchlings. As a result, it has become important to protect and manage the

areas around the state in which Western Pond Turtle populations currently exist, as shown in Figure 4.1. As discussed in Chapter 3, Row River Nature Park is considered important habitat for this species.

Creating and maintaining high-quality turtle habitat requires consideration of the following elements:

- **Water body:** The pond turtles require a body of slow moving or still water that is permanent. The water body must have submergent and emergent aquatic vegetation and have shallow and deep areas. These water bodies provide the suitable site for turtles when they are located in close proximity to other ponds or streams so that turtles may move between populations to avoid loss of genetic diversity.
- **Hiding and basking sites:** Basking habitat, an important feature of turtle habitat, can be provided by logs, rocks, vegetation, and stream banks. Turtles bask in the sun in order to regulate their body temperature when water temperatures are cool. Appropriate locations to hide from predators are also necessary, including dense vegetation and, sometimes, blackberry stands.
- **Hatchling Habitat:** The hatchling and nesting habitat are both crucial to creating a sustainable population of turtles. Hatchlings need shores with gentle gradients and shallow areas of water that are less than 12 inches deep to regulate body temperature. When hatchlings leave the nest, after one year, they are only about the size of a quarter; it takes another two to three years before they are large enough that they cannot be eaten by most predators. This is why vegetation and other structure used to hide from predators is a vital piece of hatchling habitat.
- **Nesting Habitat:** Because the turtles spend the first year of their lives in the nest, it is important to provide a quality nesting habitat to sustain turtle populations. Nesting habitat is made up of short, grassy or weedy areas in clay or hard soil that is compacted. Nesting habitats are always on the south or south-west facing slope of ponds or streams in order to receive sufficient amounts of sunlight. If the turtle eggs do not get enough warmth while they are incubating, they will not hatch. The nests need to be in an area where they will be undisturbed and also must be outside of winter flood plains, so that they are not flooded.
- **Corridors:** Corridors are used by turtles to migrate and/or disperse from one area to another. While they can travel across land, it is safer and faster for the turtles to travel in water through rivers, streams or irrigation canals. It may take a turtle multiple weeks to travel these distances, therefore it is important that cover and food sources are available throughout the corridors linking the bodies of water. Aquatic and riparian vegetation can provide the cover that is necessary.

Previous work to identify and improve current and future turtle habitat within the Park should be continued. Where these sites are identified, the City and Park partners should collaborate to determine the risk presented by human



Figure 4.1. Locations of known Pond Turtle populations in Oregon.

Figure 4.2. Example of turtle basking area within Row River Nature Park.



disturbances, and where appropriate, restrict user entry to very sensitive areas. When opting for exclusion, the City should post signage indicating the sensitive areas not to be disturbed, as well as the rationale for this exclusion. Areas within the public works perimeter fence provide a good opportunity as sites for turtle habitat that are unlikely to be disturbed, although in these cases, information on identifying these locations and a detailed schedule of maintenance should be provided to public works staff as part of the annual coordination plan discussed in section 4.2.4.

The turtle is one of the best-known species residing with the Park. Educational opportunities within the Park, as outlined in section 4.4, should leverage this awareness in the design of interpretive displays and educational programs as a “hook” to spark interest by Park users. This awareness, in combination with displays and signage, can act to inhibit undesired behavior by Park users, including disturbance of turtle habitat or “adopting” turtles by taking them home.

Park Partners should also consider revisiting prior efforts to inventory and catalog turtle populations within the Park. As a high-priority habitat location for the species in Oregon, data from the Park could yield valuable clues into further potential actions elsewhere to improve the overall turtle population statewide.

Habitat restoration and management initiatives are likely to require additional outside grant funding due to the limited ability to accommodate these projects in the City budget. The City should support efforts by Partners to secure additional funding to implement habitat improvement projects within the Park.

4.1.2 CHINOOK SALMON

Proposals to reconnect some ponds in the Park to the river are, in part, intended to support salmon populations by preventing the stranding of juvenile salmonids in ponds as water flows subside, as well as improving the overall quality and function of the river system to support spawning populations. In addition to pond reconnection, these projects also include the introduction of engineered logjams placed within the floodway to further restore the natural condition of the river. These proposals provide additional benefits, including additional focus on mitigating invasive species and improving the ability of the Park to support populations of other native aquatic wildlife.

Despite these benefits, restoring these connections could have a significant effect on other aspects of the park, including the potential to create additional trail system disconnects, negatively impact sites that support turtle nesting, and lowering water levels in some ponds during low flow periods. Reconnection projects are likely to yield an overall net benefit for habitat quality in the Park, but their design should consider impacts as well. Design of reconnection projects should complement other aspects of this Master Plan to ensure that the following objectives are achieved, at a minimum:

- There is a net zero loss of turtle habitat, considering both potential habitat lost to reconnection projects and new habitat constructed by improvement projects;

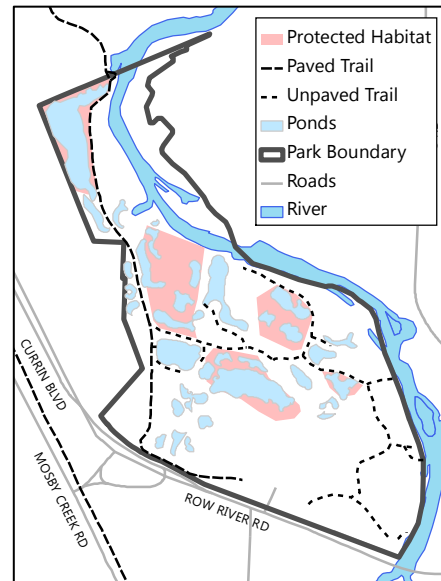


Figure 4.3. Areas within the Park suggested for designation as protected habitat.

- Trail system connectivity is maintained as envisioned in section 4.5.3, through the use of bridges, boardwalks, or other features in locations where trails would be cut to facilitate river connections;
- Public access to experiential learning in the Park is assured, with the preservation of at least one experiential learning site (as discussed in section 4.4.1), with the reasonable expectation that it have adequate water levels year-round;
- The function of the fishing pond is preserved as described in section 4.5.2 by ensuring that this pond is not reconnected to the river, and by planning associated habitat improvements such that ongoing stocking of this pond is not jeopardized;
- Reconnection projects include dedicated funding to support the development of interpretive displays that explain why the restored connections are necessary, how they improve the function of the watershed, and the resulting benefit to aquatic species and water quality; and,
- Impacts from construction activities related to reconnection projects are temporary in nature, and that areas used for construction staging are restored to their pre-project condition or better as a specific deliverable of the project.

In addition, projects to reconnect ponds to the river will require significant contributions from funding sources other than the City, as municipal budgets are extremely unlikely to accommodate this funding demand in the future. Although the U.S. Army Corps of Engineers spearheaded the initial designs of these projects, funding for work in Row River Nature Park has not been secured. It may be more feasible for Park partners to pursue and secure grant funding for these improvements, with support from the City. Coordinating these projects locally could benefit the City by ensuring local control over many aspects of the project's design, but would also place the burden of securing grant funding on Park partners and, to some extent, on City staff.

4.2 INVASIVE SPECIES

Heavy presence of invasive species reduces species abundance and diversity in all ecosystems within the Park. Invasive species can have impacts on recreational activities such as fishing, hiking, wildlife viewing, and water-based recreation.

4.2.1 INVASIVE VEGETATION

Vegetation around many of the ponds within the Park consists of wetland/riparian scrub-shrub that suffers approximately 80% infestation by noxious weeds. Forested wetlands, floodplain forest, and riparian cover areas within the park suffer 40 to 50% infestation of the understory by invasive species. These conditions also reduce riparian function, lead to a lack of shade on water bodies within the Park, contribute to temperature impairment in the Row River, and can challenge nesting and juvenile recruitment in pond turtle populations. The proximity of the river to these infestations also provides a very effective vector for the spread of invasive infestations to other areas downstream.

Although invasive species challenge the viability of native species within the Park, they can also serve in some beneficial capacities. For example, Armenian blackberry stands in the Park provide a security barrier preventing access to the City water facility, and protection for turtle nesting sites against human and dog intrusion. Some invasive species such as reed canary grass help to stabilize banks, but also inhibit the establishment of native trees and shrubs that could perform the same duties. Projects to remove invasive species will need to balance the need for native species restoration with the potential to increase human and dog uses in sensitive habitat areas and facilities.

Prior projects to remove invasive species and replace them with native plantings have yielded demonstrable progress in many areas of the Park. Sustaining the progress already made is critical to ongoing control of invaders. Based on prior successes, future projects to control invasive species in the Park are most likely to be effective when focused on Armenian Blackberry, English Ivy, Scotch Broom, and Yellow Flag Iris.

Mowing can be used to control blackberries to some extent, but the majority of invasives removal projects require hand pulling, often with repeated passes to ensure that the infestation is substantially removed. The participation of Park partner groups, particularly the Coast Fork Willamette Watershed Council and Kennedy Conservation Corps, is critical to securing the workforce necessary to complete these projects. These projects will also require outside grant funding facilitating their implementation.

4.2.2 INVASIVE ANIMALS

The invasive animals with the highest probability of infestation in the Park are nutria and bullfrogs. Opportunities and challenges to control these species are discussed in more detail below. In both cases, control and eradication of these species requires significant effort, likely at a level not feasibly sustained in the short-term due to constrained resources and other priorities.

Bullfrogs: Measures to control bullfrogs can include active trapping, bait fishing, gigging/spearing, shooting, pond draining, and removal of egg-masses. Captured bullfrogs are quickly replaced by young or migrating frogs, and a reduction in adult frogs can increase survival of young bullfrogs. Most of these measures must be performed very frequently to be even minimally effective, and most short-term efforts to control bullfrogs are ultimately defeated by their ability to travel long distances over land or between water bodies. Per Oregon Administrative Rule 635-056-0070(3), captured bullfrogs would likely need to be destroyed, as relocation/release is prohibited without a permit from the Oregon Department of Fish and Wildlife.

An alternate approach to mitigating the impact of bullfrogs would be to increase vegetation and underwater structural cover within ponds. Bullfrogs are visual “sit and wait” predators, and only prey on what they can see. Providing more opportunities for hatchlings and other native water species to hide in underwater wood and vegetation could be effective in the long-term. This approach has produced promising results at Kirk Pond, near Fern Ridge Reservoir in Eugene.

Nutria: According to the Center for Lakes and Reservoirs at Portland State University, feral nutria populations in Oregon have expanded in recent years and are currently some of the densest in the world. Although their estimated annual mortality rate is 53%-74%, they are prolific breeders: some estimate that a single breeding pair can result in a population of more than 16,000 nutria in just three years, accounting for fecundity and mortality rates, and assuming that resources do not become limited. Females are reproductively active at four to six months, and can produce nearly three litters per year averaging five young each, but potentially as large as 13 per litter.

In the United States, large-scale control programs in Louisiana and Maryland have had some limited success in decreasing nutria-related damage. These programs rely on wide-scale trapping to control populations, with some offering a bounty incentive. Other control attempts have involved shooting and poisoning, but trapping has shown to be the most effective, particularly when pre-baiting is employed. Trapping programs in Oregon would require coordination with ODFW. Oregon Administrative Rule 635-056-0050 prohibits the possession, sale, purchase, exchange, or transport of nutria except by licensed

wildlife rehabilitators in compliance with ODFW regulations. Trapped nutria may only be released in ODFW-designated locations.

4.2.3 EARLY DETECTION AND RAPID RESPONSE

Early Detection and Rapid Response is a collection of techniques to survey and monitor at-risk areas to identify and respond to invasive infestations as early as possible. These methodologies offer a potentially successful, cost effective, and environmentally sensitive means of controlling invasive species. EDRR aims to identify and begin response to invasive species as soon as possible after introduction, the best window of opportunity for containment and eventual eradication of the invader. When this opportunity is missed, eradication of invasive species often becomes more challenging or even impossible, transforming the problem from a short-term intensive response to a long-term management and mitigation problem.

EDRR methods are more often applied to monitoring vegetative invasive species, but could also be applied to animal species as well. Invasives monitoring projects are ideal means of engaging local educational institutions and other partner organizations that specialize in plant and animal habitat. Still, effective EDRR process implementation will require careful coordination and cross-training between City staff, particularly public works crews, and partner organizations.

An ongoing EDRR initiative within the Park is absolutely critical to sustaining successful removal of invasive species. EDRR activities would be most effective if implemented collectively between the Coast Fork Willamette Watershed Council, Kennedy Conservation Corps, other Park partners, and City Public Works staff. The output of the Park's EDRR program could then inform other periodic coordination efforts described in section 4.2.4.

4.2.4 SUCCESS OF REPLANTING/RESTORATION PROJECTS

Programs to remove invasive vegetation have undoubtedly produced demonstrable improvements in many areas of the Park, although these efforts have not been uniformly successful. For example, new plantings in some prior projects have been inadvertently killed by other work to control invasives or in the course of park maintenance activities. Improving the long-term success of replanting projects in the Park will require coordination between Park partners and City Public Works staff to ensure that work is not accidentally lost.

Formalizing this coordination will ensure that all parties have the information and resources needed to conduct their work in the Park while minimizing the risk to work already performed. Annual meetings should be held each spring involving Park partners and City staff to develop a coordinated project and maintenance plan that then informs project implementation and staff training for work to be conducted each summer. The coordination plan should include projects related to habitat management, invasives removal, and park facility improvements, timelines for specific maintenance/enhancement activities, and contact information for all partners.

Public Works staff should be trained to identify and avoid new plantings to avoid accidental damage. Particularly with seasonal summer maintenance crews, this training should occur annually and include maps, photographs, and other data provided by Park partners indicating the location and nature of planned and in-progress replanting projects. This training should be conducted each year, with materials updated to reflect the annual coordination plan developed each spring.

Invasives removal and replanting projects should be planned to allow adequate time to remove invasive infestations prior to replanting, particularly where spray herbicides are used as a control mechanism. Wherever feasible, a two-year cycle should be planned: invasive removal control in year one, followed by replanting in year two. These plans should be reflected in the annual coordination plan discussed above.

Successful restoration projects also depend on the types of plants used in replanting efforts. Previous efforts to remove invasive species within the Park have typically included introduction of new native plants, frequently through the use of live stake cuttings. Although live stakes are good choices for planting along pond banks and within wetlands, overreliance on stakes for replanting can become a problem. Live stakes can be easily damaged by wildlife, in addition to both unintentional and intentional human damage. Beaver activity in the Park has threatened or destroyed some established, native trees; thus, planting larger trees immediately after restoration and protecting them from beaver damage could provide a better opportunity for long-term survival.

Planting various sizes of trees (in addition to maintaining a collection of various species and types of trees) will enable replanting to be most successful and resistant to unintentional damage, while also contributing to species diversity within the Park. Barriers or other steps to prevent animal damage, particularly by beavers, should also be considered where appropriate.

4.3 RIVER ACCESS

The Park provides an obvious opportunity for river recreation, although no designated river access points exist today other than the boat ramp, which does not adequately meet the needs of many users. As a result, users have improvised their own access points over the years. Socially-constructed river access trails could jeopardize habitat and the success of invasives projects. Thus, dedicated access points are necessary to accommodate this obvious user need while protecting sensitive areas.

4.3.1 ACCESS FROM TRAIL SYSTEM

Currently, socially-constructed river access points exist along the trail adjacent to the river bank and near the boat ramp area, as shown in Figure 4.4. These points should be formally designated, improved, and included on directional and trail map signage throughout the Park. Only modest improvements are necessary, such as widening the current trails and laying mulch or gravel. Signs designated for each river access point should be posted at the intersection with the trail system, and waste receptacles should be placed either at the access point or nearby. If space permits, riprap may be placed for seating near the bank. More extensive improvements should be discouraged to maintain the natural quality of the Park and to prevent flooding damage.

Although formal designation should reduce the tendency of users to construct their own trails, some additional socially-constructed river access points are inevitable. In this case, the City may wish to consider adding that area to the collection of designated access points, but only where they do not pose a risk to habitat or invasives projects. In this case, the City should utilize signage to educate users about the

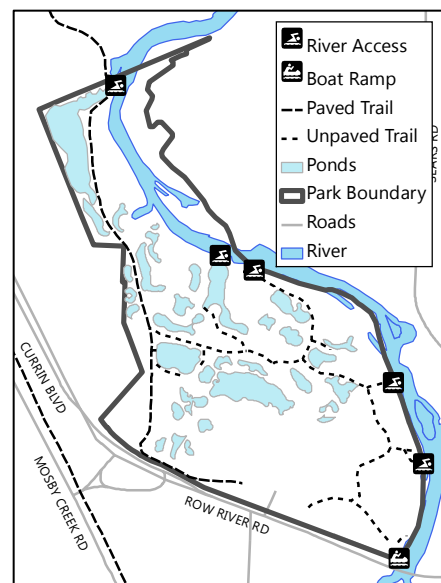


Figure 4.4. Locations of boat ramp and designated river access points.

designated access points and the risk of damage to sensitive areas by building their own trails. In addition, plans to modify connections between Park ponds and the river must accommodate river access from the Park trail system.

4.3.2 ACCESS FROM BOAT RAMP

The Park provides an ideal river access point for canoes and inflatable rafts. Larger boats are infrequent users of the Park due to relatively low river flows during peak recreation periods. Although a boat ramp is currently in place, it is too steep for some potential users, limiting its usefulness. Flattening this approach and utilizing concrete traction strips in the gravel ramp would improve its function. Signing the boat ramp would improve awareness and increase use of this amenity.

Stray litter and garbage has also been a problem in the area of the boat ramp, which could pose a potential hazard to adjacent City water intake equipment. Waste receptacles should be placed in this area, and signage describing the potential hazard to water equipment should be considered.

4.4 EDUCATIONAL OPPORTUNITIES

The diversity of uses, plant and wildlife species, and management activities in Row River Nature Park make it an ideal environment to educate and inform the public about these issues, particularly in an urban context. Educational outreach efforts are a prime opportunity to build awareness and stewardship of the Park within the broader community. The Park also provides an area for hands-on experiential learning, an amenity not explicitly provided in other community parks.

4.4.1 INTERPRETIVE AND EXPERIENTIAL LEARNING

It is nearly impossible to learn *about* nature without *being in* nature. Parks provide unparalleled opportunities to learn about nature through observation and hands-on experience. The natural characteristics of the Park create extensive opportunities for interpretive and experiential learning.

Interpretive programs contribute to public awareness of natural resources, attract tourists, and provide visitors with an educational and fun experience. When properly implemented, they can spark the imagination, hold attention, and stimulate a desire to learn more. Working with partners, the City should work to build an interpretive program within the Park that includes displays and other printed and online content to inform users about the characteristics of the Park and the species found within it.

Experiential learning complements interpretive programs by providing opportunities for users to interact with nature in a hands-on, self-guided way. The City should encourage experiential learning by formally designating pond areas where users can explore and interact with nature. These areas should be located near major trails and other Park amenities. They should be signed and indicated on Park trail maps, with waste receptacles and benches placed nearby. Signage should indicate not only that these areas are intended for active use, but also explain why other areas should be

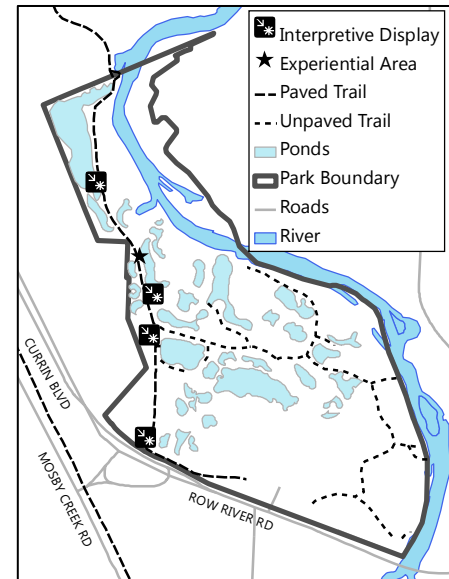


Figure 4.5. Locations of interpretive and experiential learning resources.

avoided to preserve sensitive habitat. Although projects to manage invasives and improve habitat may alter the location of these experiential areas, at least one of these areas should always be provided to ensure that users have at least some pond access.

The fishing pond and paved trail provide a natural hub for interpretive and experiential programs. These resources should be located along the paved trail whenever possible to facilitate use and visibility. Placement along the paved trail also ensures that these resources are accessible to users with disabilities, and signage and other displays should be compliant wherever possible with provisions of the Americans with Disabilities Act, as well as other prevailing accessibility best practices.

4.4.2 THE PARK AS AN OUTDOOR CLASSROOM

Parks can provide an ideal outdoor classroom for K-12 educators to use in a variety of curricula. In addition to informal educational efforts through interpretive and experiential programs, the Park should be positioned to support and extend coursework in local schools. Schools can use Park resources in a variety of ways, including class field trips and hands-on research. Invasives removal and habitat restoration projects in the Park also provide cooperative work experience opportunities to train local students and give them practical job experience and career development.

Any effort to create a formal education program in Row River Nature Park should be led primarily by local and regional educators and environmental support groups similar to (and perhaps in coordination with) the Mount Pisgah Arboretum's educational program. Mount Pisgah Arboretum near Eugene has offered formal educational programs for grades K-5 since 1981. Formal education activities in Row River Nature Park should complement these existing programs. For example, Row River Nature Park could be oriented towards hands-on learning for middle and high school students.

For smaller-scale class trips and cooperative work experience opportunities, the City should make Park data available to local educators, including plans for habitat management/invasives mitigation work each summer, species lists, EDRR initiatives, and other public events. The City may wish to establish more formal contacts with local school districts (both in Cottage Grove and in surrounding communities) to facilitate this information flow.

Improved facilities and Park programs could better support formal education programs at Row River Nature Park. These include:

- an outdoor shelter with picnic tables, with sufficient space to seat 20 adults or 30 children;
- improved parking facilities designed to accommodate typical school buses and vans;
- permanent restroom and drinking water facilities;
- additional waste and recycling receptacles;
- improved trail maps and directional signage;
- designated experiential programs within the Park;
- interpretive panels and exhibits, including wildlife viewing blinds; and,
- improved ADA-compliant access to major park features and amenities.

Outdoor education programs at Mount Pisgah have shown that a reservation system is sometimes necessary to prevent conflicts between groups wishing to conduct group events in the Park. The City

should consider implementing a reservation program similar to that used for other parks resources. In addition, the City may wish to implement a suggested \$1 donation per person for groups of 10 people or more to offset the costs of park maintenance to support group activities.

Finally, collaborative projects between the City, Park partners, and local/regional school districts to promote educational use of the Park are consistent with the City's Comprehensive Plan and the 2003 Parks Master Plan, which both recommend that the City and school districts work together to develop joint use parks. Although the Park is already established, collaborative management would align with the spirit of these plan recommendations.

4.4.3 COMPREHENSIVE APPROACH

A comprehensive approach to user education should be employed to fully maximize the educational potential of the park. Indeed, nearly every action taken in the management of the Park contains an opportunity to educate and inform park users. The National Park Service is a leader in this area – their fundamental philosophy that “people will *care for* what they first *care about*” has guided much of the NPS interpretive program across the national park system.

For example, education can play a crucial role in the maintenance and preservation of habitat areas: NPS has found that explaining the importance and rationale of individual management decisions improves compliance of Park users. When closing a trail to hikers, NPS will often post not just that the area is closed, but why that decision was made and what the impacts of using that trail are likely to be. These efforts have proven beneficial to protecting sensitive areas and maintaining habitat quality.

Every project within the park, including even routine maintenance or facility improvements, should be evaluated for its potential educational benefit. Signage or other displays should be considered where appropriate to inform users and build awareness and stewardship. This is particularly important in enforcement scenarios: a decision to prohibit access or particular activities in the park should not simply be posted – rather, it should be clearly explained and justified to users in order to improve compliance.

4.5 PARK FACILITIES & INFRASTRUCTURE

Although the role of the Park is a natural resource area, basic facilities and infrastructure are necessary to ensure that City residents can fully enjoy the Park as a recreational and educational asset. Conversely, natural resource areas such as the Park are intended to be largely unimproved; thus, careful selection and placement of park improvements is critical.

Necessary facilities and infrastructure include basic items found in most parks such as waste receptacles, more specific amenities to accommodate active and passive uses found within the Park, and access and circulation facilities (including the Park's trail system). The diverse mix of uses within the Park also calls for consideration of the integration of the BMX and Public Works facilities, which are somewhat inconsistent with the Park's primary mission as a natural resource area.

All new Park facilities must comply with the Cottage Grove Development Code and state building codes, including design standards, development restrictions, and review processes as applicable to the individual proposed improvement. Public facility improvements must also comply with Americans with Disabilities Act Standards for Accessible Design and accessibility requirements of state building codes to the extent feasible.

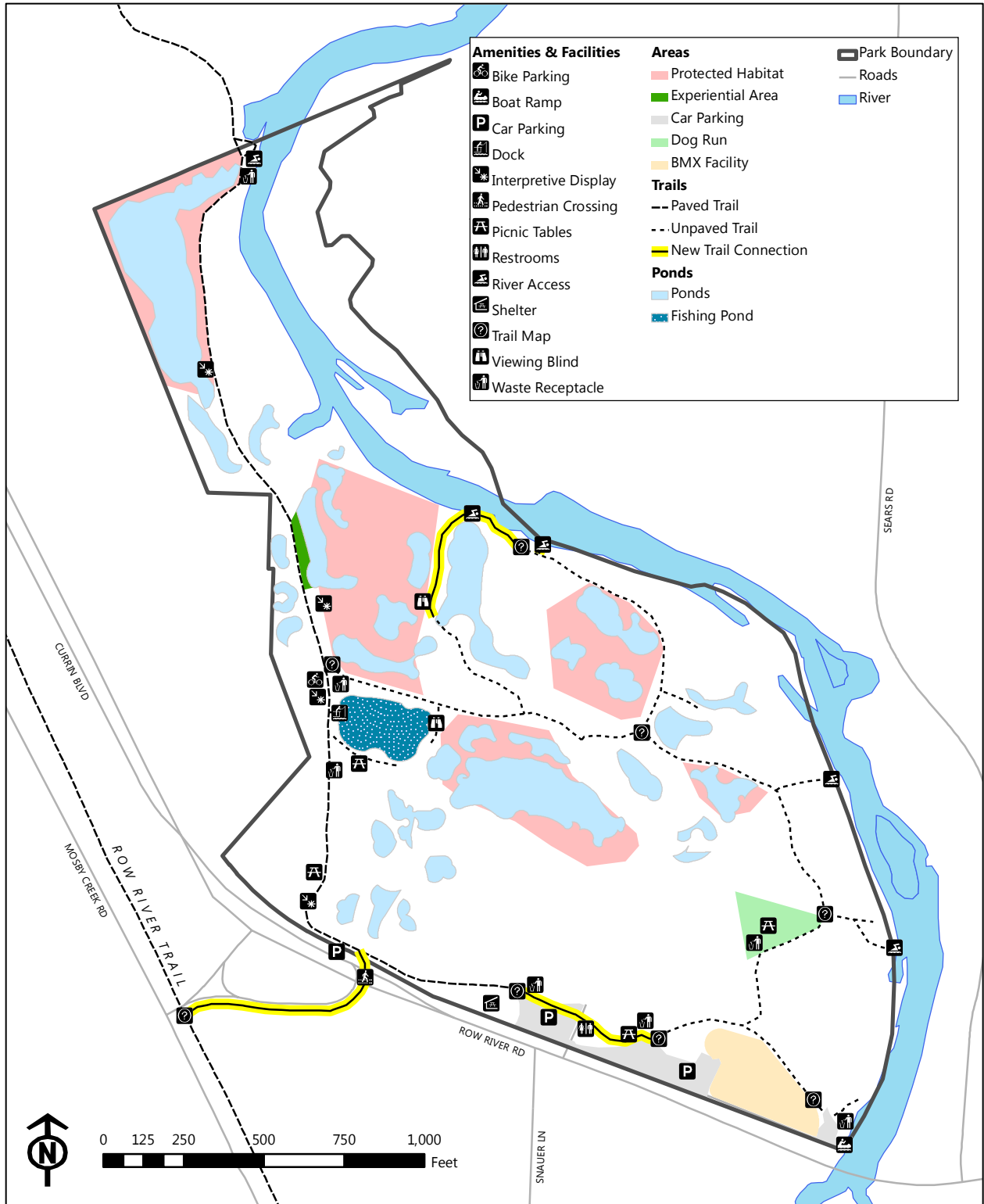


Figure 4.6. Consolidated map showing all proposed Park facilities and amenities improvements.

4.5.1 BASIC PARK FACILITIES

The Park currently lacks many of the basic facilities often provided in other parks, including restrooms, drinking fountains, waste receptacles, and entrance signage. The lack of these items can suppress use and awareness of the Park's amenities. The City should add these basic support facilities to the Park, as shown in Figure 4.6.

Permanent entrance signage should be installed at the parking area entrance on Row River Road. The sign should be highly visible from the street and consistent with other City park signage. Additional parking lot signage should be installed directing visitors to trailheads, the boat ramp, and delineating the entrance to the Public Works facility.

Waste receptacles should be added throughout the Park in areas near major attractions and trail intersections, as shown in Figure 4.6. Receptacle locations should be sited to be easily serviced, and a regular schedule of garbage collection should be instituted. In addition, the City should place recyclables containers in the parking lot, potentially serviced by a local service organization that collects recyclables for fund-raising.

A permanent restroom facility should be constructed in the parking area, near the entrance to the Public Works facility. This location allows the restroom to be easily accessible to both trailheads entering the parking lot, as well as the BMX track facility. Placing it in this location also allows for maximum visibility from the Public Works facility, increasing security. Time locks, lighting, and the use of vandalism-resistant fixtures should also be considered. The restroom should be connected to the City water and sewer systems, and include a drinking fountain on the building exterior. The design of the building should incorporate features for water and electricity conservation.

4.5.2 AMENITIES FOR ACTIVE AND PASSIVE USES

A number of amenities improvements are needed to accommodate the various active and passive uses within the park. Some of these amenities are new to the park, such as wildlife viewing blinds, while others expand amenities already offered. Figure 4.6 shows the locations of the recommended improvements.

The fishing pond is the highest-profile natural, active use area within the Park, and provides a popular amenity enjoyed by many users. The pond is stocked by the Oregon Department of Fish and Wildlife annually. The City and Park partners should ensure that habitat management projects do not create conditions that would preclude ODF&W from continuing the stocking program; the biggest risk in this regard is the introduction of significant Western Pond Turtle populations to the pond. Other improvements to support active uses in this area include the addition of picnic tables, bicycle parking, and interpretive displays nearby.

Wildlife viewing blinds would enhance bird and animal watching in the Park, and extend interpretive



Figure 4.7. View of fishing pond and dock.

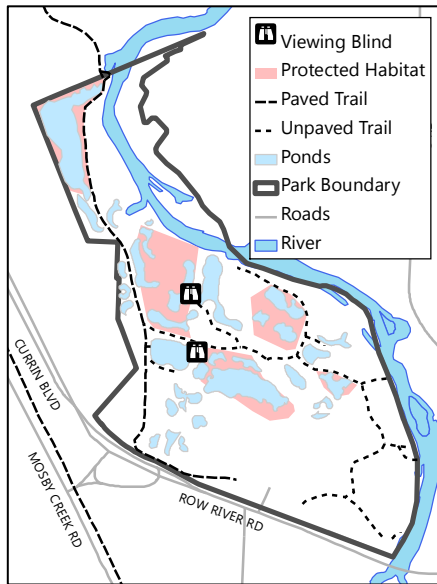


Figure 4.8. Proposed locations of viewing blinds in relation to protected habitat areas.

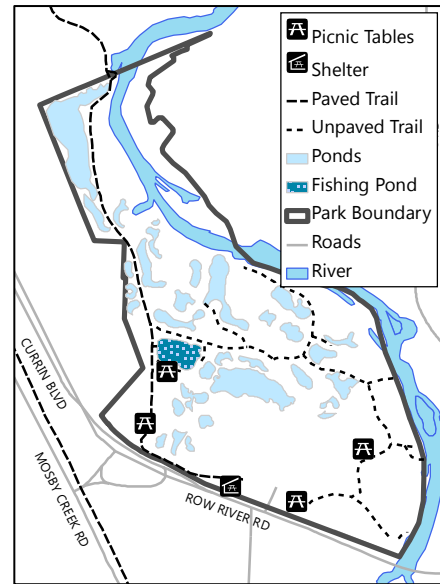


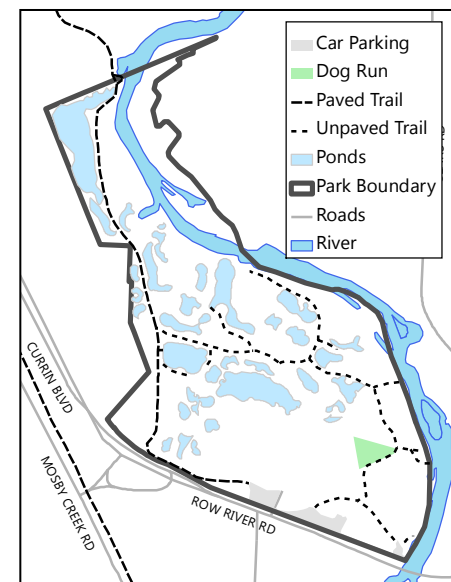
Figure 4.9. Proposed picnic facilities.

programs. Two blinds are proposed for the Park, shown in Figure 4.8, offering users opportunities to view different types of animals in different settings. Wildlife viewing blinds are most effective when designed in concert with the vegetation around them – their intent is to allow humans to view animals without disturbing them, or put another way, without being detected. Blind structure designs that reflect natural environments are encouraged. Blinds should include waste receptacles, interpretive signage, and be included on Park trail maps and directional signs.

The Park would greatly benefit from additional picnic tables and the addition of a picnic shelter near the parking area, utilizing the concrete pad formerly housing a storage shed. Tables should also be placed near the fishing pond along the paved trail, and in the proposed dog run as shown in Figure 4.9. The current table near the parking area should be retained. The picnic shelter should be equipped with electricity and a water fountain. Waste receptacles should be placed in close proximity to all picnic tables.

Off-leash dogs also represent a challenge in the park: unleashed dogs can pose a real or perceived safety issue for other Park users, and dogs can damage sensitive habitat areas. The City does not currently have a designated off-leash dog area in any park citywide, making Row River Nature Park an attractive option for dog owners wishing to let their dogs run loose in a relatively open space. Areas of the Park currently unused but designated for future public works expansion could be used as a designated off-leash area in the interim with relatively minor extensions and modifications to the fencing already in place, as shown in Figure 4.10. When these areas are needed by public works in the future, other sites could then be used for off-leash dog use. Providing a designated off-leash dog area could then

Figure 4.10. Location of fenced dog run area.



allow the City to further restrict dog access to trails or areas within the Park that are especially sensitive to potential damage, providing an alternative area for dog owners to use.

Controlling animal waste is identified as an important strategy to preserving watershed quality in the City's 2008 TMDL Implementation Plan. Efforts to address dog issues within the Park should also include additional signage reminding citizens to clean up after their pets, and the addition of pet waste stations including both bag dispensers and waste receptacles. As usage increases, expanded enforcement will also become necessary.

4.5.3 ACCESS, CIRCULATION, AND CONNECTIVITY

Park infrastructure must support the needs of users accessing the park via automobile, bicycle, and on foot. Three primary issues must be addressed: automobile access and parking, trail system improvements for bicycles and pedestrians, and bicycle/pedestrian connectivity to other recreation resources and the broader City bike/ped network. Each of these topics is explored below.

Automobile access: Data from both the 2003 Parks Master Plan and the public outreach efforts incorporated into the development of the Row River Nature Park Master Plan indicate that many (if not most) users access the Park via car. The Park's car parking facilities are entirely unimproved, and the lack of street-facing signage complicates access to the Park, particularly for new users who are unaware of the Park's location. Events held at the BMX facility can present significant demand for parking as well.

The current parking lot should be improved as a paved, striped lot, utilizing features to mitigate stormwater runoff on-site. The lot should feature entrance signage at the key entrance points. ADA-compliant parking stalls should be provided at a ratio consistent with City development code requirements.

Park visitors also use the shoulder areas of the Weigh Station approaches for parking, particularly to access the fishing ponds. Use of this area for visitor parking is not officially sanctioned, and no permissive or restrictive regulations are posted. After the main parking lot is improved, the City should negotiate with Lane County to resolve this ambiguity, perhaps by allowing parking in this area when the station is closed (it is currently closed more often than it is open). Resolving parking regulations in this area may also be necessary to implement the Row River Trail connection discussed later in this section.

Connectivity: Establishing a designated and signed bicycle connection between Row River Nature Park and North Regional Park is listed as the top-priority City bikeway improvement in section 7 of the City's 1994 Bikeway Master Plan. This connection is also address in the 2008 Cottage Grove Transportation System Plan, represented by related projects in the Pedestrian and Bicycle Master Plans.

This connection is not yet in place, but is still a critical need. Although the airport property prevents a direct path connection between the two parks, a signed route using City streets would enable bicyclists and pedestrians to easily access both parks. Streets used for this connection should include striped bicycle lanes and improved pedestrian sidewalks or walkways wherever feasible.

The Park's trail system also lacks a dedicated connection to the Row River Trail, which has emerged as a major regional recreation asset since its construction in the mid-1990s. Establishing this connection would facilitate direct access to the Park from Downtown Cottage Grove and Dorena Lake for bicyclists and pedestrians.

The most effective location for such a connection is along the existing connector road between Mosby Creek Road and Row River Road, within existing right-of-way currently owned by Lane County. The conceptual location for this connection is shown in Figure 4.11. This connection should be paved and designed in a way consistent with the design of the paved trail through the Park and the Row River Trail.

Both sets of connectivity improvements discussed above are consistent with policies 4, 18, 19, 21, 22, 25, 26, 27, and 30 of the 2008 Cottage Grove Transportation System Plan.

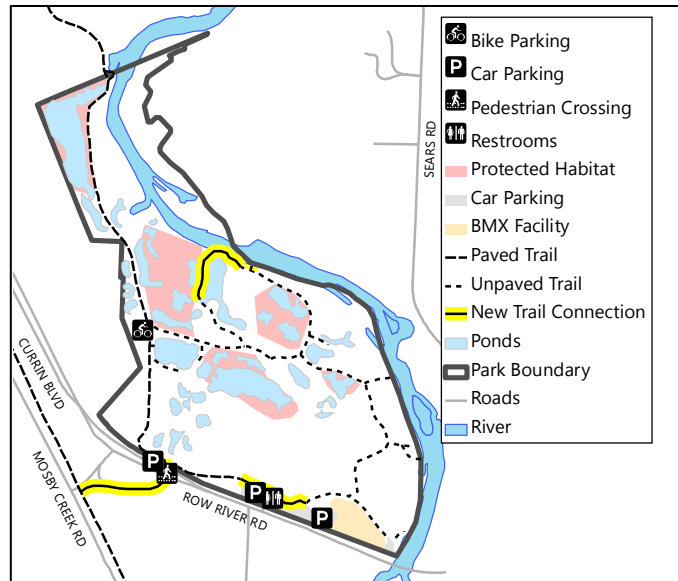


Figure 4.11. Planned circulation improvements and trail connections.

Trail improvements: The current trail system contains a significant number of dead-end trails that can complicate or discourage its overall use. New trails should be constructed to close broken loops to the north of the fishing pond, as well as facilitating access to the fishing pond and to trailheads in the parking area. A new trail should also directly connect the Park's trail system to the Row River Trail. The following new trails are recommended:

- A grass, mulch, or gravel trail connecting the two stub trails to the northeast of the fishing pond, to support use of designated river access point and provide connectivity to the recommended site of the second wildlife viewing blind;
- A mulch or gravel trail surrounding the fishing pond to improve access to the bank for fishing and reduce the tendency of users to socially-construct trails in the area;
- A paved trail connecting the Row River Trail to the Park's paved trail near the Weigh Station facility; and,
- A paved trail connecting the trailheads, restroom facilities, and BMX track facility in the parking area.

Conceptual locations for these trails are shown in Figure 4.11. Exact placement of these trails should support other efforts to secure funding for habitat improvements and invasive management projects in the Park.

4.5.4 INTEGRATION OF PUBLIC WORKS AND BMX FACILITIES

The location of the public works and BMX facilities within the Park is somewhat of an inconsistency: these facilities are very different from the rest of the Park in terms of appearance and use. Improving the interface between these facilities and the rest of the Park could make their presence less obvious and disruptive to the desired natural environment of the Park.

Public Works facilities: Currently, the Public Works facility is only minimally screened from the rest of the park. Additional vegetative screening already planned will improve the screening of the facility, but will not mitigate the tall buildings that dominate the portion of the Park closest to Row River Road. Using

the surface area of these buildings for interpretive murals could work to integrate the facilities with the surrounding Park, reflecting its location in a prime habitat area. Local artists have shown their considerable skill in creating high-quality murals in Downtown Cottage Grove, and the addition of a mural in the Park would be a highly attractive addition.

The main entrance to the Public Works facility is currently connected to the main parking area, with access controlled by a gate. This entrance should be preserved in any redesign of the Park's parking area, including the signage that designates the entrance and prohibits parking in front of the gate.

BMX facility: Operation and maintenance of the BMX facility is the responsibility of the Emerald Valley BMX Association under agreement with the City. This separation in operational oversight has led to infrequent and informal contact between the association and the City. This complicates efforts by the City to address issues that may arise at the BMX track, such as periodic removal of garbage and grounds maintenance. Moreover, the lack of formalized and frequent communication with the BMX Association will complicate efforts to implement some recommendations of the Row River Nature Park Master Plan. The City should establish formal and frequent contacts with a designated representative of the BMX Association as soon as feasible. The City should work with this contact to conduct periodic evaluations of the BMX Association's performance under its contractual agreement with the City.

The BMX facility is located in a very visible location at the Park's entrance, yet little work has been done to integrate the facility into the Park's overall natural environment. In addition, berms built as track obstacles are generally not stabilized and represent an erosion risk; this risk is increased considering the proximity of some of these berms to water intakes on the Row River. Planting vegetation to stabilize these berms could yield a double-benefit: the risk of erosion could be mitigated while increasing the screening between the BMX track and the rest of the park. As this area is often used by families and children outside of planned events, this screening should be designed and maintained in a way that does not reduce visibility into the track itself from Row River Road and the parking area, to maximize safety.

The BMX organization has historically provided temporary restrooms and garbage receptacles that are generally locked to public use outside of designated BMX events. Once permanent restrooms are in place in the parking area, the City should request that the BMX association remove the portable restrooms near the BMX track facility, unless the permanent facilities are inadequate to accommodate expected demand during events. The City may also wish to coordinate garbage pickup within the BMX track facility as part of the overall program of garbage pickup within the Park.

4.5.5 PARK EXPANSION

The 2003 Parks Master Plan directs the City to acquire 77 additional acres of upland natural areas as funding becomes available. The Parks Plan directs the City to make these acquisitions in "configurations that (a) maximize accessibility, (b) maximize safety, (c) minimize maintenance costs and (d) minimize conflicts with surrounding land uses" (page V-4). The Parks Plan also specifies that acquisition strategies could include direct land purchases, land donations, conservation or public access easements, public-private partnerships, and planned unit development that include open space elements (page V-7).

Expanding the Row River Nature Park could partially satisfy these goals while adding protection to important habitat for sensitive species. An obvious area for expansion is on the eastern bank of the Row River, adjacent to the area of the Park already on that side of the river. Two publically-owned lots are prime candidates for expansion:

- The river frontage portion of the parcel currently housing Lane County's Waste Transfer facility is immediately adjacent to portions of the Park already on the eastern side of the Row River. Acquiring this frontage could potentially add approximately 5 acres to the current Park.
- Another parcel immediately to the northeast of the Park, on the eastern bank of the Row River, is owned by the State of Oregon. Acquiring this property could potentially add approximately 3.5 acres to the current Park.

The rest of the Park is somewhat constrained by private development, the Cottage Grove Airport, or major roads that would present a barrier to easy expansion of the Park. Although future expansion of Row River Nature Park could provide the City with some new natural resource-designated Park land, the most feasible options for expansion are likely to yield only approximately 11% of the new land mandated by the 2003 Parks Plan.

5 RECOMMENDATIONS, IMPLEMENTATION, AND ASSESSMENT

This chapter is intended to provide a blueprint for the evolution of Row River Nature Park over the next 20 years, in both broad and precise terms. A defined mission and a set of guiding management principles are set forth, which then provide the foundation for prioritized, specific recommended management and improvement actions. These recommendations address the key issues, challenges, and opportunities discussed in Chapter 4. Priorities for each recommendation reflect their importance to implementing the Park's guiding principles and long-term vision. Periodic assessment of these actions is also discussed.

5.1 GUIDING PRINCIPLES AND LONG-TERM VISION

In the long term, Row River Nature Park will continue to serve important habitat, ecological, open space, and recreational needs for the City and the region. Cottage Grove has no other place with characteristics similar to those of the Park, and therefore the unique characteristics of the Park should be emphasized in a way oriented toward passive uses, habitat preservation, and environmental activities. At the same time, the Park will continue to support some active uses that serve important recreational needs for the City and region.

The following guiding principles should be used when approaching management decisions and activities within the Park. These principles also form the basis for identification and prioritization of the Master Plan Recommendations that follow:

- As a designated natural resource area, the Park's primary objective is to maintain a healthy ecosystem that supports a diverse range of vegetative and animal species and that positively contributes to the overall health and function of the watershed.
- Development within the Park should be carefully planned to support passive uses and natural resources.
- All management activities within the Park have a potential educational benefit and should be evaluated and implemented to leverage these opportunities.
- Active uses should be enhanced in a way compatible with the overall passive nature of the Park.
- Programming of the Park should address citywide needs for improved recreational resources, particularly where the Park provides the only feasible location for these activities, while preserving its natural characteristics.

5.2 MANAGEMENT RECOMMENDATIONS

The following recommendations address management practices necessary to achieve the Park's long-term vision and implement its guiding principles most effectively. Management recommendations are prioritized, but are not listed with time frames. Each of these principles should be implemented as quickly as possible following adoption of the Master Plan. Where a dependency between recommendations exists, it is explained in the Notes column. The management recommendations are numbered as items M-1 through M-15.

Although each principle is given a priority of 1 to 3, with one being the highest priority, this should in no way indicate that the lower priority items are unimportant. Rather, the priority indicates the criticality of the recommendation to meeting the Park's long-term objectives. Failing to implement any of the practices listed would be likely to complicate successful achievement of the Park's long-term vision and the improvement recommendations listed in Section 5.3.

#	RECOMMENDATION	PRIORITY	NOTES
M-1	Develop and implement a coordinated and ongoing invasive species management plan on a biannual basis. Although progress has been made in identifying and removing invasive species in the park, particularly by the Coast Fork Willamette Watershed Council with the most recent OWEB grant, this progress must be sustained in the long term to ensure that invasive species within the park are appropriately contained. Implementation plans for ongoing invasive management work should be constructed and reviewed every two years by partners in cooperation with community development and public works staff, first emphasizing the six zones identified in the OWEB grant and shown in Appendix E, adjusted as needed to address future conditions and needs for further improvement. The management plans should be incorporated into this Master Plan as Appendix H.	1	
M-2	Hold annual meetings with Park partners to coordinate and plan maintenance and enhancement projects each year. Every spring, hold a meeting including City planning and public works staff, partners, and other stakeholders to coordinate habitat management, invasive species removal/restoration, and other park enhancement projects planned for the upcoming summer. Using the framework presented in Appendix G, draft an annual Park maintenance plan that provides guidance to Public Works staff to avoid unintentional conflicts between working groups and avoid unintentional damage to restoration projects.	1	Depends upon M-1
M-3	Create training materials for seasonal Public Works staff to ensure proper Park maintenance and habitat management. Training materials should include pictures of invasive and native species within the Park, characteristics of sensitive habitats, maps of areas to be mowed and avoided by Public Works staff, and resources to get additional information. The training materials should be updated on an annual basis based upon EDRR monitoring discussed in Recommendation M-6 and biannual invasives management plans discussed in Recommendation M-1. An outline for these training materials is included in Appendix G.	1	Depends upon M-1, M-2
M-4	Continually seek grant funding to facilitate habitat, invasives, and educational improvements in the Park. The City and Park partners should place an ongoing focus on securing grant funding to implement the Master Plan recommendations, as City budgets are unlikely to accommodate these costs in the long term. The City should publically support applications made by Park partners where they are consistent with the Master Plan, guiding principles, and long-term vision. Where possible, improvements funded by grant dollars should demonstrate (via signage or other means) that they were made possible by a grant funding source in collaboration with Park partners.	1	
M-5	Utilize a variety of sizes, species, and types of trees and vegetation in invasive removal and habitat management projects. Projects to restore native species to the Park should, wherever feasible, utilize a variety of tree and vegetation species and planting sizes. Both deciduous and evergreen trees should be included. Planting sizes should attempt to address potential damage from both humans and animals to ensure maximum potential for survival.	2	

#	RECOMMENDATION	PRIORITY	NOTES
M-6	Develop and implement a formal species identification and EDRR monitoring program within the Park. The City should coordinate with the Coast Fork Watershed Council and South Lane School District staff to create an ongoing species inventory and invasives detection program utilizing students from local middle and high schools, in tandem with the invasives management plans discussed in Recommendation M-1.	2	
M-7	Minimize the use of chemical herbicides to control vegetation within the Park. Although the 2003 Parks plan calls for zero use of chemical herbicides in wetland areas, they are sometimes the most feasible means of controlling invasive species. When used, treatments should use chemicals that represent the lowest possible harm to water quality and surrounding vegetation. Temporary signs warning of planned chemical herbicide use should be posted two weeks before their application.	2	
M-8	Support projects to improve watershed function by reconnecting ponds to the Row River. Floodplain restoration efforts discussed earlier in the Plan should be designed in a way to maintain trail connectivity through the placement of bridges or use of culverts in berms under trails. These projects must also result in a zero net loss of turtle basking habitat and maintain the function of the fishing pond. Projects should also incorporate work to address invasive species. Where connections are made near public areas of the Park, signage should indicate why this work is being performed and how this work benefits the region.	2	
M-9	Utilize signage to warn users of damage to sensitive areas within the Park. Signs near trailheads should warn users to stay on designated trails and explain the impact of damage resulting from socially-constructed trails. Near sites where habitat management or invasive species work has been performed, temporary signage should be used to warn users not to disturb these areas. These signs should explain the importance of avoiding these areas and the purpose of the project.	2	
M-10	Implement a regular program of waste collection and removal in the Park. Working with partners and City staff, a program to regularly empty waste receptacles should be implemented to ensure that receptacles do not overflow. This program should be coordinated with the BMX track operators to address this issue comprehensively within the Park.	2	
M-11	Continue work with the Oregon Department of Fish and Wildlife to ensure that the fishing pond remains stocked in the long-term. The City and Park partners should work to satisfy ODFW concerns about stocking ponds that contain sensitive species by demonstrating conservation efforts in other areas of the Park.	2	
M-12	Ensure that park facilities and interpretive displays along the paved path are ADA accessible wherever feasible. Interpretive exhibits should be immediately adjacent to the current trail or utilize small bulbouts to ensure a paved surface sufficient for users with disability to utilize these resources. Where major exhibits must be placed off of the paved trail, feasibility to improve ADA accessibility should be considered.	2	
M-13	Develop and implement programs to address bullfrog and nutria populations within the Park. As discussed earlier in the Plan, these species can damage habitat, and therefore should be controlled within the Park. Programs may include active collection and relocation of these species, or passive efforts to mitigate their impact by supporting turtle youth development to make these populations more viable despite the heavy presence of predators.	2	

#	RECOMMENDATION	PRIORITY	NOTES
M-14	Improve communication and coordination with the Emerald Valley BMX Association to address conditions at the BMX facility. The City should request more frequent communication and interaction with BMX association leaders to engage them in Park management decisions and to ensure that the conditions of the lease agreement with the City are observed adequately. This should also include coordination of facilities improvements such as restrooms, parking, waste receptacles, and signage. Erosion control should also be addressed.	3	
M-15	Engage local educators to use the Park in outdoor learning and environmental curricula. Inform local teachers and school districts of the Park, its habitat programs, and amenities. Encourage schools to use the Park as a locale for environmental and outdoor educational activities.	3	

5.3 IMPROVEMENT RECOMMENDATIONS

The recommendations listed below identify specific Park improvement projects that address the challenges and opportunities discussed in Chapter 4. A time frame is assigned to each recommendation: within 1-5 years, within 5-10 years, or within 10-20 years. Priorities for each recommendation indicate their relative importance within each time frame. Where a dependency between recommendations exists, it is explained in the Notes column. Improvement recommendations are numbered I-1 through I-26.

#	RECOMMENDATION	PRIORITY	TIME FRAME	NOTES
I-1	Formally designate sensitive habitat areas that should be excluded from human use. As indicated in Figure 4.3, identify areas that will be managed in a way that protects them from human impacts to support habitat quality. Where these areas are in close proximity to trails or other facilities, place signs warning users not to intrude in these areas of the Park and explaining the rationale for this exclusion.	1	1-5 years	
I-2	Construct the proposed bird/turtle viewing blind near the fishing pond. Implement the proposed viewing area as indicated in Figure 4.8, and place waste receptacles and interpretive signage explaining the purpose of this facility to Park users. Include this facility on trail maps within the Park.	1	1-5 years	
I-3	Designate, sign, and improve river access sites adjacent to Park trails. In the locations identified in Figure 4.4, improve river access sites with designated trails and areas using bark, mulch, or gravel, and sign these areas as river access points. Place waste receptacles in the proximity of these locations. Identify these locations on trail signage throughout the Park. If necessary, place signage at other socially-constructed river access points not designated as such to inform users of the importance of utilizing designated sites.	1	1-5 years	
I-4	Place additional waste receptacles throughout the Park. Add waste bins at regular intervals along main trails, at each trailhead, near the boat ramp, and at the restroom facility. Locate bins on main trails to facilitate easy servicing. Engage local charitable organizations to place recyclables collection bins near the fishing pond and in the parking area.	1	1-5 years	Depends upon M-10

#	RECOMMENDATION	PRIORITY	TIME FRAME	NOTES
I-5	Create a designated off-leash dog run facility in land reserved for future public works uses. This facility should be created in the location specified in Figure 4.10 using inexpensive fencing to enclose the space. Waste receptacles and dog waste bags should be included near the entrance to the facility, and one or two benches within the dog run should be added. This space should be signed as an authorized location to let dogs off-leash, including reminders to dog owners to dispose of dog waste and re-leash dogs when exiting the area. Additional signage should explain why designated off-leash areas are necessary and how dogs can impact natural habitat in other areas of the Park. When this site is needed for future public works expansion, the additional fencing will be removed and the site restored to its prior state.	2	1-5 years	
I-6	Establish a formal pedestrian/bicycle connection with the Row River Trail. Construct and sign formal path connections with the trail as shown in Figure 4.11. If possible, this trail should be paved. Protect trail crossings at Row River Road with warning signs. Place signage at both the Row River Trail and the parking area for Row River Nature Park informing users of this connection. This connection should also be shown on trail maps.	2	1-5 years	
I-7	Develop a dedicated hands-on experiential pond access area to the north of the fishing pond. The location for this pond access area is shown in Figure 4.5. This area should be dedicated to users wishing to gain direct access to pond banks, including some bank access trails to reduce potential bank erosion and vegetative damage. Picnic tables and waste receptacles should be provided. The area should be adjacent to the current paved path, using small paved extensions if necessary. The portion of this area adjoining the paved path should use ADA compliant design wherever feasible. This area should be signed to indicate to users that it's intended for pond bank access. Signage should also indicate why using other ponds could damage habitat.	2	1-5 years	
I-8	Improve access to the fishing pond. New trails should be constructed on the banks of the fishing pond to facilitate fishing activity. Trails should be constructed to minimize damage to vegetation and prevent erosion, using mulch or gravel. The new trails should loop the pond to the extent possible. Trails should be indicated on Park trail maps and signage. Signage should also indicate why using other ponds could damage habitat.	2	1-5 years	
I-9	Place murals on the sides of the water treatment facilities to better integrate the building into the natural environment. Local muralists and artists should be engaged to create and maintain murals on the side of the water treatment facility building using an interpretive design that highlights native species found within the Park.	3	1-5 years	
I-10	Address erosion issues at the BMX facility. Mitigate potential berm erosion with bank stabilization and buffer plantings. Other actions may also be considered. Design should ensure that any runoff that does occur does not enter the river.	3	1-5 years	

#	RECOMMENDATION	PRIORITY	TIME FRAME	NOTES
I-11	Extend the trail system to create a loop in the northern area of the Park. An extension of the trail system should be constructed as indicated in Figure 4.11 and in conjunction with the location of the second wildlife viewing blind discussed in Recommendation I-17, as well as river access points discussed in Recommendation I-3. The trail should be constructed in a manner that minimizes impacts to surrounding habitat, using mulch or bark. Boardwalks or other measures to minimize intrusion into surrounding habitat should also be considered. Once constructed, the trail should be included on trail maps.	1	5-10 years	
I-12	Construct permanent restroom and drinking water facilities. A permanent restroom building should be constructed near the parking area, in the area generally indicated by Figure 4.6. These facilities should be connected to City water and sewer lines. Drinking fountains should also be constructed. These facilities should be constructed to minimize potential for vandalism, including evaluation of time locks or other security measures. Regular cleaning should be scheduled similar to that implemented in other Park facilities. The building should be included on signs and trail maps within the Park.	1	5-10 years	
I-13	Improve parking facilities and the park entrances on Row River Road. The parking area should be paved and striped, including ADA-compliant parking stalls. The design should capture and mitigate stormwater runoff on-site, using bioswales or other mitigation approaches, and include signage explaining the benefits of this design to Park users. Bicycle parking should be provided. Signage indicating Park entrances should be placed at the entrances to Row River Road. Additional signage should direct users to the boat ramp area. The paved facility should include the area adjacent to the BMX facility, but not the road and gravel area near the boat ramp.	1	5-10 years	
I-14	Improve trail map signage within the Park. Current trail map signage should be replaced with signs that are easily updated and changed to reflect improvements or new amenities within the Park. Signs should be placed at all trailheads and major trail intersections within the Park.	1	5-10 years	
I-15	Designate and sign a formal bicycle route between Row River Nature Park and North Regional Park. Place signs at connection points in both Parks indicating the path between them, and additional signs at turning points on intermediate surface streets to show the designated route.	1	5-10 years	
I-16	Install interpretive signage focusing on native plant and animal habitat. Interpretive displays and activities should be focused along the paved trail in the area of the fishing pond and experiential area. Exhibits should be shown on trail maps and signage. Interpretive programs should integrate with other park amenities such as the experiential area and viewing blinds. These resources should be advertised to local educators and environmental groups.	1	5-10 years	
I-17	Construct an additional wildlife viewing area. Identify a site for an additional wildlife viewing area to complement the qualities of the existing proposed blind. Include waste receptacles and interpretive signage explaining the purpose of this facility to Park users. Include this facility on trail maps within the Park.	2	5-10 years	Depends upon I-11

#	RECOMMENDATION	PRIORITY	TIME FRAME	NOTES
I-18	Improve trail directional signage within the Park. Where trails take unexpected turns within the Park, inexpensive small signs should be placed to warn users of the deviation to prevent unintended intrusion into sensitive habitat areas and to increase the usability of the overall trail system.	2	5-10 years	
I-19	Construct a new trail to connect the two trailheads, restroom facilities, and BMX facility through the parking area. The trail should be paved and closely follow the Public Works fence line at the edge of the Parking site. It should directly connect to the restroom facility and the picnic shelter. Design of the trail should ensure ADA accessibility wherever feasible.	2	5-10 years	Depends upon I-12, I-13
I-20	Improve the boat ramp approach. The boat ramp area should be modified to improve its ability to serve users by flattening and slightly extending its approach into the adjacent parking area. Design of the boat ramp should be optimized for use with canoes, kayaks, and inflatable boats. The ramp should be signed as such to avoid inadvertent blockage by parked cars. Waste receptacles should be placed in this area.	3	5-10 years	
I-21	Develop a Park brochure detailing its amenities, trails, and environmental characteristics. The brochure should include a map of facilities and trails, connections to other recreational facilities, and an explanation of the Park's vision and guiding principles. The brochure should be available in paper and electronic formats and proactively offered to educational, recreational, and promotional organizations in the City and region.	3	5-10 years	
I-22	Add wireless internet connectivity in some areas of the Park to support educational users. Place a CGWiFi wireless node in the Water Treatment facility, aimed to enable nearby users to get access to the City wireless network. This connectivity can also enable field access to invasive plant identification resources for those conducting EDRR monitoring activities. Add information about this capability to information provided to educators and EDRR volunteers.	3	5-10 years	
I-23	Add a shelter adjacent to the parking area. Using the concrete pad already in place, a shelter with picnic tables, electricity, and water fountains should be constructed. ADA accessibility design should be utilized wherever feasible. This shelter should be oriented toward use by groups for educational and recreational activities in the Park. A reservation system should be considered for this shelter, similar to those in place in other City parks. The shelter should be added to park signage and trail maps.	1	10-20 years	
I-24	Add bicycle parking near the fishing pond. Place dedicated racks near the trail map sign and waste receptacle adjacent to the fishing pond, to avoid unintentional damage to newly-planted trees and other vegetation potentially caused by bike parking in these areas.	2	10-20 years	
I-25	Identify opportunities to acquire additional land for Park expansion. Of particular interest is County-owned land across the Row River from the current Park site.	2	10-20 years	

#	RECOMMENDATION	PRIORITY	TIME FRAME	NOTES
I-26	Formalize parking regulations near the Weigh Station site. With Lane County, determine appropriate parking regulations for the shoulder area near the Weigh Station site, and post signage conveying these regulations.	3	10-20 years	Depends upon I-13

5.4 MASTER PLAN ASSESSMENT AND REVISION

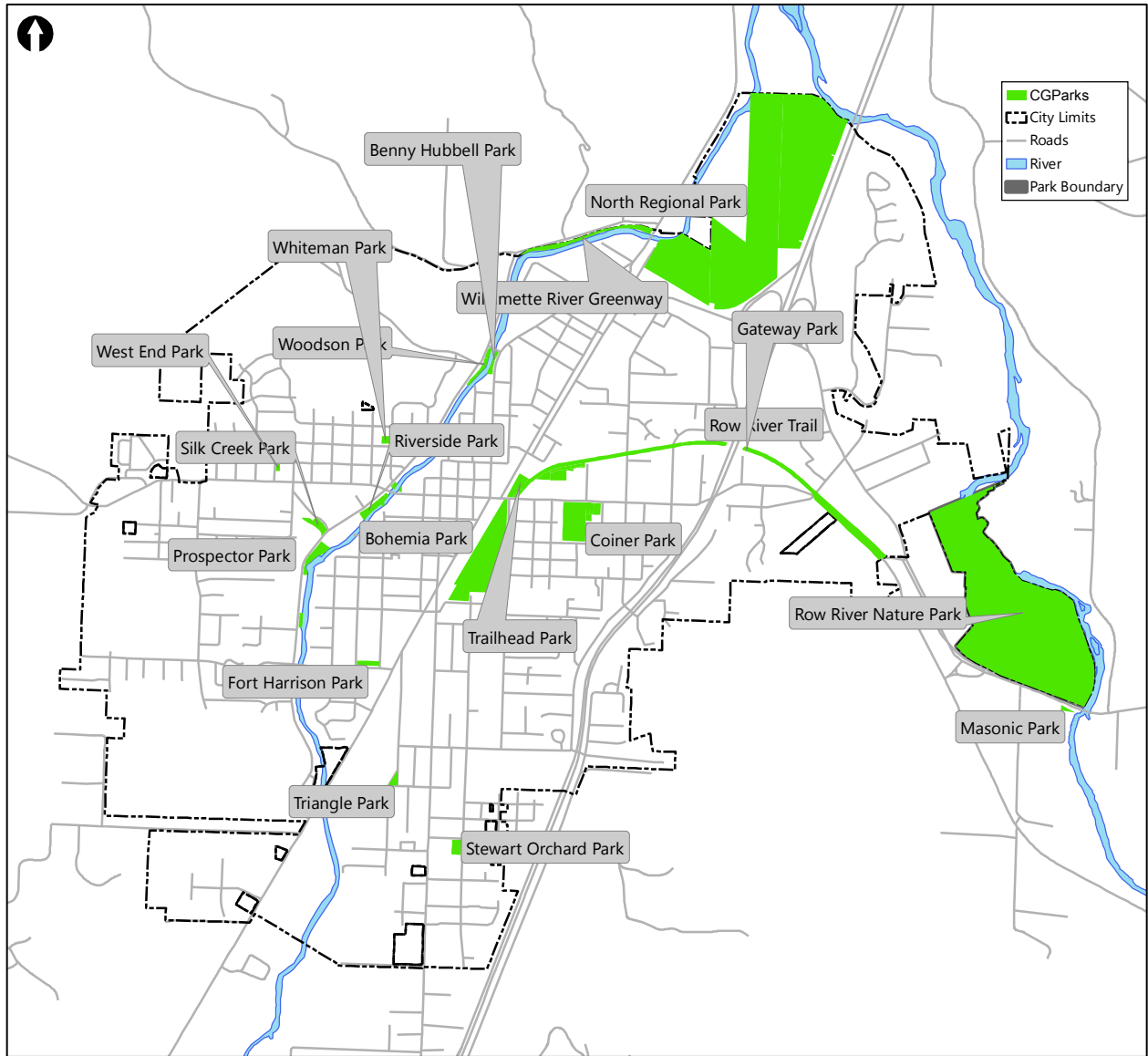
Although this Master Plan sets a 20-year vision for the Park, periodic review within that time is necessary to make minor revisions and modifications to address conditions that may arise. This plan should undergo assessment, review and revision every five years using public engagement means similar to those employed in the original Master Plan development process.

6 APPENDICIES

APPENDIX A MAPS & AERIAL PHOTOGRAPHY



Aerial photograph of park and surrounding area, showing trail system and nearby roads.



Cottage Grove Park System Map

APPENDIX B COMMUNITY SURVEY & PUBLIC COMMENTS

East Regional Park Master Plan Survey																
<p>Please fill out the following questions about East Regional Park. Your information will help shape the master plan, and the future of the park. Thank you!</p> <p>1. Which of the following activities do you partake in while visiting East Regional Park? (Please mark all that apply)</p> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Riding bikes</td> <td><input type="checkbox"/> Walking</td> <td><input type="checkbox"/> Wildlife viewing</td> </tr> <tr> <td><input type="checkbox"/> Hiking</td> <td><input type="checkbox"/> Dog Walking</td> <td><input type="checkbox"/> In-line Skating</td> </tr> <tr> <td><input type="checkbox"/> Bird Watching</td> <td><input type="checkbox"/> Boating</td> <td><input type="checkbox"/> OTHER...</td> </tr> <tr> <td><input type="checkbox"/> Picnicking</td> <td><input type="checkbox"/> Using the BMX Track</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Fishing</td> <td><input type="checkbox"/> Swimming</td> <td></td> </tr> </table> <p>If you marked other, please list your activities below:</p> <p>2. What do you see as East Regional Park's greatest asset?</p> <p>3. What do you see as East Regional Park's weakest asset?</p> <p>4. Do you think the addition of a picnic shelter would be beneficial for the park?</p> <p>5. How often do you use the boat ramp at the main pond within the park?</p> <p style="text-align: center;">More questions on the back...</p>	<input type="checkbox"/> Riding bikes	<input type="checkbox"/> Walking	<input type="checkbox"/> Wildlife viewing	<input type="checkbox"/> Hiking	<input type="checkbox"/> Dog Walking	<input type="checkbox"/> In-line Skating	<input type="checkbox"/> Bird Watching	<input type="checkbox"/> Boating	<input type="checkbox"/> OTHER...	<input type="checkbox"/> Picnicking	<input type="checkbox"/> Using the BMX Track		<input type="checkbox"/> Fishing	<input type="checkbox"/> Swimming		<p>6. What do you think would be the pros and cons of East Regional Park and North Regional Park being connected via a bike trail?</p> <p>7. Please state what you would like to see happen at East Regional Park in the following timeline:</p> <p>a. Next 1 year:</p> <p>b. Next 5 years:</p> <p>c. Next 10 years:</p> <p>8. Would you like to be kept informed on further progress made of the East Regional Park Master Plan, including dates for future open houses? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>If yes, please fill out the following information and we will add you to the stakeholder list.</p> <p>NAME _____</p> <p>ADDRESS _____</p> <p>EMAIL ADDRESS _____</p> <p>Thank you for taking the time to fill out this survey, and we look forward to incorporating your suggestions into the East Regional Park Master Plan!</p>
<input type="checkbox"/> Riding bikes	<input type="checkbox"/> Walking	<input type="checkbox"/> Wildlife viewing														
<input type="checkbox"/> Hiking	<input type="checkbox"/> Dog Walking	<input type="checkbox"/> In-line Skating														
<input type="checkbox"/> Bird Watching	<input type="checkbox"/> Boating	<input type="checkbox"/> OTHER...														
<input type="checkbox"/> Picnicking	<input type="checkbox"/> Using the BMX Track															
<input type="checkbox"/> Fishing	<input type="checkbox"/> Swimming															

Summary of public comments received:

- Within one year:
 - Develop vegetation management strategy to replace blackberries with suitable native shrubs (M)
 - Once water treatment facility is done, expand park (LH)
 - Make access to ponds with higher turtle density inaccessible to people (LH)
 - Identify vegetation improvement areas for habitat maintenance and restoration of native vegetation (H & A)
 - Develop a species management plan for the turtles and any other sensitive species (H & A)
 - Gain park land after the water system plant expansion is complete (H & A)
 - More garbage receptacles (GH)
 - Pamphlets for the park to inform the people in Cottage Grove the park exists (GH)
 - Addition of bathrooms- Keep buildings close to the road to minimize vandalism & impaction in the park (PC)
 - Entrance signs (PC)
 - Nurture the turtles (PC)

- Bird houses for small nesting birds (house wrens, tree swallow, violet green swallow) and large nesting (purple martins, screen owls, wood ducks) (PC)- info for person to make boxes on suggestion card in file
- Use Budford Park nursery to grow native vegetation (PC & A)
- Improve trails (PC)
- Remove blackberries selectively (PC)
- Signage to make area more known to build support (PC)
- Need dog waste baggies & more garbage cans (PC)
- Target plantings around trout pond- near big tree on corner could have native shrubs on pond bank instead of blackberry (PC)
- Partner with OSU/School groups for pond turtle partnership for educational purposes and work parties (PC)
- Within five years:
 - Continued management and enhancement of the pond turtle habitat and associated increase in turtle numbers (M)
 - Turtle nesting and survival of hatchlings (M)
 - Obtain long term funding for ongoing research and study of the turtle population and for monitoring of enhancement projects (M)
 - Additional planting of native species for wildlife and bird habitat enhancement (M)
 - Protection of natural wetland areas within the park (M)
 - Introduction of native wildflowers that would normally occupy that site if invasive weeds were removed (M)
 - Creation of viewing areas for wildlife (M)
 - Limiting public use/disturbance to the wildlife areas using friendly barriers (M)
 - Development of a wildlife and wildflower guide to the park (M)
 - Interpretive signs about the value of wildlife habitat and the importance of leaving native turtles and other sensitive wildlife undisturbed (M)
 - Find a historical photo and a present photo of the park to determine how much of the first pond is damaged and infilled from neighbors (LH)
 - Bring bike path up in elevation so culvert can be readjusted to make the first pond deeper again (LH)
 - Remove bull frogs and nutria
 - Push heavily for bank access for ponds not along the stream, so that youth can participate in nature hands on (LH)
 - Better delineation of the parking lot with the addition of bike parking (H & A)
 - New signage for entire park (to know where one is, as well as for species info.) (H & A)
 - Improvement of trail system for habitat viewing and access to water- possibly using the same material Mt. Piskgah does (gravel & dirt base w/ bark-a-mulch top) (H & A)
 - Continued vegetation management and habitat restoration (H & A)
 - A drinking fountain at the beginning of the trail (GH)
 - Benches for the trail would be good additions (GH)
 - Nurture the turtles (PC)
 - Erect information boards about plant and animal species (PC)
 - Connect bike trail at trout ponds to other bike trails (PC)
 - Continue support of pond turtle project, and add activities that OSU, LCC, or CGHS students could assist in (PC)

- Within ten years:
 - A stable and reproductive pond turtle population (M)
 - Increased use of the park by travelers (I-5) and locals to enjoy wildlife viewing and recreation in a riverside setting (M)
 - Large dog-off-leash area developed (LH)
 - Addition of lots of picnic tables throughout the park (esp. on the fingers of land near the pond) (LH)
 - Developing this park for people's use, not locking up as a nature reserve (LH)
 - Stabilize bank with native vegetation (remove noxious vegetation holding up the bank, like blackberries) (LH)
 - Build picnic shelter with electricity for people to reserve for group parties, to take some of the stress off Coiner Park (H & A)
 - Improve, possibly pave the boat ramp access to the river near the BMX track (H & A)
 - Dredging of ponds for invasive species of plants and sediments (H & A)
 - Build permanent restrooms near the parking lot/boat ramp/picnic shelter area and develop an agreement with the BMX to maintain it (since they will use it) (H & A)
 - Connect North Regional Park and East Regional park by paved bike trail by obtaining more land (hopefully along the river) (H & A)
 - Rebuild turtle population and other sensitive species (H & A)
 - Develop areas for bird watching, and possibly get East regional Park into the bird watching hand-out for the State (H & A)
 - See the park get used more without losing the seclusion and natural beauty of the park (GH).
 - Nurture turtles (PC)
 - Add one or two water fountains (PC)
- Key to annotations:
 - PC – Private Citizen
 - M – Melissa Kirkland
 - LH – Lindsey Haskell
 - H & A – Howard Schesser and/or Amanda Ferguson
 - GH – Greg Hensley

APPENDIX C BMX FACILITY LEASE AGREEMENT

Document image to be inserted.

APPENDIX D INVASIVES REMOVAL PROJECT ZONES MAP

Document image to be inserted.

APPENDIX E SPECIES LIST

Notable species in the Park include:

Mammals

- American Mink (*Neovison vison*)
- Nutria (*Myocastor coypus*)
- North American Beaver (*Castor canadensis*)
- North American River Otter (*Lontra Canadensis*)

Birds

- Canada Geese (*Branta canadensis*)
- Great Blue Heron (*Ardea Herodias*)
- Green Heron (*Butorides virescens*)
- Wood Duck (*Aix sponsa*)
- Wrentit (*Chamaea fasciata*)
- Bullock's Oriole (*Icterus bullockii*)
- Black-headed Grosbeak (*Pheucticus melanocephalus*)
- Red-winged Blackbird (*Agelaius phoeniceus*)
- Osprey (*Pandion haliaetus*)
- Cedar Waxwing (*Bombycilla cedrorum*)

APPENDIX F USACE FLOODPLAIN RESTORATION STUDY MAPS

Document image to be inserted.

APPENDIX G ANNUAL MANAGEMENT PLAN OUTLINE

The following outline shall be used as the basic structure and outline for the Annual Management Plan to be developed each spring. For more information regarding the purpose and development of Annual Management Plans, refer to section 4.2.4 and recommendations M-2 and M-3 in Chapter 5.

1) Invasive Species Projects

- a) Continuing work from last year
- b) New work for this year
- c) Maps and photos of planned work.
- d) EDRR findings (new species detected, new areas of infestation, etc., including pictures and descriptions of species).
- e) Specific instructions for public works crews related to projects.
- f) Contact information for those coordinating each project.

2) Habitat Management Projects

- a) Continuing work from last year
- b) New work for this year
- c) Maps and photos of planned work.
- d) Specific instructions for public works crews related to projects.
- e) Contact information for those coordinating each project.

3) Facilities/Amenities Enhancement Projects

- a) Maps and photos of planned work.
- b) Specific instructions for public works crews related to projects.
- c) Contact information for those coordinating each project.

4) Public Works Plans

- a) Areas to be actively maintained by Public Works: specific maps, methods, and schedules (where possible).
- b) Outcomes/lessons learned from prior summer's work (where applicable).
- c) Specific training needs for summer work crews. Include photos, maps, supporting information where needed.
- d) Contact information for Public Works crews.

5) Other planned activities or improvements as applicable.

APPENDIX H CURRENT ANNUAL COORDINATION PLAN

Document to be attached to this plan annually upon coordination meeting as described in Chapters 4 and 5.