

MINTO-BROWN ISLAND PARK MASTER PLAN

Prepared for
City of Salem, Public Works
Department, Parks Operations
Division

November 2015



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CHAPTER 1

Introduction

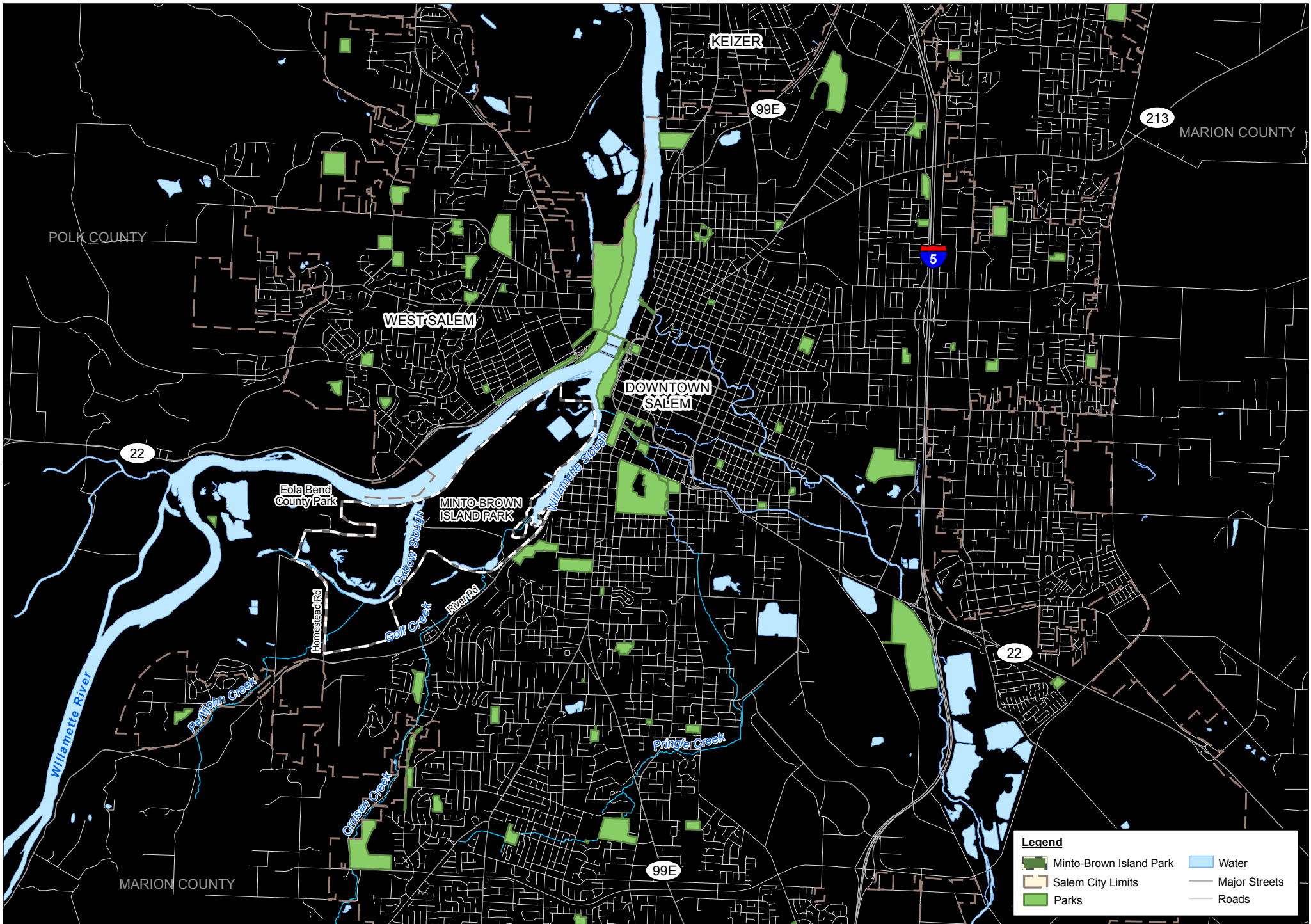
1.1 Purpose of the Master Plan

Minto-Brown Island Park is a 1,205-acre natural area located primarily in the Willamette River floodplain adjacent to downtown Salem. Minto-Brown is the largest park in the Salem park system, accounting for half of all park acreage in the City. Its close proximity to downtown Salem and high visibility along the Willamette River make it very important to Salem residents. A planned new bridge and trail connection to Riverfront Park will add a mile of new trail to over 18 miles of soft surface and multi-use trails already in place within the park. The bridge will directly connect Minto-Brown Island Park to Riverfront Park, downtown Salem, Wallace Marine Park, and west Salem. This connection will expand a network of off-street, multi-use trails through the City's downtown core on both sides of the Willamette River.

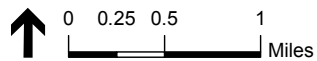
As a natural area, the park is intended to protect and preserve habitat and to support passive recreation uses at a level that does not conflict with or impact the natural resources. Minto-Brown is a unique natural area for multiple reasons. It is very large and ecologically complex, with many natural resource elements. The site includes sloughs, creeks and wetlands, riparian forests, mixed forests, prairies, Oregon white oak savanna, former cherry and hazelnut orchards, fallow agricultural fields, trails, picnic facilities, and an off-leash dog area. This large park can accommodate considerable existing habitat areas, substantial restoration areas, and a variety of recreation uses in less-sensitive areas. It includes several uses which are less common in a natural area such as past farming, a dog park and large areas that are in need of invasive weed management, and recreation and restoration planning.

The purpose of the master plan is to identify proposed modifications to the park based on stakeholder input that incorporates park, trail, and open space needs in a manner that supports natural resources functions and is consistent with Salem's ability to fund and maintain those park modifications. The master plan document describes the proposed modifications as a well-developed concept; not as a set of construction plans and specifications.





SOURCE: Water, Roads, Parks data provided 8/2014 by City of Salem. Major Streets, Streets, and City Limits provided 2013 by City of Salem.



Minto-Brown Island Park Master Plan
Figure 1-1
 Site Context / Vicinity

CHAPTER 2

Existing Conditions

2.1 Landscape Context

The vicinity map, **Figure 1-1**, provides landscape context for Minto-Brown. The park is located in the Willamette River floodplain and is bordered by water on almost all sides, with the Willamette River along the long north edge, Willamette Slough on the east, Oxbow Slough through the site, and a series of creeks and ponds bounding the south edge. River Road South and the Burlington Northern and Santa Fe Railway (BNSF) form the south boundary of the park. A few houses and the Salem Golf Club are adjacent neighbors along the south boundary, and are visible from several points within the park. The west edge of the park is bounded by Homestead Road South, agricultural fields, and a Marion County recycling and composting facility. Eola Bend County Park, which is owned and managed by Marion County, is directly west of Minto-Brown Island Park along the river bank and can only be accessed through Minto-Brown Island Park. Trails connect Eola Bend to Minto-Brown, and the Eola Bend trail system is included on maps throughout the park.

The park is located adjacent to downtown Salem, is across the river from west Salem, and is in close proximity to a number of other parks, including: Fairmount, Bush's Pasture, Riverfront, and Wallace Marine. This location also places it close or adjacent to important regional trails: the Willamette River Trail, the Willamette Valley Scenic Bikeway, the Pringle Creek Trail, the Union Street Railroad Bridge to west Salem, and the Edgewater Trail.

2.2 Natural Resources

Soils

Figure 2-1 depicts soils across the site. Many of the soils at Minto-Brown (Chehalis, Cloquato, McAlpin, McBee, Newberg, and Wapato) are classified as prime farmland, reflecting the historic use of the site. There are two hydric soils in the park, Wapato and Alluvial land, which are generally associated with river and slough banks, wetlands, and drainages. Two soils have potential hydric inclusions, McBee and McAlpin. McBee is found in the fallow agricultural fields and Natural Resources Conservation Service (NRCS) restoration areas on site. Visual inspection during site analysis indicated high likelihood of wetlands occurring associated with this soil at Minto-Brown. Most of the soils on site are associated with low gradient slopes (0 to 3 percent) and floodplain or terrace locations, and are occasionally to frequently flooded. The balance (Silverton, Terrace escarpment, and Nekia) are associated with banks along the south edge of the park and levees on the Boise-Cascade parcel.

Twelve soil types are found across the site including:

- Alluvial Land (Ad), 0 to 4 percent slopes, hydric
- Camas Gravelly Silt Loam (Ca), 0 to 3 percent slopes
- Chehalis Silty Clay Loam (Ch), 0 to 3 percent slopes
- Cloquato silt loam (Cm), 0 to 3 percent slopes
- McAlpin silty clay loam (MaA), 0 to 3 percent slopes, potential hydric components
- McBee silty clay loam (Mb), 0 to 3 percent slopes, potential hydric components
- Nekia silty clay loam (NeE), 20 to 30 percent slopes
- Newberg fine sandy loam (Nu), 0 to 3 percent slopes
- Newberg silt loam (Nw), 0 to 3 percent slopes
- Silverton silt loam (SuC), 2 to 12 percent slopes
- Terrace escarpment (Te), 20 to 40 percent slopes
- Wapato silty clay loam (Wc), 0 to 3 percent slopes, hydric

Wetlands and Waterways

There are numerous wetlands and waterways adjacent to and within Minto-Brown Island Park (**Figure 2-2**). Pettijohn, Laurel, and Grey Oak Creeks drain from the south Salem hills into the site, and are tributaries to Oxbow Slough. The Willamette River forms the northern edge of the park. Oxbow Slough is a remnant river channel connected to the Willamette River during high water conditions with a 36-inch culvert at the north/downstream end. The bottom of the culvert was perched approximately four feet above the river during the site investigation in August 2014. Grey Oak Creek was dry and Pettijohn Creek had a very low flow. Low contributing flow and lack of river connectivity lead to warm, stagnant water conditions in Oxbow Slough during summer months. Croisan Creek also flows down from the south Salem hills, crosses into the site, and connects through a series of ponds and channels to Willamette Slough. Willamette Slough connects to the Willamette River at the east end of the park. Pringle Creek drains into Willamette Slough near this confluence. Sediment deposition from Pringle Creek has created a sandbar near the mouth of the slough, limiting access up the waterway in low water conditions.



Willamette Slough, Ludwigia colonizing bank

The Local Wetland Inventory (LWI) identifies wetlands along the riparian forest fringes of Oxbow and Willamette Sloughs, the downstream end of Minto Island associated with the Minto Island Conservation Area (MICA), and in scattered depressions and minor drainages across the site. Limited site investigation by the field team found wetlands likely in lower elevation sections of the three fallow agricultural fields (West, East, and Central) along the main park road, based on vegetation, soil maps, and observed site conditions. A wetland determination for the Minto Island Conservation Plan refined wetland boundaries for that portion of the site.

The Willamette River bank along the park frontage is reinforced with boulder riprap, with the exception of a 400' section just upstream from the Oxbow Slough culvert. The rip rap was placed in 1985 to stabilize the bank after erosion destroyed portions of the trail along the river's edge. The section of river bank that is unprotected has been eroding steadily for years, causing trees to topple and requiring the relocation of the soft surface trail through this area.

Floodplain and Floodway

Minto-Brown Island Park is entirely within the 100-year floodplain of the Willamette River as mapped by the Federal Emergency Management Agency (FEMA) in the Marion County Flood Insurance Study (FIS). The majority of the site is also within the 100-year floodway. The floodway is protected by state and federal law to prevent development and fill from impacting river flow during flood events thereby increasing flood impacts to properties upstream. The floodway, floodplain and cross sections are shown on **Figure 2-3**. Lower elevation portions of the site flood annually, resulting in seasonal trail closures. Major flood events in 1964, 1974, 1996, 2007, and 2012 impacted the entire park, with only the 1964 flood reaching 100-year flood elevation. See **Figure 2-4** for an aerial photo taken on February 9, 1996, showing the extent of flooding in the 1996 flood a day after the flood had crested. The 100-year flood elevation increases as you move upstream in the park, starting at 143.2 feet at the downstream tip near the Salem Audubon parcel and grading up to 145.5 feet near Parking Lot 4 / Homestead Road. **Table 2-1**, provides the flood surface elevation for each cross section depicted in Figure 2-3, and the approximate ground surface elevation for park features that coincide with the section.

Table 2-1 Flood Elevations at FEMA Cross Sections

FEMA Cross Section	Regulatory (100 Year) Water Surface Elevation	Floodway Water Surface Elevation	Corresponding Park Features and Ground Surface Elevation
BE	144.4'	145.0'	Minto Island Conservation Area – 120-130'
BF	144.8'	145.3'	Brown Squirrel Trail Loop – 120' North Field /Cherry Orchard – 134'
BG	144.9'	145.5'	Parking Lot 3 – 140' Dog off-leash area – 132'
BH	145.3'	145.8'	NRCS restoration fields – 130' South Field – 150'
BI	145.5'	146.0'	Parking Lot 4, Filbert Orchard – 142'

Source: FEMA Flood Insurance Study: Marion County, Oregon. 2003.

Topography

Minto-Brown is located within the relatively flat floodplain associated with the Willamette River (**Figure 2-5**). The average elevation across the site is 120 to 130 feet National Geodetic Vertical Datum (NGVD) 29, gently sloping uphill to the west as you travel upstream on the river, and south as the site transitions from floodplain to the south Salem hills. The high point on the site is in the southwest corner near Homestead Road and the railroad tracks at an elevation of 160 feet NGVD 29.

Vegetation

Dominant vegetation communities are shown on **Figure 2-6**. Historic vegetation community mapping, determined from General Land Office (GLO) field notes, identify historic vegetation at Minto-Brown as predominantly riparian forest, with some willow scrub shrub, prairie, with oak savanna and oak woodland on higher ground along the southern edge. The park has been managed for a number of uses over the years that have dramatically affected the vegetation composition of the site. The majority of the open areas between channels were in agricultural production until recently. As part of the agricultural management, the riparian forest was reduced to fringes in the wettest areas of the site, along the various wetlands and sloughs. Conservation Reserve Enhancement Program (CREP) plantings by the Natural Resources Conservation Service (NRCS) have expanded the riparian forests along the Willamette River, Oxbow Slough, and Golf Creek. The NRCS floodplain restoration areas have planted some of the past agricultural fields with native wet and upland prairie, mixed woodland, oak savanna, willow slough, and riparian forest vegetation. These and other projects have restored native vegetation communities in many areas of the park.

Remnants of agricultural management and historical site uses are represented on the vegetation assessment as fallow agricultural fields, orchards, and plantations. While some of the former agricultural fields have been restored, many acres of fields remain on the site. Farming within the park ceased in 2008. Since that time unrestored fields have been left fallow with minimal management aside from occasional mowing by the Parks Division. The West and East Fields (**Figure 2-7**) are dominated by reed canarygrass (*Phalaris arundinacea*) and other grasses, with wetlands on the eastern portion of each field. The Central Field is a mix, with red fescue (*Festuca rubra*) in the upland portions and weeds dominant in the eastern/wetter areas. The South Field appears to have been fallow for much longer. It has substantial establishment of native species including Oregon white oak (*Quercus garryana*), madrone (*Arbutus menziesii*), Oregon ash (*Fraxinus latifolia*), poison oak (*Rhus diversiloba*), and creeping blackberry (*Rubus ursinus*) in addition to grasses and herbs. This area also contains a number of non-native trees including English hawthorn, crab apple, and fruit trees, possibly from an historic homesite.

The Filbert and Cherry Orchards provide interesting character and context for historical uses of the park, but they have not been managed for pests or production in many years. The Filbert Orchard on Homestead Road has the potential to harbor Eastern filbert blight. The Cherry Orchard is adjacent to recent restoration sites. It is difficult to access through borders of blackberry, but has a number of good-sized Oregon white oaks visible above the cherry canopy. Douglas-fir and hybrid cottonwood plantations along Willamette Slough are remnants of the Boise Cascade ownership of the Minto Island Conservation Area (MICA). They are non-native, hybrid species and are tightly spaced, which limits light for development of understory plants. Management recommendations for these areas are included in the MICA Management Plan.

The orchards, plantations, and fallow fields are a significant portion of the total park acreage and provide the most substantial opportunities for the restoration or redevelopment within the park.

Himalayan blackberry (*Rubus armeniacus*) is an invasive plant that has developed dense stands in some areas of the park. It is particularly prevalent along the former levees in the MICA, adjacent to the Douglas-fir plantation and the trail in the eastern portion of the park, in the Cherry Orchard, and bordering the south and West Fields. Blackberry provides forage and shelter for many small birds and animals, but is invasive and spreads readily. Water primrose (*Ludwigia spp.*) is another invasive species that is prevalent at Minto-Brown. Ludwigia forms a solid mat in areas of shallow

inundation and exposed mudflats. It is well established on the margins of Willamette and Oxbow Sloughs, extending across the channels in the shallowest areas. Both of these species need to be managed and should be removed to the extent practicable.

Wildlife

Minto-Brown provides habitat for resident and migrating terrestrial and aquatic species within the city limits of Salem. Many species of fish, birds, amphibians, reptiles, and mammals find habitat at Minto-Brown. Porcupine, coyote, cougar, bobcat, blacktail deer, great blue heron, great horned owl, osprey, bald eagle, Canada geese, and innumerable water fowl and song birds are just a few of the species present. Historically, the farmer tenant agreement required the management of agricultural fields to provide winter forage for large populations of overwintering Dusky and Cackling geese. As the fields have been left fallow or restored with native species, the winter food source has been reduced and the geese populations have dwindled. The park still supports geese populations with loafing areas and some forage, but not at historic population levels.



Western Pond Turtle in Oxbow Slough

Photo Credit: Theresa Byrne

A thorough wildlife inventory has not been conducted at Minto-Brown. Data for wildlife presence have been primarily made through opportunistic observations by City staff, volunteers, and park users. The Salem Audubon Society regularly conducts excursions within the park and on their adjacent parcel, and has an extensive list of nesting bird species in the park (See **Appendix C**). River Road South and the adjacent rail line limit safe access for terrestrial animals from the open space and stream corridors in the south Salem hills. Other limitations to wildlife diversity include noise and disturbance from adjacent roads and communities, unleashed dogs, increased recreation activities, and trail creation throughout the site.

Several native anadromous salmonid species occur in the Willamette River adjacent to the park, including steelhead, cutthroat trout, Chinook salmon, and coho salmon. The sloughs and off-channel waterways provide habitat for bass, sunfish, bull frog, red eared slider, and other introduced warm water species that prey on or otherwise endanger or displace desirable native species.

The park contains habitat for a number of wildlife species that have been identified as threatened, or sensitive by state or federal agencies. **Table 2-2** includes a list of these species that are known to or suspected of living within the park. The Federal Endangered Species Act defines threatened species as likely to become endangered and protects the species and their critical habitat. Proposed threatened species have been identified as vulnerable and may be added to the threatened list. Any impacts to animals or habitat should be considered in planning efforts. Federal species of concern do not have formal protection but have been identified as vulnerable and in need of conservation measures. Suitable habitat for a Federal-proposed threatened species, streaked horned lark (*Eremophila alpestris strigata*) was noted in a field survey of the Minto Conservation Area. Oregon chub (*Oregonichthys crameri*) was recently removed from the Federal threatened list. The state identifies it as sensitive critical. Efforts to protect and improve habitat will support the ongoing recovery of the species. A recent ODFW survey found no specimens. There are no state threatened or endangered species known to inhabit the park. A number of species are listed as Sensitive Critical or Sensitive Vulnerable. Sensitive species do not have formal protection.

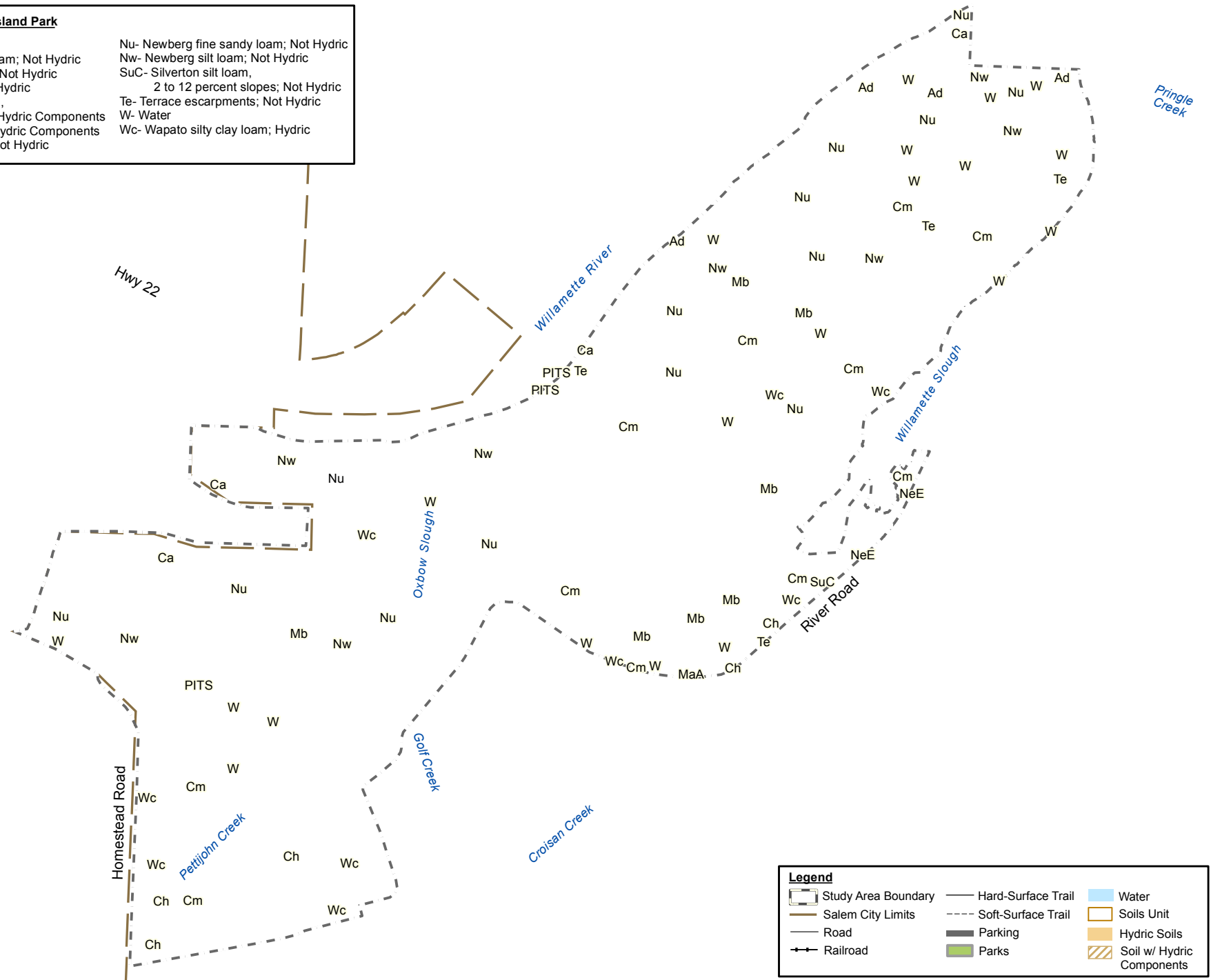
Table 2-2 Threatened and Sensitive Wildlife Species

Animal	Federal Status	State Status
Western pond turtle (<i>Actinemys marmorata</i>)	Species of Concern	Sensitive Critical
Common nighthawk (<i>Chordeiles minor</i>)	-	Sensitive Critical
Western painted turtle (<i>Chrysemys picta bellii</i>)	-	Sensitive Critical
Olive-sided flycatcher (<i>Contopus cooperi</i>)	Species of Concern	Sensitive Vulnerable
Pileated woodpecker (<i>Dryocopus pileatus</i>)	-	Sensitive Vulnerable
Willow flycatcher (<i>Empidonax traillii adastus</i>)	Species of Concern	Sensitive Vulnerable
Pacific lamprey (<i>Entosphenus tridentatus</i>)	Species of Concern	Sensitive Vulnerable
Streaked horned lark* (<i>Eremophila alpestris strigata</i>)	Proposed Threatened	Sensitive Critical
Bald eagle (<i>Haliaeetus leucopcephalus</i>)	-	Sensitive Vulnerable
Yellow-breasted chat (<i>Icteria vierns</i>)	Species of Concern	Sensitive Critical
Cutthroat trout (<i>Oncorhynchus clarkii</i>)	Species of Concern	-
Upper Willamette, winter run steelhead (<i>Oncorhynchus mykiss</i>)	Threatened	Sensitive Vulnerable
Upper Willamette, spring run Chinook salmon (<i>O. tshawytscha</i>)	Threatened	Sensitive Critical
Oregon chub* (<i>Oregonichthys crameri</i>)	-	Sensitive Critical
Northern red-legged frog (<i>Rana aurora</i>)	Species of Concern	Sensitive Vulnerable
Western Bluebird (<i>Sialia Mexicana</i>)	-	Sensitive Vulnerable
Slender-billed nuthatch (<i>Sitta carolinensis</i>)	-	Sensitive Vulnerable
Western meadowlark (<i>Sturnella neglecta</i>)	-	Sensitive Critical

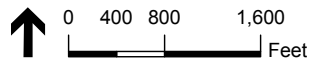
* Potential habitat noted within the park.

Soils Within Minto-Brown Island Park

Ad- Alluvial land; Hydric
 Ca- Camas gravelly sandy loam; Not Hydric
 Ch- Chehalis silty clay loam; Not Hydric
 Cm- Cloquato silt loam; Not Hydric
 MaA - McAlpin silty clay loam,
 0 to 3 percent slopes; Hydric Components
 Mb- McBee silty clay loam; Hydric Components
 NeE- Nekia silty clay loam; Not Hydric
 Nu- Newberg fine sandy loam; Not Hydric
 Nw- Newberg silt loam; Not Hydric
 SuC- Silverton silt loam,
 2 to 12 percent slopes; Not Hydric
 Te- Terrace escarpments; Not Hydric
 W- Water
 Wc- Wapato silty clay loam; Hydric



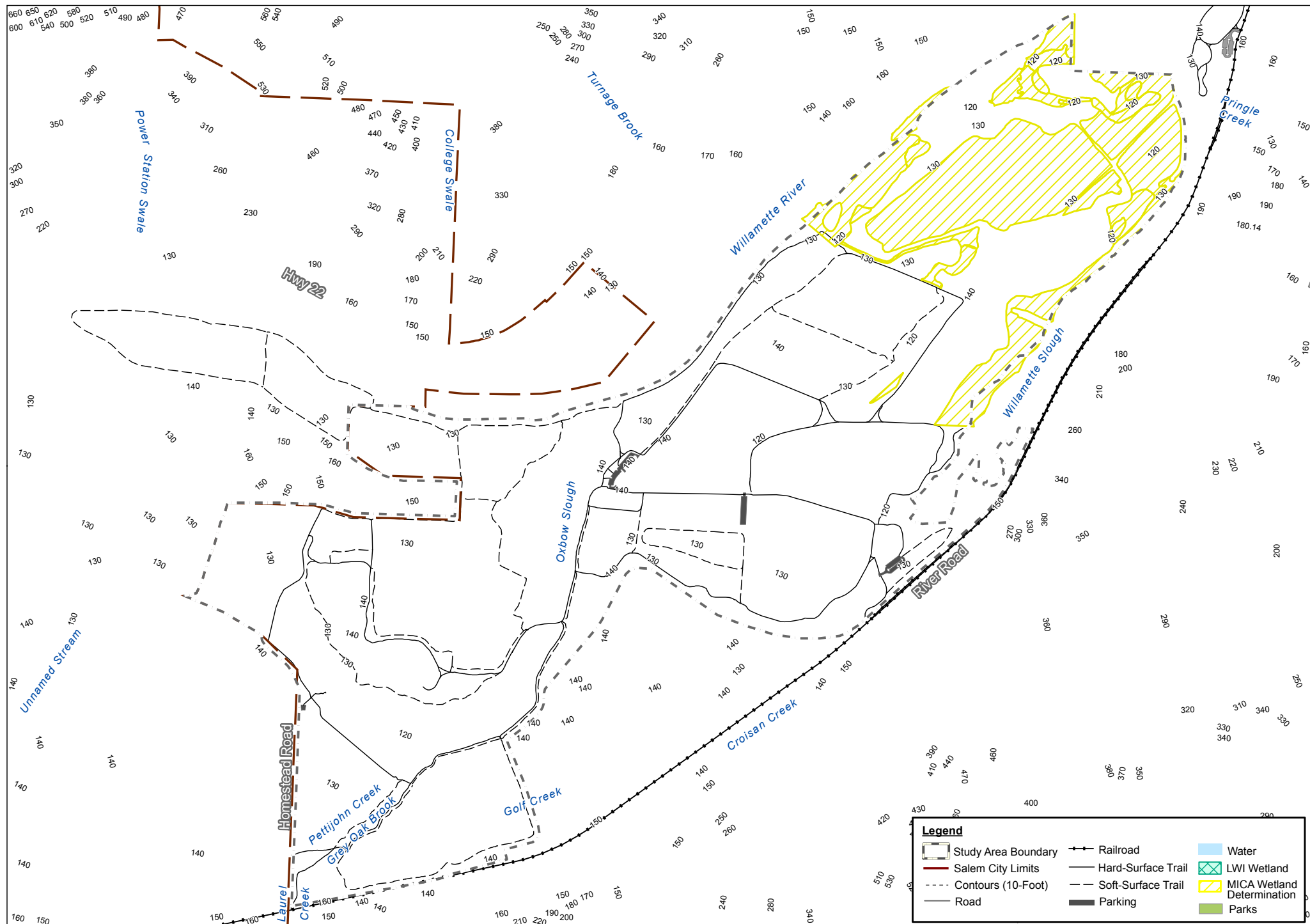
SOURCE: 2014 Aerial, Water, Streams, City Limits, Roads, Railroad, Trails, Parking, Parks, and Soils data provided 8/2014 by City of Salem.



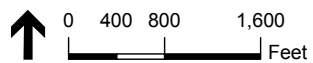
Minto-Brown Island Park Master Plan

Figure 2-1

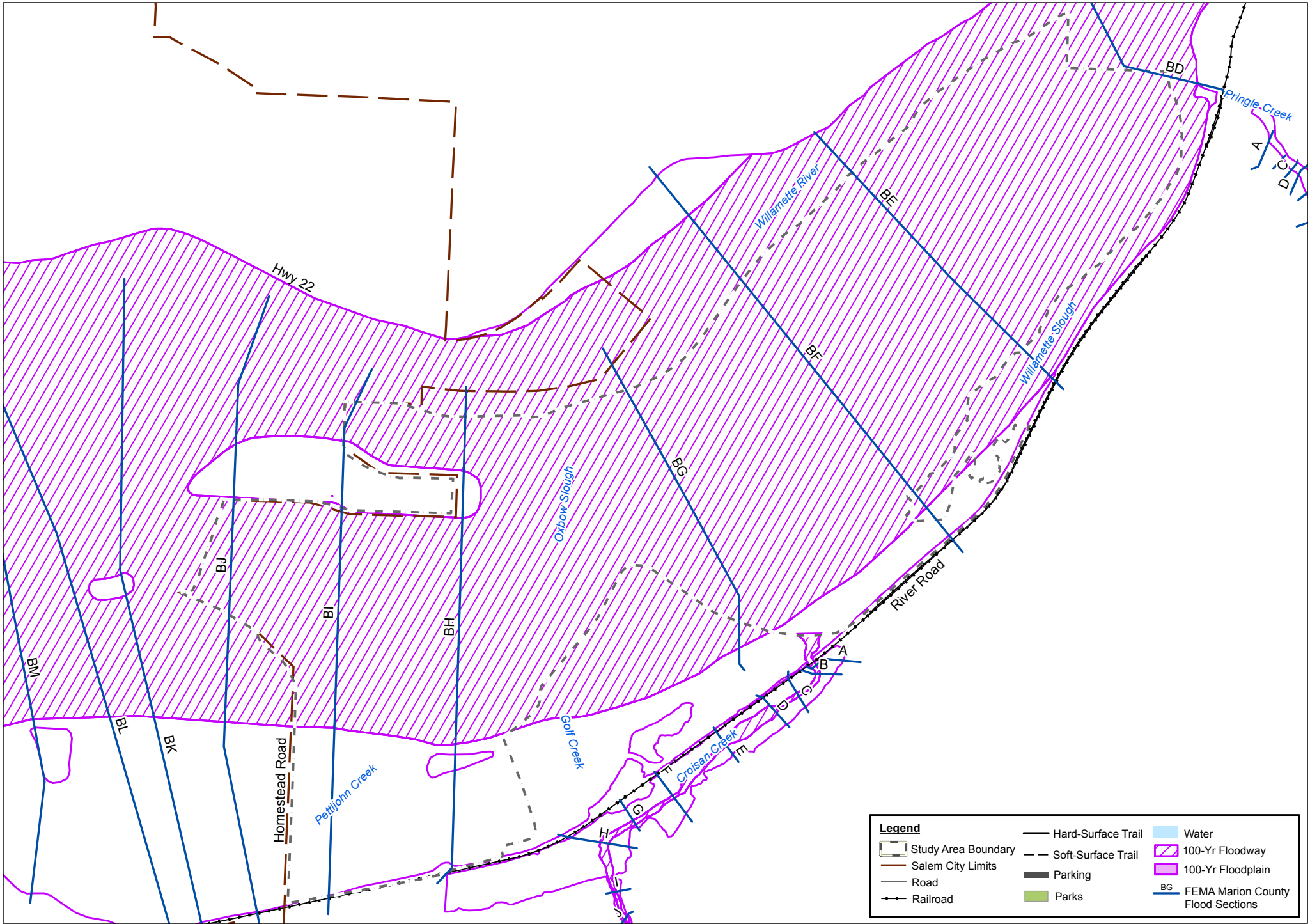
Existing Conditions - Soils



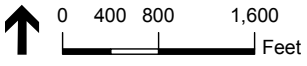
SOURCE: 2014 Aerial. LWI Wetland, Water, Streams, City Limits, Roads, Railroad, Parking, Trails, Parks data provided 8/2014 by City of Salem.



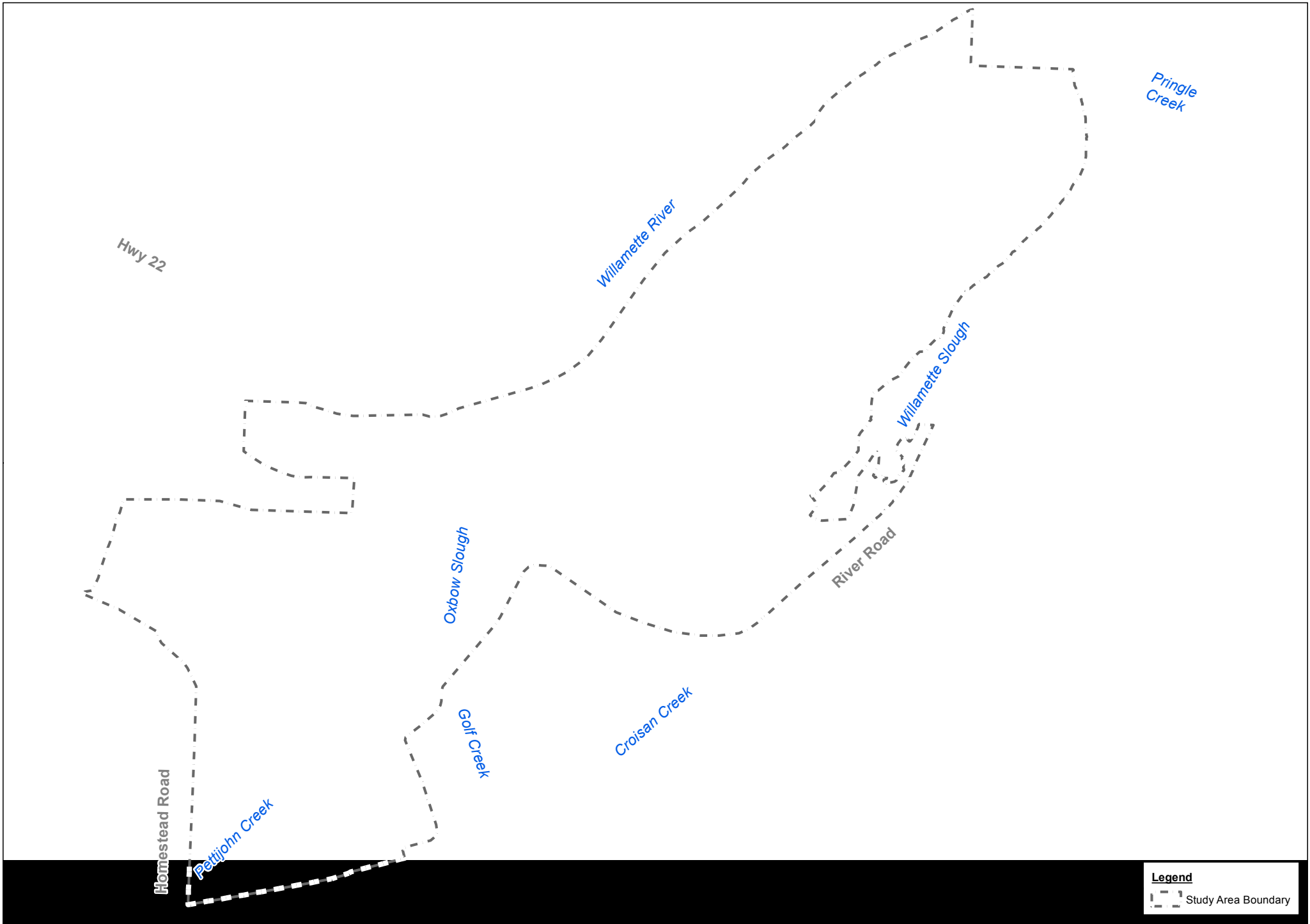
Minto-Brown Island Park Master Plan
Figure 2-2
 Existing Conditions - Wetlands and Waterways



SOURCE: 2014 Aerial, Water, City Limits, Streams, Roads, Trails, Railroad, Parking, Parks, Flood Sections data provided 8/2014 and floodway/floodplain data provided 2012 from the City of Salem.



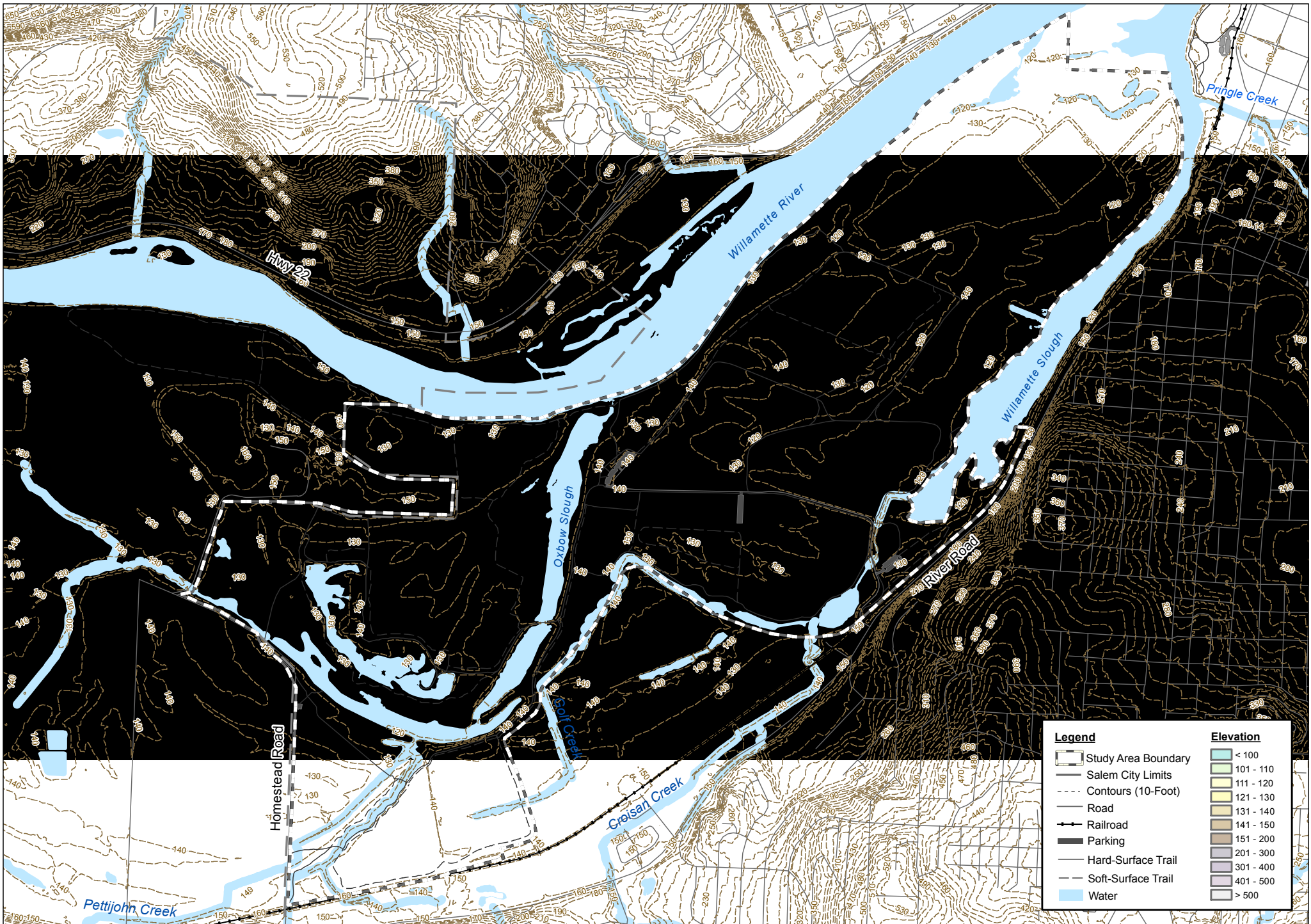
Minto-Brown Island Park Master Plan
Figure 2-3
 Existing Conditions - Floodplain and Floodway



SOURCE: Date Taken: February 9, 1996. Parks data provided 8/2014 from the City of Salem.



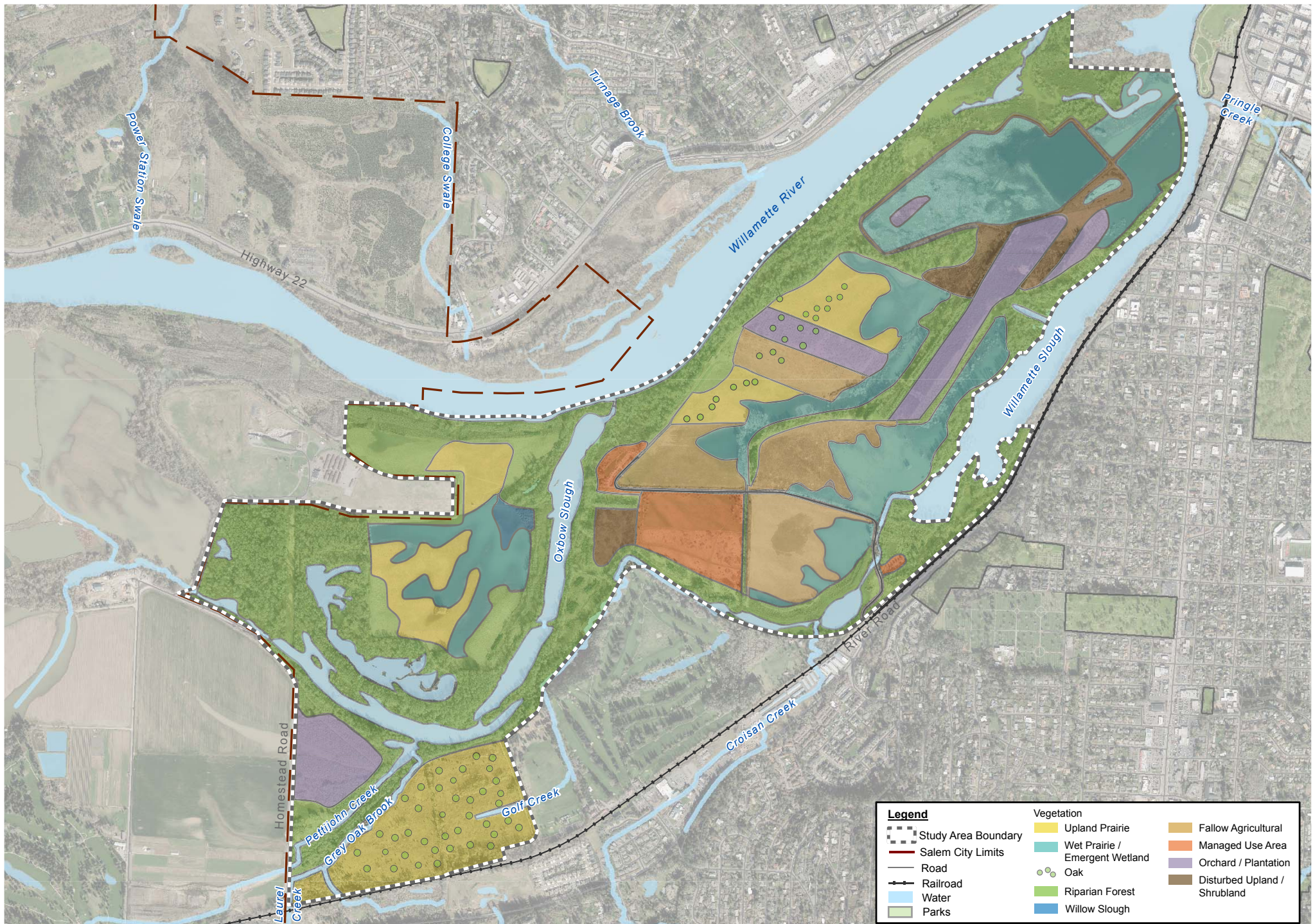
Minto-Brown Island Park Master Plan
Figure 2-4
Aerial Image of 1996 Flood Event



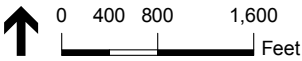
SOURCE: Water, Streams, City Limits, Road, Railroad, Parking, Trails, Digital Elevation Model, Parks data provided 8/2014 by City of Salem.

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Feet

Minto-Brown Island Master Plan
Figure 2-5
Existing Conditions - Topography



SOURCE: 2014 Aerial, Water, Streams, City Limits, Roads, Railroad, Parking, Trails, Parks data provided 8/2014 by City of Salem.



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Minto-Brown Island Park Master Plan
Figure 2-6
Existing Conditions - Vegetation

2.3 Existing Facilities

The existing facilities within the park are shown in **Figure 2-7** and are described below.

Transportation and Access

There are currently two primary access points to the park: River Road South and Homestead Road South. A paved park access road, Minto Island Road, enters the site from River Road South, and provides access to trails, Parking Lots 1, 2, and 3, and related amenities. Homestead Road South provides a secondary access, connecting with pedestrian and bicycle trails under the train trestle near River Road South and providing access to Parking Lot 4. There are also a number of gravel roads accessed through locked gates throughout the park. These roads historically provided access to agricultural uses, and currently provide access for maintenance, security surveillance, and emergency response. A gate at the north end of Homestead Road South leads to an abandoned park access road. The railroad, Willamette Slough, and Salem Golf Club are barriers to pedestrian access along River Road South and, therefore, pedestrian access is restricted to

Homestead Road South and the main park access road.



River Road near the park entrance

River Road South is a major arterial within the City, and carries large volumes of traffic at fairly high speed (posted at 45 miles per hour).

Pedestrian and bicycle access along River Road South is provided by a grade separated, paved path along the east side of the road from the terminus of Miller Street South to the park entrance at Minto Island Road, crossing to the park with a signalized intersection and cross walk. The sidewalk continues south

intermittently along the west side of River Road South, ending prior to Homestead Road South. Wide, paved shoulders along both sides of River Road South between Minto Island Road and

Homestead Road South provide some accommodation for cyclists through this section, but are not safe for pedestrians. Homestead Road South is a county road located outside of the city limits. Drainage ditches follow the road on both sides. There are no shoulders or sidewalks on Homestead Road South. Bicycles and pedestrians can enter the park trail system under the train trestle near the intersection of Homestead and River Roads.

Minto Island Road, which is off River Road South, is the main park entrance and access road. There are several speed bumps between Parking Lots 1 and 2. The speed limit is 20 mph. A paved trail follows the north side of the road past Parking Lot 1, before crossing to the south at a crosswalk near a sharp turn. The paved trail continues along the south side of the road past Parking Lot 2 to Parking Lot 3.

Parking and Managed Use Areas

There are four parking lots within the Park, providing a total of 186 spaces. There are 114 paved spaces (including seven handicap accessible), and approximately 72 gravel spaces.

Parking Lot 1 is located just inside the park off of River Road. The parking lot provides access to trails and includes a bike rack, a picnic table, garbage cans, Mutt Mitt dispensers, trailhead kiosks, and two chemical toilets. There are 2 accessible spaces out of 60 total. The parking lot is paved with curbs and wheel stops with a loop configuration for easy circulation, and is in good condition. The information kiosks are old and in poor condition, with interpretive panel content that does not reflect current park uses, such as past agriculture.



Information kiosks near Parking Lot 1

Parking Lot 2 is located midway along the park access road. It primarily serves dog park users, and also provides access to park trails. It has a drinking fountain with dog water station, several Mutt Mitt dispensers, picnic tables, garbage cans, and two chemical toilets. Lot 2 is gravel with steel barriers and boulders delineating the edge, providing approximately 50 parking spaces. A paved area at the front of the lot provides two accessible spaces with an access aisle. Lot 2 is long, with a single aisle of double-loaded parking without a turnaround. Unmarked gravel lots are prone to irregular parking configurations and are less efficient.



Parking Lot 2 near the Off-Leash Dog area

Parking Lot 3 is located at the west end of the park access road. It provides access to the central portion of the park, including the reservable picnic shelter, picnic tables, playground, fishing dock, and trails. Support facilities at this lot include five chemical toilets, bike racks, garbage cans, BBQ grills, drinking fountain, and trailhead kiosks. The south half of the lot is paved with curbs providing 45 spaces, two of which are accessible. The north portion of the lot is gravel, providing an additional 22 spaces, with boulders and steel barriers providing containment. Overflow parking is available for large events in the West Field adjacent to lot 3. Lot 3 is a loop

configuration and has two entry points from the park access road, providing adequate circulation and safety.

Parking Lot 4 is located on the west end of the park, off of Homestead Road South. It provides access to park trails, a fishing platform, and non-motorized boat access on Oxbow Slough. Lot 4 is paved, and provides nine spaces, one of which is accessible. A trail kiosk, Mutt Mitt dispenser, and garbage can are located at this lot. This parking lot is a dead-end without turnaround, which could result in cars backing out onto Homestead Road if the lot is full.

Parking Lots 2 and 3 often overflow on weekends and summer evenings, resulting in cars parking illegally along the park road. The overflow parking area in West Field is opened during these busy times to provide additional parking.

Trails

Trail related uses, such as walking, running, and biking, are the primary activities at Minto-Brown. There are over 18 miles of trails within the park, with nine miles of paved multi-use trails, most of which are 8 to 10 feet wide. There are an additional nine miles of soft surface trails, primarily hog-fuel or wood chip, which are 4 to 6 feet wide. In some cases, both paved and soft surface trails are side-by-side, providing options based on user preferences. There are a number of additional dirt foot paths across the site, leading to remote fishing spots, potential illegal camping sites, and other uses.



Off-leash Dog Area

The dog park at Minto-Brown is one of only two in the Salem park system. This dog park is quite large, at over 28 acres. Dog parks are usually fenced to separate them from other uses, but extensive fencing is not feasible due to the park being in the floodway. The size and location within the large park provides some buffer between the dogs and other park users. Dogs are required to be leashed when outside the dog park area, but park users often fail to comply. Off-leash dogs are a concern for sensitive wildlife and water fowl within the natural area.

2.4 Other Aspects

Conservation Easements

Some areas within Minto-Brown have conservation easements, which limit uses and development options in these areas. These easements were established in exchange for grant funding used for acquisition, restoration, and conservation of the specific area (**Figure 2-7**).

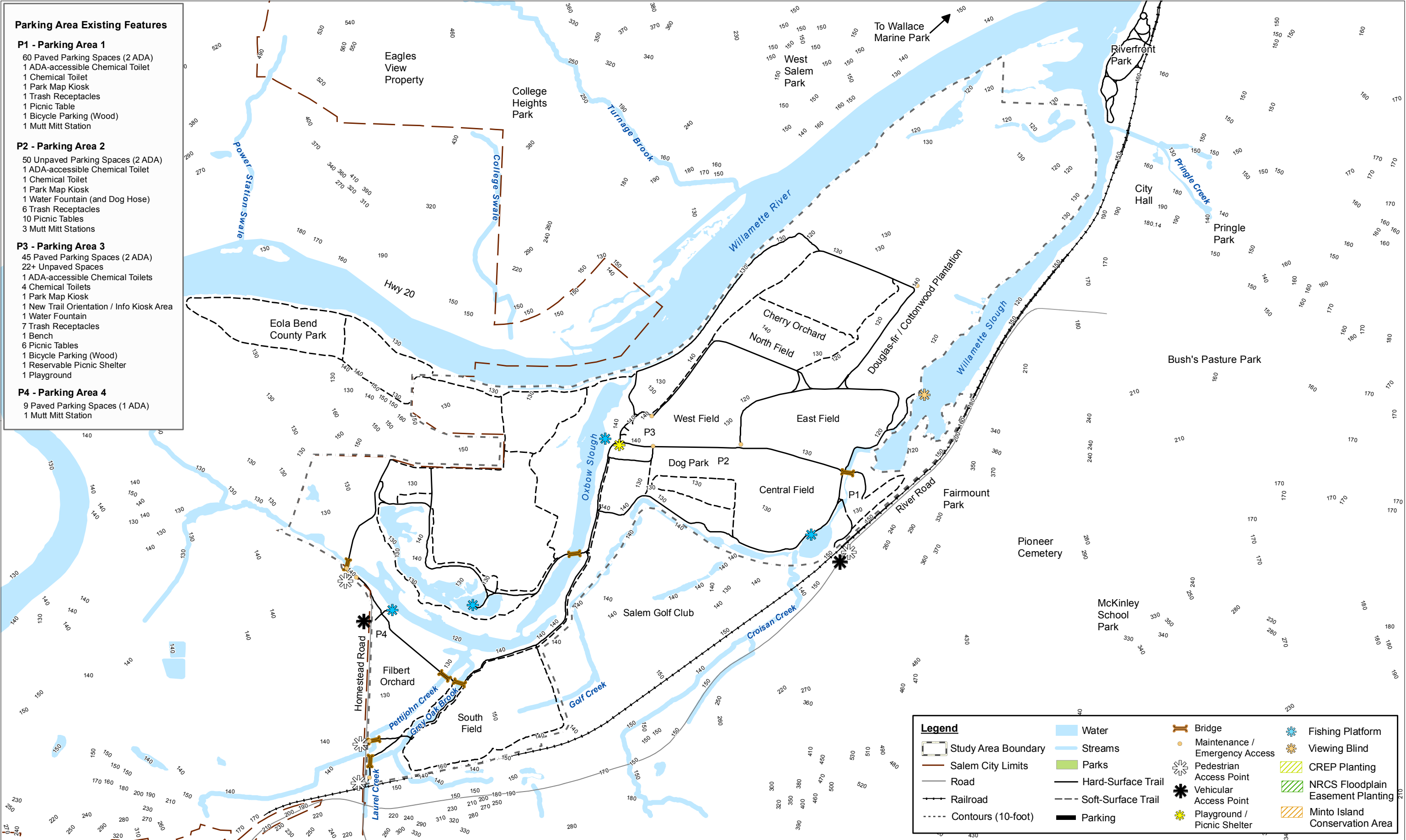
- United States Department of Agriculture (USDA) Conservation Reserve Enhancement Program (CREP) restoration areas are shown in lime green. These are riparian enhancement plantings along the Willamette River, Oxbow Slough, Golf Creek, and the duck pond, and include habitat features such as wood duck nesting boxes and bat boxes.
- The Natural Resources Conservation Services (NRCS) floodplain conservation easements are shown in green, and comprise 160 acres. They include three former agricultural fields, which were removed from production and planted with native species to restore oak savanna, mixed woodland, upland prairie, wet prairie, and willow slough communities found historically on site. These areas are restricted to restoration, but trails and trail uses are allowed.
- The Minto Island Conservation Area (MICA) includes the recently acquired 307-acre parcel at the northeast end of the park, and is shown in orange. A conservation easement is held by the Bonneville Power Administration (BPA) and the Oregon Department of Fish and Wildlife (ODFW). The City's acquisition of this parcel was funded through the Willamette Wildlife Mitigation Program. The conservation easement stipulates that the site is to be managed for wildlife habitat with limited trail access. Development of a long-range conservation and management plan for the site is required under the conservation easement requirements to guide future development of the area.
- Oregon Parks and Recreation Department (OPRD) Land and Water Conservation Funds (LWCF) have been used to expand the park over the years. These areas are open for public recreation. Commercial agricultural production is the major prohibited use. The LWCF areas are not depicted on Figure 2-7 because they pose no restrictions on recreational uses.

Fields

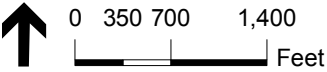
Commercial farming was an historic component of the park, encompassing many of the fields (approximately 276 acres) in the central portion of the park. In 2010, 160 acres were restored with native plant communities and are now protected by an NRCS conservation easement. The remaining fields, approximately 116 acres, have been fallow since 2008. The fields were historically managed to provide winter forage for migrating geese in the winter season. The open fields provide habitat for ground nesting birds and are seasonally posted to limit impacts during nesting season. The eastern portions of West, Central, and East Fields contain emergent wetlands.



Central Field



SOURCE: 2014 Aerial, Water, Streams, City Limits, Roads, Railroad, Minto Bridges, Minto Parking, Trails, Gates, Contours, CREP Plantings, Parks data provided 8/2014 by City of Salem.



Minto-Brown Island Park Master Plan
Figure 2-7
Existing Conditions - Site Plan

Cultural Resources

Minto-Brown Island Park and the surrounding area along the Willamette River and its tributaries, have had extensive documented historic use by native tribes, homesteaders, and many others. Confluences such as the Willamette River/ Pringle Creek confluence in Willamette Slough may have been used for fishing by native tribes. The entire park area within the floodplain would have been an optimal hunting and gathering area. There are known village and use sites in the area and it is likely that there are cultural resources located within the park. Below-ground resources that are 75 years or older are regulated. An archaeological investigation was completed for the bridge and trail project. No findings were documented.

Management Issues

Several management issues have affected Minto-Brown Island Park. The sheer size and diverse nature of the park complicate management and enforcement of regulations. The City actively manages and discourages development of illegal camping within the park. A secondary network of unplanned trails around the park has impacted vegetation and water quality. These trails often lead to illegal camp sites, or remote fishing areas along slough banks. Some sites exhibit signs of bank erosion, garbage accumulation, and campfires.

Off-leash dogs are common throughout the park, although park regulations limit them to the large off-leash dog area near Parking Lot 2. Off-leash dogs may scare or chase wildlife while loose, and can also be a nuisance for other park users.

Utilities

Water service on site is limited to one groundwater well and two surface water rights for agricultural irrigation. The surface water rights have not been used since farming activities ceased within the park. The groundwater well served the drinking fountain near Parking Lots 2 and 3.

Table 2-3 Water Rights in the Park

Certificate	Source	Use	Priority Date	Authorized Rate (cfs)	Acres
Surface Water					
79837*	Willamette River	Irrigation, Supplemental Irrigation – Cropland	6/16/1967	3.42	Irrigation of 208.8 Ac Supp. Irrigation of 93.4 Ac
80154	Willamette River	Irrigation - Cropland	6/16/1967	0.08	6.6 Ac.
Groundwater					
79847	Well 2	Irrigation	10/14/1959	0.99	96.0 Ac

Source: Oregon Department of Water Resources

* Certificate is under an in-stream lease agreement with DWR through 10/31/16.

Stormwater is not an issue in the park. The site is minimally developed, with impervious surfaces limited to paved roads, parking lots, and trails. Parking areas do not include stormwater treatment facilities and rely on sheet flow to adjacent pervious surfaces for infiltration. Parking Lot 1 is in close proximity to wetlands associated with Willamette Slough; other parking lots are farther from sensitive water features.

CHAPTER 3

Site Analysis

3.1 Constraints

Sensitive Areas

A first step in determining potential opportunities within the park was to define the most sensitive areas that should be protected from impact. A comprehensive inventory of all potential resources within the entire 1,205-acre park has not been completed. The Sensitive Area Management Handbook (SAMH) defines a number of types of sensitive resources that may occur within the park system with associated best management practices to guide park maintenance within those areas. Sensitive resources defined in the SAMH that occur at Minto-Brown include: camas, creeks, endangered species and their habitats, frequently flooded areas, floodplains, crop land, ground nesting bird habitat, osprey nests, Oregon white oak, ponds/lakes, riparian management zones, salmon bearing streams, sloughs, springs/seeps, and wetlands.

These criteria were combined with site analysis and investigation to create a sensitive area map, depicted in **Figure 3-1**. The sensitive area map includes primary sensitive areas: sloughs, creeks, wetlands, and low areas that are seasonally flooded, riparian corridors along these waterways, and conservation easements that are protected from development. Additional sensitive areas where impacts should be limited include Oregon white oak, and ground nesting birds and their habitat. These sensitive areas were consolidated and depicted in **Figure 3-2**, Site Constraints. The least sensitive areas within the site include the existing managed uses areas around Parking Lots 2 and 3, the dog park, picnic shelter and playground, the fallow agricultural fields in this area, and portions of the Filbert Orchard.



Camas in South Field

Comprehensive Park System Master Plan

The Comprehensive Park System Master Plan (CPSMP) is a system-wide plan that provides a guideline for park classification and development in Salem. Minto-Brown Island Park is classified as a natural area. Natural areas are intended to be left in a more natural, less developed state than other park types. They are intended to conserve and protect wildlife habitat and natural resources, and may provide opportunities for passive recreation.

The CPSMP includes guidance on the types of facilities that may be included in each park class. A number of more intensive uses are generally not allowed in natural areas due to their likelihood to impact the sensitive areas. Uses that are not allowed include community gardens, dog parks,

BMX/mountain bike trails, ball fields (baseball, softball, soccer), tennis or basketball courts, skate parks, bocce, horseshoes, aquatic facilities (splash fountain, pool), arboretum, concessions, community or recreation center, event lighting, organized sporting or special events. Many other facility types are optional. Inclusion of optional facilities requires defining the sensitive areas within the natural area to minimize impacts. Optional facilities within a natural area include: picnic areas, site furnishings, playgrounds, picnic shelters, parking, restrooms, amphitheater/stage, multi-use trails, pedestrian and soft surface trails, disc golf, exercise course, boat launches, interpretive signage, camping, security lighting, and reservable facilities. Playgrounds, disc golf, and amphitheater or stage must be sited outside of the defined sensitive areas.

Minto Brown does not fit the standard definition of a natural area due to current non-conforming uses including farming and a dog park. The Sensitive Area Management Handbook was used to define the sensitive area(s) within the park during the master plan process to provide guidance on facility placement and to avoid inclusion of high impact or conflicting uses in the future.

Development Constraints

There are several other elements that limit future development within the park aside from the sensitive natural resources.

Utilities

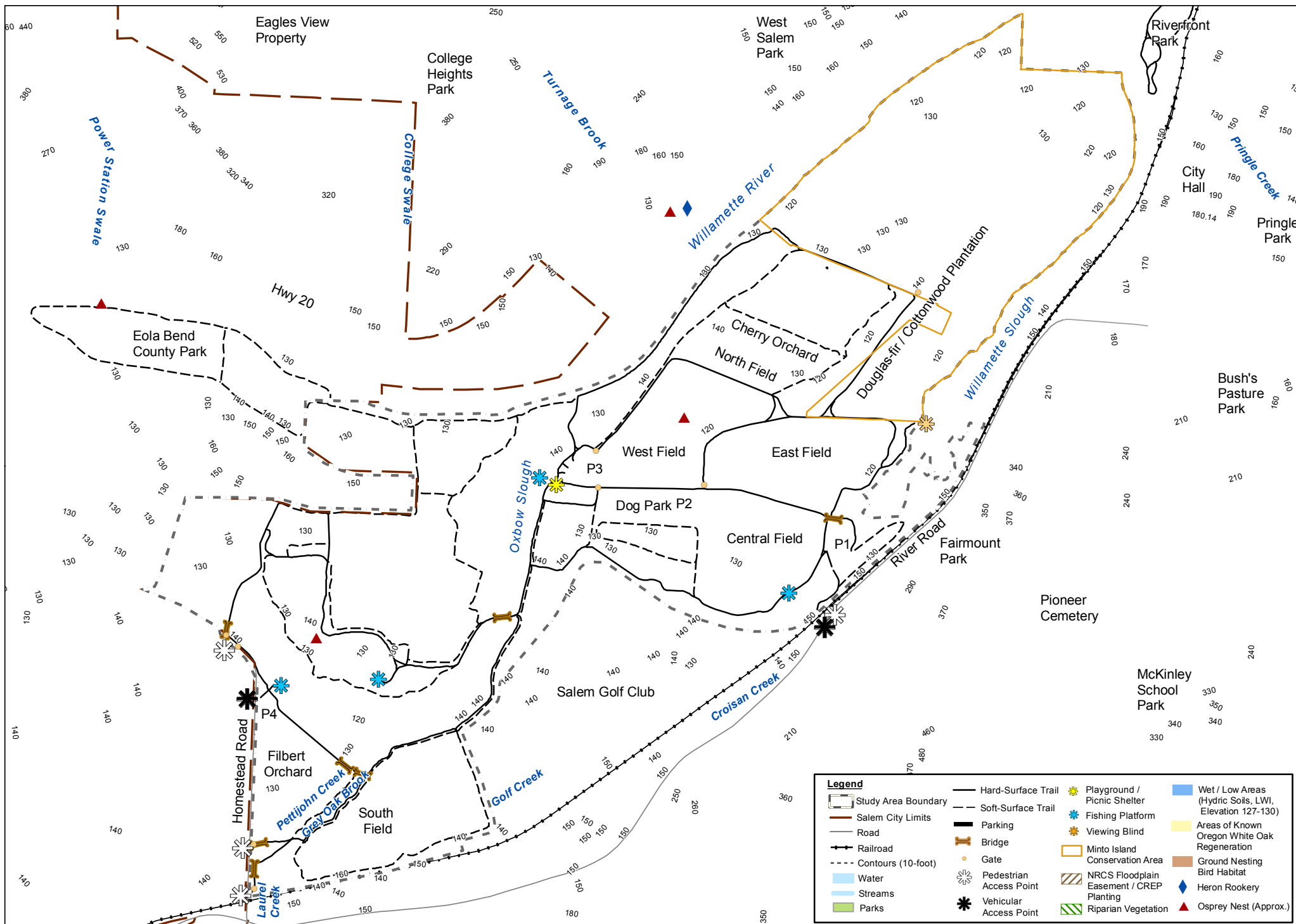
The park has minimal utility infrastructure to support public use. Standard City services such as potable water and sanitary sewer do not extend into the park, and would be costly to construct. New septic systems are not allowed within city limits. Water service has been provided at the park with a well, serving drinking fountains at the dog park / Parking Lot 2 and the picnic shelter / Parking Lot 3. Recent water quality tests detected contamination resulting in closure of the public water facilities. The lack of these basic utilities limits development of more permanent restrooms and handwashing facilities.

Floodplain and Floodway

The location of the park in the 100-year floodplain of the Willamette River restricts the potential for most types of development. FEMA allows some fill placement and development within the floodplain, if adequate modeling and no-rise analysis can show minimal impacts to flood surface elevations on adjacent properties. Floodway development restrictions are more stringent than floodplain restrictions, and no rise is allowed within the floodway. Even if park buildings or fences were permitted by FEMA, the likelihood of future damage and expense is high.

Conservation Easements

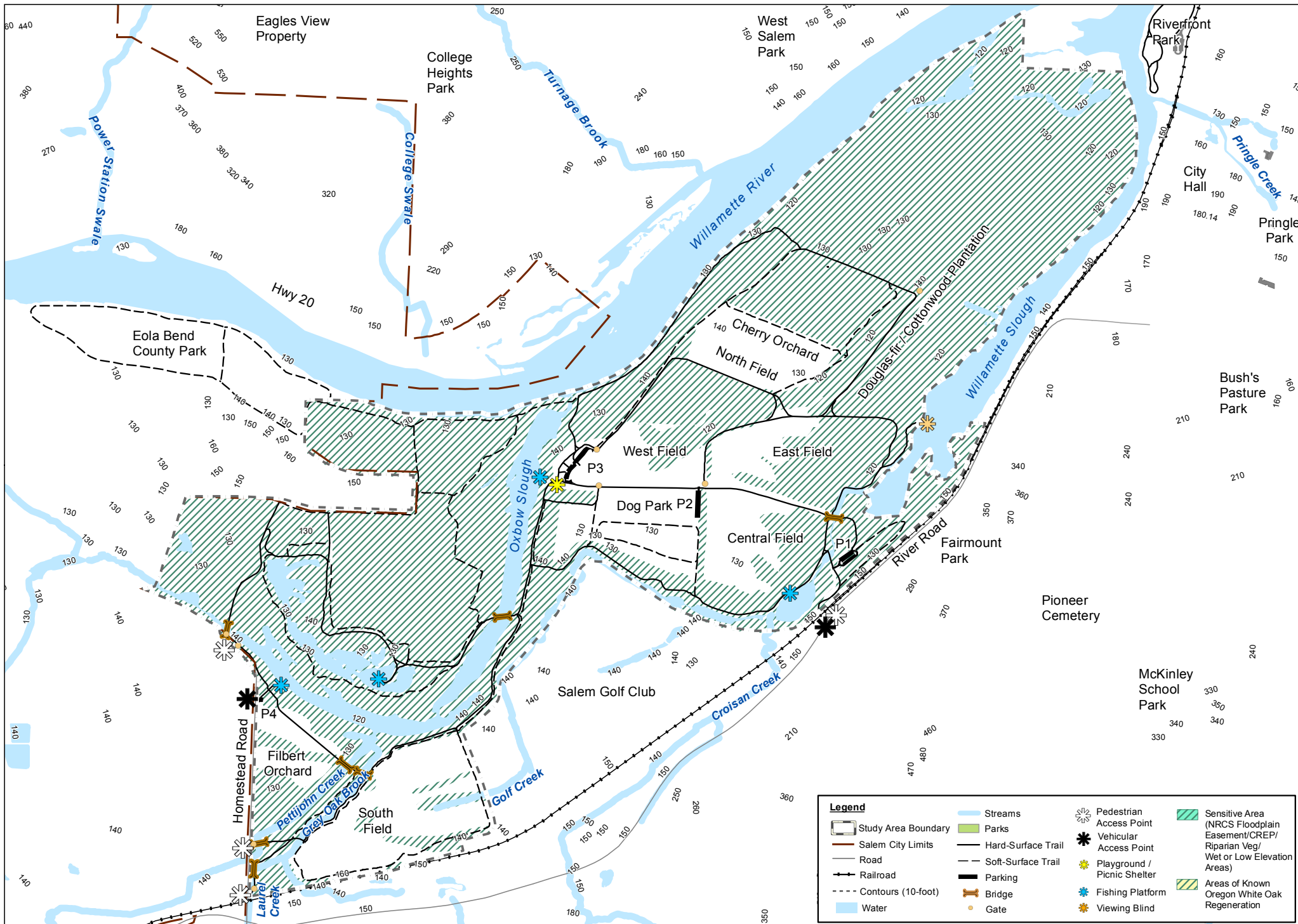
The conservation easements within the park are shown on Figure 2-7. These easements include use or access restrictions based on the focus of the easement. The NRCS floodplain conservation easements are focused on habitat restoration. Trails are allowed in these areas. The Minto Island Conservation Area is managed for wildlife habitat and restoration. Some trail development will be allowed, with consideration of wildlife impacts. The OPRD LWCF funds restrict the land to use for recreation purposes only. These areas, including the Filbert Orchard and East Field, cannot be used for commercial agricultural production.



SOURCE: 2014 Aerial, Water, Streams, City Limits, Roads, Railroad, Minto Bridges, Minto Parking, Trails, Gates, Contours, CREP Plantings, Parks data provided 8/2014 by City of Salem.

0 400 800 1,600
Feet

Minto-Brown Island Park Master Plan
Figure 3-1
Existing Conditions - Sensitive Areas



SOURCE: 2014 Aerial, Water, Streams, City Limits, Roads, Railroad, Minto Bridges, Minto Parking, Trails, Gates, Contours, CREP Plantings, Parks data provided 8/2014 by City of Salem.

0 400 800 1,600
Feet

Minto-Brown Island Park Master Plan
Figure 3-2
Existing Conditions - Site Constraints

Other Factors

- The park is very large, with many sensitive natural resources.
- Restoration and invasive species management will need to occur in phases over many years.
- The floodplain and floodway restrict structures and fill placement in the majority of the park.
- Wetland mitigation will be necessary if impacts to wetlands are unavoidable.
- The presence of threatened fish species in the Willamette River will require more extensive analysis of impacts prior to approval of any work in or near the river or sloughs.
- The potential presence of cultural resources within the park will require investigation prior to any future ground disturbing activities.
- The Peter Courtney Minto Island Pedestrian Bridge from Riverfront Park may increase park use and congestion, particularly at Parking Lot 2.

3.2 Opportunities

Invasive Species Management

Invasive species are prevalent and actively managed by Park Operations staff and community volunteers in some areas of the park. Removal of invasive plants and replanting with native species will reduce regrowth potential of undesirable species and restore wildlife habitat.

Management of invasive and non-native wildlife species, such as red-eared slider turtles, will help support existing native turtle populations present in the sloughs and ponds.

Habitat Restoration

There are many opportunities to restore wildlife habitat throughout the park. The sheer size and diversity of ecosystems within the park allows for a variety of restoration approaches and habitat types to be explored.

Oxbow Slough Reconnection and Willamette Riparian Restoration

Restoration and habitat improvements in Oxbow Slough have been discussed in prior master plans. Reconfiguring the confluence between the slough and the Willamette River provides a great opportunity for improving off-channel juvenile salmonid rearing and refuge habitat, and may be eligible for grant funding.

Restoration and naturalization of the rip rap section of the Willamette River bank could provide valuable in-stream habitat improvements for salmonid species if large wood and other natural bank stabilization methods are incorporated. Restoration plantings can improve water quality by providing shade to reduce water temperature, and providing wood for recruitment into the river system.

Other Opportunities

- Enhancing and restoring fallow fields will improve habitat, water quality and visitor experience, and may provide opportunities for environmental education and interpretation.
- Parking lot improvements will improve circulation patterns and safety, while increasing available parking within the current footprints.
- Adding boardwalks and bridges in frequently flooded areas will improve trail function and user experience, and extend the use of park trails throughout the year.
- Improvements to the bike and pedestrian facilities along River Road and Homestead Road will serve park users and implement a component of the Salem Transportation System Plan
- Adding and improving trails throughout the park will provide diverse options for different types of trail use.
- Providing a nature play area will provide hands on opportunities for children's exploration of nature while minimizing impacts to sensitive resources.
- There are many partners and user groups interested in assisting and supporting the City with park maintenance and management.

CHAPTER 4

Planning Process

Minto-Brown Island Park is a large natural area with a history of passive recreational uses, habitat conservation, and restoration. As a well-loved and heavily used nature park in Salem, soliciting input from users and residents throughout the city was important to the development of a new master plan that will serve the needs of the community for many years.

4.1 Public Involvement

Online Surveys

Online surveys were used to solicit input from residents during the master planning process. These surveys were highly successful and garnered a great deal of feedback and thoughtful comments. Online surveys were coordinated with public meetings to gather input on presentation content, planning issues, and alternative preferences. These surveys were administered through SurveyMonkey, and provided an opportunity for significant community input, far beyond the quantity of regular meeting attendees. Five online surveys were administered over the course of the project, with response rates ranging from approximately 200 to 800 participants. The survey results are too extensive to include in this document. Detailed results may be obtained from the City of Salem Parks Operations. Survey summaries are included in **Appendix G**.

Public Meetings

Public meetings were announced through a combination of mailers, newspaper and radio notices, email blasts, postings within the park, and via the City web site. The City held four public meetings at Pringle Community Hall to gather input contributing to the completion of the master plan. Public meeting attendance was good, with 50 to 75 individuals at each meeting. Public comment forms were collected at each meeting. Meeting summaries and comments received at the public meetings are in **Appendix E**.

At the first meeting, an overview of the project was presented, including prior planning efforts, related projects, park classification definition, and the approach and timeline for the planning process. The preliminary results from online survey 1 were reviewed and the site inventory and existing conditions findings and figures were presented to set the stage for the master plan.



Public Notices in the park



Meeting 2 at Pringle Hall

The second meeting provided a summary of public feedback from online surveys 1 and 2. The existing conditions findings and site analysis were combined to identify sensitive areas within the park. Summaries of stakeholder interviews, and site opportunities and constraints to be considered in development of the master plan were also presented.

The Draft Minto Island Conservation Area Management Plan was presented at the third public meeting, and descriptions of the three draft alternatives: Enhanced Access, Restoration Focus, and Agricultural Focus. A summary of public

feedback from online survey 3 was also presented. A questionnaire regarding alternative preference was collected from meeting attendees. Master Plan Alternatives 1 through 3, prepared for the third meeting, are included in **Appendix A**.

The fourth public meeting provided a summary of all past meeting content, summarized public feedback from online survey 4, and the alternative preference questionnaire from meeting 3. The conceptual master plan, proposed trail standards, and restoration plant communities were presented. A final questionnaire requesting input on the conceptual master plan and trail standards was collected from meeting attendees.

The project was also presented to several citizen organizations. The master plan was presented at a regularly scheduled meeting of the West Salem Rotary Club. A project summary and the conceptual master plan were also presented to the annual meeting of the SCAN (South Central Association of Neighbors) Neighborhood Association.

The schedule of public presentations to key stakeholders, the public, and the Salem Park and Recreation Advisory Board (SPRAB) is listed below.

Public Meeting #1	November 18, 2014
Stakeholder Interviews	January 15 & 16, 2015
Public Meeting #2	January 20, 2015
Public Meeting #3	March 3, 2015
Public Meeting #4	April 21, 2015
West Salem Rotary Meeting	May 4, 2015
SCAN Neighborhood Association	June 10, 2015
SPRAB Presentation	August 13, 2015
SPRAB Recommendation to Council	October 8, 2015

Other Input

In addition to the five online surveys and four public meetings, public input was gathered using several other methods. A project webpage was developed and linked to the main park information page on the City's website. The webpage was updated regularly and included a wealth of information related to the project, including background information, historic documents, public presentations and summaries, survey results, and a project email address for direct comment submission. Announcements regarding public meetings, online surveys, and project information, which included a QR code linking users to the project webpage, were posted on informational kiosks throughout the park prior to each public meeting.

Stakeholder Interviews

Public input was also gathered through key stakeholder interviews. As a large, centrally located, and diverse park, Minto Brown Island Park has many regular users and people who are interested in various aspects of the park. The project team identified some of the major interest groups associated with the park and organized a series of stakeholder meetings to gather information. The stakeholder groups were divided into six focus areas, ranging in size from eight to thirteen individuals, including appropriate City staff for each topic. The stakeholder topics included: Community Farming, Minto-Brown Park Patrol, Disc Golf, Active Uses and Events, Natural Resources, and Historic and Cultural Resources. Summary notes from these meetings can be found in **Appendix D**.

CHAPTER 5

Master Plan

5.1 Project Goals

The goal for the master plan is to identify potential modifications to the park, based on stakeholder input, that incorporates current park, trail, and open space needs in a manner that supports natural resources functions and is consistent with Salem's ability to fund and maintain those park modifications. The master plan describes the proposed modifications as a well-developed concept, not as a set of construction plans and specifications. With the existing park master plan now 20 years old, the community has changed substantially since it was developed. Parks Operations has managed the park as a natural area with guidance from the past master plan and the Comprehensive Park System Master Plan. In recent years, a number of proposals have been made for potential development in the park. The public process was designed to vet some of these concepts with the broader community to plan for the future of the park.

The broad concepts below were identified at the start of the master planning process, and well-supported by public input. These goals have been incorporated into the conceptual master plan.

- Maintain and enhance the natural character of the park
 - Improvements should minimize impacts
 - Limit access in environmentally sensitive areas
- Explore ways to alleviate user conflicts on trails as use increases
- Improve habitat and wildlife diversity
- Improve access to river and sloughs
- Minimize the impacts of cars on the park and its users.

5.2 Alternatives

Three alternatives were developed to explore potential themes within the park. The majority of the elements proposed in the alternatives were in the central area of the park, outside of the sensitive areas. The alternatives are summarized below. A more detailed description and the figures can be found in **Appendix A**. Elements of all three alternatives were used to develop the Draft Master Plan.

Alternative 1 - Enhanced Access

The objective of this alternative was to improve the trail system and support facilities within the park. Major elements included adding boardwalks or bridges to existing trails in low areas where seasonal flooding results in trail closures and limits use, adding new soft surface trails along the

park entrance drive and Homestead Road South, improving and expanding Parking Lots 2 and 4, improving Parking Lot 3 and creating an adjacent gravel overflow lot in West Field, restoring East Field, South Field, and the Filbert Orchard, and adding a community farm or garden in Central Field.

Alternative 2 - Restoration Focus

Alternative 2 focused on restoration of native plant communities and improving wildlife habitat throughout the park. Elements included a new trail along the edge of East Field to bypass seasonal flooding near the Willamette Slough, improving and expanding Parking Lots 2, 3, and 4, adding several wildlife viewing blinds, restoring the Oxbow Slough / Willamette River confluence and replacing the culvert with a bridge, and adding a community garden at Parking Lot 4.

Alternative 3 - Agriculture Focus

Alternative 3 targeted various agricultural uses within the park, including community farming, gardening, reclamation of the Filbert and Cherry Orchards, and resuming commercial farming on some of the past agricultural fields within the park. Proposed features included extending the park access road to a new parking lot, picnic shelter, and community garden in North Field, resuming farming on the western portions of West Field, Central Field, and the Filbert Orchard, improving and expanding Parking Lots 2 and 3, and restoring native plant communities in the eastern/wet portions of West, East, and Central Fields.

5.3 Recommendations

The master plan was developed with special consideration of the sensitive features and natural areas within the park, input gathered from the public, meetings with City staff, and feedback from key stakeholders. The Draft Master Plan is shown in **Figure 5-1**. Specific elements are described in the following section.

Natural Resources

Habitat Restoration and Management

Habitat protection and restoration is a major component of the master plan. Habitat restoration with a diverse array of habitat types was strongly preferred throughout the public involvement process.

The Cherry Orchard will be removed along with other non-native species in the North Field area. The fields will be planted with native vegetation to blend with adjacent floodplain restoration plantings in fields on either side, in a combination of upland prairie, mixed woodland, and oak savanna.

Non-native grasses, weeds, and blackberry that have established during the fallow period in West, East and Central fields will be eradicated before restoration planting commences. They will likely be planted with upland and wet prairie species to maintain the open vistas preferred by park users in this area, and support the existing habitat use of ground nesting birds and winter goose forage. The lowest and wettest portions may be replanted with willow slough or ash woodland plant communities.

The small area west of the dog park and south of Parking Lot 3 will be managed to control invasive weeds and blackberry, and replanted with riparian forest to blend with existing riparian forest in the area.

The South Field has been fallow for much longer than the central area of the park and has significant regeneration of desirable native species. Recommended actions for this area include removal of non-native trees, primarily fruit trees and crab apples, and managing invasive species. Replanting of oak savanna or upland prairie species may be necessary in larger disturbed areas.

The Filbert Orchard is well liked by park users and preserves a remnant of historic farm use within the park and the region. It has not been managed for many years and native species are beginning to regenerate between the rows. It is recommended that the orchard be preserved and allowed to succeed into native woodland naturally, with selective removals to release native trees and allow them to thrive.

A 5-year rotational management manual will be developed for long term maintenance of restoration areas. Restoration activities should be scheduled to reduce conflicts with wildlife and avoid the nesting season.

Oxbow Slough Reconnection

Oxbow Slough was the historic main channel of the Willamette River. An undersized culvert (36-inch diameter) perched 6 to 8 feet above seasonal low water provides the only connection between Oxbow Slough and the Willamette River. The slough and river are only connected during high winter flows. During the summer the water level in the slough drops and temperatures increase, with minimal freshwater inputs from Pettijohn and Grey Oak Creeks, allowing introduced warm water fish species (largemouth and smallmouth bass, bluegill, sunfish, black crappie, yellow perch) to thrive.

A feasibility study should be conducted to investigate the potential hydrologic and wildlife habitat benefits and impacts of improving the connection between the Oxbow Slough and the Willamette River.



Oxbow Slough culvert

Willamette River Riparian Restoration

The Willamette River forms the north boundary of the park. The majority of the river bank is stabilized using large rip-rap boulders with minimal vegetation growth below top of bank in most areas. Rip-rap provides high velocity bank stabilization, but is detrimental to fish habitat, and is no longer considered a desirable bank stabilization tool. Revegetation and habitat restoration along the entire river bank within the park could improve habitat for threatened fish species in the river and sloughs.

A study should be conducted to investigate the maintenance requirements of the existing revetment, and potential restoration opportunities. The study should be done in conjunction with the Oxbow Slough reconnection project. Hydrologic and hydraulic analysis will likely be required to determine viable alternative bank stabilization methods.

Invasive Species Management

Invasive species management will continue to be an ongoing component to maintain and improve the natural area. Plant species that should be managed within the park are non-native blackberry, English ivy, English hawthorn, thistle, teasel, reed canarygrass, and ludwigia. A management plan should be developed to evaluate and develop protocols to address the ludwigia monoculture encroaching on mudflats and slough margins. Other non-native plant species, apple, cherry, crabapple, and barberry should be selectively removed when encountered.

Invasive animal species are less visible on site. Red-eared slider, a non-native turtle species, has been documented in Oxbow Slough and waterways throughout the park. The non-native turtles impact desirable native turtle populations also onsite, competing for food and nesting habitat. A comprehensive turtle survey and development of a management plan is recommended to control the non-native population, and protect and improve habitat.

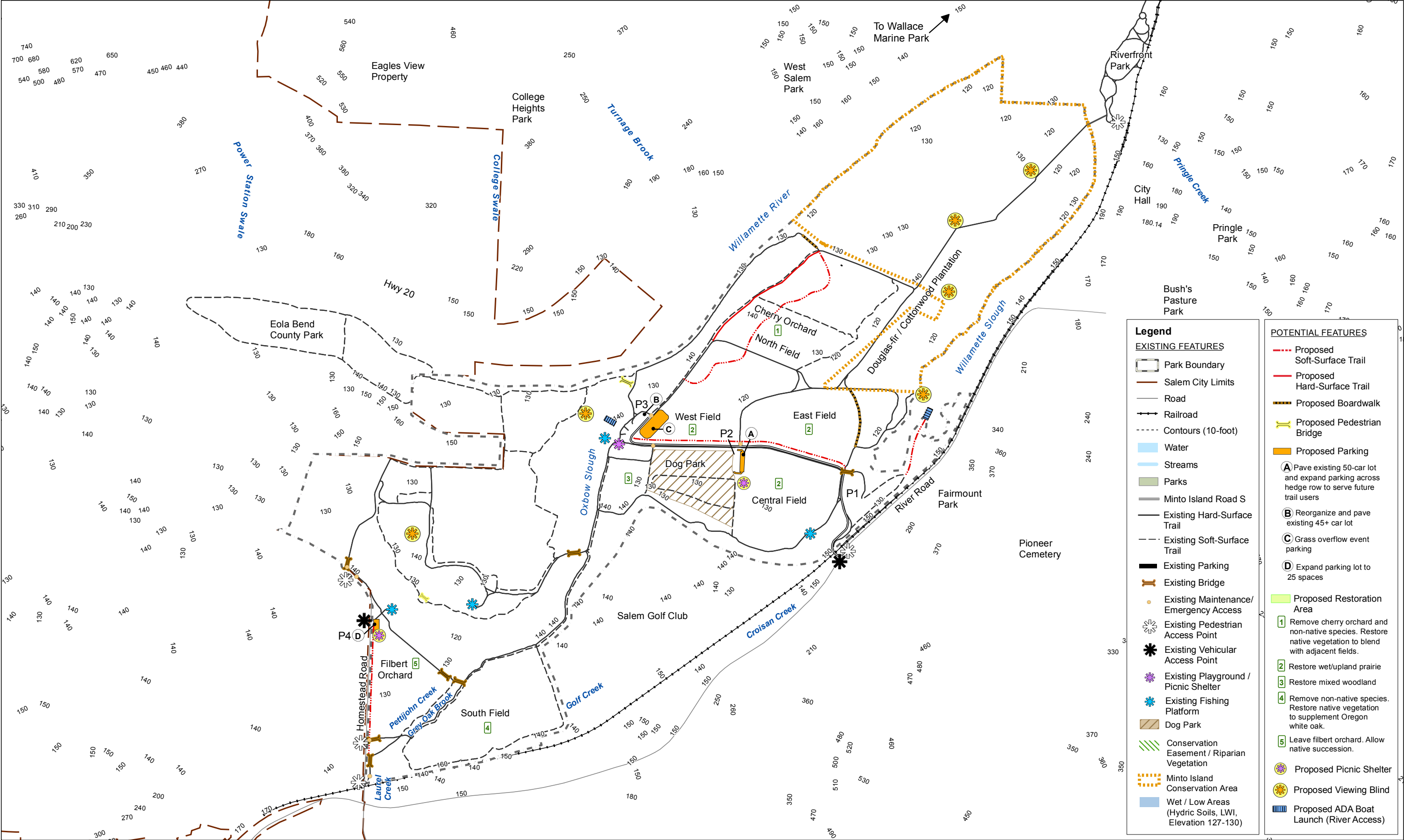


Turtles in Oxbow Slough
Photo Credit: Steve Braden

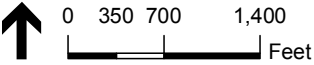
A site-wide management plan should be developed for Minto-Brown Island Park, incorporating all of the natural resources elements including invasive species management, restoration implementation and rotational maintenance, and sensitive species management protocols.

Transportation and Access

A number of improvements could be made on the perimeter of or outside the park boundary to improve access and safety. The right-of-way along River Road is narrow and highly constrained by steep topography to the east and the railroad to the west limiting improvement options. The addition of bike lanes and sidewalks in this area are Tier 2 and 3 projects identified in the Bicycle and Pedestrian System Elements of the *Salem Transportation System Plan* (TSP). An off-street, shared-use path on the sewer easement west of the railroad corridor, between Mission Street SE and Minto Island Road S is included as a Tier 2 project in the TSP. A crossing or underpass agreement will need to be secured from the BNSF Railroad in order to develop this trail. The trail could provide a safe-off-street trail connection, and improve pedestrian and bicycle connectivity to downtown Salem.



SOURCE: 2014 Aerial, Water, Streams, City Limits, Roads, Railroad, Minto Bridges, Minto Parking, Trails, Gates, Contours, CREP Plantings, Parks data provided 8/2014 by City of Salem.



Minto-Brown Island Park Master Plan
Figure 5-1
Draft Master Plan

Sidewalk infill and a formal bike lane along the west side of River Road South between the park entrance and Homestead Road would improve pedestrian and bicycle safety and access from adjacent neighborhoods to the south.

Safety on Homestead Road could be improved with road widening and shoulders. Speed bumps or other traffic calming measures would reduce truck travel speed and drag racing along this straight stretch of roads.

Roadway improvements will require coordination with City or County Public Works Departments.

Parking

The four parking lots serve different areas and user groups within the park, and vary in size and condition. Most users feel that adequate parking is available within the park for current needs. Parking Lots 2 and 3 experience the highest use and demand, and are the highest priority for improvement and expansion as demand increases. Parking improvements are summarized below.

Parking Lot 1 is paved and in good condition. It has adequate parking to support trail users in this area of the park. No improvements are proposed.

Parking Lot 2 is a loosely configured gravel lot that currently serves the dog-off leash area. This parking lot is heavily used and often full on evenings and weekends. This parking lot will be the primary connection to the Peter Courtney Minto Island Pedestrian Bridge. Improvements include formalizing the existing lot with pavement, striping, curbs, and wheel stops to improve parking efficiency and increase available parking spaces within the existing footprint by six to eight spaces.

A turn-around or loop drive would increase safety and exit when the lot is full. This parking lot should also be expanded, as demand increases, to support trail and bridge uses, potential future community farm and picnic shelter in Central Field to the east. The parking lot expansion will be located on the east side of the tree line, with a single driveway serving both sides. A formal crosswalk should be constructed to enable safe crossing from the parking lot to the major multi-use trail north.

Parking Lot 3 is the most popular parking destination in the park and is heavily used. The existing paved and gravel portions should be paved as one uniform surface and reorganized to create a more efficient parking area and increase available parking spaces. The western portion of West Field should continue to be utilized as a mowed grass overflow parking area during events and high use periods. If parking demand increases in the future, a portion of the overflow lot could be converted to a permanent parking lot, either gravel or paved.

Parking Lot 4 is the smallest, least used and most remote of existing facilities. The remote location, combined with the lack of support facilities contribute to its limited use. The parking lot should be expanded when the proposed reservable picnic shelter is developed or as user demand increases.

Trails

Trail Improvements

There is a substantial network of existing trails within Minto-Brown Island Park that reduces the need for extensive trail development. Trail use within the park is anticipated to increase over time, due to population growth in the surrounding area, and with the completion of the Peter Courtney Minto Island Pedestrian Bridge and trail connecting Minto-Brown to Riverfront Park and downtown Salem.

The majority of the paved trails within the park meet ADA accessibility requirements. The recommendation is to continue to provide accessible trails throughout the park. Selective maintenance on some trails could help to reduce access barriers and improve trail user experiences by removing rough patches of pavement, correcting root heave, and fixing cracks.

A few new trails are recommended to improve connectivity and safety, and to avoid seasonal problem areas.

- Add a new trail within the park adjacent to Homestead Road South, between River Road South and Parking Lot 4 to provide a safe, off-street connection. This trail may be paved or soft surface.
- Add a new soft surface trail along the north side of the park access road to provide a soft surface alternative to the sidewalk on the south side of the road, separate walkers and joggers from the dog off leash area, and provide a wet weather detour around seasonally flooded trails near Parking Lot 1 and Willamette Slough.
- Add a new soft surface trail looping through native restoration areas and the proposed restoration in the old Cherry Orchard and North Field.
- Paving the gravel trail section on the Red Osprey trail, between Parking Lot 3 and the Minto Island Conservation Area.
- A new soft surface trail extension from Parking Lot 1 to a new manual boat launch or dock on Willamette Slough.
- Add a new paved loop trail within the off-leash dog area to improve accessible and wet weather use.

Bridges and Boardwalks

Due to the park's location in the floodplain, major flooding occurs occasionally requiring closure of the entire park. Low areas of the park are subject to much more frequent flooding, occurring annually or even several times within a winter season and resulting in selective trail closures. Several popular trails have been identified that could be improved with the addition of a bridge or boardwalk to elevate or detour the trails around problem areas:

- Add a small pedestrian bridge or arch culvert on the Blue Loop near Oxbow Slough.
- Add a boardwalk or causeway across East Field to bypass the trail near the Croisan Creek/ Willamette Slough confluence.
- Add a boardwalk over the wetland / side channel on the east portion of the River Trail, near the Boise property.

- Widen and improve the culvert on the path near the entrance to the Boise property.
- Add a bridge over Oxbow Slough near the Willamette River, described in more detail above.

Trail Standards

Historically trails within the park have been designed and built as needed, without guidance on trail surface or width. Trail standards have been developed to provide clear guidance for future trail development and maintenance / replacement. This plan does not specify recommended trail type for current park trails. Trail types will be determined as needs and user conflicts are identified in the future. All trail types are open to all park users. The four trail types are described in detail in the Table 5-1, and shown in **Figure 5-2**.

Table 5-1 Trail Design Standards

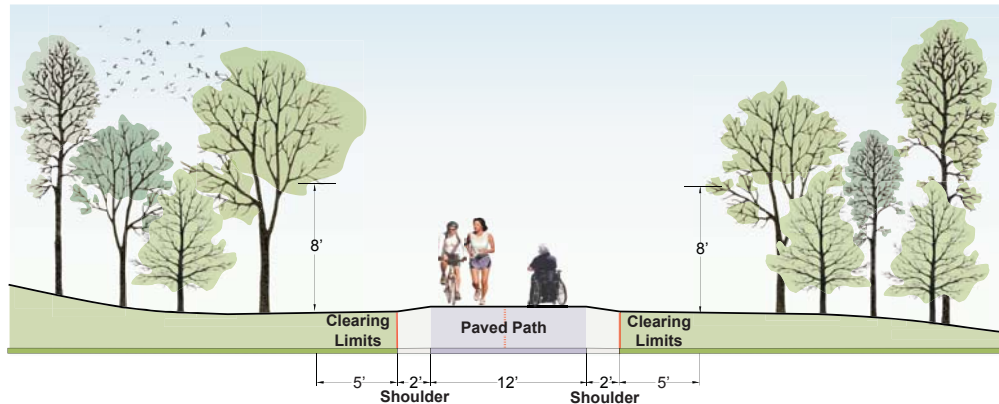
	Trail Type			
	Major Shared-use Path	Minor Shared-use Path	Soft Surface Trail	Single Track Trail
Users	Pedestrians, bicyclists, wheelchairs, skateboards, strollers	Pedestrians, bicyclists, wheelchairs, skateboards, strollers	Pedestrians, bicyclists	Pedestrians
Width	12' with 2' gravel shoulder	8' with 1' gravel shoulder	6' to 8' wide	4' wide
Surface	Paved: Asphalt or concrete	Paved: Asphalt or concrete	Soft surface: bark chips, earth, or gravel	Soft surface: bark chips, earth, or gravel
Level of Use	High	Moderate	Moderate to low	Low

The trail standards have been developed to cover the broad range of user types and preferences at the park:

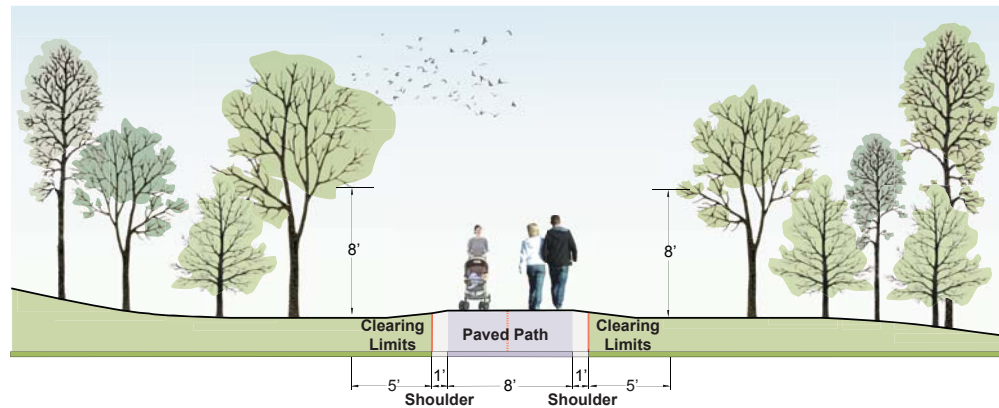
- The major shared-use path will be for the highest use areas and designed to reduce conflicts between different user types and to account for anticipated increases in use over time.
- The minor shared-use path will be the most common paved trail within the park. They will be wide enough to accommodate various user types and users passing.
- The soft surface trail will be the common soft trail found throughout the park, and will be wide enough to accommodate small groups passing for walkers and joggers who prefer a soft surface.
- The single track trail will be limited to more remote portions of the park, allowing for some access for wildlife viewing or quiet walks.

Figure 5 - 2
Trail Design Standards

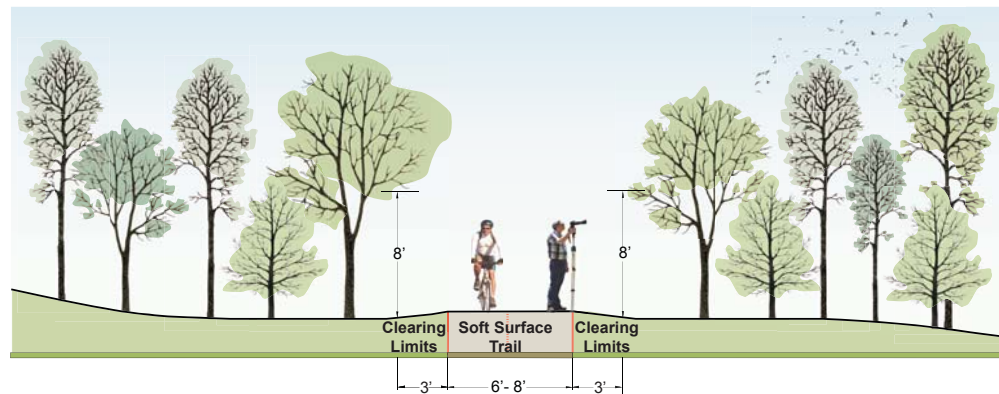
Major Shared-use Path



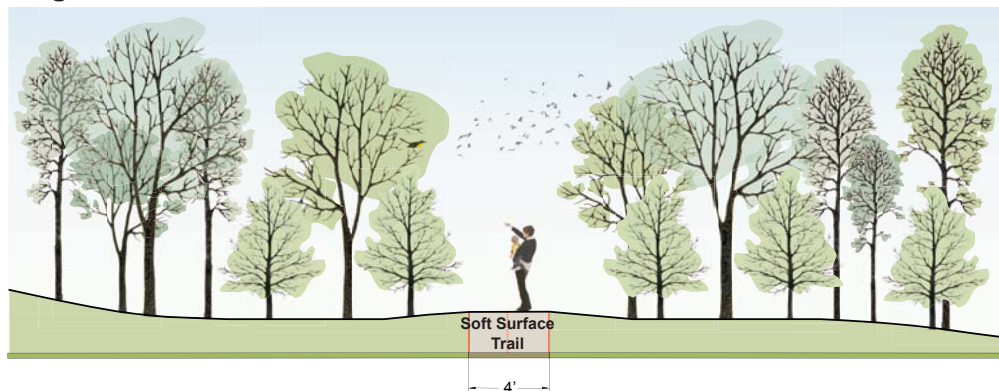
Minor Shared-use Path



Soft Surface Trail



Single Track Trail



The trail standards are intended to provide a range of options to improve trail safety and minimize user conflict. The standards may not be sufficient in areas of high congestion, and may need to be combined with other approaches such as signage, lane striping, and speed bumps.



Example of shared-use path with lane striping



Signage Example

Photo Credit: Gary Obery

Off-Leash Dog Area

The dog off-leash area will continue to be a central feature of the park. Proposed improvements to the dog area include adding a wide hedgerow between the dog park and the sidewalk along the park access road to separate users and minimize conflicts, adding a shelter to provide shade and rain protection, adding an ADA accessible loop trail within the off-leash area, and improving water and restrooms facilities. Perimeter fencing of the dog area is not feasible due to floodplain development restrictions.

Other Amenities

Picnic Shelters

Reservable picnic shelters are in high demand within the park system. The Comprehensive Park System Master Plan (CPSMP) identifies a need for five new shelters citywide to serve the current population. The existing picnic shelter near Parking Lot 3 appears to be in good condition and will be retained. Two new picnic shelters are proposed: one on the east side of Parking Lot 2, near the proposed community farm; and another near Parking Lot 4 and the Filbert Orchard. The proposed shelters will require adequate support facilities to support reservations for groups of 25 or more. Support facilities include potable water, additional restrooms, and additional parking.

Playground

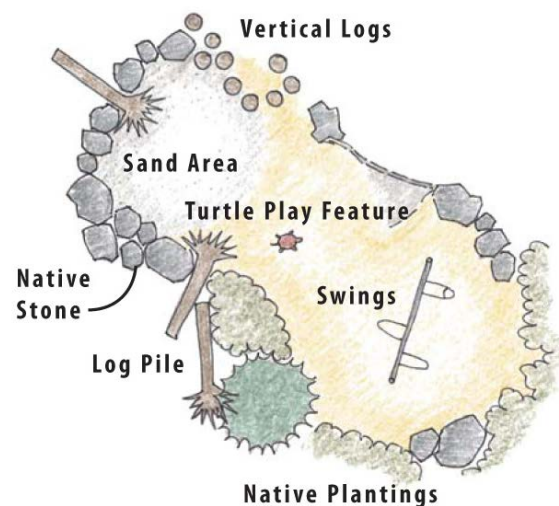
The existing playground appears to be in good condition and should be retained at this time. The equipment is at least 10 years old and is likely to require increased maintenance and safety upgrades over time as it continues to age. Some public comments questioned the appropriateness of a playground within the natural area. It is recommended to be maintained as an existing use and support facility for the adjacent reservable picnic shelter. When the equipment has deteriorated and is removed, it is recommended that a nature play area be considered as a replacement for the formal pre-manufactured play equipment. A nature play area would be a better fit for this nature park, and would allow children's exploration and play without risking damage to sensitive resources elsewhere in the park.

Nature play areas are often created from natural materials, and may include hiding places, seating and loose parts such as sticks, rocks, and sand for kids to manipulate.. Activities could include: climbing, balancing, creative and imaginative play, building, and digging.

Figure 5-3 Nature Play Illustrative Example

Play elements in this location could include:

- Sand play area
- Animal climbing feature
- Stone boulders
- Paths
- Vertical and horizontal logs
- Small stick and log “shelter”
- Live willow structure
- Plantings
- Water pump and channel
- Loose elements, such as stones and sticks.



The restrooms and picnic shelter provide important support facilities for play areas. Additional benches and picnic tables will be placed throughout the play area to provide seating for parents and observers.

Restrooms

Chemical toilets are used at the three primary parking lots to provide restroom facilities for the park. The toilets are strongly disliked by many park users, with requests for ‘real restrooms’ common on surveys and questionnaires. The lack of sewer service and domestic potable water within the park, combined with the floodplain/floodway restrictions, limit options for more permanent facilities. The plan recommends investigating composting toilets to phase out the use of chemical toilets. Composting toilets can support equal or greater levels of use than the chemical toilets, are frequently used in remote natural areas with minimal services or utilities, and typically receive positive feedback from users. The units would require careful siting, and would likely need to be elevated at or above flood elevations to limit flood impacts.

If a public water line is extended into the park, traditional restrooms could become feasible. They would require significant modification to design flood-proof structures or elevate them above the flood elevation. Sewage will likely require a pumped tank storage system unless a sewer line is also constructed.

Utilities

Potable water from a well was available at two drinking fountains in the park. However, recent water testing detected groundwater contamination and water is no longer available. The plan recommends researching the costs and impacts to extend a City water service line into the park to serve park users with drinking fountains, handwashing stations, and possible restrooms, and fire hydrants for fire control.

There are three existing water rights in Minto Brown Island Park. Two of these are in-stream rights that were used for irrigation of cropland, and the third is a well used for park irrigation and the drinking fountains. The two in-stream rights have been unused since farming activities ceased. These water rights may be subject to forfeiture if they remain unused unless steps are taken to extend and secure them. The City should pursue in-stream leases on these water rights to secure them until such a time as they are needed. The well right will continue to be used for park irrigation purposes. The drinking fountains will require an alternative water source.

Extension of a sanitary sewer line to serve the park is costly, would likely require a flood-proof pump station, and could be considered, but is not recommended at this time. Restroom conversion to composting toilets will provide a pleasant alternative to chemical toilets without requiring a sanitary sewer system.

Wildlife Viewing Blinds

The existing viewing blind on Willamette Slough is in poor condition and does not meet current accessibility requirements. Viewing blinds provide a unique opportunity for park users to observe wildlife while minimizing disturbance to them. It is recommended that six new viewing blinds be located around the park at strategic locations. The new blinds will be accessible and will be located on Willamette Slough, in the Minto Island Conservation Area, and on Oxbow Slough. Coordination with Audubon and other resource agencies in siting of these viewing blinds is recommended.

Manual Boat Launches

There are four existing fishing platforms but no manual boat launches within the park. Seasonal low water in the sloughs limits their use for boating in summer months. Adding two floating manual boat launches, one in each slough, will allow boater access in these areas when water levels allow. The boat launch in Oxbow Slough could provide an important stop on the Willamette River Water Trail if the Oxbow Slough / Willamette River confluence is improved. Informational signage and maps depicting connections to the Water Trail, portages, launches and support facilities will also improve connectivity and the Water Trail.



The addition of a non-motorized boat launch on the Willamette River bank could be explored in conjunction with the Oxbow Slough reconnection and riparian feasibility study. It could provide a valuable connection between the park and the Willamette River Water Trail, but should be assessed to ensure boater safety and bank suitability.

Management Issues

Several management issues were raised repeatedly during the public process.

The City is aware of public concerns related to illegal encampments within the park. Significant efforts have been made in recent years to post and remove camps as they are discovered. Parks Operations should continue to work closely with the Police Department, Minto-Brown Parks Patrol, and residents to manage this problem. Additional informational signs with appropriate contact information could provide a useful tool for concerned citizens.



Off-leash dogs are another significant management issue within the park, and a concern with park users. This is a complex issue, as many park users walk dogs in the park, and feel that the size and remoteness provide an opportunity to allow their pets off leash. Loose dogs are likely to leave the trails, disrupting nesting sites and chasing birds. Improved signage with clear guidance on the regulations, and the location of the approved off-leash dog area within the park posted at each parking lot will help with this issue. Educational signage on the impacts of off-leash dogs on the wildlife within the natural area may also help. Enforcement patrols by the Police Department should be increased to address the issue.

Conflicts between different trail uses are another on-going management issue that is likely to increase over time with population growth and the opening of the new trail and bridge from Riverfront Park. A management strategy should be developed to address trail conflicts.

CHAPTER 6

Implementation Costs and Priorities

6.1 Estimate of Probable Cost

A preliminary cost estimate was developed for the major elements included in the master plan. The master plan includes a number of elements that may be pursued as individual improvement projects as determined by funding availability and user demand. Funds for design development, permitting and construction are needed to build elements included in the master plan. Potential funding sources include grants and donations, and could be supplemented with volunteer work crews. Implementation of the master plan will proceed within phases, over a multi-year period.

Estimated construction costs for all of the elements within the master plan could total between \$6.6 million and \$8.3 million in 2015 dollars. An estimate of costs for major projects, including design and permitting services, is included below:

• Site Utilities - water	\$ 375,000 - \$ 500,000
• Parking Lot Improvement and expansion	\$315,000 – \$390,000
• Bridges and Boardwalks	\$1,100,000 - \$1,350,000
• Multi Use Trails paved	\$270,000 –\$340,000
• Soft trails	\$105,000 – 130,000
• Restrooms and Shelters	\$810,000 - \$1,000,000
• Site Furnishings & Signage	\$88,000 - \$110,000
• Nature Play Area	\$ 60,000 –\$75,000
• Bird Blinds and Floating Docks	\$190,000 - \$ 235,000
• Oxbow Slough reconnection/bridge/restoration	\$1,200,000 – \$1,500,000
• Habitat Restoration and plantings	\$2,200,000 – \$2,800,000

A more detailed cost estimate for park improvements, including unit costs and assumptions for the costs listed above, can be found in **Appendix D**.

6.2 Priorities and Phasing

Many of the plan recommendations are dependent on anticipated future need, such as expansion of parking lots. Development of all of the elements included in the master plan will take many years and is dependent upon the availability of funding. Based on staff discussions, public input, known priorities, and a desire to phase development to limit site disturbance, the following elements are suggested as highest priorities: the Park Restoration and Management Plan, the Oxbow Slough / Willamette Riparian Restoration Feasibility Study, the Inadvertent Discovery Plan, potable water service, Parking Lot 2 and 3 improvements, restrooms at Parking Lot 2 and Parking Lot 3, site furnishings and signage throughout the park, accessible trail in the off-leash dog area, and boardwalk and bridge upgrades (excluding the long boardwalk in East Field).

The estimated cost for constructing these elements is between \$1.7 million and \$2.1 million in 2015 dollars. Lower priority park projects will be addressed as funding becomes available and as warranted by public demand.

6.3 Permitting Requirements

Minto-Brown Island Park includes a number of wetlands, sloughs, creeks, and the Willamette River. Wetlands and waterways are protected natural resources. A wetland delineation will be necessary prior to implementation of most projects due to the extent of wetlands. Additional permits will be required if proposed development impacts the wetland. The Department of State Lands and the U.S. Army Corps of Engineers administer wetland permits.

Minto-Brown is also home to several federally listed threatened species. Some of the proposed development projects, particularly the Oxbow Slough reconnection and Willamette riparian restoration, could result in incidental impacts to threatened fish species or critical habitat in the Willamette River during the process of habitat improvement. This type of impact could require development of a Biological Assessment, Habitat Conservation Plan and permit under the Endangered Species Act (ESA). Federal candidate species and species of concern do not have protection under the ESA, but should be considered in development of a Biological Assessment to avoid revisions triggered if the status of a species changes and it becomes listed during the course of the permitting process.

While the state sensitive species do not trigger permit requirements, other state or federal permit applications will provide an opportunity for the Oregon Department of Fish and Wildlife (ODFW) to comment, and could result in conditions to reduce impacts to turtles, fish, or other sensitive species. The *Oregon Conservation Strategy* provides guidance on habitat needs, limiting factors and conservation actions for Sensitive Critical and Sensitive Vulnerable species listed in Table 2-2.

Construction activity is restricted within the FEMA delineated floodway and 100-year floodplain. Floodplain modeling and no-rise analysis will be required for any significant grading or ground disturbing activity within these designated areas. Any proposed development would require a Floodplain Development Permit for ground disturbing activities, issued by the City.

Development of an Inadvertent Discovery Plan (IDP) is recommended due to the high potential to encounter cultural resources during ground disturbance within the park. Any major projects should have an archaeological investigation prior to commencing excavation. Discovery of

cultural resources either through archaeological investigation or through ground disturbance may trigger state and federal permitting requirements.

6.4 Hydrologic and Hydraulic Study

The City of Salem will need to conduct a hydrologic and hydraulic analysis of Oxbow Slough, its tributary streams, and the confluence with the Willamette River, to analyze the impacts and viability of the proposed reconnection and riparian restoration projects. This is needed to understand flow velocities and to design an appropriate culvert or bridge for this connection that is fish-passable. The only existing information is hydraulic modeling of the Willamette River prepared for the Federal Emergency Management Agency (FEMA) Flood Insurance Study.

6.5 Public / Private Partnership Opportunities

Some improvements may be made jointly with other divisions within the City of Salem Public Works Department, and other agencies. Elements that might fall into this category could include:

- Utility improvements
- Transportation, access and safety improvements
- Interpretive programming, signage design, and fabrication
- Habitat and wetland enhancement

Other improvements could be made as ongoing maintenance activities or with the assistance of non-profits or volunteers. Elements that might fall into this category could include:

- Soft surface trails
- Restoration plantings
- Tree planting



Photo Credit: Theresa Byrne

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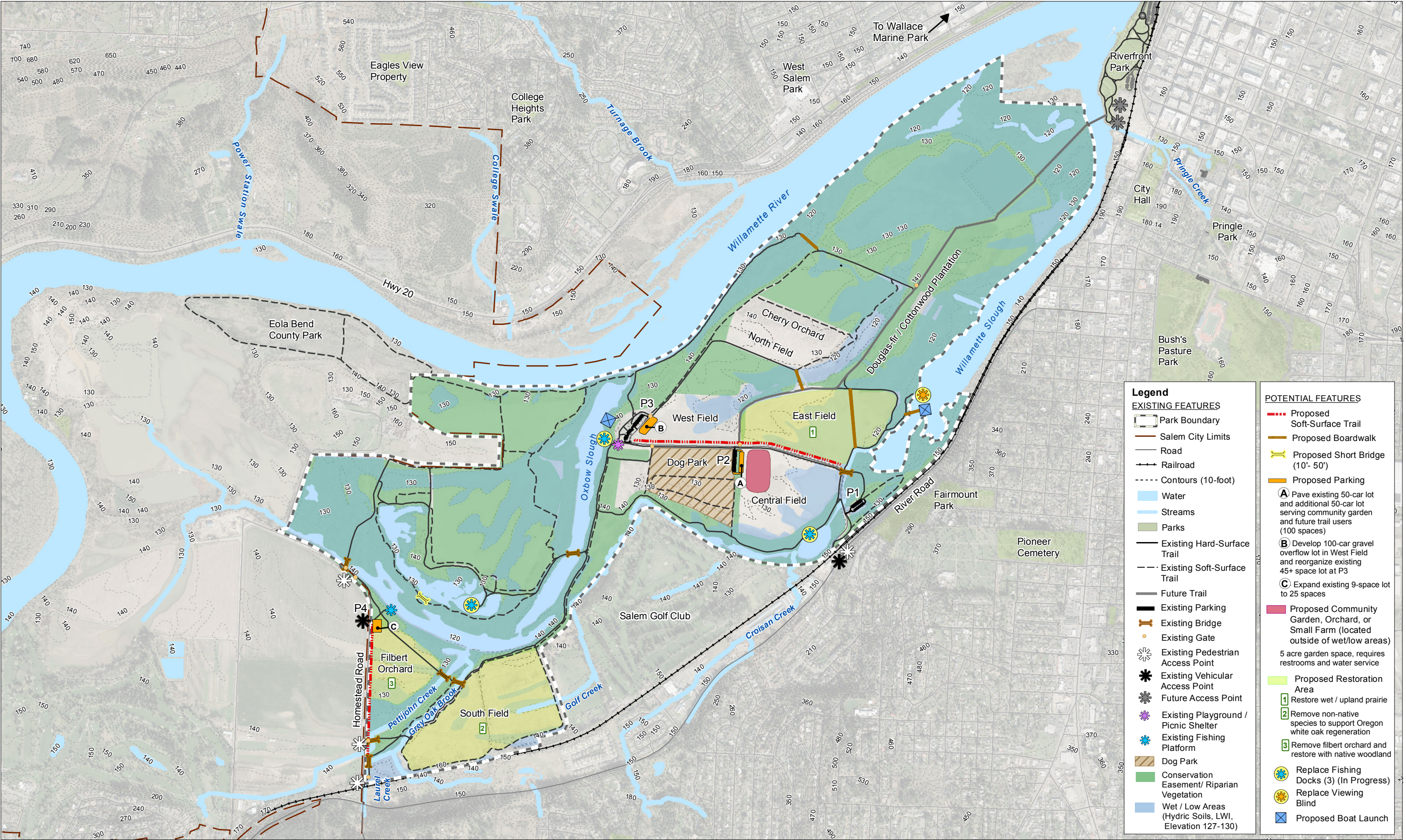
APPENDIX A

Alternatives

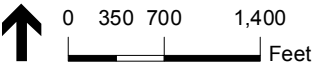
Alternative 1 - Enhanced Access

Key Features:

- Soft trail connection on the north side of the road between P1 and P3
- Boardwalks over seasonally flooded areas
- Soft trail connection along Homestead Rd.
- Add a community garden, orchard or small farm at Parking lot 2 (5 acres)
- Add accessible non-motorized boat launches on Willamette and Oxbow Sloughs
- Parking Improvements:
 - Pave and expand Parking lot 2 (+50 spaces)
 - Create gravel overflow parking at Parking lot 3 (+100 spaces)
 - Expand parking lot 4 (+15 spaces)
- Restoration:
 - East – restore with native upland and wetland prairie
 - South - remove non-native trees, encourage oak regeneration
 - Filbert orchard – remove and replace with native riparian forest
 - North, West – do nothing, allow naturalization



SOURCE: 2014 Aerial, Water, Streams, City Limits, Roads, Railroad, Minto Bridges, Minto Parking, Trails, Gates, Contours, CREP Plantings, Parks data provided 8/2014 by City of Salem.



Minto-Brown Island Park Master Plan

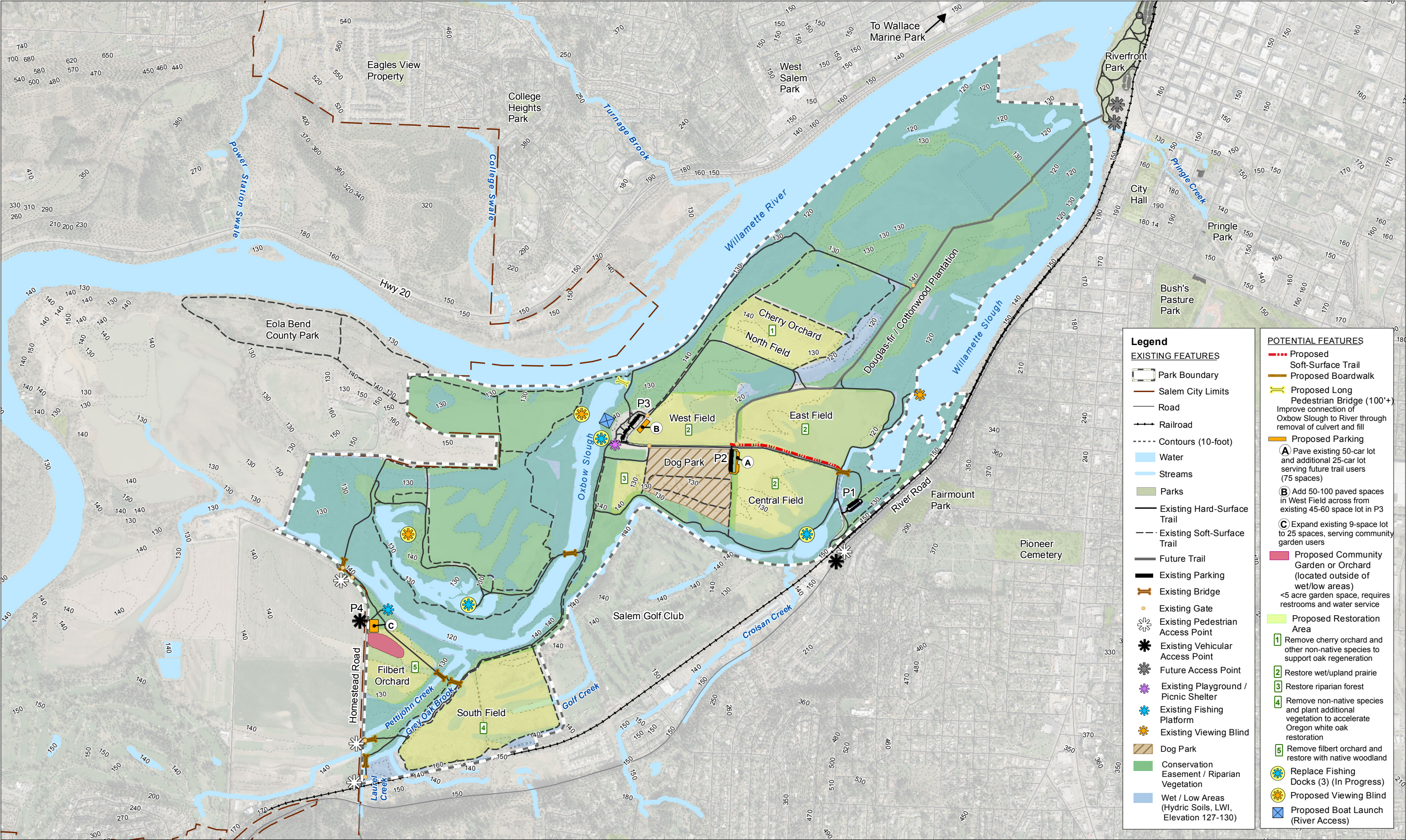
Figure A-1

Alternative 1 - Enhanced Access

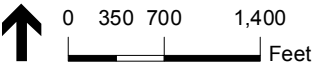
Alternative 2 - Restoration Focus

Key Features:

- Restoration (fields):
 - North – remove cherry orchard and non-native species,
 - West, East and Central – restore native wetland and upland prairie
 - West of dog park – restore with native riparian forest
 - South – remove non-natives and replant to accelerate oak regeneration
 - Filbert Orchard – Remove and replant with native riparian forest
- Reconnect Oxbow Slough to the Willamette River, add bridge
- Add wildlife/bird viewing blinds along Oxbow Slough
- Parking
 - Pave Parking lot 2 and expand to east (+25 spaces)
 - Expand and pave overflow at Parking lot 3 (+50-100 spaces)
 - Expand Parking lot 4 for garden (+15 spaces)
- Add a Community garden in the Filbert Orchard at Parking lot 4 (4 acres)
- Add a soft surface trail between parking lots 1 and 2 to facilitate bypass of seasonally flooded trail.
 - Add an accessible non-motorized boat launches on Oxbow Slough



SOURCE: 2014 Aerial, Water, Streams, City Limits, Roads, Railroad, Minto Bridges, Minto Parking, Trails, Gates, Contours, CREP Plantings, Parks data provided 8/2014 by City of Salem.



Minto-Brown Island Park Master Plan

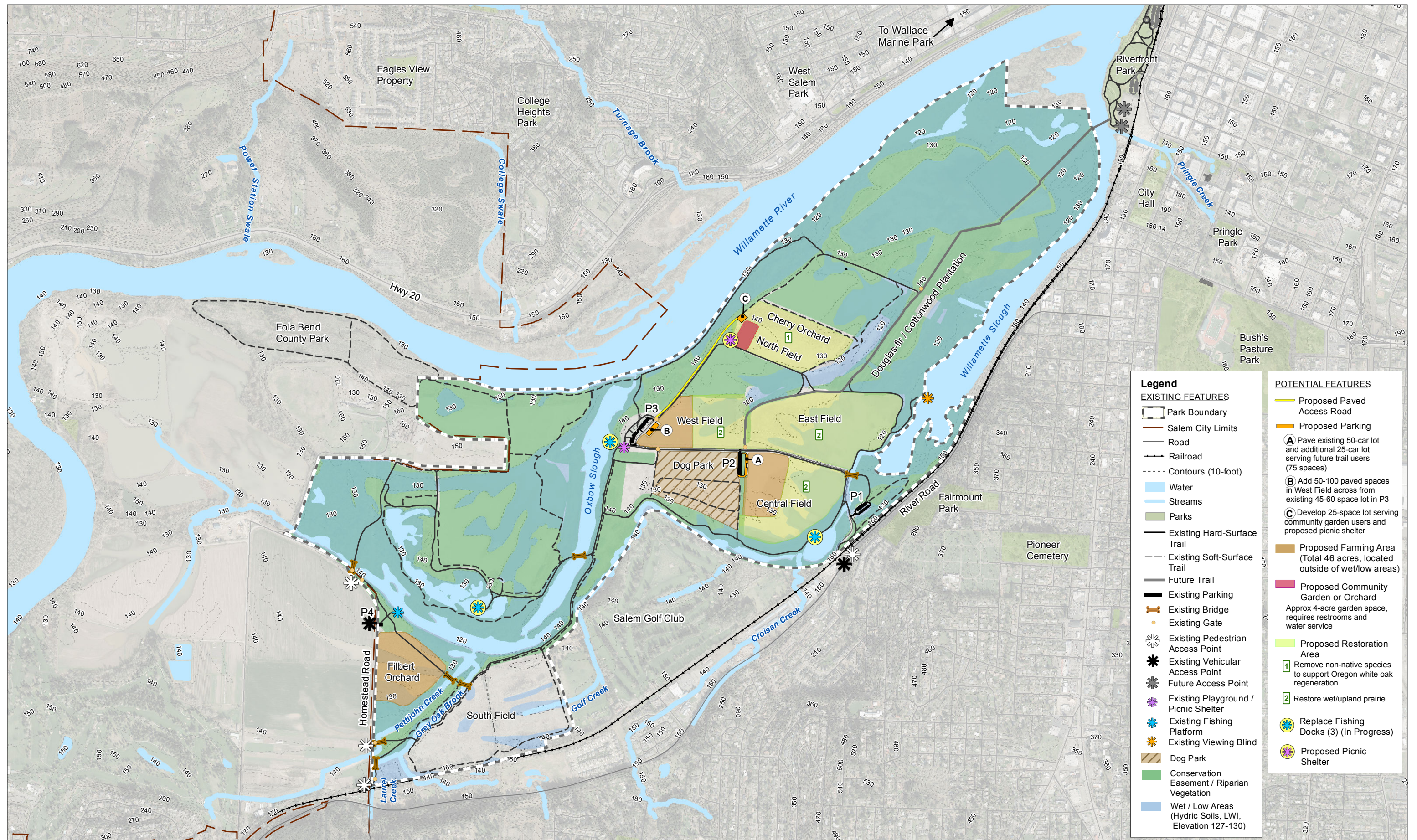
Figure A-2

Alternative 2 - Restoration Focus

Alternative 3 - Agriculture Focus

Key Features:

- Agriculture (fields):
 - North – reclaim viable orchard trees, add community garden (5 acres)
 - West and Central – farm western (non-wet) portions
 - Filbert Orchard – Manage orchard for non-commercial production
- Restoration (fields):
 - North – Remove non-natives, enable oak regeneration in east portion
 - West, Central – restore native wet prairie in eastern portions
 - East Field – restore native upland/ wetland prairie
 - South – do nothing, allow continuing naturalization
- Include picnic shelter and support facilities near community garden
- Extend the park road from Parking lot 3 to the community garden
- Parking
 - Pave Parking lot 2 and expand to east (+25 spaces)
 - Expand and pave overflow at Parking lot 3 (+50-100 spaces)
 - Add new parking lot serving the community garden (+15 spaces)



SOURCE: 2014 Aerial, Water, Streams, City Limits, Roads, Railroad, Minto Bridges, Minto Parking, Trails, Gates, Contours, CREP Plantings, Parks data provided 8/2014 by City of Salem.

0 350 700 1,400 Feet

CITY OF Salem AT YOUR SERVICE

ESA VIGIL-AGRIMIS

Minto-Brown Island Park Master Plan

Figure A-3

Alternative 3 - Agriculture Focus

APPENDIX B

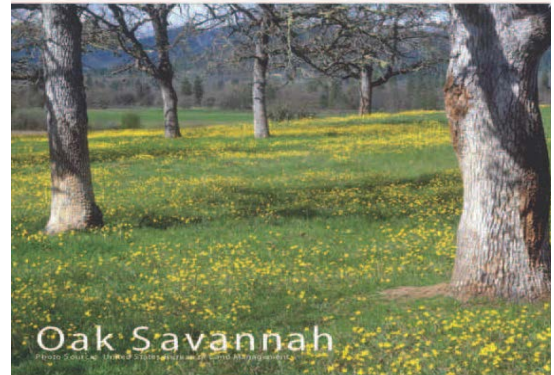
Restoration Plant Communities

Restoration Plant Communities

The General Land Office (GLO) surveys conducted in the mid-19th century provide documentation of observed plant communities within Minto-Brown Park and the surrounding region at that time. Vegetation communities mapped at that time included: upland forest, riparian forest, prairie and slough/swamp. This information was combined with past native plant restoration activities within the park to identify potential restoration plant communities with appropriate plant species and general location information within the park. These plant communities are intended to provide general guidance on species selection that can be applied throughout the park, depending on the habitat or plant community target.

Oak Savanna

Once widespread in the Willamette Valley, oak savanna has been reduced to one or two percent of its original range. Many wildlife and plant species have suffered substantial population reductions as this habitat has disappeared. Important species include the western bluebird, Vesper sparrow, Western meadowlark, Roemer's fescue, Western gray squirrel, and Fender's blue butterfly. The wildflowers of the savanna support many insect pollinators. The oak savanna habitat requires mowing or fire to prevent establishment of conifers and other woody vegetation.



Recreation Opportunities:

- Sunny walking trails
- Wildlife viewing
- Photography

Potential Locations:

Highest and driest portions of the park

Key Species:

Pinus ponderosa	Willamette Valley ponderosa pine
Quercus garryana	Oregon white oak
Amelanchier alnifolia	Saskatoon serviceberry
Corylus cornuta	beaked hazelnut
Holodiscus discolor	oceanspray
Oemleria cerasiformis	Indian plum
Polystichum munitum	Western sword fern
Rosa nutkana	Nootka rose
Symphoricarpos albus	snowberry
Agropyron trachycaulum	slender wheatgrass
Aster hallii	Hall's aster
Bromus carinatus	California brome
Danthonia californica	California oatgrass
Festuca idahoensis	Idaho fescue
Festuca roemerii	Roemer's fescue
Koeleria macrantha	Junegrass

Mixed Woodland / Riparian Forest

Riparian forest still exists in narrow bands along the Willamette River and some of its tributaries. These forests once covered much more land along the Willamette River before channel simplification and the construction of flood control dams. Their current extent is more fragmented than before widespread development. Large trees help shade waterways and provide important nesting areas for bald eagles, blue herons, osprey, Western gray squirrels, and pileated woodpeckers.



Recreation Opportunities:

- Forest Trails
- Wildlife viewing
- Shade on hot summer days

Potential Locations:

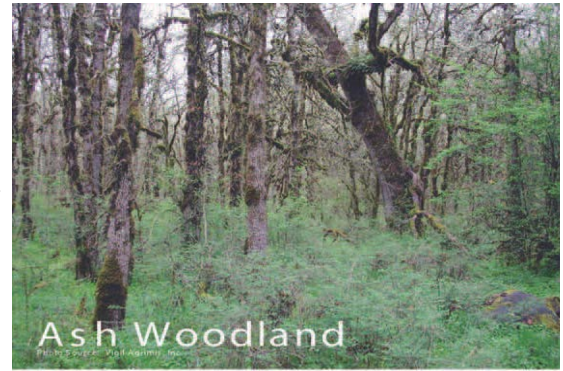
- Mid elevations
- Edges of water bodies

Key Species:

<i>Alnus rubra</i>	red alder
<i>Acer macrophyllum</i>	big-leaf maple
<i>Populus trichocarpa balsamifera</i>	black cottonwood
<i>Rosa nutkana</i>	Nootka Rose
<i>Cornus albus</i>	red-osier dogwood
<i>Lonicera involucrate</i>	black twinberry
<i>Physocarpus capitatus</i>	ninebark
<i>Sambucus racemosa</i>	red elderberry
<i>Symphoricarpos albus</i>	snowberry
<i>Polystichum munitum</i>	sword fern
<i>Agrostis exarata</i>	Spike bentgrass
<i>Calamagrostis canadensis</i>	bluejoint
<i>Deschampsia elongata</i>	slender hairgrass

Ash Woodland

Oregon ash is the only native ash tree in the Willamette Valley. Oregon ash can create dense forests in seasonally flooded and soggy ground. These dense forests provide important seasonal cover for many types of wildlife including Pacific tree frogs, garter snakes, black-tail deer, and many types of birds. As the trees age, cavities form, providing avian nesting habitat. Oregon ash trees are often draped with lichen.



Recreation Opportunities:

Shady, seasonal walking trails
Quiet habitat areas

Potential Locations:

Low and wet areas

Key Species:

Fraxinus latifolia	Oregon ash
Cornus albus	red-osier dogwood
Physocarpus capitatus	ninebark
Salix scouleriana	Scouler's willow
Symphoricarpos albus	snowberry
Carex obnupta	slough sedge
Carex deweyana	Dewey's sedge
Carex stipata	saw-beak sedge
Scirpus microcarpus	small-fruited bulrush

Willow slough

The extent of willow slough in the Willamette Valley has been reduced by development, agriculture, and river channel simplification. Willow slough provide important nesting cover for wildlife. They also provide food resources for insects, mammals, and birds, including the Western meadowlark.



Recreation Opportunities:

Boardwalks and overlook decks
Wildlife viewing

Potential Locations:

Wet depressions and sloughs

Key Species:

Salix scouleriana	Scouler's willow
Cornus albus	red-osier dogwood
Salix lucida ssp. Lasiandra	Pacific willow
Salix sitchensis	Sitka willow
Spiraea douglasii	hardhack
Juncus effusus	soft rush
Carex aperta	Columbia sedge
Carex obnupta	slough sedge
Juncus ensifolius	dagger-leaf rush

Wet Prairie

Most of the Willamette Valley wet prairie has been converted to other uses. Restoration efforts are underway on many small parcels in the valley to bring back this scenic and important community. Wet prairie areas need to be managed with mowing or fire to prevent the establishment of woody vegetation. The camas lily is one of the more striking plants of the wet prairie, often forming immense stands of shimmering blue flowers. Remnant and restored wet prairie areas harbor a number of imperiled plants and animals, including the Northern red-legged frog, Willamette Valley daisy, and Bradshaw's lomatium.



Recreation Opportunities:

- Seasonal walking trails
- Wildflower viewing
- Sunny areas

Potential Locations:

Low, wet portions of open fields

Key Species:

Rosa nutkana	Nootka rose
Spiraea douglasii	hardhack
Camassia quamash	camas
Beckmannia syzigachne	American slough grass
Carex densa	dense sedge
Danthonia californica	California oatgrass
Deschampsia elongata	slender hairgrass
Deschampsia cespitosa	tufted hairgrass
Festuca rubra	red fescue
Hordeum brachyantherum	meadow barley
Plagiobothrys figuratus	popcornflower
Sisyrinchium idahoense	blue-eyed grass
Subspicatus douglasii	Douglas' Aster

Upland Prairie

Upland prairies are very rare in the Willamette Valley. Their range has been greatly reduced by development, invasive species, and agriculture. They are home to a variety of birds, mammals, and plants, including Roemer's fescue, the grasshopper sparrow, and the Vesper sparrow. Upland prairies need to be managed with mowing or fire to prevent the establishment of woody vegetation. Bunchgrasses and wildflowers create important habitat and beautiful scenery, as well as support many insect pollinators.



Recreation Opportunities:

- Sunny walking trails
- Wildflower viewing
- Active stewardship

Potential Locations:

Open fields and meadows outside of wetland

Key Species:

Brodiaea hyacinthina	nodding onion
Bromus carinatus	California brome
Danthonia californica	California oatgrass
Deschampsia elongata	slender hairgrass
Festuca idahoensis	Idaho fescue
Festuca roemerii	Roemer's fescue
Iris tenax	Oregon iris
Koeleria macrantha	Junegrass
Potentilla gracilis	slender cinquefoil
Sanguisorba annua	small burnet
Solidago canadensis	Canadian goldenrod
Wyethia angustifolia	narrow-leaf wyethia

APPENDIX C

Nesting Bird Species

Nesting Birds of Minto-Brown Island Park

"Special Status Species," meaning the species has been identified as an Oregon Sensitive, Oregon Strategy Species or ICUN Red List Species whose numbers are in decline nationwide. Please refer to the attached chart for more information on these birds.

Tree Nesting Birds

American Crow	Evening Grosbeak	Osprey
Bald Eagle	Golden-crowned Kinglet	Pine Siskin
Black-headed Grosbeak	Great Blue Heron	Purple Finch*
Black-throated Gray Warbler	Great-horned Owl	Red-tailed Hawk
Bullock's Oriole	House Finch	Sharp-shinned Hawk
Cedar Waxwing	Mourning Dove	Stellers's Jay
Cooper's Hawk	Olive-sided Flycatcher	Western Tanager

Scrub Nesting Birds

American Goldfinch	Green Heron	Swainson's Thrush*
American Robin	Lazuli Bunting	Warbling Vireo
Anna's Hummingbird	Lesser Goldfinch	Western Wood-pewee*
Brewer's Blackbird	Pacific-slope Flycatcher*	Willow Flycatcher*
Brown-headed Cowbird	Rufous Hummingbird*	Wrentit*
Bushtit	Western Scrub-Jay	Yellow Warbler
Cassin's Vireo	Song Sparrow	

Ground Nesting Birds

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

Standing Snag and Live Tree Cavity Nesting Birds

American Kestrel	European Starling	Red-breasted Nuthatch
Black-capped Chickadee	Hairy Woodpecker	White-breasted Nuthatch*
Brown Creeper	Hooded Merganser	Red-breasted Sapsucker
Bufflehead	House Wren	Tree Swallow
Chestnut-backed Chickadee	House Sparrow	Violet-green Swallow
Common Merganser	Northern Flicker	Vaux's Swift
Downy Woodpecker	Pileated Woodpecker*	Wood Duck

Ground Cavity Nesting Birds

Pacific Wren	Bewick's Wren
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Source: Salem Audubon Society

APPENDIX D

Detailed Cost Estimate

Minto-Brown Island Park Master Plan

Detailed Cost Estimate

Item	Quantity	Unit	Unit Price	Cost	Comment
Site Utilities					
Water Line - 4"	3,500	LF	\$75.00	\$262,500	
			Subtotal:	\$262,500	
Parking Lot 2					
Improve Existing - 50 spaces					
Asphalt Paving	199	CY	\$120.00	\$23,833	
Gravel base	301	CY	\$30.00	\$9,028	
Concrete Curb & Gutter (Depressed)	20	LF	\$30.00	\$600	
Concrete Curb	1,050	LF	\$20.00	\$21,000	
Striping	1,000	LF	\$2.00	\$2,000	
Concrete Wheel Stops	50	EA	\$75.00	\$3,750	
Signage (ADA)	2	EA	\$500.00	\$1,000	
			Subtotal:	\$61,211	
Expansion - 50 spaces					
Asphalt Paving	199	CY	\$120.00	\$23,833	
Gravel base	301	CY	\$30.00	\$9,028	
Concrete Curb & Gutter (Depressed)	20	LF	\$30.00	\$600	
Concrete Curb	1,050	LF	\$20.00	\$21,000	
Striping	1,000	LF	\$2.00	\$2,000	
Concrete Wheel Stops	50	EA	\$75.00	\$3,750	
Signage (ADA)	2	EA	\$500.00	\$1,000	
			Subtotal:	\$61,211	
Parking Lot 3					
Improve Existing - 50 spaces					
Asphalt Paving	199	CY	\$120.00	\$23,833	
Gravel base	301	CY	\$30.00	\$9,028	
Concrete Curb & Gutter (Depressed)	20	LF	\$30.00	\$600	
Concrete Curb	1,050	LF	\$20.00	\$21,000	
Striping	1,000	LF	\$2.00	\$2,000	
Concrete Wheel Stops	50	EA	\$75.00	\$3,750	
Signage (ADA)	2	EA	\$500.00	\$1,000	
			Subtotal:	\$61,211	
Gravel overflow - 200 spaces					
Gravel base	1,204	CY	\$30.00	\$36,111	
			Subtotal:	\$36,111	

Parking Lot 4: Expand Existing - 25 spaces

Asphalt Paving	103	CY	\$120.00	\$12,393
Gravel base	156	CY	\$30.00	\$4,694
Concrete Curb & Gutter (Depressed)	20	LF	\$30.00	\$600
Concrete Curb	400	LF	\$20.00	\$8,000
Striping	520	LF	\$2.00	\$1,040
Concrete Wheel Stops	25	EA	\$75.00	\$1,875
Signage (ADA)	2	EA	\$500.00	\$1,000

Subtotal:	\$29,603
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Trails

Paved accessible Path - 8', NW of P3	19,200	SF	\$5.00	\$96,000	A/C 4" depth/ 4" base
Paved accessible path - 8', dog park	24,000	SF	\$5.00	\$120,000	A/C 4" depth/ 4" base
Soft trail - 6', P1 to P3	21,000	SF	\$1.50	\$31,500	Crushed rock or bark chips
Soft trail - 6' wide, P1 to boat launch	6,000	SF	\$1.50	\$9,000	Crushed rock or bark chips
Soft trail - 6', Homestead Road	14,400	SF	\$1.50	\$21,600	Crushed rock or bark chips
Soft trail - 4' wide, north field and cherry	14,400	SF	\$1.50	\$21,600	Crushed rock or bark chips

Subtotal:	\$299,700
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Bridges and Boardwalks

Small Bridge	1	EA	\$15,000.00	\$15,000	
Boardwalk - East Field	1,000	LF	\$600.00	\$600,000	8' wide, without handrail
Boardwalk - River	250	LF	\$1,000.00	\$250,000	10' wide, over side channel, with handrail

Subtotal:	\$865,000
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Site Structures

Picnic Shelters	2	EA	\$50,000.00	\$100,000	
Bird Blinds	6	EA	\$15,000.00	\$90,000	10x15'
Floating Docks	2	EA	\$30,000.00	\$60,000	10x20'
Restrooms - 2 stall, P4	1	EA	\$76,812.00	\$76,812	Composting toilet: 1.5x cost for delivery, install
Restrooms - 4 stall, P1	1	EA	\$113,812.50	\$113,813	Composting toilet: 1.5x cost for delivery, install
Restrooms - 6 stall, P2 & P3	2	EA	\$147,000.00	\$294,000	Composting toilet: 1.5x cost for delivery, install
Restrooms - 8 stall, none specified	0	EA	\$183,000.00	\$0	Composting toilet: 1.5x cost for delivery, install

Subtotal:	\$734,625
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Site Furnishings

Nature Play Area	1	LS	\$50,000.00	\$50,000	
Benches	25	EA	\$1,000.00	\$25,000	
Picnic Tables	14	EA	\$1,000.00	\$14,000	5 ea at P3 & P2, 2 ea at P1 and P4
Bike Racks	16	EA	\$1,000.00	\$16,000	5 ea at P3 & P2, 3 ea at P1 and P4
Removable Bollards	10	EA	\$500.00	\$5,000	2 per parking lot for maint access

Subtotal:	\$110,000
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Park Signage

Rules / Safety	8	EA	\$500.00	\$4,000
Entry Sign	2	EA	\$3,000.00	\$6,000

Subtotal:	\$10,000
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Restoration Planting

North Field / Cherry Orchard	30	AC	\$12,500.00	\$375,000	Remove orchard, restore 10 ac oak, 20 ac prairie
West Field	24	AC	\$10,000.00	\$240,000	Restore prairie: 12 ac upland, 12 ac wet
East Field	52	AC	\$10,000.00	\$520,000	Restore prairie: 20 ac upland, 32 ac wet
Central Field	32	AC	\$10,000.00	\$320,000	Restore prairie: 20 ac upland, 12 ac wet. Reserve 9 acres for parking, picnic, comm. farm
South Field	63	AC	\$5,000.00	\$315,000	Selective removal, native release, replanting
Filbert Orchard	25	AC	\$2,500.00	\$62,500	Selective removal, native release
			Subtotal:	\$1,832,500	

Oxbow Slough Reconnection / Willamette Riparian Restoration

Bridge	100	LF	\$2,500.00	\$250,000	10' width
Excavation, culvert removal	10,000	CY	\$25.00	\$250,000	
Manual Boat Launch	1	LS	\$100,000.00	\$100,000	
Riparian plantings	1	LS	\$350,000.00	\$350,000	
			Subtotal:	\$950,000	

CONSTRUCTION SUBTOTAL	\$5,313,672
DESIGN & PERMITTING (15%)	\$797,051
CONTINGENCY (35%)	\$2,138,753

TOTAL (FULL IMPLEMENTATION)	\$8,249,475
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APPENDIX E

Public Meeting Summaries

memorandum

date 12/10/14

to Keith Keever, Salem Parks Operations

from Tracy Johnson, ESA Vigil-Agrimis

subject Minto-Brown Island Park –Public Meeting 1 Summary

Purpose

The first public meeting was held on November 18, 2014. It was intended to set the stage for the Minto-Brown Park Master Plan, by providing background information on prior planning efforts, related projects and the park itself. Meeting attendance was good, with 40 to 50 people in the audience. Topics presented included:

- ❖ The Riverfront-Minto Bridge project will connect Minto-Brown Island Park to Riverfront Park and downtown Salem. The project is fully designed, funded and permitted. Construction is scheduled to start in 2015. It will add a mile of trail to connect from the new bridge to the park's internal trail system.
- ❖ The Minto Island Conservation Area is a 307 acre parcel that was acquired from Boise Cascade in 2013. The area is protected by a conservation easement, which emphasizes habitat preservation and restoration. A Conservation and Management Plan is being developed.
- ❖ Minto-Brown Island Park is a natural area, which means that it is intended primarily for protection and preservation of the natural environment. Allowable uses include low impact features that do not impact the protected area, including: trails, parking, picnic areas, play areas, restrooms, boat launch, disc golf. Uses that may conflict with the primary goals or could have negative impacts for a natural area are generally not allowed: dog park, community garden, BMX or mountain bike trails, sports fields and courts, pools and splash fountains, skate parks. The existing dog park will remain at Minto Brown.
- ❖ A brief summary of results from online Survey 1:
 - The first survey was very successful, with 378 responses prior to the meeting.
 - The park is well loved and many people use it frequently.
 - Most people drive to the park
 - The most popular activities, in order of preference: walking, biking, bird or wildlife viewing, dog off leash area and running.
 - Preserving the natural area at Minto is very important to most people.

- Most people know about the new bridge and plan to use it.
- ❖ Background information about the park:
 - The soils are predominantly silts and silt loams that are associated with floodplains and terraces. They are moderately to poorly drained and prime farm land.
 - There are a lot of wetlands, creeks and sloughs at the park which also limit potential uses.
 - The park is almost entirely within the 100-year floodplain and floodway, which limits buildings and structures, and exposes those items to damage.
 - There are a number of conservation easements, which are protected areas within the park that have some use restrictions. Trails are allowed within them.
- ❖ Summary of Existing Facilities:
 - There are four parking lots within the park. Lots 2 and 3 could be improved for safety and usability.
 - Trails are the most used feature of the park. They vary in width and materials range from bark chips to asphalt.
 - New park map kiosks at parking lots and trail intersections are helping with safety and wayfinding within the park, and popular with park users.
 - The dog off leash area is another popular feature. It is one of only two within the City. Conflicts with other park users and impacts on wildlife outside of the off leash area are an ongoing management concern.
 - Water and sewer services are not available at the park. Drinking fountains are served by wells. Chemical toilets are used in place of full restroom facilities due to the lack of utilities, combined with the floodway and floodplain restrictions.
- ❖ Summary of potential improvements:
 - Improve existing facilities to repair aged and damaged items and maintain universal accessibility.
 - Improve safety of trail crossing to reduce conflicts between trail users and vehicles.
 - Continue to restore wildlife habitat, manage invasive species, and improve water quality.
- ❖ There are numerous ways to stay informed and opportunities for the public to provide input as we develop the master plan:
 - Four public meetings are scheduled. Meetings will be held at 630pm at Pringle Hall. Future meeting dates are below:
 - January 20th, 2015
 - March 3, 2015
 - March 31, 2015
 - New on-line surveys will be posted on the project website prior to each meeting.
 - Ideas and comments can be sent directly to the Parks Department at any time.
 - Comment Forms will also be available at each meeting.

memorandum

date 2/3/15

to Keith Keever, Salem Parks Operations

from Tracy Johnson & Susie Mattke-Robinson, ESA Vigil-Agrimis

subject Minto-Brown Island Park – Public Meeting 2 Summary

Purpose

The second public meeting for the Minto-Brown Island Park Master Plan was held on January 20th, 2015. The meeting provided a summary of public feedback from online Survey 1, defined sensitive areas in the park, and presented site opportunities and constraints that will be considered when developing the Master Plan. Approximately 40 to 45 people attended the public meeting. Topics presented included:

- ❖ Survey 1 was concluded on December 16, 2014 and received over 500 responses. Common themes from the responses are the park is a well-used amenity and preserving nature is a high priority.
- ❖ Survey 2 is still being conducted, and has received over 700 responses to date. Questions for Survey 2 were developed to gather information on current uses, needs, and support or opposition for other potential uses that were discussed in Survey 1.
- ❖ Sensitive Areas and Site Constraints:
 - Sensitive areas in Minto-Brown Island Park are shown in Figure 8. To identify and map the sensitive areas, the existing conditions and site analysis maps (presented at Public Meeting 1) were combined with information provided in the Sensitive Areas Management Handbook. Four key types of sensitive areas were identified:
 - Wet areas derived from the local wetland inventory, hydric soils, seasonal flooding (topography), and field observation.
 - Conservation easements, which are areas that have limited or restricted use. In these areas, development is usually limited to trails only (NRCS, CREP, and MICA).
 - Riparian vegetation areas along the river, sloughs, and creeks. These areas contain important trees, shrubs, and groundcover that provide habitat and shade near waterways.
 - Areas of known Oregon white oak regeneration. These areas are the highest points on the site where Oregon white oaks are naturally re-establishing.
 - The Constraints map (Figure 9) depicts the combined sensitive areas in the park that have constraints or limitations on future park uses.

- ❖ In addition to the public meetings and survey, the Master Planning team held stakeholder meetings with the following user groups: community garden / agriculture, active users (running/biking groups), disc golf, cultural resources, natural resources, and the Minto-Brown Island Volunteer Park Patrol. Each group shared information and insights on current and potential future park uses:
 - Community Garden / Farming

This use would require support facilities including: restrooms, water for irrigation, parking, and fencing. There are currently several existing community gardens in Salem parks. They are usually within walking distance of neighborhoods, and are managed by a partner organization.
 - Active Users

The group has interest in adding larger running events. This would require additional support facilities including: parking areas or shuttle buses, more frequent restrooms, garbage receptacles, and additional potable water services. Cyclists have expressed interest in rerouting a portion of the Willamette Scenic Bikeway through Minto-Brown Island Park, off River Road.
 - Disc Golf

This user group is interested in having a high-quality competition-level course in Salem. This type of course would require 50 to 60 acres of space, and 5,000 linear feet of fairway. It would also require support facilities including: restrooms, parking for 25 to 30 vehicles, and potable water services. There are currently many other disc golf facilities within 30 miles of Salem.
 - Cultural Resources

The Master Plan team met with tribal representatives and state historic preservation staff. There are known sensitive sites in the vicinity of the park. There are multiple layers and eras of historic site uses including: Native American, homesteading, and industrial.
 - Natural Resources

The park contains sensitive bird habitat and resting areas. There are concerns about off-leash dogs impacting wildlife throughout the park, the new trail and bridge, and increased park use impacting wildlife. There is interest in restoring the remaining fallow fields, possibly to a native prairie that could be seasonally mowed.
 - Minto-Brown Island Volunteer Park Patrol

The patrol commonly addresses off-leash dogs throughout the park, notifies Salem Parks about homeless camps on-site, monitors parking lots, and ensures user safety.
- ❖ Natural area restoration opportunities for the park:
 - Remove invasive and non-native species
 - Restore native plant communities
 - Reconnect Oxbow Slough, to provide water quality improvements and juvenile salmon habitat
- ❖ Two more public meetings are scheduled. Meetings will be held at 6:30pm at Pringle Hall. Future meeting dates are below:
 - March 3, 2015
 - March 31, 2015
 - New on-line surveys will be posted on the project website prior to each meeting.
 - Ideas and comments can be sent directly to the Parks Department at any time.
 - Comment Forms will also be available at each meeting.

memorandum

date 3/4/15

to Keith Keever, Salem Parks Operations

from Tracy Johnson, ESA Vigil-Agrimis

subject Minto-Brown Island Park – Public Meeting 3 Summary

Purpose

The third public meeting for the Minto-Brown Island Park Master Plan was held on March 3, 2015. The meeting presented the Minto Island Conservation Management Plan work to date, provided a summary of public feedback from online surveys, and described three draft alternatives. Approximately 50 people attended the public meeting. Topics presented included:

❖ Minto Island Conservation Area

- The Minto Island Conservation Area is the 307 acre parcel at the north end of the park, acquired from Boise Cascade in 2013 with Willamette Wildlife Mitigation Program grant funds. It is protected by a conservation easement to protect specific habitat values.
- Approximately 100 acres of this were formerly industrial and have use or access restrictions.
- A Management Plan is being developed as a condition of the grant. The plan will be approved by BPA, DEQ and ODFW. The plan inventories existing wetlands, and habitat types, and develops habitat conservation targets to guide restoration. The plan also includes plans for public access and trails.
- The Management Plan will be submitted to BPA for review and public comment in late March, and presented to City Council on April 13.

❖ Public Input

- Survey 1 was concluded on December 16, 2014 and received over 500 responses. Common themes from the responses are the park is a well-used amenity and preserving nature is a high priority.
- Survey 2 was concluded on January 26, 2015 and received nearly 800 responses. Questions for Survey 2 were developed to gather more specific information related to amenity needs: parking, trail surface, support facilities, etc. The most popular concepts for future included keeping the dog park, removing invasive plants, improving wildlife habitat, add more soft trails, native restoration of the remaining fields, and community garden/farm.

- Survey 3 is still being conducted, and has received over 300 responses to date. Questions for Survey 3 were developed to gather information on preferences for specific areas of the park, including the fallow fields, the old filbert and cherry orchards, parking, dog area, restoration and boat access.

❖ Alternatives:

- The Sensitive areas and Site Constraints Maps (Figures 8 and 9), presented at Meeting 2, were briefly reviewed to set the framework for development of the 3 Alternatives.
- **Alternative 1, Enhanced Access - Key Features:**
 - Soft trail connection on the north side of the road between P1 and P3
 - Boardwalks over seasonally flooded areas
 - Soft trail connection along Homestead Rd.
 - Add a community garden, orchard or small farm at Parking lot 2 (5 acres)
 - Add accessible non-motorized boat launches on Willamette and Oxbow sloughs
 - Parking Improvements:
 - Pave and expand Parking lot 2 (+50 spaces)
 - Create gravel overflow parking at Parking lot 3 (+100 spaces)
 - Expand parking lot 4 (+15 spaces)
 - Restoration:
 - East – restore with native upland and wetland prairie
 - South - remove non-native trees, encourage oak regeneration
 - Filbert orchard – remove and replace with native riparian forest
 - North, West – do nothing, allow naturalization
- **Alternative 2, Restoration Focus - Key Features:**
 - Restoration (fields):
 - North – remove cherry orchard and non-native species,
 - West, East and Central – restore native wetland and upland prairie
 - West of dog park – restore with native riparian forest
 - South – remove non-natives and replant to accelerate oak regeneration
 - Filbert Orchard – Remove and replant with native riparian forest
 - Reconnect Oxbow slough to the Willamette River, add bridge
 - Add wildlife/bird viewing blinds along Oxbow slough
 - Parking
 - Pave Parking lot 2 and expand to east (+25 spaces)
 - Expand and pave overflow at Parking lot 3 (+50-100 spaces)
 - Expand Parking lot 4 for garden (+15 spaces)
 - Add a Community garden in the Filbert Orchard at Parking lot 4 (4 acres)
 - Add a soft surface trail between parking lots 1 and 2 to facilitate bypass of seasonally flooded trail.
 - Add an accessible non-motorized boat launches on Oxbow slough
- **Alternative 3, Agriculture Focus - Key Features:**
 - Agriculture (fields):
 - North – reclaim viable orchard trees, add community garden (5 acres)
 - West and Central– farm western (non-wet) portions
 - Filbert Orchard – Manage orchard for non-commercial production

- Restoration (fields):
 - North – Remove non-natives, enable oak regeneration in east portion
 - West, Central – restore native wet prairie in eastern portions
 - East Field – restore native upland/ wetland prairie
 - South – do nothing, allow continuing naturalization
- Include picnic shelter and support facilities near community garden
- Extend the park road from Parking lot 3 to the community garden
- Parking
 - Pave Parking lot 2 and expand to east (+25 spaces)
 - Expand and pave overflow at Parking lot 3 (+50-100 spaces)
 - Add new parking lot serving the community garden (+15 spaces)

❖ Next Steps:

- **REVISED: The next meeting date has changed.** It will be held on **April 21, 2015** at 6:30pm at Pringle Hall.
 - New on-line surveys will be posted on the project website after each meeting.
 - Ideas and comments can be sent directly to the Parks Department at any time.
 - Comment Forms will also be available at each meeting.

Minto Brown Island Park Master Plan Questionnaire

Public Meeting #3

March 3, 2015

[31 responses]

1. Please **circle** your preferred alternative and provide input on each of the other alternatives. Please indicate what you like, include anything you would change, and list elements you would like to see included or excluded from the final plan.

- a. **Alternative #1, Enhanced Access:** Add new soft surface trails along Park Access and Homestead Roads; expand parking lots 2, 3 and 4; add boardwalks in seasonally flooded areas; add a new community garden/orchard near parking lot 2; restore some fields. **[8 votes]**

Like:

- Expand 3 & 4
- Boardwalks are a good idea, Soft trails are good. If there is a community garden, this would be a good location without too much disruption / impact on rest of park.
- Soft surface trails
- Boardwalks on trails.
- A new soft surface trails along park access but leave the blackberry corridor along the road to encourage quail and sparrows to continue to use area.
- Expanding 2 & 3 parking lots, I like more soft trails. Love the boardwalks, so trails are available more of time.
- Boardwalks, if you expand the lots don't pave them.
- Like opening up land for some use.
- New soft trails, keep as is. Parking needs expanding.
- Boardwalk for seasonally flooded areas.
- Especially like the boardwalks
- Soft trails – boardwalks – restore some fields.
- New soft surface trails and boardwalks.
- Yes, I love this.
- Expand parking lots. New community gardens.

- Boardwalks in seasonally flooded areas.
- New soft trails, community garden

Change:

- NO GARDEN
- No community gardens
- No community garden please
- Does not contribute to the 'natural area' nature of the park.
- Don't add boardwalks in seasonally flooded areas, no community garden near parking lot 2.
- Don't expand parking #4. No community garden, it's not natural.
- Do not understand why south field or filbert grove cannot be used for disc golf as discussed.
- No comm. garden
- No community garden/ orchard etc.
- Don't like the garden. Should accommodate wildlife.
- No community garden. Do not expand parking lots.
- Never mind the community garden / orchard near lot #2
- Delete community garden.
- Gardening takes too much maintenance as explained in the public meetings. Leave out the gardening. I can hardly wait for the new bridge and the asphalted trail.
- No garden
- Do not like adding boardwalks. No community garden.
- Use cherry orchard for food production.
- Boardwalk no needed. Minimal lot expansion at this point, use money for maintenance.

- b. **Alternative #2, Restoration Focus:** Add new soft surface trails along Park Access Road; expand parking lots 2, 3 and 4; restore the Oxbow slough/ Willamette River confluence; restore all fields to native vegetation; add a community garden at the Filbert Orchard **[17 votes]**

Like:

- Yes, restore to native vegetation, see comment above about parking lots (3&4)

- My favorite, might be possible to combine alternatives 1 & 2.
- Restore fields to native vegetation, soft surface trails is great.
- Native
- Focus on conversion to native plant communities, w/ focus on wildlife uses, remember there are many. Expanding parking is an investment for future use. Wildlife values aside from grass production for waterfowl – good opportunity for benefiting grassland birds.
- Minto Brown is the jewel in Salem's city parks, focus on maximizing wildlife habitat – leaving some areas for Western meadowlarks and native prairie, leaving the blackberries in the cherry orchard area.
- Same comments as above (Expanding 2 & 3 parking lots, I like more soft trails. Love the boardwalks, so trails are available more of time)
- Restoration of Oxbow, restore fields to natives.
- River connection
- Restoration to encourage birds/ birding and wildlife viewing. Add boardwalks in flooded areas.
- New soft trails. Native vegetation restoration
- Yes! Restore slough access to river!!
- Soft trails – restore Oxbow slough – restore to native vegetation.
- Expanding parking lots, restoring confluence, restore native vegetation.
- Everything, except garden.
- Soft surface trails. Restoring fields to native.
- In favor of restoring slough/ river confluence. Like the idea of fishing in this park.
- Also a good idea.
- Community garden is valuable.
- Preferred
- Ease to get to community garden. Restoration of the confluence.
- Community garden, soft trails.

Change:

- Add Boardwalks
- No community garden please
- Remove adding the community garden focus. Don't cut the

blackberries in the old cherry orchard area, this is /was the only area where the wren tit, a species of concern nested.

- Not necessary to restore everything to native.
- Hate the garden!
- No community garden
- Not convinced about the community garden.
- No community garden – too much needed (water, parking) to be successful. No expansion of Homestead Rd. parking.
- No comm. garden.
- No need to expand parking #4. Not a good location for a community garden – I've coordinated a community garden for 10 yrs and speak from experience!
- No community garden.
- Never mind new soft surface trails and community garden.
- Take the garden option out; add the seasonal boardwalks where possible.
- No community garden.
- No garden – handle that another way.
- No community garden
- Don't restore any fields to any trees – keep it open and use farming for land management.
- Please leave open areas open. Don't plant any more trees, trails are becoming tunnels. Restoration of fields needs to be prairie – to maintain the vistas/ open feeling.

- c. **Alternative #3, Agriculture Focus:** Expand parking lots 2 and 3, add a new parking lot in the north field/cherry orchard, extend the road from parking lot 3 to the cherry orchard and add a new parking lot, community garden and picnic shelter; reintroduce farming in dry portions of west and central fields, and the filbert orchard; restore remaining fields. **[1 vote]**

Like:

- Same comments as above (Expanding 2 & 3 parking lots, I like more soft trails. Love the boardwalks, so trails are available more of time)
- Nothing
- Reintroduce farming. Restore remaining fields.

- Not so much.
- Restoring some fields to native vegetation
- Good idea
- Agriculture is valuable to the pastoral process of the park and needs to be continued.
- Minto has a long history of mixed-use. I like the idea of organic farming / community gardens.

Change:

- No new parking lot. Do not extend the roads anywhere
- My least favorite. No parking lot or road to cherry orchard. Community garden and shelter okay in filbert orchard. Restoration of fields to light farming ok.
- [Not this one]
- Farming has little public or wildlife benefit – community garden might be feasible, but comes with high O & M and development costs, both fiscal and environmental.
- No more agriculture at Minto Brown and definitely not extend the paved road to the cherry orchard.
- Parking lot and new road to a community garden proposed here is the worst idea on the entire page. It would disrupt the peacefulness of the park.
- Hate the garden! Why compete with Minto Brown Farm?
- Too much development.
- No new parking lots – no community garden.
- No to community garden and related changes. Not need to extend road from lot #3.
- Don't introduce farming.
- Handle that another way.
- No more roads.
- More parking on Homestead Rd. and disc golf course in that area.
- Concerned about spraying vs. non-spraying. No spray, not useful fruit/spray, damage to wildlife.
- Restore fields with prairie not trees.

2. The idea of including a community garden or reintroducing farming at Minto Brown Island Park has been mentioned in past meetings and comments. Please provide input on each of the following.

a. Do you think that a community garden should be included?

Yes: **4**

No: **20**

But not needing a new trail to get to it.

b. Do you think that a community farm and/or orchard that serves the food bank should be included?

Yes: **5**

No: **19**

I like this one best.

c. Do you think that commercial farming should return to the Park?

Yes: **5**

No: **21**

Small scale, "beginner" farmers, organic.

Organic, some.

3. Do you have any additional comments or ideas?

- Signage at blind corners for bicycles – "Warning! Blind corner ahead!"
- More native tree groves.
- It is a great asset to Salem, keep it natural.
- Consider most restoration of native vegetation is not a set selection of plants, but many approaches with specific wildlife benefits are possible – for example – farm field restoration could be targeted for nesting grassland birds or for more winter water fowl food. The park should provide a mosaic of habitats for a diverse fauna.
- Please focus on leaving/ creating wildlife habitat for wren tits that nest in dense blackberries and all the other bird and wildlife that use the park. The new interpretive signage is terrific. The only change I would suggest is also having the name of the trails on the master map at the parking lot (ex. Blue heron , orange rabbit, etc. Finally, Minto Brown has the finest and largest off leash dog area in Oregon and yet inconsiderate dog owners continue allowing their dogs to run free disturbing people, other dogs and wildlife.
- A garden will not survive. You can't fence it and the deer will damage all the veggies. Not enough acreage to support a commercial farmer. Will be more expensive to manage a farming operation rather than not do it all. Need to solve the off leash problem. Ticket them and funds go toward

maintenance of the park and NOT the general fund.

- If cannot use land here for disc golf course, where can we. It is family oriented sport that is only growing and is now beginning to enter various school's with teams. This is a important interest of mine as a long time player and supportive of my sport. Open to any discussion. Very disappointed at this time with decision. Thank you.
- This is a great opportunity for Salem to have a world class natural resource. It will take a clear vision for the long term benefit to be provided by consistent effort to restore native habitats.
- Still concerned about blackberries which are growing back - and rapidly. Need more trails to accommodate increased park usage.
- Park should accommodate wildlife and native plants.
- None good enough to be 'preferred'.
- Disc golf is the most growth sport in USA 6 yr in a row. There are 10-15 disc golf [tournaments] in Oregon every weekend, almost none in Salem. The south field is a perfect size.
- The presentation was very biased in representing the existing mater plan as it related to agriculture. Would you please read the 1985 and 1995 plans and ask if the farm value is still there to help maintain 1,200 acres. What is the cost per acre per year to maintain parkland and multiple times 1,200. Build a plan that is based on budget realities. Please post the results of the 6 stakeholder meeting on the web site. Please post the 197_ development plan on the planning website.
- Basically minimal change, spend resources on dealing with invasives, etiquette, enforcement, maintenance.
- I love how Minto 'feels' and am concerned about the native plantings that have been done so far, as it feels bushy and intrusive to the sense of openness on many trails. Like restoring an old house to its former beauty. Seems like quality over quantity would be my choice. Lastly - leave a few blackberries for us to eat. Thanks! And if farming can help financially support mowing and maintenance of open areas, why wouldn't that idea be pursued!!!

memorandum

date 5/5/15

to Keith Keever, Salem Parks Operations

from Tracy Johnson, ESA Vigil-Agrimis

subject Minto-Brown Island Park – Public Meeting 4 Summary

Purpose

The fourth public meeting for the Minto-Brown Island Park Master Plan was held on April 21, 2015. The meeting provided a summary of public feedback from online surveys, summarized past meeting content, and presented the conceptual master plan, trail standards and restoration plant communities. Approximately 65 people attended the public meeting. Topics presented included:

❖ Public Input

- Survey 1 was concluded on December 16, 2014 and received over 500 responses. Common themes from the responses are the park is a well-used amenity and preserving nature is a high priority.
- Survey 2 was concluded on January 26, 2015 and received nearly 800 responses. Questions for Survey 2 were developed to gather more specific information related to amenity needs: parking, trail surface, support facilities, etc. The most popular concepts for future included keeping the dog park, removing invasive plants, improving wildlife habitat, add more soft trails, native restoration of the remaining fields, and community garden/farm.
- Survey 3 was concluded on March 24, 2015 with 382 responses. Questions for Survey 3 were developed to gather information on preferences for specific areas of the park, including the fallow fields, the old filbert and cherry orchards, parking, dog area, restoration and boat access.
- Survey 4 is still being conducted, and has received nearly 300 responses to date. Survey 4 focuses on gathering input on the conceptual alternatives.

❖ Alternatives:

- The Sensitive areas and Site Constraints Maps (Figures 8 and 9), presented at Meeting 2, and the Alternatives, presented at Meeting 3 were briefly reviewed to set the framework for development of the 3 Alternatives.

- Alternative 1, Enhanced Access - Key Features: New soft trails to fill gaps, boardwalks over seasonally flooded areas, parking improvements, improved boat access in sloughs, new community garden or farm in Central field, and restoration of remaining fields (East, South, North, Filbert orchard)
- Alternative 2, Restoration Focus - Key Features: Restoration of all fields, Oxbow slough reconnection, additional wildlife / bird viewing blinds, some parking improvements, community garden at the Filbert orchard, soft trail to avoid flooded areas.
- Alternative 3, Agriculture Focus - Key Features: Resume agricultural production in portions of North, West, Central and Filbert orchards, restoration of remaining fields, extend road and parking to support community garden and picnic shelter in North field, parking expansion and improvements.

❖ Conceptual Master Plan:

- Alternatives 1 and 2 were both strongly preferred in the public feedback. The Conceptual master plan was developed by blending elements of each these alternatives:
 - Soft trail connection on the north side of the road between P1 and P3.
 - Boardwalks over seasonally flooded areas
 - Soft trail connection along Homestead Rd.
 - Add a small community farm (5 acres) in Central Field at Parking lot 2
 - Add accessible non-motorized boat launches on Willamette and Oxbow sloughs
 - Parking Improvements:
 - Pave and expand Parking lot 2 (+50 spaces)
 - Reorganize and pave Parking lot 3 (+20 spaces)
 - Maintain West field for overflow parking (+200 spaces) when needed
 - Expand parking lot 4 (+15 spaces)
 - Restoration (fields):
 - North – remove cherry orchard and non-native species, blend with native plant communities in adjacent fields
 - West, East and Central – restore native wetland and upland prairie
 - West of dog park – restore with native mixed woodland
 - South – remove non-natives and supplement to accelerate oak regeneration
 - Filbert Orchard – Leave orchard with selective removal to allow native succession.
 - Investigate reconnecting Oxbow slough to the Willamette River, add bridge
 - Add wildlife/bird viewing blinds along Oxbow and Willamette sloughs, and in Minto Island Conservation Area

❖ Conceptual Features:

- Trail Standards were developed to guide future trail improvement projects within the park. 4 key types were identified.
 - Major Shared-Use Path - paved, 12' wide, heavy traffic, accommodates all user types.
 - Minor Shared-Use Path – paved, 8' wide, moderate traffic, accommodates all user types.
 - Soft Surface Trail – gravel, wood chip or dirt, 5 to 8' wide, moderate to low traffic, pedestrian and bicycle.
 - Single Track Trail – soft surface, 3 to 5' wide, low traffic, pedestrians.

- Native habitat types were developed to guide future restoration projects within the park. 6 key types were identified.
 - Oak savannah – high/dry areas. Species: Oregon white oak, ponderosa pine, snowberry, mixed herbs and grasses.
 - Mixed woodland – mid elevations. Species: big-leaf maple, alder, cottonwood, ninebark, rose, elderberry, dogwood, snowberry.
 - Ash woodland – low/ wet areas. Species: Oregon ash, cottonwood, dogwood, ninebark, salmonberry, spirea, sedges.
 - Willow slough - wet depressions and sloughs. Species: mixed willows, spirea, sedges, rushes, stinging nettle.
 - Wet prairie – low, wet portions of open fields. Species: rose spirea, sedges, fescue, meadow barley, tufted hairgrass, camas, popcornflower.
 - Upland prairie – open fields and meadows outside wet areas. Species: brome, fescue, aster, nodding onion.

❖ Next Steps:

- The final survey will be posted on the project website after the meeting.
- The concept will be revised into the Draft Master Plan, and will be posted in the park and on the project website for a 30 day public comment period.
- The Draft Master Plan will be presented to the Salem Parks and Recreation Advisory Board and City Council.

Comments:

I don't like a parking lot that crosses the tree line at parking lot 2

Are you going to incorporate the turtle survey that is being done in oxbow slough into the plan? Population density, location, important for siting of docks and bank disturbance.

Is there a fire code capacity for the park? Related to the max number of people allowed during an event (ex. Marathon)

A handwash station with potable water will be necessary for a community garden or farm.

Improve access to the beach on the river

Compromise eventually leads to loss of resource.

Truck speed on Homestead Road is dangerous. No shoulders. Cars race on straight section at night. Can we propose traffic calming on Homestead? Grooves or speed bumps.

Minto Brown Island Park Master Plan Questionnaire

Public Meeting #4

April 21, 2015

[28 responses]

1. Have you attended any of the prior public meetings?

Yes [16 people]

No [12 people]

How many?

4: [6] 3: [2] 2: [3] 1: [4] First time: [12]

2. Do you like the Conceptual Master Plan?

Conceptual Master Plan: Restoration and Enhanced Access: Restore native habitats in north, west, east, and south fields. Add new soft surface trails along Park Access and Homestead Roads; expand parking lots 2, 3 and 4; add boardwalks in seasonally flooded areas; add a community farm near parking lot 2; investigate Oxbow slough reconnection; add boat launches in sloughs; add bird blinds.

Yes [23 votes]

No [2 votes]

Not sure [2 votes]

3. What do you like?

4. What would you change?

5. We have provided suggested trail standards for Minto Brown Park. Do you like them?

Yes [18]

No [5]

6. What would you change?

7. Do you have an additional ideas or comments?

8. Have you participated in any of the four web surveys for this project so far?

Yes [16 people]

No [6 people]

How Many?

4: **[6]** 3: **[5]** 2: **[3]** 1: **[2]**

9. Do you think on-line surveys are a good tool for collecting information from the public for park planning projects?

Yes **[20 people]**

No **[2 people]**

10. Do you have any comments regarding the on-line survey questionnaires?

APPENDIX F

Stakeholder Interviews

Community Farming Stakeholder Group

Meeting Summary

Thursday, 15 January 8:30 -10:00 am

1. Attendees: Scott Bassett, Chris Jenkins (Minto Island Growers), Ian Dixon-McDonald (Food Share), Jared Hibbard-Swanson, Jenny Miesel (Marion SWCD)

Salem Harvest was unable to attend

Staff: Keith Keever, Toni Whitler, John Kleeman, Tracy Johnson (ESA VA)

2. Farming Notes:

- There are only about 5 productive trees in the cherry orchard.
- East field and Filbert Orchard are restricted to non-commercial (6F) production.
- Ideas need more support and partnerships, more than just Food Share and Parks.
- Salem Harvest – non profit, glean neighborhood trees and farms after harvest. Volunteers take a share and the rest is donated to Food Share.
- Harvest and Food Share have discussed a community orchard, for mutual benefit. A signature, flagship ‘Salem Harvest Orchard’, volunteer managed and maintained: blueberries, fruit trees.
- Willamette Mission State Park has agriculture embedded in park.
- Agriculture signs (interpretive kiosk) at Parking lot 1 is old and out of date.
- City has Water pumping station / water rights from Willamette R. to serve fields but hasn’t been used for a while. Power lines have been knocked down, would need to be restored to run pumps.
- Food Share works with a farmer (Iverson) currently, 200 acres in production, split the produce. The small remaining acreage available at Minto Brown is less attractive for commercial production.
- Salem harvest might be interested in Filbert Orchard. Hasn’t been mowed, saplings growing up between the hedgerows. Spraying/ maintenance agreement ended when 6F went into effect. Is it productive? People are out foraging. Maybe OSU extension can help with tree management.
- Restoring farming to fields could reduce Parks maintenance costs. Reduces acreage Parks has to mow/maintain.
- Late mowing of fields might encourage geese winter use.
- Farming was one of the major goals of the 1995 master plan.

- SWCD is interested in environmental education opportunities, not necessarily farming. Lean toward conserving and restoring the natural areas, rather than returning to farming.
- Permaculture project could be interesting. Integrated Pest Management (IPM), techniques of farming that can promote wildlife. Hedgerows, tilling instead of spraying, pollinators. Integrate native plants.
- It would be hard to entice a farmer to take on the field fragments that are left.
- Farmer's market/ direct market producers don't necessarily need a lot of land. Micro farms: 1 to 5 acre parcels, shared resources.
- Land is hard to find.
- Small farm incubator, for profit farms.
- Historic farming had a tax burden, Iverson paid it annually. Micro farm (for profit) would trigger this and have to pay it.
- Willamette University has an agriculture program, Zena Farm, 20 miles west of Salem.
- Is Food Share willing to do umbrella management for 50 – 75 acres? Would need a partner, community would have to be excited.
- Potential partners: Willamette U., Food Share, Salem Harvest, OSU Extension.

3. Community Garden Notes:

- These ideas (community garden, community orchard) need more support and partnership than just Food Share and Salem Parks.
- It's a challenge that the community garden wouldn't be embedded in a neighborhood, but maybe the regular park users would have interest.
- 5 acres would be a large community garden
- Small garden, 30-40 plots, ½ to 2 acre maximum.
- The users would want it fenced.

4. Other

- What is realistic implementation timeline? Depends which option is selected. Some infrastructure costs up front (water parking, restrooms). Will of community and as money becomes available.
- Food Share and SWCD can pursue grants for certain projects, but would have to be community benefit, not for-profit
- City has \$100K set aside from the NRCS restoration, can be used for any project at Minto Brown.

Park Patrol

Meeting Summary

Thursday, 15 January 10:30 am – 12pm

1. Attendees: Steve Sansone, Barbara Schram, Steve Braden, Betsy Belshaw, Dick Hornaday, Eunice Overhulser.

Staff: Keith Keever, Toni Whitler, John Kleeman, Tibby Larson, Tracy Johnson (ESA VA).

2. General

- New signs are great. Add rules signs to all the kiosks. Dangers: nettles, poison oak. Animal info: bear scat, cougar, coyote, beaver. Park patrol section/info. News section – updated trail closures, seasonal events.
- Mowing is good, makes the park more open & useable
- Farming in fields kept people out of them.
- Don't screw it up, it's good as is.
- Against any more cyclists, mt. bike facility.
- Soft surface trail between Glen Oak and Laurel creeks, all bikes no walkers.

3. Identification of conflicts

- Trail conflicts between users, wider trails or divided trail to reduce conflicts.
- Careless cyclists, speed

4. Dogs

- Conservation areas are for habitat. Dogs even on leash are an impact.
- Off leash dogs are a huge issue
- Not enough signs, people take off leash dogs into Central Field from the dog park.
- Unsure about approaching people with off-leash dogs. They can be very defensive and aggressive.
- Dog ordinance is very clear, but the signage isn't. Even as you exit the dog area.

5. Transients

- Homeless/ transient policy. Notify Parks department if one is located.
- Past homeless camps along Willamette Slough, easy access along railroad tracks. Likely increased issue with new bridge.

6. Safety

- Emergency response access to distant parts of the park? Emergency services have keys to all the gates, know the park well.
- Maybe add speed bumps to slow traffic on road. People speed, can we get police or random road.
- No turn around in Parking lot 2 when full. Positive aspect is dead end is safer/slower for pedestrians and dogs. Crosswalk here is particularly dangerous. Parking lot 2 has highest use and least break ins.
- People park along the road outside of Parking lot 2 and Parking lot 3 when they are full, unsafe.

7. Other problems/ areas of concern

- Litter is a huge issue everywhere. There are a lot less cans now.
- Blue loop trail culvert, can it be permanent? Seasonally flooded.
- New bridge and trail will impact wildlife.
- Parking lots are full every nice day, evening, and weekend year round. Parking lot 2 and Parking lot 3 are often full, Parking lot 1 is more full than it used to be. Parking lot 2 could be more efficient if paved/ striped.
- Disc golf – impacts to trees, wildlife, new trails.

Disc Golf

Meeting Summary

Thursday, 15 January 2:45 – 4:15 pm

1. Attendees: Steve Moore, Mike Wilson, Barry Bolliger, Jason Brewster.

Staff: Keith Keever, Toni Whitler, John Kleeman, Tracy Johnson (ESA VA)

2. Other Regional Courses

- Keizer Rapids – 25 space parking, gravel. Separate from main use areas. Disc golf is totally separate from dog park, boat launch, paved parking lot. 4800' fairway
- Blue Lake Regional Park (\$70K) , Milo McGiver State Park,
- Wheatland D.G.C. at Willamette Mission (\$15K mostly volunteer effort), tried not to remove any trees larger than 5" during construction, protected madrone. Park 59, longest hole is 650', lightly wooded, closest regional.
- Woodmansee – fairways are getting bigger, opening up. Small area with beginners. Lots of trails.
- Camp Talali – old growth, natural, not impacted.
- Riverbend D.G.C. at Milo McGiver State Park – hosts Beaver State Fling. Mows fairways, leaves the rest rough. Beaver State East is 10,000' fairway.
- Cascades Gateway is 4800' fairway, holes moved monthly. Move tees as necessary to respond to pressure.

3. Background Information / Design criteria

- Would like to see a top level course in the area. Gold level / Par 4 pro championship level plus a smaller Par 3 beginner course. 50-60 acres, 3-4 acres per hole. 500' average hole length. Some holes long and open, others tight and wooded.
- Beaver State Fling – National tournament, 1200 ft hole/ Par 5, 190 ft shortest.
- Tournaments are popular, sell out quickly. Different levels based on size of course, amount of outside sponsorships. Permit fees, insurance.
- Can also do multiple tee pads, tee lengths for each hole (beginner, intermediate, advanced)
- PDGA = pro sanctioned event. Revenue and tourism generation. 300 players, 500 spectators.

- Could also be simple recreation course: tee pad and baskets, no grading, minimal impact.
- Number of players: Tournament = 4 / hole, 72 players on at a time. Recreation = 1 to 5 per hole. Average 20-40 people on a course.
- Preferably out and back, with potential end points near front. 18 holes takes 2 hours. Not as time consuming, not as necessary to have mid distance support facilities or to have midpoint return to parking.
- 42 courses within 30 miles.
- At least 100' clear if you are throwing toward trail, or throw away from trails to protect users. 70 - 100' fairway width.
- Most layouts have 2 pin locations to allow adjustment.
- West Salem is underserved.

4. Identification of suitable locations within park

- Interested in Filbert Orchard/ South field. Separate from most other users, treed.
- A number of sensitive areas and trails that would need to be avoided

5. Support facility needs

- Pavilion (optional) could be offsite would still need place for congregation, place for awards after events.
- 25 – 35 parking spaces, minimum. 50 spaces for a normal tournament or overflow lot with shuttle.
- Restrooms
- Protect trees – always throw away from them or put up buffers.

6. Other

- Everyone will come when it's new.
- Free course versus pay to play. Separates user types, state parks all charge.
- Ongoing maintenance after implementation is an issue.
- Elevation makes a great course

Active Uses and Events

Meeting Summary

Friday, 16 January 8:30 – 10:00 am

1. Attendees: Susan Gallagher, John Gallagher, Beth Dayton (SATA), Michael Lindley (SATA).

Staff: Keith Keever, Toni Whitler, John Kleeman, Melinda Mokalla, Tracy Johnson (ESA VA)

2. General Input

- Increased desire for run/ walk events at the park
- Run routes that pass the dog area are always a concern. The only paved trail at the dog park is along the road.
- Add a paved path on the north side of the road behind blackberries, already a soft trail.
- A lot of offleash dogs in Eola Bend County Park area.
- Cyclists prefer dirt, runners prefer bark dust.
- Provide a range of choices, chips or dirt on shoulder of paved trail. Like the new trails in the NRCS restoration areas (chip)
- Kayaks use Oxbow slough. Parks is looking to recontract for youth kayak classes.
- A lot of people are planning to bike commute from Minto to downtown. Can we raise the elevation of the Oxbow outlet trail? The rest of the rail is above water level. Reconnect slough, replace trail with bridge.
- Oregon Scenic bikeway – currently winds through downtown to River Rd., research potential redirection through Riverfront and Minto Brown.
- Where does Croisan Creek Trail come out? Look at connecting end of Croisan trail across River Road to Minto, linking parks. A dirt rail connects Fairmount to Minto. Improve signage of connections, park to park, trail to park.
- Any running event under 400 participants isn't worth it to hold. If the events can't have exclusive use of the trails you can't exceed 400 people for safety reasons Potential conflicts with other users.
- Kids triathlon currently runs Wallace to Riverfront.
- There are 200 runs annually in the region. Sometimes there are 3 events simultaneously in 3 different parks (Riverfront, Bush, Minto). Can't support more events, so the most popular/high end/ fun/ complex events survive.

- Limited range of 5/10K routes. Many runs use the same routes and they get bored.
- This summer, Gallagher event first in 9 years. Anticipate 2000-2500 participants, closing streets, setting a new standard. Even with new bridge and trail into Minto you will need 3 – 4 miles of open wide city streets to thin the pack at the beginning of the race before they reach the narrower park trails.
- Mountain bike course is being planned for Wallace Marine. Bike only trails plus running/walking trail around perimeter. Compacted surface, pump track, little kids/beginner course. Privately funded by SATA.
- ***Melinda will send standard 5K/10K routes.***

3. Compatibility with natural area

- A full/half marathon event can easily draw thousands. Maybe this intensive use isn't appropriate at Minto.
- Minto isn't a logical place for bike racing. Racers are usually going 25-32 mph, course needs to be at road design level.

4. Support facility needs, design implications

- a. Trail widths: wide trails for events, 8' minimum trail width, 12' is better for events. Narrower trails for personal use, just room to pass.
- b. Parking, restrooms, water:
 - Half marathon is easier to incorporate, 10 min mile or slower = 4 hours to accommodate run/walk. Marathon is 8 hours. Need water, restrooms, volunteer support sites. Trash is a huge issue.
 - Parking is an issue for events, the overflow helps.
 - 5K regulars + 100 people = a parking problem
 - Increased use = increased restrooms.
 - What about solar/ composting toilets?

5. Community Support

- It's all about managing expectations of the users
- Vision – make sure we are planning for the future. Population growth, demographic shifts, increased use from increased exposure (new bridge)

Natural Area and Habitat Enhancement

Meeting Summary

Friday, 16 January 10:30 am– 12:15 pm

1. Attendees: Ken Bierly (Glen Gibson Watershed Council), Ray Temple (SAS), Stephanie Hazen (SAS), Margaret Stephens, Laura Tesler (ODFW), Alex Phillips (OPRD), Don Christensen, Les Bachelor (NRCS).

Staff: Keith Keever, Toni Whitler, John Kleeman, Patricia Farrell, Tracy Johnson (ESA VA)

2. General Input

- Willamette Scenic bikeway – OPRD some discussion of rerouting or providing alternate route through Minto after bridge/trail construction. Strong user desire to move it off River Road.
- Willamette Water Trail group would like a presentation. Next meeting 5.5.15. Lack of water/boat comments may not be getting out to right groups – WWT list serve.
- It's not a wilderness area, it has a lot of uses, and is in transition.
- Walk-in park access from dead end of Mission & Saginaw, cross railroad tracks, follow maintenance road to Parking lot 1.
- Will the bridge ever close? May be posted if trails are flooded. New trail will flood at water level above 24'.

3. MICA

- Dogs off leash are an issue.
- Wildlife is priority, public access is fringe benefit
- Lots of education opportunities.
- O&M money is for people and dog management issues.
- Draft management plan end of March

4. Identification of unique species

- Chub survey didn't find anything, habitat is degraded
- Western pond turtle – lots in Oxbow slough, ODFW has data on it. Planning a survey of ponds in MICA
- Sensitive waterfowl in MICA, easily impacted by people and dogs.

- What about the cougar? What happens if there is a conflict? Wildlife services (ODFW) would dispatch it. Expect that it is a tom, moving through the area, non-resident.
- Juvenile chinook in sloughs in MICA.

5. Education Opportunities

- Is there an option for more educational benefit. Educate on why not to let your dog off leash. Add signage at Oxbow – historic channel, turtles.
- Focus on the ecology.
- Emphasize past as part of the larger whole. Native uses, historic channel, hydrologic processes.
- 12 interpretive signs on new trail.

6. Compatible uses within the Natural Area Designation

- Farming can be managed to graze, but farming is an old idea not compatible with the natural area.
- There are other areas in the park system that accommodate some of these other uses (community garden, disc golf)

7. Recommendations for restoration

- Replace Himalayan blackberry with Nootka rose where similar hedgerow is desired.
- A quilt of opportunities: habitat preservation, restoration, transition
- Open areas and prairies provide habitat for other species.
- There are thousands of acres of goose forage in the Willamette Valley. Native prairie could be managed to provide some forage.

Historic and Cultural Resources

Meeting Summary

Friday, 16 January 1:30 – 3:00 pm

1. Attendees: Briece Edwards, Jordan Mercier, John Pauley.

Staff: Keith Keever, Toni Whitler, John Kleeman, Kimberli Fitzgerald, Tracy Johnson (ESA VA)

2. General info

- SHPO wants more than just an Inadvertent Discovery Plan (IDP). Make an effort to investigate before project starts.
- Early Salem history is buried on site.
- Tribe has importance and place names associated with the site.
- A good survey in advance is useful, before you are on site designing or building. Dig test plots, gauge disturbance.
- Records check and base survey in advance of projects.
- ***Kimberli has an affidavit IDP for Boise site for the east side of slough. Will send a copy.***
- Settlements are common at confluences.
- Island was an ideal spot for many actions: hunting, fishing, gathering (filberts, camas), processing, basketry (willows, rushes)
- SHPO prefers to look at the big picture/ holistic where there is a bigger story.

3. Identification of known historic or cultural resources within park

- There are a lot of indications that there could be burials on the Boise (MICA) site, across from Pringle Creek confluence. Graves were found on the mill site across the slough.
- Areas that are inundated are less likely to be of cultural significance.
- Historic aerial sequence could help identify probable areas, where to investigate, what to protect.
- Where is the residence that went with the orchard. The high points would have always been the occupation sites.
- Slackwater at confluence of Willamette slough, Pringle Creek/ Willamette River is a named place. It connects people/place/action. It was significant enough to be named and the name has survived.
- Known village site on east side of river in the area.

- Parking lot 3 – rumors of historic dump site. Garbage encountered during kiosk construction. Should be investigated. SHPO wants to know depth, extent, materials.
- Old newspaper references to native camp sites.
- A bowl and a point found in the area and returned to the tribe.
- Think about the resources they were using: fishing weir (sedimented in), fishing nets, raised terraces/ knolls, wetlands.
- High spots = good places to live, last to be inundated.
- Tree removal / ground disturbance in Boise tree plantations could uncover something. (stump removal)

4. Need for protection?

- 75 years and older below ground

5. Telling the story – interpretive signage

- 45 minutes from Grande Ronde.
- Partner with the tribe to determine appropriate species/ use.
- Education, community recreation.
- How a basket is made, materials
- Plants and uses: cattail, tule, rush, oak, camas, willow.
- Historic homestead locations.
- Multiple threads of a cool story – industrial within recent memory, environmental message this is what can happen.
- Tribal use going forward – excited about access, former family connections.
- Tribe has strong association with site historically and many worked for Boise.

6. Funding

- Certified local government program (CLG) grants maybe
- Spirit Mountain community fund.

APPENDIX G

Survey Summaries

Minto Brown Island Park Master Plan

Web Survey #1 Results

Survey Period: 11/2/2014 to 12/15/2014

Participants: 551

1. In what zip code is your home located?		
Answer Options	Response Percent	Response Count
97301	18.8%	103
97302	40.5%	222
97303	4.9%	27
97304	13.1%	72
97305	2.2%	12
97306	8.8%	48
97317	2.4%	13
I live outside Salem	9.3%	51
<i>answered question</i>		548
<i>skipped question</i>		3

2. Have you ever visited Minto-Brown Island Park?		
Answer Options	Response Percent	Response Count
Yes	96.5%	530
No	3.5%	19
<i>answered question</i>		549
<i>skipped question</i>		2

3. In the past 12 months, how many times have you visited Minto-Brown Island Park?		
Answer Options	Response Percent	Response Count
0	7.3%	40
1-25	55.2%	304
25-50	17.2%	95
More than 50 times	20.3%	112
<i>answered question</i>		551
<i>skipped question</i>		0

4. By what means do you normally travel to Minto-Brown Island Park?

Answer Options	Response Percent	Response Count
Motor Vehicle	86.1%	466
Bike	15.0%	81
Walk/Run	14.0%	76
Other (please specify)		20
<i>answered question</i>		541
<i>skipped question</i>		10

5. What activities do you engage in at Minto-Brown Island Park? Please indicate all that apply.

Answer Options	Response Percent	Response Count
Walking	84.6%	455
Running	34.4%	185
Biking	49.6%	267
Taking dog to off-leash dog park	37.5%	202
Children's playground	17.7%	95
Picnicking	14.3%	77
Reservations at the Picnic Shelter	2.8%	15
Fishing	6.1%	33
Non-motorized boating	4.6%	25
Bird or wildlife viewing	34.9%	188
Organized runs or other events	13.9%	75
Geocaching	6.1%	33
Other (please specify)		52
<i>answered question</i>		538
<i>skipped question</i>		13

6. What value do you place on preserving the natural environment at Minto-Brown Island Park?

Answer Options	Response Percent	Response Count
Very important	83.6%	460
Somewhat important	15.3%	84
Not at all important	1.1%	6
<i>answered question</i>		550
<i>skipped question</i>		1

7. Are you aware of the plans to construct a new bridge and trail from Riverfront Park to Minto-Brown Island Park?

Answer Options	Response Percent	Response Count
Yes	94.0%	517
No	6.0%	33
<i>answered question</i>		550
<i>skipped question</i>		1

8. The new bridge and trail are expected to open in the fall of 2016. Once it is open, do you plan to use it to access Minto-Brown Island Park?

Answer Options	Response Percent	Response Count
Yes	83.8%	459
No	16.2%	89
<i>answered question</i>		548
<i>skipped question</i>		3

9. What important issues would you like to see addressed during the Minto-Brown Island Park planning process?

Answer Options	Response Count
	388
<i>answered question</i>	388
<i>skipped question</i>	163

Minto Brown Island Park Survey

Web Survey #2 Results

Survey Period: 12/16/2014 to 1/26/15

Participants: 832

1. If you drive to Minto-Brown Island Park, where do you usually park?

Answer Options	Response Percent	Response Count
Entrance Parking Lot 1	23.6%	192
Dog Park - Parking Lot 2	26.8%	218
Shelter Parking Lot 3	35.9%	292
Homestead Road Parking Lot 4	7.7%	63
I don't drive to Minto-Brown Island Park	6.0%	49
<i>answered question</i>		814
<i>skipped question</i>		18

2. Do you think the parking lots in the park provide adequate parking for users?

Answer Options	Response Percent	Response Count
Yes	84.3%	680
No	15.7%	127
<i>answered question</i>		807
<i>skipped question</i>		25

3. When do you normally visit Minto-Brown Island Park?

Answer Options	Morning	Afternoon	Evening	Response Count
Weekday	250	340	198	612
Weekends	371	481	132	690
<i>answered question</i>				816
<i>skipped question</i>				16

4. When using park trails, what is your primary activity?

Answer Options	Response Percent	Response Count
Walking	54.1%	444
Jogging	4.4%	36
Running	9.6%	79
Biking	16.6%	136
Other (please specify)	15.3%	126
<i>answered question</i>		821
<i>skipped question</i>		11

5. Which trail surface do you prefer for this activity?

Answer Options	Response Percent	Response Count
Dirt/Gravel	24.8%	201
Wood Chip	34.0%	275
Asphalt	41.2%	333
<i>answered question</i>		809
<i>skipped question</i>		23

6. Please indicate the extent to which you use the following, existing park facilities.

Answer Options	Use Frequently	Use Occasionall	Use Rarely	Never Use	Response Count
Paved Trails	471	276	52	10	809
Soft Surface Trails	407	303	73	18	801
Off-Leash Dog Area	212	84	101	366	763
Children's Playground	29	94	136	485	744
Picnic Shelter	15	76	237	410	738
Picnic Tables	27	141	265	308	741
Restrooms	194	341	171	81	787
Parking Lots	549	174	46	23	792
Boat Launch	13	38	71	620	742
Benches	132	313	204	119	768
Fishing Docks	14	52	118	556	740
<i>answered question</i>					819
<i>skipped question</i>					13

7. Please give us your opinion of the existing park facilities. Do you think the quantities and distribution throughout the park are about right, or there should be more or less?

Answer Options	There should be	About Right	There should be	Response Count
Informational Kiosks	45	626	119	790
Picnic Tables	20	575	186	781
Picnic Shelters	35	574	168	777
Benches	17	501	267	785
Garbage Cans	18	472	298	788
Drinking Fountains	29	392	361	782
Wayfinding and Map Signs	45	496	254	795
Restrooms	18	462	318	798
<i>answered question</i>				808
<i>skipped question</i>				24

8. These are many of the ideas that respondents of survey #1 have identified as important in this Minto-Brown Island Park Master Plan. Please provide your opinion of each issue.

Answer Options	Strongly Support	Support	Neutral	Oppose	Strongly Oppose	Response Count
Reintroduce farming in Minto-Brown Island Park	97	150	289	148	120	804
Establish a community farm/garden in the park	155	236	204	111	98	804
Add more paved trails in the park	139	199	230	144	89	801
Add more soft trails in the park	221	329	178	49	26	803
Widen the existing paved trails	81	125	254	228	106	794
Pave the remainder of parking lots 2 and 3	134	228	248	130	58	798
Expand existing parking lots in the park	66	143	309	191	88	797
Create new parking lots in the park	21	59	259	270	180	789
Restore the remaining farm fields to native vegetation	221	250	241	57	24	793
Improve wildlife habitat	412	265	120	11	3	811
Remove invasive plants	425	278	94	11	4	812
Keep the Dog Park	394	219	152	17	25	807
Improve non-motorized boating access in the park	105	233	382	54	23	797
Install additional picnic shelters	49	174	411	129	41	804
Add Interpretive/Educational signage	65	286	351	67	30	799
Create separate trails for mountain bikers	156	198	215	118	119	806
Designate some trails for specific uses to reduce user conflicts	145	229	252	114	66	806
<i>answered question</i>						826
<i>skipped question</i>						6

9. Minto-Brown Island Park is a hybrid of both natural area preservation and recreational uses. As we work through this master plan, we are finding that there is a divide among park users. Some believe Minto-Brown Island Park should remain more natural and we should limit uses by park visitors, and there are those who appreciate the natural area, but would like to keep current recreation uses and incorporate additional uses. Please select the statement below which best reflects your opinion of the above issue.

Answer Options	Response Percent	Response Count
I prefer that Minto-Brown Island Park be a pure natural area with little or no public access.	0.7%	6
I prefer that Minto-Brown Island Park be a natural area with park visitor use limited to trails, wildlife viewing, and nature enjoyment.	24.6%	202
I prefer that Minto-Brown Island Park remain as it currently is.	26.5%	218
I prefer that Minto-Brown Island Park allow for some new uses and expanding the trail network.	36.7%	302
I prefer that Minto-Brown Island Park allow for more active new uses and expanding roads, parking and trails.	11.4%	94
answered question		822
skipped question		10

10. The following new park facilities were requested by respondents of Survey #1. If these facilities can be properly located to prevent adverse impacts to wildlife or habitat, they may be allowed in Minto-Brown Island Park. Which facilities do you think should be added to Minto-Brown Island Park?

Answer Options	Strongly Support	Support	Neutral	Oppose	Strongly Oppose	Response Count
Disc Golf	82	165	204	170	186	807
Community Garden	134	273	189	125	90	811
Fitness Stations / Exercise Course	79	228	267	142	97	813
Mountain Bike Trails	118	175	210	152	158	813
answered question						822
skipped question						10

11. What grade would you give to the City of Salem for the maintenance of Minto-Brown Island Park?

Answer Options	Response Percent	Response Count
A	19.5%	158
B	57.0%	463
C	19.3%	157
D	3.1%	25
F	1.1%	9
answered question		812
skipped question		20

12. Do you feel safe when you are in Minto-Brown Island Park?

Answer Options	Response Percent	Response Count
Very Safe	26.0%	213
Reasonably Safe	65.4%	536
Unsafe	8.7%	71
<i>answered question</i>		820
<i>skipped question</i>		12

13. If you answered 'unsafe' to the previous question, what is the source of that unsafe feeling?

Answer Options	Response Percent	Response Count
Other People	54.1%	99
Dogs	26.8%	49
Wildlife	11.5%	21
Other (please specify)	48.6%	89
<i>answered question</i>		183
<i>skipped question</i>		649

14. What improvements or measures could be taken to improve safety in the park?

Answer Options	Response Count
	285
<i>answered question</i>	285
<i>skipped question</i>	547

15. Do you have any additional comments for us at this time?

Answer Options	Response Count
	341
<i>answered question</i>	341
<i>skipped question</i>	491

Minto-Brown Island Park Survey

Web Survey #3 (Version 2) Results

Survey Period: 2/9/2015 to 3/20/2015

Participants: 449

1. There are three fields along the park road in Minto-Brown Park that were previously farmed and are now fallow. How do you think these fields should be managed in the future?

Answer Options	Response Percent	Response Count
Reestablish Farming (Organic) and or community	11.4%	43
Restore the fields to native vegetation	32.6%	123
Combination of farming/gardening and native restoration	44.6%	168
Allow other uses (Please specify)	11.4%	43
<i>answered question</i>		377
<i>skipped question</i>		5

2. The old cherry orchard north of parking lot three has been fallow for many years. What should be done with this area?

Answer Options	Response Percent	Response Count
Leave it as is	24.7%	92
Restore it to native vegetation	41.0%	153
Develop a community garden in this area. This will	6.4%	24
Reestablish/reclaim the cherry orchard. It has been	17.7%	66
Allow other uses in this area. (Please specify)	10.2%	38
<i>answered question</i>		373
<i>skipped question</i>		9

3. The old filbert orchard along Homestead Road has been fallow for many years. What should be done with this area?

Answer Options	Response Percent	Response Count
Leave it as is	30.0%	112
Restore it to native vegetation	38.1%	142
Develop a community garden in this area. This will	6.2%	23
Reestablish/reclaim the filbert orchard. It has been	17.4%	65
Allow other uses in this area (please specify)	8.3%	31
<i>answered question</i>		373
<i>skipped question</i>		9

4. Based on daily observations by parks staff and park patrol members, and responses from park users, vehicle parking at Minto-Brown Island Park is frequently beyond capacity. It is likely that park usage will increase over time and demands on parking will be even greater. Where do you think parking improvements and expansion should be located? Check all that apply.

Answer Options	Response Percent	Response Count
Expand Parking Lot 1 (Near Entrance)	21.5%	80
Expand Parking Lot 2 (Dog Park)	40.3%	150
Expand Parking Lot 3 (By Shelter)	35.5%	132
Expand Parking Lot 4 (Homestead Road)	23.1%	86
Convert the existing overflow parking lot near Parking Lot	58.9%	219
Develop a new parking lot in the vicinity of Parking Lot 2	14.2%	53
Develop a new parking lot in a new area of the park	12.9%	48
Other (please specify)	18.3%	68
<i>answered question</i>		372
<i>skipped question</i>		10

5. What improvements or changes would you like to see at the dog park?

Answer Options	Response Count
	194
<i>answered question</i>	194
<i>skipped question</i>	188

6. Composting toilets have been suggested as one possible option to replace the chemical toilets currently used. Permanent restroom buildings are not possible in the floodway. Would you support composting toilets as a viable alternative at Minto-Brown

Answer Options	Response Percent	Response Count
Yes	82.2%	300
No	17.8%	65
<i>answered question</i>		365
<i>skipped question</i>		17

7. If non-motorized boat access was provided at Minto-Brown Island Park, where should it be located? (Please select all that apply)

Answer Options	Response Percent	Response Count
On the Willamette River	35.0%	104
On the Willamette Slough	45.1%	134
On the Oxbow Slough near parking lot three	43.1%	128
On the Oxbow slough near the Homestead Road parking	39.4%	117
<i>answered question</i>		297
<i>skipped question</i>		85

8. Educational and interpretive signs are being developed for Minto-Brown Island Park. Topics being considered include birds and wildlife, habitat, riverine and riparian ecosystems, historical and cultural timelines, indigenous native american tribes, the story of the industrial uses of the former Boise Cascade site, impacts humans and dogs have on bird and wildlife habitat, conservation easements, and farming, to name a few. What topics do you think should be included in this effort?

Answer Options	Response Count
	196
<i>answered question</i>	196
<i>skipped question</i>	186

9. If Community Gardening is included in the Master Plan, would you be interested in participating in this activity?

Answer Options	Response Percent	Response Count
Yes	22.5%	82
No	77.5%	283
<i>answered question</i>		365
<i>skipped question</i>		17

10. Comments from previous surveys indicate that there are conflicts between bicyclists and walkers while using park trails. This includes bicyclists travelling too fast, passing too closely to walkers, and not calling out when passing. Which measures do you think would be most effective in helping resolve this problem? (please check all that apply.)

Answer Options	Response Percent	Response Count
Widen existing paved trails	33.4%	121
Install signage alerting all users of trail rules and	64.4%	233
Provide separate trails for bicyclists and walkers	27.1%	98
Paint a line down the middle of the trail	31.5%	114
Other (please specify)	29.8%	108
<i>answered question</i>		362
<i>skipped question</i>		20

11. Many survey respondents have identified dogs off-leash on park trails as a major conflict among park users. How would you recommend solving this problem?

Answer Options	Response Count
	284
<i>answered question</i>	284
<i>skipped question</i>	98

12. Minto Brown Island Park is a 1,205 acre nature park that has been altered by decades of human use. As such, there are many opportunities for restoration of this unique riparian ecosystem. Do you have any ideas for restoration or improving habitat in the park?

Answer Options	Response Count
	171
<i>answered question</i>	171
<i>skipped question</i>	211

13. Do you have any additional comments at this time?

Answer Options	Response Count
	174
<i>answered question</i>	174
<i>skipped question</i>	208

Minto-Brown Island Park Survey

Web Survey #4 Results

Survey Period: 3/20/2015 to 4/29/2015

Participants: 362

1. Have you reviewed the Alternative Plans on the Minto-Brown Master Plan web page?

Answer Options	Response Percent	Response Count
Yes, take me to the survey	78.0%	280
No, show me how to find the Alternative Plans	22.0%	79
<i>answered question</i>		359
<i>skipped question</i>		3

2. Which Alternative Plan do you prefer?

Answer Options	Response Percent	Response Count
Alternative #1 - Enhanced Access	40.6%	115
Alternative #2 - Restoration Focus	45.2%	128
Alternative #3 - Agriculture Focus	14.1%	40
<i>answered question</i>		283
<i>skipped question</i>		79

3. Is there anything you would change about your preferred alternative plan?

Answer Options	Response Count
	153
<i>answered question</i>	153
<i>skipped question</i>	209

4. Cherry Orchard/North Field

Answer Options	Response Percent	Response Count
Leave alone	24.1%	64
Restore native oak woodland	46.2%	123
Reclaim the orchard for production	9.0%	24
Add community garden, parking lot, picnic shelter	14.3%	38
Other choice for Cherry Orchard/North Field	6.4%	17
<i>answered question</i>		266
<i>skipped question</i>		96

5. West Field - Located across from the off-leash dog area and adjacent to Parking Lot 3.

Answer Options	Response Percent	Response Count
Leave alone	12.0%	32
Mow annually	11.7%	31
Restore native prairie	55.3%	147
prairie (wet portion)	15.4%	41
Other choice for West Field	5.6%	15
answered question		266
skipped question		96

6. East Field - Located to your right after Parking Lot 1 as you drive into the park.

Answer Options	Response Percent	Response Count
Leave alone	14.5%	37
Mow annually	10.9%	28
Restore to native prairie	42.6%	109
Restore to riparian forest	32.0%	82
Other choice for East Field		18
answered question		256
skipped question		106

7. Central Field - Located to your left, past Parking Lot 1, as you enter the park.

Answer Options	Response Percent	Response Count
Mow annually	7.9%	21
Add community garden	14.0%	37
Add community farm/orchard	10.9%	29
Restore native prairie	44.9%	119
Resume farming (upland portion), restore native prairie (wet portion)	13.6%	36
Other choice for Central Field	8.7%	23
answered question		265
skipped question		97

8. South Field - Located south of Oxbow Slough and adjacent to the Salem Golf Course.

Answer Options	Response Percent	Response Count
Leave alone	12.1%	32
Manage non-native species	17.8%	47
Restore oak savannah	48.1%	127
Disc Golf	17.0%	45
Other choice for South Field	4.9%	13
answered question		264
skipped question		98

9. Filbert Orchard - Located south of Parking Lot 4, near Homestead Road.

Answer Options	Response Percent	Response Count
Leave alone	29.2%	77
Remove orchard, restore native riparian forest	36.0%	95
Add community garden	6.4%	17
Add community farm/orchard	14.0%	37
Disc Golf	9.8%	26
Other choice for Filbert Orchard	4.5%	12
answered question		264
skipped question		98

10. Parking Lot 1 - Located on your right as you drive into the park.

Answer Options	Response Percent	Response Count
Leave as is	57.6%	152
Expand existing lot (15 spaces)	40.5%	107
Other choice for Parking Lot 1	1.9%	5
answered question		264
skipped question		98

11. Parking Lot 2/Off-Leash Dog Area

Answer Options	Response Percent	Response Count
Leave as is	21.6%	58
Pave and improve existing lot	36.2%	97
Pave existing lot and expand into Central Field (50 spaces)	35.4%	95
Other choice for Parking Lot 2/Off-Leash Dog Area	6.7%	18
answered question		268
skipped question		94

12. Parking Lot 3 - Located at the end of the park road

Answer Options	Response Percent	Response Count
Leave as is	20.8%	55
Pave and improve existing lot	20.0%	53
Improve lot and create gravel overflow in West	32.8%	87
Improve existing lot and create new parking lot in West Field (50-100 spaces)	24.2%	64
Other choice for Parking Lot 3	2.3%	6
answered question		265
skipped question		97

13. Parking Lot 4 - Located off of Homestead Road

Answer Options	Response Percent	Response Count
Leave as is	40.6%	106
Add new parking lot on Homestead Road	9.2%	24
Expand existing lot (15 spaces)	45.2%	118
Other choice for Parking Lot 4	5.0%	13
answered question		261
skipped question		101

14. Non-motorized boat launches

Answer Options	Response Percent	Response Count
None	19.9%	52
Add one in Willamette Slough near Parking Lot 1	13.0%	34
Add one in Oxbow Slough near Parking Lot 3	10.0%	26
Add at both Willamette and Oxbow Sloughs	51.0%	133
Other choice for Non-motorized boat launches	6.1%	16
answered question		261
skipped question		101

15. The idea of including a community garden or reintroducing farming at Minto-Brown Island Park has been mentioned in past meetings and comments. Please provide your opinion of each of the following for the master plan.

Answer Options	Strongly Support	Support	Neutral	Oppose	Strongly Oppose	Response Count
Community Garden (up to 5 acres)	53	59	44	42	62	260
Community farm and/or orchard supporting the food bank (5 to 10 acres)	74	60	50	35	49	268
Commercial farming (organic, 46 acres)	28	39	53	51	92	263
answered question						270
skipped question						92

16. The potential reconnection of Oxbow Slough to the Willamette River has been discussed. Do you support further research and exploration of this concept?

Answer Options	Response Percent	Response Count
Strongly Support	23.7%	64
Support	33.3%	90
Neutral	28.9%	78
Oppose	8.9%	24
Strongly Oppose	5.2%	14
answered question		270
skipped question		92

17. Native plant community restoration will be proposed in some areas of the park. Which plant community/habitat type(s) would you like to see?

Answer Options	Response Percent	Response Count
Open grassland	4.1%	11
Woodland Forest	8.6%	23
A mix of both	81.7%	219
Other (please specify)	5.6%	15
<i>answered question</i>		268
<i>skipped question</i>		94

18. Do you have any other comments or ideas that you would like to share at this time?

Answer Options	Response Count
	108
<i>answered question</i>	108
<i>skipped question</i>	254

Minto Brown Island Park Master Plan

Web Survey #5 Results

Survey Period: 5/15/2015 to 7/2/2015

Participants: 169

1. Have you reviewed the Conceptual Master Plan and the association Trail Standards on the Minto-Brown Master Plan web page?

Answer Options	Response Percent	Response Count
Yes, take me to the survey	84.9%	141
No, show me how to find the Conceptual Plan	15.1%	25
<i>answered question</i>		166
<i>skipped question</i>		3

2. Do you generally like the Conceptual Master Plan?

Answer Options	Response Percent	Response Count
Yes	71.1%	96
Somewhat	23.7%	32
No	5.2%	7
<i>answered question</i>		135
<i>skipped question</i>		34

3. Do you like the following proposed elements?

Answer Options	Yes	No	Response Count
Field restoration to native prairie or woodland	131	7	138
Community farm	74	62	136
Boardwalks over wet areas	130	8	138
More soft trails	120	15	135
Non-motorized boat launches	116	22	138
Additional picnic shelters	98	36	134
Additional wildlife viewing blinds	110	26	136
Oxbow slough habitat improvements	126	8	134
Parking Lot 2 (Dog Park) improvement and expansion	110	27	137
Parking Lot 3 (Oxbow Slough) improvement and overflow	108	27	135
Parking Lot 4 expansion	88	45	133
<i>answered question</i>			141
<i>skipped question</i>			28

4. Is there anything you would change about the conceptual master plan?

Answer Options	Response Percent	Response Count
No	50.8%	65
Yes (please comment)	49.2%	63
<i>answered question</i>		128
<i>skipped question</i>		41

5. Do you like the Minto-Brown Trail Standards?

Answer Options	Response Percent	Response Count
Yes	76.9%	100
Somewhat	16.2%	21
No	6.9%	9
<i>answered question</i>		130
<i>skipped question</i>		39

6. Do you like the individual standard types?

Answer Options	Yes	No	Response Count
Major Shared-Used Path (paved, 12-foot wide)	101	28	129
Minor Shared-Used Path (paved, 8-foot wide)	114	17	131
Soft Surface Trail (gravel or wood chip, 5 to 8-foot wide)	115	14	129
Single Track Trail (wood chip or dirt, 3 to 5-foot wide)	115	14	129
<i>answered question</i>			132
<i>skipped question</i>			37

7. Is there anything you would change about the trail standards?

Answer Options	Response Percent	Response Count
No	67.2%	84
Yes (please comment)	32.8%	41
<i>answered question</i>		125
<i>skipped question</i>		44

8. Have you attended any of the public meetings?

Answer Options	Response Percent	Response Count
Yes	24.6%	33
No	75.4%	101
<i>answered question</i>		134
<i>skipped question</i>		35

9. If yes, how many public meetings have you attended?

Answer Options	Response Percent	Response Count
1	55.9%	19
2	17.6%	6
3	20.6%	7
4	5.9%	2
<i>answered question</i>		34
<i>skipped question</i>		135

10. Have you participated in the previous Minto-Brown on-line surveys 1 - 4?

Answer Options	Response Percent	Response Count
Yes	76.5%	101
No	23.5%	31
<i>answered question</i>		132
<i>skipped question</i>		37

11. If yes, how many?

Answer Options	Response Percent	Response Count
1	10.0%	10
2	22.0%	22
3	17.0%	17
4	51.0%	51
<i>answered question</i>		100
<i>skipped question</i>		69

12. Do you think the on-line surveys are a good tool to collect information from the public for park planning projects?

Answer Options	Response Percent	Response Count
Yes	95.5%	126
No	4.5%	6
<i>answered question</i>		132
<i>skipped question</i>		37

13. Do you have any other comments or ideas that you would like to share at this time?

Answer Options	Response Count
	57
<i>answered question</i>	57
<i>skipped question</i>	112