MINTO ISLAND CONSERVATION AREA

LAND MANAGEMENT PLAN, 2025 – 2035

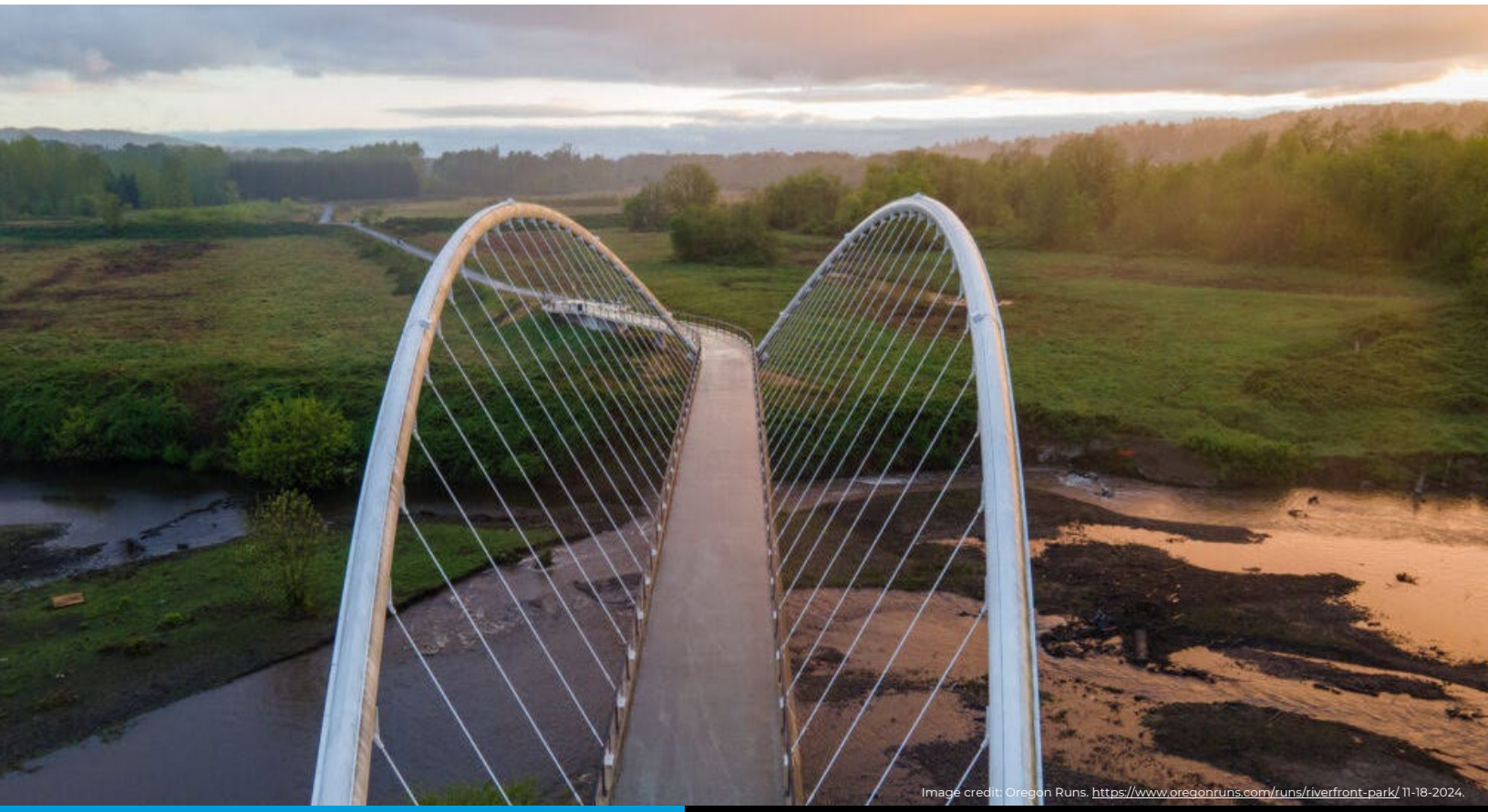

Image credit: Oregon Runs. https://www.oregonruns.com/runs/riverfront-park/ 11-18-2024.

UPDATED FROM THE ORIGINAL 2015 PLAN

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CITY OF Salem AT YOUR SERVICE
Public Works Department
APWA ACCREDITED AGENCY

StreamScape ENVIRONMENTAL

MASON, BRUCE & GIRARD
Natural Resource Consultants

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MICA LAND MANAGEMENT PLAN 2025 UPDATE

Prepared for the City of Salem, Oregon
JUNE 2025

Prepared by:

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This plan was submitted to the Bonneville Power Administration (BPA), Oregon Department of Wildlife (ODFW), and Oregon Department of Environmental Quality (DEQ) in April 2025, in accordance with the requirements of a conservation easement held by BPA on the property under the Willamette Wildlife Mitigation Program.

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Table of Contents

List of Appendices

List of Tables and Figures

List of Abbreviations

Abbreviation	Definition
100-MG	100-Million Gallon
50-MG	50-Million Gallon
APP	Administrative Policy and Procedure
BPA	Bonneville Power Administration
CE	Conservation Easement
cfs	cubic foot per second
City	City of Salem
COA	Conservation Opportunity Area
CV	Conservation Value
DEQ	Oregon Department of Environmental Quality
DFC	Desired Future Conditions
EAB	Emerald Ash Borer
EDRR	Early-Detection Rapid-Response
EES	Easement and Equitable Servitude
GAWA	Gail Achterman Wildlife Area
IPM	Integrated Pest Management
LMP	Land Management Plan
LUA	Land Use Agreement
MBIP	Minto-Brown Island Park
MG	Million Gallon
MICA	Minto Island Conservation Area
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
OCS	Oregon Conservation Strategy
ODA	Oregon Department of Agriculture
ODFW	Oregon Department of Fish and Wildlife
ORS	Oregon Revised Statutes
OWEB	Oregon Watershed Enhancement Board
PWCA	Priority Wildlife Connectivity Area
SHPO	State Historic Preservation Office
SPRAB	Salem Parks and Recreation Advisory Board
SRC	Salem Revised Code
TAC	Technical Advisory Committee
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
WWMP	Willamette Wildlife Mitigation Program

Executive Summary

The Minto Island Conservation Area (MICA) Land Management Plan (LMP) outlines a comprehensive approach to managing, restoring, and enhancing MICA's diverse fish and wildlife species and habitats while balancing allowable but limited public access and passive recreational use. This plan builds upon the framework established in the previous July 2015 MICA Management and Conservation Plan, integrates new data and lessons learned over the past decade, and ensures alignment with the Oregon Conservation Strategy (OCS)[1] and legal obligations described below.

MICA is a 307-acre property and former site of a pulp and paper mill acquired by the City of Salem (City) through the Willamette Wildlife Mitigation Program (WWMP) in 2013. Funding was provided by the United States Department of Energy, Bonneville Power Administration (BPA), to partially fulfill its obligations under the Northwest Power Act (16 U.S.C. §§ 839-839h) to protect, mitigate, and enhance fish and wildlife, including related spawning grounds and habitat, affected by the development and operation of Federal hydroelectric projects, including those in the Willamette River Basin, and to partially fulfill its obligations to the State of Oregon under the 2010 "Willamette River Basin Memorandum of Agreement Regarding Wildlife Habitat Protection and Enhancement."

The United States (BPA) holds a permanent Conservation Easement (CE) on the property, which requires the City to protect and conserve, and as appropriate allow for the restoration or enhancement of identified Conservation Values, including fish and wildlife habitat. The CE also allows for limited passive recreational use (trails) but specifies that all use of the property must be in compliance with and consistent with the State of Oregon and City's 2013 Consent Judgment, recorded Easement and Equitable Servitudes (EES), and Work Plan, and other Oregon Department of Environmental Quality (DEQ) environmental requirements.

This LMP reflects continued commitment to protect the Conservation Values identified in the CE, emphasizing conservation, restoration, adaptive management, and collaboration with stakeholders.

Key Goals and Objectives

1. **Habitat Restoration and Enhancement:**
   The LMP prioritizes the restoration of degraded habitats, focusing on improving hydrological conditions, reducing invasive species like reed canarygrass (*Phalaris arundinacea*) and Himalayan blackberry (*Rubus armeniacus*), and establishing

[1] At the time of writing this document, the OCS was undergoing revision, and there was consideration of a name change to the State Wildlife Action Plan (SWAP). References to the OCS herein pertain to the version of the OCS in effect prior to the 2025 revision, as that was the official version at the time of writing this LMP.

resilient native plant communities. Desired Future Conditions (DFCs) have been updated to reflect these priorities and align with the OCS and CE, ensuring that all restoration efforts align with identified Conservation Values, site-specific ecological needs, and broader state-wide conservation goals.

2. **Public Access and Recreation:**
   Public use is carefully managed to minimize ecological impact (i.e., avoid material harm or material interference to Conservation Values) and to comply with the CE, Consent Judgment, EES, Work Plan and other DEQ environmental requirements, while fostering community engagement and environmental stewardship. The LMP outlines strategies for addressing unauthorized camping and off trail use, trail design, recreation management, and education.

3. **Invasive Species Management:**
   Invasive plant species pose a significant challenge across MICA. This LMP emphasizes the use of integrated pest management (IPM) and adaptive strategies to reduce invasive species coverage, promote native plant establishment, and protect important habitats for native fish and wildlife.

4. **Climate Change Resilience:**
   Climate change is expected to influence hydrological patterns, species distributions, and habitat conditions in the coming decades, which may impact Conservation Vaues. This plan incorporates strategies to build resilience into MICA's ecosystems, such as enhancing wetland and riparian connectivity, promoting diverse native plant communities, and mitigating the impacts of extreme weather events. These proactive measures ensure MICA remains a vital refuge for fish and wildlife and also allows for limited passive use and recreation and a sustainable green space for the community in the context of a changing climate, consistent with the CE, Consent Judgment, EES, and other DEQ environmental requirements.

5. **Monitoring and Adaptive Management:**
   A robust monitoring framework guides data-driven decision-making and promotes adaptive management. Regular monitoring activities track the effectiveness of management actions, inform future adjustments, and provide accountability in achieving conservation and restoration goals.

6. **Collaboration with Partners and Stakeholders:**
   The LMP highlights the importance of collaboration with partners such as Salem Audubon Society, Willamette Riverkeeper, Confederated Tribes of Grand Ronde, Ash Creek Forest Management, LLC, Glenn Gibson Watershed Council, and federal and state agencies, including BPA, DEQ, US Fish and Wildlife Service (USFWS), Natural Resources Conservation Service (NRCS), and Oregon Department of Fish and Wildlife (ODFW), and others. This collaborative approach leverages expertise, builds community support, and aligns conservation efforts for maximum impact.

Additionally, the LMP addresses unique challenges posed by MICA's former industrial history, including managing capped landfill areas and former lagoon sites. Protective measures for restoration crews and adherence to the DEQ-approved Consent Judgment, EES, and MICA Work Plan are critical components of ensuring human and environmental health and safety during all management activities.

Public input and the engagement of the Technical Advisory Committee (TAC) have been integral to developing this plan. Adaptive management principles will guide ongoing adjustments based on monitoring data and changing conditions, consistent with the above-described legal obligations, ensuring that MICA remains a resilient and vibrant Conservation Area.

Technical Advisory Committee

City of Salem Representatives:

- Robert D. Chandler, PhD, PE – Assistant Public Works Director, Public Works Department
- Milan Davis – Parks Supervisor/Urban Forester, Community Services Department
- Jeffery Johnson – Natural Resources Planner, Public Works Department
- Matthew Johnston – Field Supervisor, Parks and Recreation Division, Community Services Department
- Robert Romanek – Parks Planning Manager, Community Services Department
- Kathleen Swarm – Recreation Program Manager, Community Services Department

State Agency Representatives:

- Susan Barnes – Regional Wildlife Conservation Biologist, ODFW
- Justine Brumm – Interim Program Coordinator, Willamette Wildlife Mitigation Program, ODFW
- Owen Cass – Restoration and Monitoring Biologist, Willamette Wildlife Mitigation Program, ODFW
- Alex Farrand – Assistant District Fish Biologist, South Willamette District, ODFW
- Reed B. Fischer – Salmon and Trout Enhancement Program Biologist, Mid-Willamette District, South Willamette Watershed District, ODFW
- Joe Stack – Regional Habitat Biologist, ODFW
- Don Hanson, RG – Project Manager/Hydrogeologist, Western Region Environmental Cleanup and Emergency Response, DEQ

Federal Agency Representatives:

- Dani Aleshire – Basin Easement Specialist, North Coast and Lower Willamette Basins, U.S. Department of Agriculture-NRCS
- Jonathan Campbell – Biological Science Technician, Partners for Fish and Wildlife Program, U.S. Fish and Wildlife Service (USFWS)
- Matthew Schwartz – Fish & Wildlife Administrator EWM-4, Bonneville Power Administration (BPA)

Tribal Representatives:

- Lindsay McClary – Restoration Ecologist/Fish & Wildlife Policy Analyst, Confederated Tribes of Grand Ronde

Nonprofit/Community Group Representatives:

- Kenneth Bierly – Glenn Gibson Watershed Council
- Tim Johnson – President, Salem Audubon Society
- Mike Unger – Salem Audubon Society

Partner Organizations:

- Nick Lewis – Project Manager, Ash Creek Forest Management, LLC

Individuals and organizations listed above, as members of the Technical Advisory Committee, played a crucial role in shaping this updated plan through their expertise, collaboration, and dedication to conservation. In addition, many other individuals and organizations contributed valuable expertise, knowledge, and practical guidance to the development of this plan. While not all contributors could be listed here, their efforts in protecting the site's Conservation Values are deeply appreciated

Section A: Property Details

1. Property and Land Management Plan Information

PROJECT SITE NAME:	Minto Island Conservation Area (MICA)
BONNEVILLE TRACT ID:	WILWF-WL-14
SITUS ADDRESS/MAP COORDINATES TO PRIMARY ACCESS POINT:	44.938465, -123.045543 (Access from North) 44.931098, -123.056094 (Access from South)
COUNTY:	Marion
ACRES:	307 (*Subject to accretions and erosions along the banks of the Willamette River and Slough, per Legal Description*)
TAX LOT(S):	073W270000200 (**Figure 1**)
ACQUISITION DATE:	September 25, 2013
PLAN START DATE:	April 2025, pending approvals
PLAN DURATION:	Ten years (2025-2035)
NEW PLAN OR UPDATE?	Update
ORIGINAL PLAN & DATES:	*Minto Island Conservation Area Management and Conservation Plan,* July 2015 (approved by BPA May 31, 2016, following DEQ's May 18, 2016 concurrence of compliance and consistency with the Consent Judgment, EES, and Scope of Work)
PROJECT TYPE:	Fee Title
PROPERTY OWNER:	City of Salem
PROPERTY MANAGER:	City of Salem
CE HOLDER	United States, BPA
PREPARERS' NAMES AND AFFILIATIONS:	Jennifer Mongolo, Streamscape Environmental LLC Jeffery Johnson, City of Salem Public Works Department Krista Adamek, Streamscape Environmental LLC Stuart Myers, Mason, Bruce & Girard, Inc.
KEY ON-THE-GROUND STAFF:	Jeffery Johnson, Natural Resources Planner Email: jdjohnson@cityofsalem.net Phone: (503) 589-2041 Robert Chandler, Assistant Public Works Director Email: rchandler@cityofsalem.net Phone: (503) 588-6008

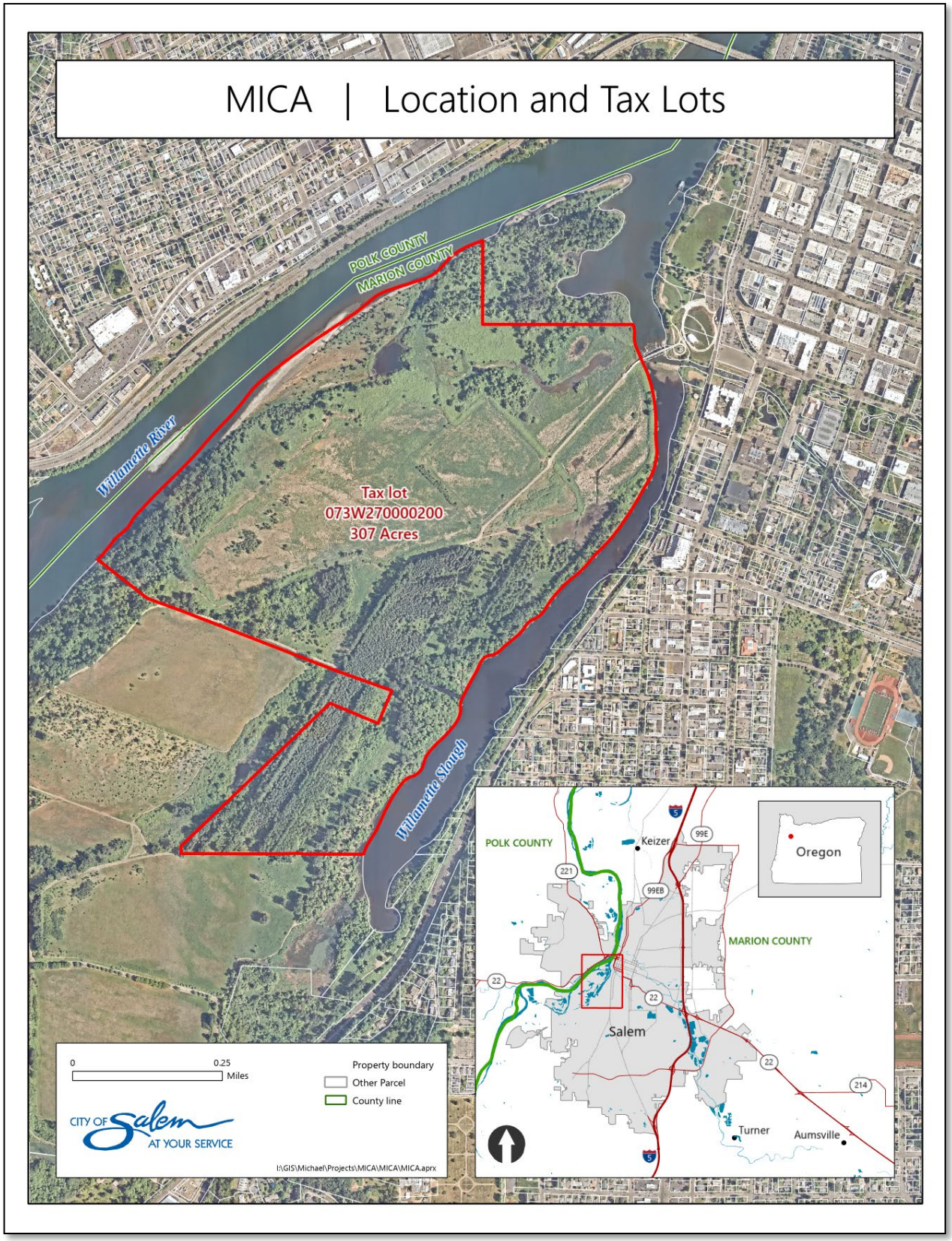

Figure 1. Property Location & Tax Lot Map

2. Acquisition Purpose and Conservation Values

PURPOSE

The primary purpose of the CE is to protect and conserve, and as appropriate allow for the restoration or enhancement of the Conservation Values of the Protected Property (aka MICA). It prevents any use of MICA that will materially harm or materially interfere with any of the Conservation Values, and ensures that the City, after compliance with the Consent Judgment, EES, or other relevant requirements issued by DEQ or other state or federal agency, will confine use of the property to activities that comply with the CE, including the approved LMP. In the event that there is conflict between the City's uses or activities on the property and the CE purpose, the CE purpose shall be construed broadly and shall prevail over any conflicting uses or activities, except for those conflicting uses that may be caused by compliance with the Consent Judgment, EES, or other relevant environmental requirements issued by DEQ or other state or federal agency. For the full text of the CE, see Appendix A.

Conservation Values (directly as stated in the Conservation Easement)

The Protected Property, in its present state, comprises approximately 307 acres including a diverse mix of existing habitats, including: emergent, scrub shrub, and forested wetlands; upland forest and meadow, and aquatic habitats. The Parties agree that the Protected Property includes other important species, habitat, and other important ecosystem attributes. The Conservation Values of the Protected Property that currently exist specifically include the following, recognizing that such Conservation Values may periodically fluctuate or trend toward long-term change, due to natural events such as wildfire, floods, interdecadal climate events, and long-term climate change, as well as human-initiated enhancement or restoration actions:

1. Native anadromous fish species present in the Willamette River in the vicinity of the Protected Property include spring-run Chinook salmon, winter steelhead, cutthroat trout, and Pacific lamprey. The StreamNet database (2012) indicates that the Willamette River in the vicinity of Minto-Brown Island provides rearing and migration habitat for spring Chinook salmon and winter steelhead trout; and spawning and rearing habitat for fall Chinook salmon. The lower portion of the Willamette Slough, from the Willamette River to Pringle Creek, provides rearing and migration habitat for spring Chinook salmon and spawning and rearing habitat for Chinook salmon and winter steelhead. Seasonally flooded wetlands and sloughs in the Property provide important habitat for these fish species as well as other amphibians and aquatic mammals.

Although a wildlife survey has not been conducted, species known to use the Protected Property include western pond turtle, northern red-legged frog, neotropical migratory birds, waterfowl, herons, osprey, bald eagle and other raptors. Species of concern which may use the site in the future include western bluebird, dusky Canada goose, little willow flycatcher, and western meadowlark.

2. There are approximately 153 acres of floodplain/riparian forest on the Protected Property. Existing forests are comprised of native species including, but not limited to, black cottonwood

Continued next page...

Conservation Values continued…

(*Populus trichocarpa*), Oregon ash (*Fraxinus latifolia*), red alder (*Alnus rubra*), bigleaf maple (*Acer macrophyllum*), willow (*Salix* spp.), Pacific ninebark (*Physocarpus capitatus*), and redosier dogwood (*Cornus sericea*). Herbaceous layers vary according to shading and level of disturbance, with sparse native cover in heavily wooded areas and more dense invasive cover, primarily reed canarygrass (*Phalaris arundincea*), water smartweed (*Polygomun* sp.) and blackberry, in open areas.

The Protected Property contains remnant side channels and alcoves of the Willamette River and Willamette Slough. The side channels and alcoves provide year-round water and seasonal inundation, and also provide non-structural flood water storage, nutrient and energy cycling, and habitat for many native and exotic species. The floodplain forests provide habitat for a variety of aquatic and terrestrial species of conservation concern.

3. The Protected Property is located on Minto Island. Minto Island is identified in several other regional and state plans as a priority restoration location. Minto Island contains riparian, wetland and upland habitat. Minto Island is designated a Conservation Opportunity Area (COA) in the Oregon Conservation Strategy Willamette River Floodplain; a designated Conservation Opportunity Area in the Willamette Synthesis map, as maintained by The Nature Conservancy; and a designated Priority Conservation Area in the Willamette Sub-basin Plan. The Protected Property is adjacent to the Minto Brown Island Park. Recently the City of Salem and the Natural Resources Conservation Service restored 278 acres of riparian, wetland, and upland habitats along several sloughs within the park.

Section II. D (pages 3-4), Minto Island Conservation Easement, recorded as Instrument 2013 00044139 in Marion County on September 30, 2013

3. Connectivity

MICA is a crucial link within a broader network of conservation properties along the Willamette River, playing a key role in maintaining wildlife habitat connectivity throughout the region (**Figure 2**). This property connects significant habitats and acts as a buffer against urbanization, supporting diverse species and maintaining ecological resilience.

MICA is positioned within the Middle Willamette River Floodplain Conservation Opportunity Area (COA ID: 060), a region recognized for its strategic importance in Oregon's conservation efforts. This area is noted for its diverse habitats, including riparian, wetland, and upland environments, which support a variety of species of conservation concern. The COA is particularly valued for its role in maintaining floodplain connectivity, which is essential for species that rely on the dynamic interactions between aquatic and terrestrial ecosystems.

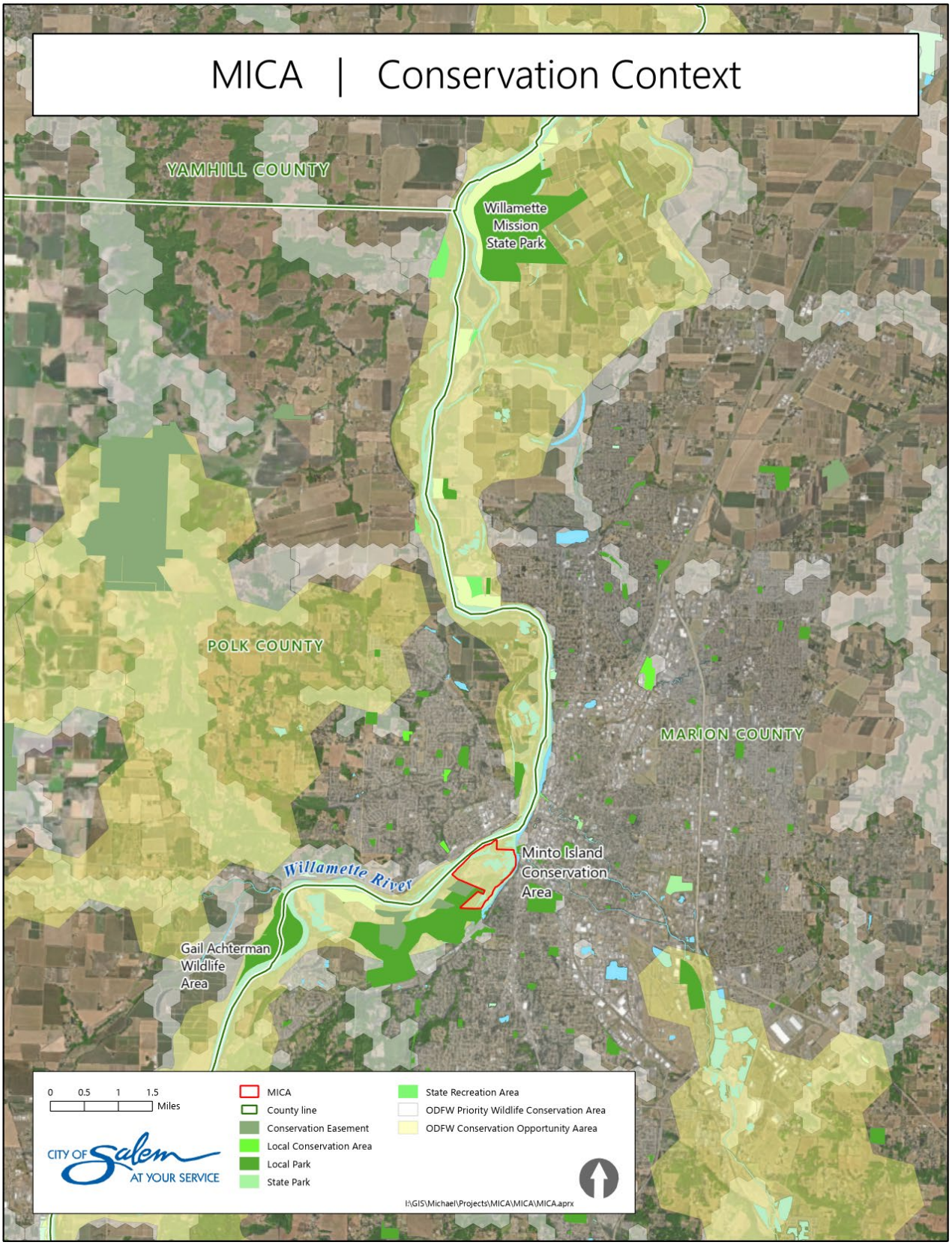

Figure 2. Conservation Context Map

MICA is located within designated Critical Habitat for Endangered Species Act-listed spring Chinook Salmon (*Oncorhynchus tshawytscha*) and winter Steelhead (*O. mykiss*) and is within the region covered by the Upper Willamette River Conservation and Recovery Plan for Chinook Salmon and Steelhead (ODFW and NMFS 2011). It is also identified as an Anchor Habitat by the Willamette River Habitat Protection and Restoration Program (2010-2015), lies within a Priority Area according to the Northwest Power Planning Council's Willamette Subbasin Plan, Appendix R (WRI 2004), and is part of Priority Wildlife Connectivity Area (PWCA) WV-R24. Collectively, these designations emphasize MICA's role in supporting both terrestrial and aquatic species conservation in the Willamette Valley, enhancing biodiversity, and fostering resilience to environmental changes.

MICA's southern boundary connects to the broader Minto-Brown Island Park (MBIP), and its northern boundary adjoins a 22-acre conservation area owned by the Salem Audubon Society. Upstream, Eola Bend County Park adjoins MBIP, and less than one river mile further upstream lies the Gail Achterman Wildlife Area (GAWA), a 290.8-acre property protected under the Willamette Wildlife Mitigation Program (WWMP). Together with Wallace Marine Park and Keizer Rapids Park downstream, these areas form a nearly continuous corridor of protected lands in the Willamette River floodplain, collectively encompassing approximately 2,000 acres along over six miles of riverfront on the Willamette River mainstem.

This connectivity is crucial for the movement of terrestrial wildlife and the protection of aquatic species that utilize the Willamette River and its associated wetlands. The Middle Willamette River Floodplain COA is home to a variety of state and federally listed species, including Chinook salmon, steelhead, coho salmon (*O. kisutch*), and Western pond turtles (*Actinemys marmorata*), all of which benefit from the interconnected habitats provided by the conservation lands in this area. The restoration and protection efforts within MICA, as well as the broader PWCA and COA, are essential for maintaining the ecological integrity of this region, supporting biodiversity, and providing resilience against environmental changes.

4. Adjacent Land Use

MICA's unique position at the intersection of urban and natural landscapes influences its management strategies and conservation goals. The conservation area is bordered by a mix of public parks, residential areas, and natural boundaries such as the Willamette River and Willamette Slough, each contributing distinct limits and opportunities for conservation.

To the North: The northern boundary of MICA adjoins an isolated conservation area owned by Salem Audubon Society, which provides important habitat and connectivity for birds and other wildlife. The property was originally protected for a Great Blue Heron rookery on the site. There is no public access to this property. The site supports a bald eagle (*Haliaeetus leucocephalus*) nest that is monitored through the City volunteer Bald Eagle Watch Program, further highlighting the property's conservation value and the

collaborative relationship between the City and the Salem Audubon Society. This continuity of habitat adds to MICA's ecological integrity and value.

Further north and across the Willamette Slough lies Riverfront Park, a public recreational space connected to MICA by the Peter Courtney Minto Island Bicycle and Pedestrian Bridge (pedestrian bridge). This popular urban green space supports both recreation and community events, serving as a key interface between the city and the river's natural environment. The connection to MICA via the pedestrian bridge has led to increased public use of MICA, raising concerns around excess foot traffic, off-trail use, and potential conflicts on the trail system. Requests to allow large events on MICA's paved trail further emphasizes the need for careful management to preserve its Conservation Values and to comply with the CE (and any Land Use Agreement (LUA) issued by BPA), Consent Judgment, EES, and other DEQ environmental requirements. The MICA LMP outlines strategies to address these issues, including public outreach, designated trail use policies, and educational initiatives to minimize negative impacts.

To the South: MICA, a discreet part of MBIP, shares its southern boundary with the broader park, a wildlife refuge and park spanning over 900 acres. Characterized by its extensive trail network, wetlands and backwater sloughs, and riparian forests, MBIP provides habitat for various wildlife species and serves as a major recreational asset for Salem residents. The park is an essential component of a larger conservation corridor along the Willamette River, connecting to other protected areas, such as Eola Bend County Park. While both MICA and the broader MBIP benefit from consistent management by the City, MBIP's less restrictive usage rules sometimes lead to confusion about allowable activities in MICA. Efforts to enhance public education and clarify permissible activities are ongoing, including improved signage and outreach.

To the East: Urban development from downtown Salem lies across Willamette Slough, with Riverfront Park serving as a buffer between the urban core and MICA. Pringle Creek, which empties into the Willamette Slough directly across from MICA, provides a natural wildlife corridor through the urban center, enhancing connectivity and offering valuable habitat for various species. Recently, the City undertook a project to daylight and restore natural habitat in Pringle Creek just above its confluence with Willamette Slough, furthering efforts to improve aquatic habitats through the urban core. Additionally, the nearby location of the Salem Civic Center (City Hall) allows City staff to maintain a close watch on the Conservation Area, enabling swift responses to issues and consistent monitoring. Collaboration with local stakeholders, public outreach, and educational efforts are key to balancing the challenges and opportunities posed by the area's urban proximity, ensuring MICA's Conservation Values are protected and the CE, Consent Judgment, EES, and other DEQ environmental requirements are upheld.

To the West: The Willamette River serves as both a natural barrier and a gateway to MICA. While it restricts general access to much of the Conservation Area, river users such as kayakers and jet skiers may access the shoreline, presenting challenges for monitoring and potential disturbances. Public education efforts are central to protecting Conservation Values and responsible use of the area consistent with the CE, Consent

Judgment, EES, Work Plan, and other DEQ environmental requirements. By fostering awareness of MICA's ecological and historical significance, the City encourages visitors and river users to help protect MICA's Conservation Values.

Summary of Opportunities and Challenges Posed by Adjacent Land Use

While adjacent land uses present challenges such as increased public use, unauthorized access, and potential conflicts with conservation goals, they also offer opportunities to foster broader support for long-term stewardship of the site. MICA is a designated part of the City's MBIP and is managed as a natural area park in accordance with the CE and other environmental legal requirements. Its location within the urban core makes it a valuable resource for bridging the gap for communities with limited access to remote natural areas. Although the primary purpose of the property is the protection of fish and wildlife habitat, the CE also allows for limited passive recreation uses that are compatible with MICA's Conservation Values. When carefully managed and consistent with allowed uses, this proximity allows for immersive outdoor experiences that foster a deeper appreciation for conservation and provide well-documented health benefits associated with time spent in natural settings.

Wildlife within MICA remains abundant, ranging from small songbirds to large mammals. Many species have adapted to the presence of humans, with changes in wildlife use largely driven by shifts in habitat conditions—such as the overgrowth of invasive plants and alterations in hydrology—rather than public access alone. The City's public education and outreach efforts help balance these challenges by promoting stewardship, fostering community awareness, and empowering visitors to play an active role in protecting the Conservation Values of MICA. However, unauthorized uses and unmanaged access can pose risks to the site's ecological health and the City's legal obligations under the Consent Judgment, Easement, and other DEQ environmental requirements. These issues are discussed further in Section C.22.

5. Current and Historical Land Use

Current Land Use: MICA is currently owned and managed by the City as part of MBIP. It is protected as a Conservation Area and managed as a natural area park, allowing limited passive recreation on designated trails in accordance with the CE, Consent Judgment, EES, and other DEQ environmental requirements. The property is managed to protect and preserve fish and wildlife species and habitat and other Conservation Values. A single paved trail through MICA supports passive recreation, including walking, running, bicycling, bird watching, and use during a small number of special events (see Section 6, Interim Management). Public access is primarily provided via the pedestrian bridge, which connects Riverfront Park to MBIP and passes through MICA.

Historical Land Use: Historically, the area was significant to the Kalapuya people, who used it for plant collection, hunting, and seasonal encampments. The land, originally part of two separate islands, was primarily covered in riparian hardwoods such as Oregon ash (*Fraxinus latifolia*) and willows (*Salix spp.)* before the Willamette River's course shifted due to a severe flood in 1861. As shown in **Figure 3**, US General Land Office survey records

indicate that MICA historically consisted of Ash-mixed deciduous riparian forest, Willow swamp, and open water (the Willamette River), while the surrounding landscape, now known as Salem, was predominantly Oregon White Oak (*Quercus garryana*)-Douglas fir (*Pseudotsuga menziesii*) savanna.

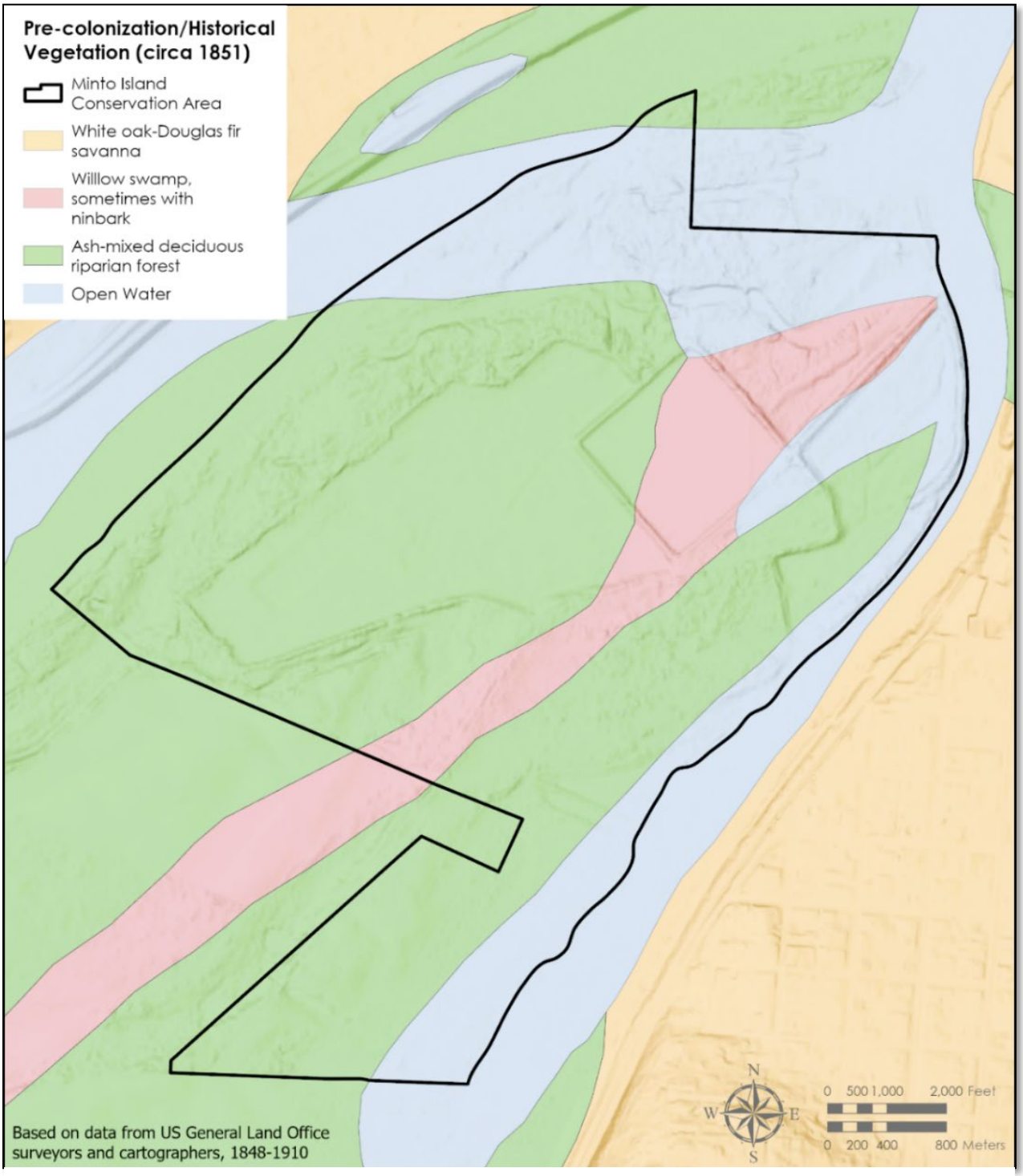

Figure 3. Historical Vegetation Map

Throughout the 19th and 20th centuries, the land saw various agricultural uses, followed by industrial activities in the 1950s. The site was used for storing and treating mill waste by the Salem Flouring Mill starting around 1887, followed by Oregon Pulp and Paper in the 1920s on approximately 100 of the 307 acres. Oregon Pulp and Paper began storing spent sulfur liquor on the property from their paper mill located on the east bank of the Willamette River in 1953. Mill waste was initially stored in undeveloped surface ponds and later in an unlined, 50-million-gallon (MG) lagoon constructed in 1959. Boise Cascade Corporation acquired the property in 1962 (**Figure 4**), constructed the 100-MG lagoon (also unlined) in 1964, and began landfill activities in 1968. Boise Cascade used the property to store pulp paper liquors, treat clarifier effluent, and dispose of clarifier solids from its sulfite paper mill in downtown Salem. Such activities occurred until the Boise Cascade mill closure in 1982. The industrial site was officially closed in 1985, and significant remedial actions were subsequently undertaken to manage environmental concerns, including years of monitoring by the DEQ.

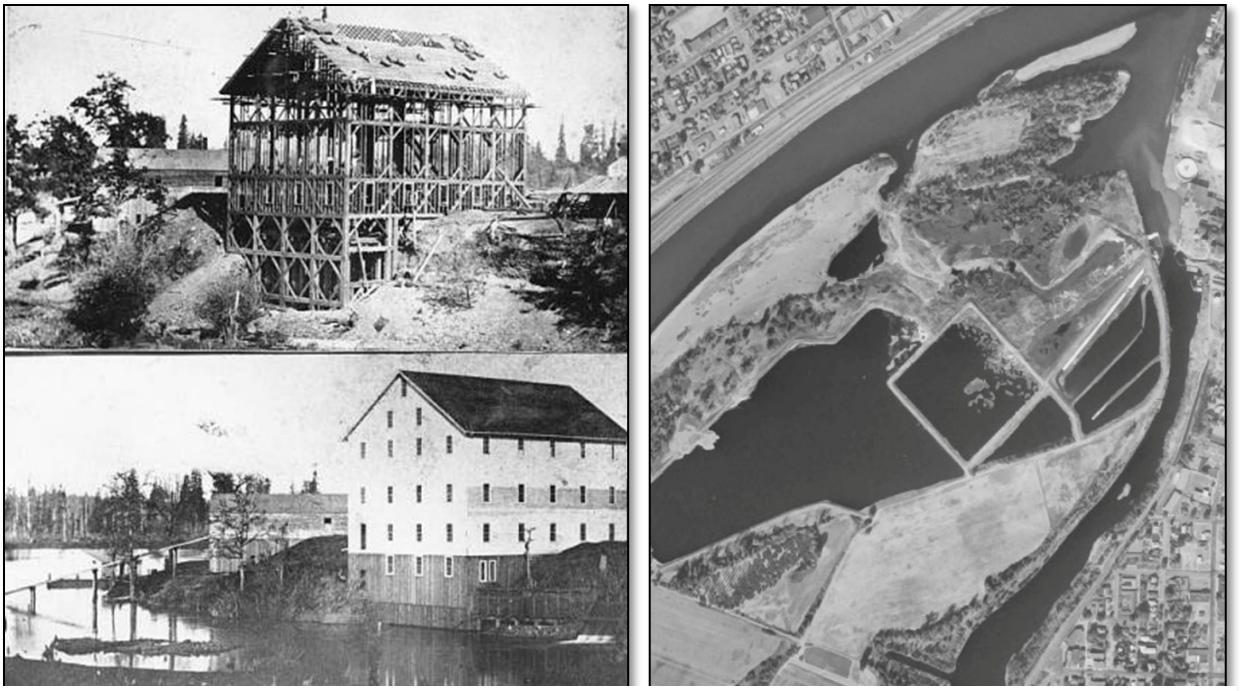

Figure 4. Historic Photographs of Salem Flouring Mill, circa 1887, located across Willamette Slough from MICA on the site that would later become Oregon Pulp and Paper and then Boise Cascade in 1962 (left), and MICA In the 1960s being used for disposal of spent mill materials.

As part of the site closure, waste sludges were removed and consolidated into two on-site landfill areas where they were covered (capped) with clean soil. In 1999, DEQ recommended that the site be placed on its Confirmed Release List due to the presence of hazardous waste. Boise Cascade then joined DEQ's Voluntary Cleanup Program, and in 2000, completed its evaluation, which included sampling indicating that the site was not posing a threat to either human health or the environment assuming the site would remain in industrial use and groundwater would not be used. DEQ initiated project closeout on April 6, 2000, later confirmed that "No Further Action" was required at the

time under Oregon Environmental Cleanup Law, restricting the site to industrial use (See Conservation Easement Exhibit A).

In 2011, the berm between the 50- and 100-MG lagoons was breached to drain the 50-MG lagoon. Berm material was spread about 3 feet deep over the 50-MG lagoon floor to stabilize sediments. DEQ issued a wastewater pond closure letter in October 2011. While the 50-MG lagoon is still a wetland, it now forms a contiguous, approximately 66-acre, seasonally flooded wetland with the 100-MG lagoon. Additionally, as part of the site closure, waste sludges were removed and consolidated into two on-site landfill areas where they were covered (capped) with clean soil. Depressional wetland pockets have since formed in both of these areas.

When the City proposed to acquire the property in early 2013, subject to a CE negotiated with BPA, the City intended to build a pedestrian and bicycle bridge connecting a network of recreational multimodal paths on the island to the downtown Salem Riverfront Park. On April 15, 2013, DEQ approved a Record of Decision (ROD) with remedial action necessary to protect human health and the environment (see Exhibit A of Appendix A).

On June 26, 2013, the City and the State of Oregon entered into a Consent Judgment (Case No. 13C17068) in the Circuit Court of the State of Oregon for Marion County, that, among other things: (1) acknowledged that the City was acquiring the property through the WWMP subject to a CE to be held by BPA, (2) acknowledged that the "area will be managed for wildlife habitat and provide limited trail access for passive recreation," and (3) agreed to implement the ROD remedial actions, including the required institutional controls. See Exhibit B of Appendix A.

On September 18, 2013, the EES between the State of Oregon and the City was recorded with the following summarized restrictions (see Exhibit C of Appendix A), largely reflecting the ROD remedial action and requiring the City to:

1. Prohibit the extraction or use of groundwater;
2. Prohibit property use in any way that will or likely will penetrate the soil cap over the landfills or former ponds or jeopardize the soil cap's protective function as an engineering control that prevents exposure to contaminated soil, including without limitation any excavation, drilling, scraping, or erosion;
3. Maintain the soil cap in accordance with the Scope of Work;
4. Install warning signs and/or fences near paths so as to prohibit activities on the soil caps since landfill and/or pond areas must not be used by recreational users to avoid degradation of the cap which might potentially expose soil or sediment contamination;
5. Limit recreation to passive recreational use;
6. Prohibit residential use of any type;
7. Prohibit agricultural use of any type;
8. Prohibit other parties from occupying the property unless the institutional controls are maintained.

The EES and its restrictions run with the land until such time as the condition or restriction is removed and recorded, with DEQ's certification that the condition or restriction is no longer required to protect human health and the environment.

The City acquired the property with BPA funding on September 30, 2013, granting and recording the perpetual CE to the United States (Instrument No 2013 00044139, BPA Tract ID WILWF-WL-14), transitioning its use from industrial to fish and wildlife conservation purposes, allowing limited passive recreation consistent with the Consent Judgment, EES, and other DEQ environmental requirements **(Figure 5**). The City's zoning and comprehensive plan were updated to reflect this new designation, and the area is now a component of Salem's green space network, contributing to over 1,200 contiguous acres of protected Willamette River floodplain habitat together with MBIP.

Figure 5. Aerial view of MICA from around the time of the City's acquisition (c. 2013, prior to construction of the pedestrian bridge).

In 2016, the Peter Courtney Minto Island Bicycle and Pedestrian Bridge and the MICA paved trail opened, creating a direct off-street connection between Riverfront Park and MBIP (**Figure 6**). This project linked more than 20 miles of off-street trails, enhancing recreational opportunities for users. This paved trail represents the only current official recreational trail in the Conservation Area.

Figure 6. MICA and Peter Courtney Minto Island Bicycle & Pedestrian Bridge from Riverfront Park

6. Interim Management Activities

Since the acquisition of the property by the City in 2013, a range of management activities have been undertaken to guide the transition and stewardship of the land. **Table 1** below outlines key activities performed, their corresponding dates, the purposes they served, and any associated LUA, where relevant. These efforts have been essential in preserving the property's Conservation Values and implementing the 2015 LMP.

Table 1. Interim Management Activities from 2013 (Acquisition Year) to 2024 (Update Year)

Activity	Date(s)	Purpose	Land Use Agreement
Obtained Grant from Meyer Memorial Trust Willamette River Initiative	2013	Fund coordination of technical advisory committee and development of land management plan	
Installed six "Natural Area. Stay on Trails." signs near lagoons	2014	Deter recreational users from going off-trail	
Mowed blackberries along berms	2014	Provide access to remote parts of property for LMP consultants	
Mowed reed canarygrass (*Phalaris arundinacea*) and spot-sprayed other invasive weeds along berms	2014-2015	Site maintenance	
Developed MICA Management and Conservation Plan	Completed 2015. Approved by BPA 2016.	Provide a strategic and cohesive approach to habitat management and restoration; delineate areas for public access, habitat enhancement features, educational signage, and wildlife blinds, and other low-impact public recreational and educational uses	
Conducted turtle survey/protection along berms to be used for main paved path and installed sediment fence	2015	Ensure native turtles were not within project area and exclude turtles during construction	

Activity	Date(s)	Purpose	Land Use Agreement
Phase 1 Restoration: Funded through Oregon Watershed Enhancement Board (OWEB) Willamette Special Investment Partnership grant	Grant obtained 2015, implemented 2016-2021	Restore bottomland forest, wetlands, and trail buffers within 103 acres along the new paved path and extending east to the Willamette Slough	
Constructed Peter Courtney Minto Island Bicycle and Pedestrian Bridge and MICA Paved Trail	Trail completed 2016, Bridge completed 2017	Connect MBIP with Riverfront Park and enhance off-street trail network in Salem	
Developed Management Calendar	2016	Aid staff and contractors to avoid impacts on birds and turtles	
Part-time Park Ranger position created and filled (ranger covers multiple parks including MICA)	2016 – present	Address the threat of off-leash dogs and off-trail activities as identified in the LMP	
Worked with the Confederated Tribes of Grand Ronde to propose, design, and obtain DEQ and BPA approval for installation of a “Spirit Pole Gateway”.	2016	Educate recreational users about the history and cultural significance of MICA and mark MICA as a culturally significant site. This Spirit Pole Gateway has not been constructed due to lack of funding.	201600293
Installed eight 24”x36” interpretive signs along the paved path and seven "Stay on Paved Trail" signs along the paved trail (three with yield signs)	2017	Educate recreational users about the Conservation Area, its history, processes, and habitat; keep people on the paved trail, dogs on leashes, and ensure compatible trail use	

Activity	Date(s)	Purpose	Land Use Agreement
Adopted Pilot Event Restrictions as an Administrative Rule	2018	Establish year-round and seasonal restrictions to address potential impacts from the influx of park users in MICA after the opening of the pedestrian bridge	
Phase 2 Restoration: Funded through Willamette Mainstem Anchor Habitat grant. Partnership with Willamette Riverkeeper	Awarded 2018, implemented 2020-2023	Enhance habitat for native fish and other wildlife through the removal of invasive aquatic plants (*Ludwigia* spp.) from the 87-acre Willamette Slough, including over a mile of MICA shoreline	
Phase 3 Restoration: Funded through Willamette Mainstem Anchor Habitat grant.	Awarded 2019, implemented 2020-2024	Meet target goals of floodplain forest and wetland restoration in 48 acres on the west side of MICA.	
Temporarily updated event restrictions, approved by BPA-issued and DEQ-approved LUAs and adopted through City administrative rule.	2022-2024	Allow two large events during nesting season (previously one) with a maximum of 3,000 participants per event (previously 1,500), while imposing other limitations, such as no stopping, spectators, or support items in MICA.	20220158; 20230004; 20240183
Enhanced trail buffer by removing invasives, replanting, and establishing a native plant buffer along the trail.	2022-Ongoing	Establish a more robust and resilient native plant buffer to mitigate impacts on wildlife, especially birds, from larger recreational events utilizing the paved trail.	
Conducted biological monitoring during special events.	2022-2024	Evaluate and understand the impacts of events of various sizes on MICA's Conservation Values, especially the avian community.	
Installed dense hedgerow of	2022	Mitigate impacts of vegetation clearing for clean-up of a homeless encampment.	

Activity	Date(s)	Purpose	Land Use Agreement
native shrubs and gate at the entrance to Phase 3 restoration area. Posted "Restoration in Progress" sign on gate.			
Conducted inspections and clean-up of homeless camps, off-leash dogs, and other restricted activities.	Ongoing since acquisition	Protect and maintain MICA's Conservation Values.	

7. Management Access

Management access to MICA is primarily facilitated through four points: the southern access via MBIP, the northern access via Riverfront Park and the pedestrian bridge, the western access via water using the boat launch across the river at Wallace Marine Park, and the interior areas via the currently overgrown berms.

1. **Southern Access via Minto-Brown Island Park**:
   The southern access points are crucial for restoration and maintenance activities, particularly in the southern and western portions of the property. Restoration contractors frequently use these access points, entering through a gate at Parking Lot 3. MBIP staff also utilize this route for routine maintenance tasks such as trash cleanup and mowing along the sides of the paved trail. The paved path, which is in good repair, provides a reliable route from the south for these activities.
2. **Riverfront Park Access via Pedestrian Bridge**:
   Access from Riverfront Park is made possible by crossing the Willamette Slough via the pedestrian bridge. While bollards block vehicular access on the bridge, Parks staff have the ability to remove them, allowing vehicles like All Terrain Vehicles (ATVs) and Utility Task Vehicles (UTVs) to cross and enter into MICA. This access point is primarily used for monitoring, patrols, and maintenance activities along the paved trail near the bridge. It is particularly effective for quick access to the northern part of the paved trail.
3. **Access by Water from Wallace Marine Park:**
   Parts of the property along the west side are best accessed via boat. Launching from Wallace Marine Park on the opposite side of the river provides a practical

way to reach otherwise challenging areas. Notably, the City owns a landing craft vessel that can be utilized for this purpose, enhancing the efficiency of transporting equipment and personnel directly to specific sites along the riverbank. This access method is particularly useful for monitoring and restoration activities along riverine habitats, where land-based entry is limited or impractical, and, if necessary, for the removal of homeless camps along MICA's west side to ensure site security and to address any safety concerns that may arise on that side of the property See Threats to Conservation Values in Section C.22.

4. **Berms and Northern Access Challenges**:
   The berms on the property, historically used to isolate the 50-MG lagoon and 100-MG lagoon and for operational access, are now heavily overgrown with Himalayan blackberry (*Rubus armeniacus*), severely limiting restoration and maintenance activities in the interior northern and western areas. Efforts to clear these areas would improve restoration and monitoring access but must also balance the need to prevent unauthorized public entry. Strategies such as installing gates, signage, and clear barriers are essential to distinguish between prohibited recreational and allowable restoration access. This approach ensures sensitive areas remain protected while allowing controlled motorized access for restoration purposes, including light equipment like ATVs, UTVs, and mowing and cutting equipment.

To control access, signs and locking gates and/or bollards are installed at all trail entrances, ensuring that only staff and contractors with keys can drive onto the park trails. Vehicle traffic within MICA is minimized and primarily used for transporting restoration materials, equipment, and conducting cleanup operations, including trash removal and homeless camp clean up. While the current access arrangement is functional, improving access through selective clearing of the berms would enhance restoration and maintenance efficiency. Any additional access must be balanced with measures to prevent unauthorized public entry and minimize potential negative impacts to the site's Conservation Values and protect the public and workers from legacy industrial contamination.

8. Public Access and Use

MICA experiences significantly higher public use compared to most other WWMP properties due to its close proximity to Salem's urban core. This high volume of visitors presents unique challenges but also numerous opportunities for public engagement, increasing awareness of the WWMP, education on the importance of restoration actions, and the enhancement of MICA's Conservation Values. The City's approach to managing MICA focuses on habitat protection to ensure the Conservation Values of this special area are maintained while providing opportunities for the public to learn about the Willamette River, its dams, its wildlife habitat, and the WWMP through limited public access.

Current Public Access and Use

Public access to MICA has evolved significantly since the completion of the first land management plan, largely due to the completion of the MICA paved trail in 2016 and the pedestrian bridge in 2017, which together connect Riverfront Park in downtown Salem with a vast network of trails in MBIP. This trail serves as a pass-through route for passive recreation activities such as walking, jogging, dog walking, cycling, and birdwatching, while channeling visitor traffic along a narrow corridor to minimize disturbance to sensitive habitats. Access is limited to foot traffic, leashed dogs, and non-motorized and electric-assist wheeled recreational devices (e.g. bicycles, scooters, e-bikes, etc.) along the paved trail. Access points are controlled by gates or bollards, allowing only authorized vehicles to enter. As with all City parks, MICA is closed from sunset to sunrise, with enforcement by the park ranger and City police. Collaborative efforts with partners have led to educational signage and programming to raise public awareness of MICA's conservation purpose and values, and volunteers from the City's Park Patrol program serve as the "eyes and ears" of the area, monitoring activities, reporting maintenance needs, and contributing to the overall safety and stewardship of the site.

Before its acquisition by the City, the MICA property was intensively used for agricultural and industrial purposes. Its transition to a Conservation Area protected by a CE, with limited public access confined to the pedestrian bridge and designated trails, reflects a strong commitment to protecting, conserving, and as appropriate allowing for restoration or enhancement of the property's Conservation Values. During the development of the first LMP, the Technical Advisory Committee (TAC) raised concerns about potential impacts of the trail on native turtles and wintering waterfowl due to increased public use. Since 2015, however, observed changes in these species' behavior and presence appear to be driven more by habitat conditions than recreational activity. For turtles, unsuitable habitat caused by spreading invasive vegetation likely explains the lack of observed sightings in MICA. Similarly, changes in waterfowl use are linked to habitat alterations, including reduced open water from berm removal and reed canarygrass overgrowth, which have affected site hydrology.

Planned Public Access and Use

Consistent with Section II.I and Exhibit G of the CE and previous 2015 management plan, the City plans to provide reasonable public access, including developing public footpaths or trails depicted in Exhibit G of the CE, over the coming decades, while maintaining a focus on fish and wildlife habitat conservation (**Table 2**). Developing new unpaved trails requires substantial planning, design, and permitting, and will therefore proceed slowly, as staff capacity and funding allow. Some trail expansion is needed to improve access for management, habitat restoration, and site maintenance, and will be implemented alongside planned restoration work, such as the berm trails. Unpaved trail development east of the paved trail will formalize existing user-created paths, concentrating impacts and mitigating conflicting uses, such as illegal encampments, in areas where off-trail activity is most prevalent.

Table 2. Timeline for Public Access and Use Activities

Public Use/Access Activity	Description	Timeline
Educational Signage	Review existing education signage for condition and content and determine if new or additional signage is needed. Apply for grant funding to update signage, as needed.	5-10 years
Maintain and Install Restriction/Warning Signs, Fences, and Gates	Ensure adequate access restriction and warning signs (e.g., "Stay on Trail," "Dogs Must Be Leashed," "Restoration Area") are placed along all trails and entry points as required by the EES and CE Section II.2 to prohibit activities in or around the soil caps topping the wastewater ponds and landfills. Install fences or gates as needed, in accordance with the EES and CE Section II.I.2.	Ongoing
Implement Safety Measures for Soil Contact in Remediated Areas	In coordination with DEQ, develop a Worker Safety Plan to guide staff and contractors on best practices for identifying and managing areas with potential soil contamination (e.g., former landfills, buried solids, lagoons). The plan will outline measures to protect workers and public health during maintenance, restoration, and other off-trail activities, and to prevent the spread of contaminated materials.	1-5 years
Unpaved Trails on the East Side of the Paved Trail	Establish new unpaved trails in designated areas east of the paved trail (see Figure 7), incorporating existing user-created paths and forest gaps where appropriate while avoiding wetlands to prevent habitat impacts and appropriately limit public access. Any unpaved trails adjacent to former industrial areas must be covered and maintained in a DEQ-approved manner.	5-10 years
Unpaved Trails to the West of the Paved Trail	Cut blackberry and other invasives on berm tops as needed to facilitate access for funded habitat restoration, enhancement projects, and CE monitoring, and utilize the cut vegetation as trail covering to avoid exposed soils and ensure worker safety. Assess the feasibility of opening berm trail segments to the public seasonally or through guided tours, ensuring that such trails can be covered and maintained in a DEQ-approved manner (e.g., wood chips, bark, or chipped vegetation).	Incrementally over the next 10 years
Wildlife Viewing Blinds	Identify suitable locations for wildlife viewing blinds along existing paved and planned unpaved trails. Pursue funding for their design and installation.	5-10 years
Special Event Restrictions & Fees Implementation and Monitoring	Implement event restrictions, event fees, biological monitoring, and adaptive management. Evaluate fees annually to determine if adjustments are warranted.	Ongoing

Public Use/Access Activity	Description	Timeline
Public Access Management and Paved Trail Maintenance	Regularly assess public use impacts, access control measures, and trail conditions. Perform trail maintenance as needed and address conflicting uses as they arise.	Ongoing

All new unpaved trails will be located in the areas generally shown in Exhibit G of the CE and **Figure 7,** and will utilize best management practices so as not to materially harm or materially interfere with one or more of the Conservation Values identified in the CE. Wildlife surveys will guide trail placement, and vegetation clearing and/or construction will be scheduled during periods of minimal bird and wildlife activity. While some segments of the berm trails will be cleared for restoration access during the term of this LMP, public access will be restricted to designated segments and specific times of the year. Access will primarily be limited to guided tours, planned experiences, and educational opportunities, with control measures such as gates, signage, and monitoring to protect sensitive habitats. See Tables 9 and 10 in Section D - Goals and Objectives for further details. The City will continue to monitor public use and apply adaptive management strategies to prevent potential negative impacts to Conservation Values.

Public Safety

Protection of human health and the environment drove the institutional controls for MICA, including limited public access, through the Consent Judgment and the EES, and incorporated by reference into the CE. As such, public safety at MICA is a key priority, particularly in areas associated with the site's industrial past, such as the lagoons, capped landfills, and the biosolids area. To protect public health and ensure compliance with these legal obligations, it is essential for visitors to stay on designated trails. Keeping to the established paths minimizes risks to both human health and the integrity of sensitive habitats, preserving the area's ecological and safety standards. Additionally, any new unpaved trails through or adjacent to former industrial areas must be covered and maintained in a DEQ-approved manner, such as with wood chips, bark, or similar natural cover material to reduce dust and direct contact with potentially contaminated soil.

Special Events

Since the construction of the pedestrian bridge and paved trail, MICA has seen a steady increase in requests to incorporate the MICA paved path into run/walk race and event courses. Such requests come from organizers of events ranging from small fundraising walks/runs with fewer than 200 participants to large races like the IRONMAN triathlon, which hosts around 2,500 participants. In 2018, pilot event restrictions were established to ensure Conservation Values remained the top priority when evaluating the compatibility of such events, and some events were allowed to proceed with special review and permitting.

Figure 7. Trail Map (Planned and Existing) with Inset of Conservation Easement Exhibit G. See Appendix A for the full-size map of trail routes approved in the Conservation Easement.

To better understand the real and perceived impacts of special events on MICA's Conservation Values, the City contracted Pacific Habitat Services to conduct biological monitoring during special events and on several non-event days during nesting season from 2022-2024. Monitoring results indicate that while large events may cause temporary behavioral changes in bird activity, such as flushing foraging songbirds from the trailside, impacts are generally concentrated in the immediate vicinity of the trail, short-lived, and did not result in sustained or material harm or major alterations to natural behavior or habitat use patterns. Birds with active nests near the trail were observed continuing to incubate eggs and feed their young during these monitoring events. This suggests that birds, even during nesting, have adapted to recreational use, while more sensitive birds and other wildlife, such as bobcats and deer, tend to utilize habitat further from the trail and are not typically observed near the trail during park hours when these events occur.

Special event management strategies include limiting the total number of participants per event and the number of events allowed during bird and native turtle nesting season, establishing and implementing clear event restrictions, applying special event fees that are paid into the MICA Stewardship Fund to support ongoing maintenance and restoration activities, maintaining and enhancing a native plant buffer along the paved trail, and conducting ongoing biological monitoring in coordination with the Salem Audubon Society. Additionally, during large events such as the IRONMAN triathlon, the pedestrian bridge and MICA paved trail are closed to the public, effectively limiting overall use to a number of people similar to or fewer than would typically visit MICA on a weekend day during the same time of year. See Section D: Goals, Objectives, and Strategies for more information on public use and special events in MICA, and Appendix B for event restrictions.

9. Current and Prior Land Use Agreements

All current and prior LUAs are described below. Copies of the agreements are included in Appendix C: Land Use Agreements.

- **June 7, 2016: BPA Case No 20160293** – This agreement permitted collaboration with the Confederated Tribes of Grand Ronde to install a Spirit Pole Gateway at a designated location along the paved trail within the MICA property. The planned Gateway would feature two 15-foot carved cedar posts, each set atop a 3-foot by 5-foot concrete pad, connected by a steel beam. Although the plans for this project were created during the trail's initial construction phase, the installation of the Spirit Pole Gateway has not yet been completed due to lack of funding.
- **May 9, 2022: BPA Case No 20220158** – This agreement allowed for temporary modifications to MICA event restrictions, specifically a change to the primary bird nesting season, adjusting it to March 1 - July 31 (not implemented), and permitting two large events during the nesting season, each with up to 3,000 participants for the 2022 and 2023 seasons. Mitigation measures included establishing a native plant buffer along both sides of the paved path.

- **November 4, 2022: BPA Case No 20230004** – This agreement superseded and terminated BPA Case No. 20220158, maintaining the same modifications but clarifying certain conditions. It also added a requirement for the City to update the MICA land management plan by April 2024 to document the impacts from events, bridge activities, and public use.
- **March 29, 2024: BPA Case No 20240183** – This agreement superseded and terminated BPA Case No. 20230004, continuing the previous modifications and extending the deadline for the City to update the MICA land management plan from April 2024 to April 2025.

10. Income-Generating Activities

Special events utilizing the trail passing through MICA are subject to fees that generate income for the MICA Stewardship Fund (See LUA 20220158, 20230004, 20240183, 20250284, Section 22 which states: "activities are expected to result in income, any and all proceeds are to be deposited in the Stewardship Account for this property."). These fees help cover costs associated with preventing and monitoring event impacts in compliance with the CE, while also supporting ongoing monitoring, maintenance, and habitat restoration and preservation within MICA. Events primarily include run/walk activities, with notable examples being the Willamette Valley Marathon and IRONMAN events. Fees are assessed based on the level of potential impact, ranging from no impact to high impact, as determined by the City's Natural Resources Planning staff. High-impact events may involve extensive staff or consultant involvement and can result in partial or full closure of the paved trail to the public during event activities. Additionally, large events with over 500 participants will incur stewardship fees as well as the impact fees, contributing further to conservation and management efforts. All events must comply with the approved event restrictions included in Appendix B of this plan. If any questions arise regarding income-generating activities or compliance with the approved event restrictions, City staff should consult with BPA.

11. Existing Infrastructure

MICA remains largely undeveloped, with minimal infrastructure supporting both property management and allowable public use. The most prominent feature is a 12-foot-wide paved path extending approximately 0.75 mile. This path, which is in good condition, serves a dual purpose: providing essential access for maintenance and habitat restoration activities and facilitating allowable recreational use. To enhance visitor experience and protect the Conservation Area, the City has installed benches, garbage cans, and signs along the path (**Figure 8**). The paved path connects to the pedestrian bridge on the north side and to a paved trail in MBIP on the south side. While the pedestrian bridge is equipped with lighting, the trails in MICA and MBIP remain unlit to minimize impacts to wildlife and preserve the natural character of MICA.

Figure 8. Existing Infrastructure Map

On the western side of MICA, existing berms, originally constructed as effluent holding lagoons for the former mill, remain. Before City ownership, the tops of these berms functioned as access roads for mill operations. Now overgrown with dense thickets of Himalayan blackberry, these berms offer potential for conversion into unpaved trails that could provide access for restoration and maintenance, as well as seasonal recreational use as discussed in Section 8 above.

Additionally, segments of a paved trail cross onto the southern edge of the property (see Figure 8). This preexisting trail, shown in Figure 7 and CE Exhibit G, serves as important infrastructure by providing access for maintenance, restoration activities, and allowable public use, further enhancing site accessibility and connecting trails within MBIP.

Other structures and infrastructure in MICA reflect its industrial past and include an old pump station near the southwestern corner, a wooden observation platform near the western boundary, and a capped, abandoned groundwater well adjacent to the platform (see Figure 8). Some of these unused structures pose safety concerns and may attract trespassers or homeless encampments. The City is actively exploring options for decommissioning the old pump station, as its open concrete holding bays present a significant safety risk.

12. Water Rights

The City continues to hold the water rights authorized by Certificate 79847 (dated January 7, 2003), confirming the right to use the waters of “Well 2” at a designated place of use on the property for irrigation of 96.0 acres (see Appendix D). The City has no plans to transfer, abandon, or relinquish the right. To date, there have been no changes to the water rights since the certificate was issued, and no use of these water rights has been documented. The EES has prohibited the extraction and use of groundwater on the property until such time as the condition or restriction is removed and recorded, with DEQ’s certification that the condition or restriction is no longer required to protect human health and the environment.

13. Historical and Cultural Resources

MICA has a rich history of use by Indigenous peoples, as well as more recent industrial activities. In 2021, SWCA Archaeological Consultants conducted a pedestrian survey with subsurface testing within the Area of Potential Effects for the Phase 3 West Forest Restoration Area. During this survey, two archaeological resources were identified. However, neither of these resources was recommended for eligibility for the National Register of Historic Places.

SWCA's assessment concluded with a recommendation of a "No Adverse Effect" finding for the proposed planting associated with the Phase 3 West Forest Restoration Project. The report also indicated that it is unlikely that project-related ground disturbances (i.e. planting of bare-root and live stake native plants) would negatively impact the identified resources. Despite this, the report emphasized the importance of being prepared for the

possibility of encountering unanticipated archaeological or historic-era resources during future activities.

In alignment with this recommendation, any discovery of archaeological or built environment historic-era resources during ground-disturbing activities triggers immediate protective measures. Specifically, all ground-disturbing activity within a 100-foot buffer of the discovery should cease immediately. The City's Inadvertent Discovery Plan for Cultural Resources should be followed, which includes notifying the appropriate authorities and securing the location to prevent any further disturbance.

These protocols ensure that MICA's historical and cultural resources are respected and preserved, even as restoration and management efforts continue.

14. Stakeholder and Public Involvement

A kickoff meeting with the City and other interested parties, including BPA (holder of the CE) and ODFW, was held on July 29, 2024, facilitated by Streamscape Environmental LLC, to introduce the project's background, timeline, and process. Following this meeting, a TAC was convened, with five meetings held throughout October 2024. The first meeting was an in-person site tour on October 3, focused on current site conditions. Subsequent meetings, held virtually, covered the following topics:

- October 7: Habitat types, current conditions, and target species.
- October 16: Desired future conditions, goals, objectives, and strategies.
- October 24: Public use and infrastructure.
- October 28: Continuation of goals, objectives, and strategies for public use and plantations, as well as partnerships, funding, and open floor for other topics.

Meeting materials, including agendas and detailed minutes, were shared with TAC members via a dedicated share drive and by email. TAC members were encouraged to provide input during meetings and by email or phone communications in between meetings. This input was crucial for shaping the initial draft of the LMP, which was released on December 13, 2024, for simultaneous review by the TAC and the public. The review period spanned approximately one month (concluding January 10, 2025) and included two community presentations (Salem Parks and Recreation Advisory Board and Glenn Gibson Watershed Council), a press release, posting of the full plan and appendices on the City's website, an article in the Salem Audubon Society newsletter, and notification to the City's Diversity, Equity, and Inclusion Roundtable.

Written comments on the Draft LMP were received from nine TAC members and five community stakeholders. Oral comments were received from Salem's City Manager, Keith Stahley, the Salem Parks and Recreation Advisory Board, and Glenn Gibson Watershed Council. All feedback was compiled into a Comment and Response Table, and wherever feasible, integrated into the LMP to ensure a comprehensive and community-aligned strategy.

Section B. Easement Restrictions and Prohibitions

15. Easement Prohibitions and Compliance Table

Table 4 presents a detailed summary of the prohibitions as stipulated by Section II.L of the CE, alongside a review of compliance status. Consistent with Section II.L of the CE, for activities not specifically listed, the City may manage the property to restore or enhance fish and wildlife habitat, provided those restoration or enhancement activities are approved in this LMP or by prior written approval the easement holder (BPA), usually in the form of an LUA.

Table 3. Summary of Compliance with Easement Prohibitions

Easement Prohibitions	Compliance Status
1. *Residential, Commercial or Industrial Uses.* Any residential, commercial, or industrial uses of the Protected Property is prohibited, including timber harvesting, grazing of livestock, and agricultural production. This requirement is consistent with the EES, which prohibits residential or agricultural use of any type.	The Property has not been used for residential, commercial, or industrial purposes, nor will it be in the future. In 2015, an initial effort to control weeds in the Douglas fir and hybrid poplar (*Populus spp.*) plantation areas involved using grazing goats as part of Phase 1 of the restoration. Although this approach successfully reduced weed pressure, it also presented challenges that made goat grazing unsuitable for ongoing weed control. Goal 1, Objective 1.2 in this plan provides for restoration of the Douglas fir and hybrid poplar plantations, which will involve a certain degree of timber harvesting. Any revenue generated from the timber harvest will be deposited into the Stewardship Fund. These funds will be used to offset restoration costs and/or support additional restoration activities within the Conservation Area.
2. *Construction of Buildings, Facilities, Fences or Other Structures.* Construction of new buildings, facilities, fences or other structures is prohibited, except as required by the Consent Judgement. Construction of gates shall be permitted where necessary to prohibit access to secondary trails in order to ensure public safety and/or protect wildlife. Repair, maintenance, or replacement of existing buildings, facilities, fences or other structures identified in the Baseline Documentation Report are permitted at the same location and within the existing footprint of such structures.	The City has adhered to the prohibition on constructing new buildings, facilities, fences, or other structures, except as required by the Consent Judgement. Goal 4, Objectives 4.2 includes the strategic use of split rail fencing to deter trespassing into remediation areas and sensitive habitat areas, while Goal 6, Objective 6.2 and Goal 7, Objective 7.1 include strategies such as installation of gates to restrict access to seasonal trails or routes designated solely for management and restoration. These actions will comply with the easement's provision for gate installation to protect public safety and wildlife. The installation of wildlife viewing blinds (Goal 4, Objective 4.2), though not yet installed, is being carried forward from the prior

Easement Prohibitions	Compliance Status
	LMP approved by BPA in 2016, and any implementation will be consistent with existing guidelines and conservation objectives. All proposed measures prioritize minimizing habitat disturbance and align with the easement's intent. Through implementation of Goal 4, Objective 4.3, the City will ensure that the aforementioned structures align with Conservation Values and minimize negative impacts on MICA's ecosystem.
3. *Utilities*. Except as provided for in Section II.K.2, the installation or relocation of new public or private utilities, including electric, telephone, or other communications services is prohibited. Existing utilities on, over, or under the Protected Property may be maintained, repaired, removed or replaced at their current location as that location is documented in the Baseline Documentation Report.	Installation or relocation of new utilities is not a component of this LMP. BPA was granted a right to install a transmission and ancillary facilities on the Property, but the City knows of no existing plans to install these facilities.
4. *Signs*. Except for no trespassing signs, for sale signs, interpretive signs, signs identifying the owner of the Protected Property, and signs that may be erected by the Grantee identifying the Purpose of the Protected Property, all other signs, advertisements, and billboards of any nature are prohibited, except as required by the Consent Judgement and EES. The permitted signs may not exceed 15 square feet in size, except where such size is exceeded as required by the Consent Judgement and EES.	The City has installed signage along the paved trail to remind visitors to remain on designated paths, in compliance with the CE, Consent Judgment, and EES.
5. *Waste*. Excepting City-owned garbage cans along the main pedestrian trail, dumping, collecting, recycling, accumulating, or storing of trash, refuse, waste, sewage, bio-solids, or other debris is prohibited.	Trash cans are regularly maintained along the paved trail to reduce litter. The City plans to continue these efforts. Litter from unauthorized uses is removed by City staff promptly upon detection, and homeless encampments are posted with eviction notices immediately and cleaned up as quickly as allowed under current state and local regulations.
6. *Mining*. Subject to valid existing rights, if any, held by third parties at the granting of this Conservation Easement, the exploration, development, mining, or extraction of soil, sand, loam, gravel, mineral, oil, gas, or other substance from the surface or subsurface of the Protected Property is prohibited. Grantor shall notify the Grantee of any planned	The City has not requested rights to explore, develop, or extract any such resources, and does not intend to do so.

Easement Prohibitions	Compliance Status
exploration, development, mining or extraction of any substances by third parties with valid existing rights as soon as possible, and at least 60 days before commencement of the action. At that time, Grantor shall also deliver proof of its notification to DEQ of the same.	
7. *Topography.* Altering the existing topography of the Protected Property by digging, plowing, disking, or otherwise disturbing the surface or subsurface is prohibited. This requirement is consistent with the EES, which prohibits conducting operations on the Protected Property, or using the Protected Property, in any way that will or likely will penetrate the soil cap over the landfills or former ponds or jeopardize the soil caps' protective function as an engineering control that prevents exposure to contaminated soil, including without limitation any excavation, drilling, scraping, or erosion.	Prior restoration activities have involved minor surface disturbances by contractors using hand tools, such as augers for installing cottonwood poles. The City consulted with DEQ prior to these activities to ensure worker safety and to maintain the integrity of the soil caps. For any future restoration activities in these areas, the City will develop a Worker Safety Plan in collaboration with the DEQ to guide best practices and safety measures. The City will also work with BPA for any necessary review and approval under the CE. Per Goal 2, Objectives 2.1 and 2.2, potential long-term restoration actions may include changes to site hydrology through the strategic addition or removal of soil in specific areas within MICA. Such activities will require extensive studies, detailed planning, and coordination with both BPA and DEQ to ensure compliance with all protective measures and site requirements.
8. *Watercourses/Wetlands.* Draining, dredging, channeling, filling, leveling, pumping, diking, impounding or any other alteration of any watercourses, ponds, seeps, bogs, springs, wetlands, or any seasonally wet area is prohibited without prior written consent by Grantee, as is altering or tampering with existing water control structures or devices.	To date, no watercourses, ponds, seeps, bogs, springs, wetlands, or seasonally wet areas within MICA have been drained, dredged, channeled, filled, leveled, pumped, diked, or impounded. The City has fully adhered to the prohibition against altering these areas and has not tampered with existing water control structures or devices. Future construction of unpaved trails through the forest plantation areas east of the paved trail (Goal 6, Objective 6.3) has the potential to impact wetlands. To ensure compliance, a wetland delineation of the proposed trail area will be conducted prior to trail design. Wetlands will be avoided to the greatest extent feasible, and any unavoidable impacts, whether temporary or permanent, will be offset through wetland enhancement and restoration measures incorporated into the project plans. Potential future restoration actions aimed at improving site hydrology could involve alterations to wetlands; however, such activities are anticipated

Easement Prohibitions	Compliance Status
	to occur outside the term of this management plan (Goal 2, Objectives 2.1 and 2.2). During the term of this plan, the City intends to study potential alternatives and best strategies for managing invasive reed canarygrass infestations and addressing other wetland habitat degradation issues, while maintaining compliance with the easement's prohibitions. These studies will be coordinated with both BPA and DEQ to ensure compliance with all protective measures and site requirements.
9. *Vegetation*. The cutting, trimming, shaping, killing, or removal of any vegetation from the Protected Property, except for noxious weeds, is prohibited.	To date, vegetation removal activities on the Protected Property have focused solely on managing and removing invasive plants and noxious weeds, in compliance with the easement's terms. The City intends to continue efforts to combat invasive species to protect and enhance the ecological health of the property. Objectives and strategies included in Goals 1, 2 and 3 for managing and removing invasives plants have the potential to involve non-target effects on native vegetation; however, such non-target effects will be minimized through use of qualified restoration contractors and implementation of the City's IPM policy. Planned restoration efforts within the forest plantations may also require selective cutting of non-noxious, plantation trees, including Douglas fir and hybrid poplar, to improve habitat diversity and health (Goal 1, Objective 1.2). The number, size, and locations of trees to be removed will be determined through a comprehensive baseline assessment of the forest plantations and edge habitats, with all actions documented in a forest management plan, to be reviewed and approved by BPA, that will ensure alignment with conservation goals and compliance with CE terms. In addition, in accordance with Goal 1, Objective 1.1, proactive removal of native Oregon Ash trees may be necessary if they become infested with the Emerald Ash Borer (*Agrilus planipennis*; EAB) to slow the spread of the pest and protect other trees in MICA, MBIP, and the vicinity. Such removals will be conducted thoughtfully, with consideration for minimizing impacts on the ecosystem.

Easement Prohibitions	Compliance Status
10. *Exotic Species.* The introduction, cultivation, or use of exotic plant or animal species on the Protected Property is prohibited. Exotic plants include non-native invasive plant species.	As noted in Prohibition 1 above, a pilot effort to use grazing goats to help reduce weed pressure in MICA was briefly implemented in 2015. Although there are no current plans to attempt this again, goats may be utilized for weed management in the future, given the right circumstances. If used, the goats will be contained in fenced areas, guarded and rotated for maximum effectiveness.
11. *Roads and Impervious Surfaces.* Except as described in Section II.I, existing roads and footpaths identified in the Baseline Documentation Report may be maintained and repaired in their current condition and within their existing footprint as identified in the Report. Maintenance and repair of existing roads shall not be construed to permit the paving of any existing road not already paved or otherwise covered in an impervious material as of the date of this Conservation Easement.	Section II.I of the CE describes the "Proposed Paved Trail" that was constructed in 2016 (see Figure 7 and Appendix A Exhibit G). This is the primary paved path running north to south through MICA. The paved trails running along the southern MICA boundaries predate the CE. No new paved trails are contemplated as part of this management plan.
12. *Vehicle Use.* The use of motorized vehicles is prohibited, except as necessary to carry out activities approved by the Grantee, or for limited, de-minimus, non-commercial recreational uses such as hunting or bird watching if those activities are approved uses in the Management Plan.	No hunting is permitted in MICA. The use of motorized vehicles is limited to City and contractor vehicles and equipment necessary for maintenance and restoration activities, as permitted by BPA for implementation of Goals 1, 2, 3, 4, 6, and 7. On a limited basis, City vehicles or other approved motorized vehicles may be used for field trips or special events (Goal 5). Additionally, City fire or police vehicles may access the Conservation Area as needed to ensure public safety (Goals 5, 6 and 7).
13. *Subdivision.* The legal or "de facto" division, subdivision or partitioning of the Protected Property is prohibited, except as may be necessary for the adjacent property currently owned by the Audubon Society to be a legally sufficient unit of land. This requirement is consistent with the EES, which prohibits residential use of any type.	The City has not and will not propose subdivision, in compliance with the CE, Consent Judgment, and EES.
14. *Grant of Rights.* The granting of any property interest or rights in the Protected Property, including easements, permits, licenses, and leases, without the prior written consent of the Grantee is prohibited.	The City has not granted, and does not intend to grant, any property interests or rights in the Protected Property. While the City periodically issues special use permits for events such as runs and walks that utilize the paved trail through MICA as part of their courses (Goal 6), these permits are temporary in nature and do not convey any property interest or rights to permit holders

Section C. Current Ecological Setting

16. Current Habitat Types and Conditions

The majority of MICA falls within two primary Oregon Conservation Strategy (OCS) habitat types: 1) flowing water and riparian (approximately 195 acres) and 2) wetlands (108.3 acres), with the remaining 2.8 acres consisting of built and developed areas, such as paved trails. Each habitat type is described in more detail below and depicted in **Figure 9**. Habitat boundaries are approximate and were determined based on aerial imagery, the best available data, and limited field observations conducted in November 2024.

FLOWING WATER AND RIPARIAN HABITAT – 195 ACRES

According to the OCS, flowing water and riparian habitats encompass naturally occurring freshwater streams, rivers, and their adjacent riparian zones. MICA lies entirely within the Willamette River floodway and includes approximately 1.2 miles of mainstem Willamette River shoreline and 1.4 miles of Willamette Slough shoreline. This positioning makes flowing water and riparian habitat the predominant habitat type across MICA, covering approximately 195 acres. This habitat is characterized by ecological zones such as riparian forest, flowing water and shoreline, riparian meadows, transitional riparian restoration zones, and degraded riparian habitats associated with plantations and invasive species monocultures. Shaped by seasonal flooding, scour, and soil deposition, these habitats play a critical role in supporting biodiversity and maintaining ecological functions.

Riparian habitats provide essential services such as buffering nutrient input, stabilizing riverbanks, and promoting species diversity. The unique plant communities across MICA have been influenced by their elevation, proximity to the river and slough, frequency of disturbance events, and historical land uses. Healthy riparian vegetation contributes to shading, water filtration, and increased structural complexity within riverine systems. Protecting and enhancing these habitats is vital for numerous species, including at-risk salmonids, amphibians, reptiles, and invertebrates. These areas also serve as wildlife corridors for mammals, refuge habitat for fish during high flows, and provide critical wintering and nesting areas for birds.

- **Riparian Forest (78 acres)**
  Primarily located along the edges of MICA, the remaining intact riparian forests form a mosaic of forested wetlands and bottomland deciduous forests shaped by historical land use and natural processes (**Figure 10**). A former hazelnut (*Corylus americana*) orchard, initially planted before 1954 on about 6.3 acres, is also included as riparian forest, as it has been transitioning through natural successional processes over decades. Black cottonwood (*Populus trichocarpa*) now dominates this area, aligning with the broader forest composition across MICA. Understory invasive species, particularly English ivy (*Hedera* helix), have been treated as part of the West Forest

(Phase 3) restoration project, and this formerly distinct hazelnut orchard is largely indistinguishable from the surrounding riparian forest.

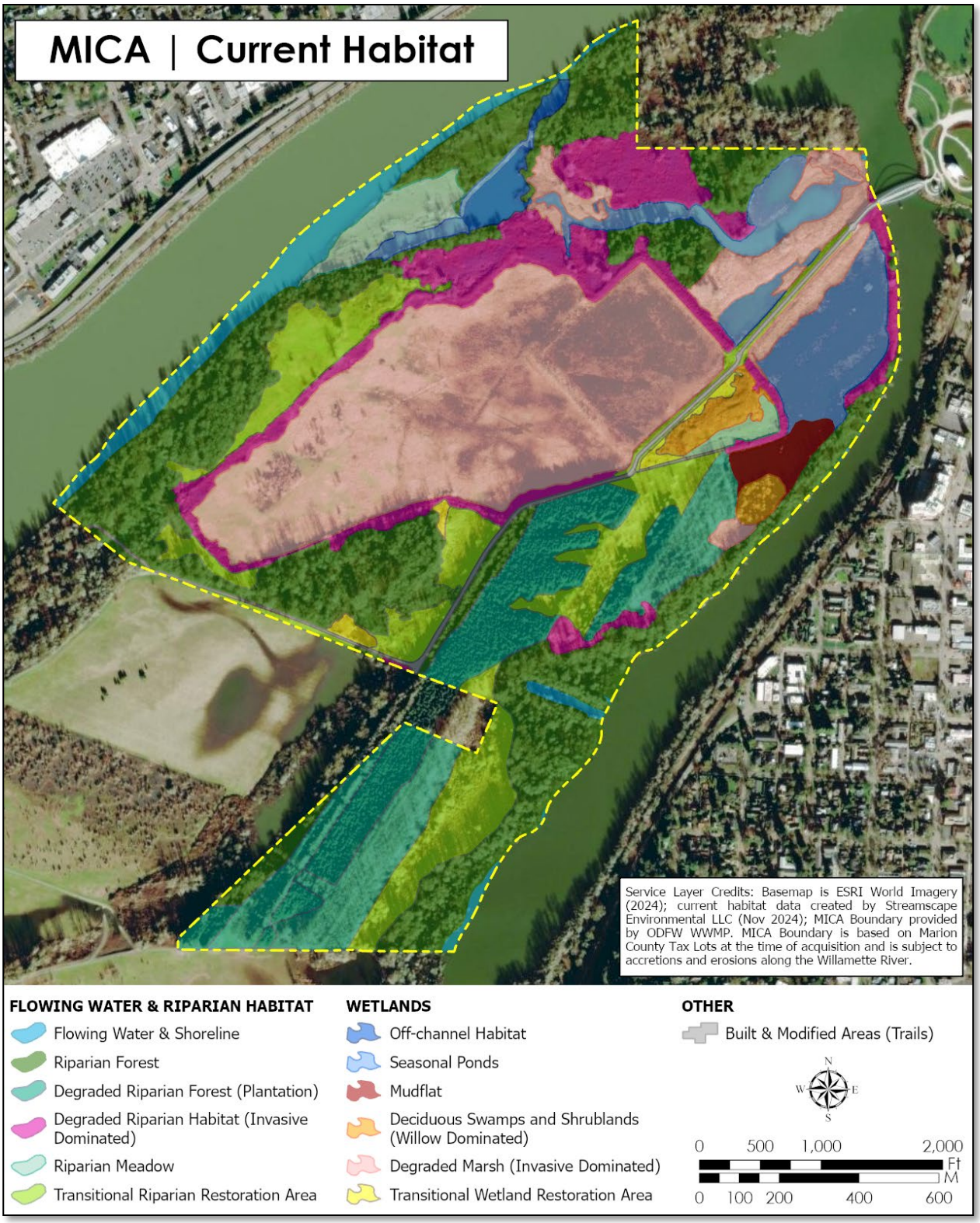

Figure 9. Current Habitat Distribution Map

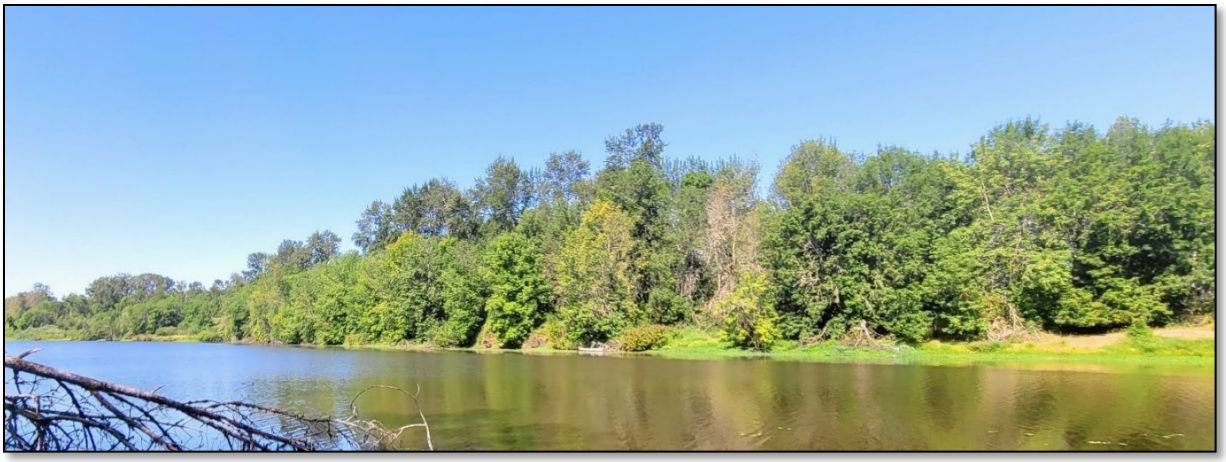

Figure 10. Photograph of Riparian Forest Along the Eastern Edge of MICA

MICA's riparian forests offer a multilayered canopy that provides critical foraging, nesting, resting, and wintering habitats for diverse wildlife species, supports diverse insect communities, and helps stabilize the riverbanks. The dominant native overstory includes black cottonwood and Oregon ash, with bigleaf maple (*Acer macrophyllum*), red alder (*Alnus rubra*), Pacific willow (*Salix lucida*), Scouler's willow (*S. scouleriana*), cascara (*Frangula purshiana*), black hawthorn (*Crataegus douglasii*), and western red cedar (*Thuja plicata*) occurring at lower densities. Common shrubs include red-osier dogwood (*Cornus sericea*), vine maple (*Acer circinatum*), salal (*Gaultheria shallon*), Douglas' spiraea (*Spiraea douglasii*), Nootka rose (*Rosa nutkana*), clustered rose (*R. pisocarpa*), Pacific ninebark (*Physocarpus capitatus*), common snowberry (*Symphoricarpos albus*), and tall Oregon grape (*Mahonia aquifolium*), among others. Non-native and invasive species, such as Himalayan blackberry and English ivy, are present but are suppressed by the dense canopy in some areas and occur at lower densities than elsewhere in MICA. Riparian forest habitats support diverse wildlife, including migratory and nesting songbirds, hawks, and owls. Trees contribute large woody debris to the river and slough, create nesting habitat for birds and bats, and provide shelter for mammals. Forested wetlands also offer breeding sites for amphibians like northern red-legged frogs (*Rana aurora*) and native turtles. However, these forests have been fragmented by past land use and now cover only 78.1 acres of the site, with approximately 50.6 acres classified as forested wetland.

- **Degraded Riparian Forest (formerly "Forest Plantations"; 39 acres)**
  The Douglas fir and hybrid poplar plantations, established in the late 1980s, provide valuable wildlife habitat despite being non-native to riparian zones of the Willamette Valley (**Figure 11**). Salem Audubon Society surveys in the past two years have documented a rich diversity of bird species utilizing these areas, including Pacific wren (*Troglodytes pacificus*), pileated woodpecker (*Dryocopus pileatus*), hairy woodpecker (*Picoides villosus*), dark-eyed junco (*Junco hyemalis*), Bewick's wren (*Thryomanes bewickii*), black-capped chickadee (*Selasphorus rufus*), purple finch

(*Haemorhous purpureus*), pine siskin (*Spinus pinus*), Cooper's hawk (*Astur cooperii*), and turkey vulture (*Cathartes aura*). High concentrations of birds, such as American robins (*Turdus migratorius*), black-throated gray warblers (*Setophaga nigrescens*), Swainson's thrush (*Catharus ustulatus*), black-headed grosbeak (*Pheucticus melanocephalus*), warbling vireo (*Vireo gilvus*), California scrub-Jay *(Aphelocoma californica*), song sparrow (*Melospiza melodia*), Wilson's warbler (*Cardellina pusilla*), lesser goldfinch (*Spinus psaltria*), spotted towhee (*Pipilo maculatus*), and house finch (*Haemorhous mexicanus*), are particularly common along forest edges and gaps, where understory growth is denser.

Figure 11. Photographs of Forest Plantations, showing Douglas fir plantation (left) and the more open hybrid poplar plantation (right)

The Douglas fir plantation features a dense canopy, limiting light penetration and resulting in a sparse understory dominated by western swordfern (*Polystichum munitum*), common horsetail (*Equisetum arvense*), alder (*Alnus rubra*), and red elderberry (*Sambucus racemosa*) near its edges. The closely spaced trees create a shaded, tranquil environment that offers cover and shelter for birds and various wildlife. The density of this plantation effectively precludes the establishment and invasion of invasive plants such as Himalayan blackberry and reed canarygrass, which are dominant in other parts of MICA. As the stand remains healthy, natural self-thinning is expected to occur over time, gradually opening the canopy.

In contrast, the hybrid poplar plantation has a more open canopy, which supports a varied understory of native and non-native grasses, forbs, and shrubs. This openness contributes to greater habitat complexity, supporting diverse wildlife activity. While reed canarygrass is prevalent in the understory, the plantation's structure helps suppress other invasive species. The combination of dense poplar trunks, lighter canopy cover, and diverse groundcover provides unique ecological value, particularly for birds and other wildlife at different levels of the forest. With time and potential targeted interventions, these areas could gradually transition into a more natural riparian forest.

- **Transitional Riparian Restoration Areas (33 acres)**
  These areas have undergone and/or are undergoing active restoration and have not yet reached a fully functional native riparian habitat state. These areas have been part of larger floodplain restoration projects, such as the West Forest (Phase 3) and South Forest (Phase 1) restoration efforts, with a focus on invasive species control and re-establishing native vegetation. The West Forest restoration, initiated in 2019 and continuing through 2029, aims to enhance and expand riparian floodplain forest and seasonally inundated wetland habitats across 48 acres along the Willamette River. Efforts have centered on removing invasive species, such as Himalayan blackberry and reed canarygrass, and planting thousands of native bareroot trees and shrubs. While notable progress has been made, continued intervention is necessary in some areas to ensure native vegetation establishes fully and outcompetes newly emerging invasive species.

  The South Forest restoration (2016-2020) focused on removing invasive species and establishing native plants across 103.5 acres of floodplain adjacent to the Willamette Slough. While much of the area has transitioned to native habitat, select portions remain within the transitional riparian restoration unit due to past dense blackberry thickets. Following blackberry removal, other invasives, such as reed canarygrass, have emerged. Native plantings are still maturing to a size that can provide shade and suppress these invasives, facilitating the development of a continuous riparian forest or shrubland habitat (**Figure 12**). Some periodic maintenance would be beneficial to support this transition.

Figure 12. Photograph of Transitional Riparian Restoration Area (Phase 1 Restoration Area), now undergoing natural succession with a mix of native and invasive vegetation.

Overall, the transitional riparian restoration areas represent a dynamic process of ecological recovery. In some areas, native vegetation has been successfully established and can effectively compete with invasive species. In others, further intervention and maintenance are still needed to achieve the desired habitat conditions.

- **Degraded Riparian Habitat (formerly "Blackberry Thicket"; 28 acres)**
  Blackberry thickets dominate previously cleared or disturbed non-wetland areas of MICA that have not undergone restoration (**Figure 13**). Nearly all of the manmade berms—once used to contain water in wastewater ponds and serve as roads during mill operations—are now covered by dense blackberry growth, often exceeding 10 feet in height. This extensive coverage restricts access along the tops of the berms, except for the paved trail, and obstructs visibility from regularly patrolled and publicly used trails, complicating efforts to detect trespass or illegal use of the site. The dense growth prevents the establishment of most native plants, with wild cucumber (*Marah oregana*) being a rare exception. However, it provides fruit, insects, nesting sites, and protective cover for various bird species, including resident song sparrows, spotted towhees, Bewick's wrens, and common yellowthroats (*Geothlypis trichas*), as well as wintering species like golden-crowned sparrows (*Zonotrichia atricapilla*), fox sparrows (*Passerella iliaca*), and Lincoln's sparrows (*Melospiza lincolnii*).

  Due to past land-use disturbances, blackberry thickets became widespread, but restoration efforts over the past 10 years, particularly under the Phase 1 and Phase 3 Restoration Projects, have significantly reduced their extent. Approximately 20 acres of Himalayan blackberry have been removed, and the areas are transitioning to native habitats. However, with 28.2 acres of blackberry remaining on the property, there is a significant risk of reinfestation. Continued maintenance will be essential to ensure newly planted native trees and shrubs can mature and outcompete invasive species, enhancing habitat quality and supporting ecological balance across the site.

Figure 13. Photograph of Himalayan blackberry thickets covering a berm. The person in the foreground illustrates the scale of the growth, which poses challenges for site management and restoration.

- **Flowing Water & Shoreline (11 acres)**
  This habitat is directly shaped by the hydrology of the Willamette River and Willamette Slough, undergoing frequent flooding and seasonal water level changes. During high water, portions of the river and slough extend into this habitat, while lower flows expose gravel and sand bars, creating a constantly shifting landscape. The MICA property boundary is legally described as "subject to accretions and erosions along the banks of the Willamette River and Slough," reflecting how these areas evolve as the river moves, erodes, or builds up the banks. As water levels recede, these areas transform into shorelines, aligning with their designation as flowing water and shoreline habitat. Larger vegetation is limited due to the instability of the substrate, but pioneer species, such as willows, may establish in higher, more stable zones. This habitat provides nesting grounds for birds like killdeer (*Charadrius vociferus*), critical rearing areas for juvenile fish, and foraging sites for waterfowl. This habitat is particularly vital in the spring, serving as a crucial rearing area for downstream juvenile Chinook salmon and steelhead. As highlighted in Hansen et al. (2023), these areas support the developmental stages of these species by offering shelter and abundant food resources critical for their growth before they transition to the ocean.

- **Riparian Meadow (formerly "Upland Meadow"; 6 acres)**
  Riparian meadows within MICA are located on riparian terraces, serving as transitional zones between aquatic and upland habitats and supporting a diverse mix of plant and animal life. These areas are strongly influenced by periodic flooding, shaping their soil composition, plant species assemblages, and overall ecological character. The larger riparian meadow, approximately 4.7 acres, lies on the western side of the property, bordered by the Willamette River to the west, riparian forest to the north and south, and off-channel habitat to the east. Access to this meadow is limited, and a site visit was not feasible during this plan update. Observations from aerial imagery and views from across the river suggest a mix of native and non-native grasses and forbs, scattered shrubs, and occasional Oregon ash and black cottonwood trees, with large driftwood and flood debris commonly present.
  A smaller area mapped as riparian meadow, approximately 1.3 acres, is located on the eastern side of the property. This area is bordered by willow-dominated wetlands to the west, blackberry thickets to the north and east, and a transitional riparian restoration area to the south. It is characterized by dominant vegetation of non-native grasses and forbs, a lack of wetland habitat characteristics (hydric soils, hydrophytic vegetation, and active hydrology), and its position within the floodway of the Willamette River. Historically used for industrial purposes, this site has buried solids beneath the surface, and its soil characteristics may be more influenced by human activities and past disturbances than by the river. However, due to its potential to function as a riparian meadow, it has been mapped as such.

WETLANDS – (109.2 ACRES)

Wetlands on the property are estimated to total 109.2 acres, not including forested wetlands in the flowing water and riparian habitat type, based on a comprehensive wetland assessment conducted in support of the 2015 land management plan. The diversity of wetland types contained within this 307-acre property reflects the complexity of this ecosystem, where different habitat types exist in close proximity or share the same physical space.

- **Degraded Marsh (formerly "Reed canarygrass"; 76.5 acres)**
  Approximately 76.5 acres of the Conservation Area's marshes are dominated by dense monocultures of invasive reed canarygrass, a facultative wetland species that indicates likely wetland conditions in these areas (**Figure 14**). Healthy marshes are typically seasonally or continually flooded and support a diverse range of water-adapted plants, such as sedges (*Carex spp.*), bulrushes (*Scirpus spp.*, *Schoenoplectus spp.*), spikesedges (*Eleocharis spp.*), rushes (*Juncus spp.*), cattails (*Typha spp.*), and floating vegetation. Marshes often have mucky soils with high mineral content, resulting in vegetation dominated by herbaceous species. In MICA these marshlands are highly degraded, consisting primarily of reed canarygrass stands reaching heights of 5 to 9 feet. This invasive plant has significantly altered the hydrology of the marshes by accumulating biomass that reduces water infiltration and retention, thereby limiting water availability for native plants and disrupting natural water flow patterns. Its dominance suppresses native vegetation and the natural ponding of water, further diminishing the overall ecological value and habitat diversity within these areas.

Figure 14. Aerial view of seasonal ponds and degraded marsh

- **Seasonal Ponds (21 acres)**
  MICA's seasonal ponds hold water during the winter and spring, providing important habitat for wintering waterfowl that are attracted to these areas for loafing, roosting, and respite from the Willamette River's current. The emergent vegetation offers additional foraging opportunities for these species. However, these ponds typically dry up during the late spring and summer months and are encroached by invasive reed canary grass, which poses challenges for maintaining open water, native vegetation, and habitat diversity.

- **Deciduous Swamps and Shrublands (4 acres)**
  Dominated by woody vegetation with seasonal ponding, deciduous swamps and shrublands in MICA are located in depressions and on river terraces. They generally flood seasonally with nutrient-rich waters and are dominated by willows with some areas also including Douglas spirea, alder, red osier dogwood, Pacific crabapple (*Malus fusca*), and ash (**Figure 15**).

Figure 15. Photograph of a willow swamp (October 2024)

- **Mudflat (3 acres)**
  The mudflat area within MICA is sparsely vegetated, likely due to prolonged periods of deep-water inundation that exceed the tolerance of most plant species. This cyclical pattern of flooding and drying prevents the establishment of dense vegetation, leaving exposed sediment during drier months (**Figure 16**). These conditions offer crucial resources for foraging shorebirds, while periods of higher water levels create valuable aquatic habitat for wintering waterfowl and turtles.

  These mudflats in MICA, with their exposed sediment and minimal vegetation during drier months, could also potentially serve as nesting sites for the streaked horned lark

Figure 16. Photograph of mudflat (October 2024)

(*Eremophila alpestris strigata*), a species listed as Threatened under the Federal Endangered Species Act. This bird typically nests in open areas similar to the conditions found here and would likely find ample foraging resources and minimal human disturbance in this setting. However, the viability of these mudflats as a nesting area is primarily contingent upon the timing of water levels receding, which needs to coincide with the lark's breeding season from late March to July.

- **Off-Channel Habitat (North Pond & Alcove - 3 acres)**
  Located in the northwest corner of MICA, the North Pond and connected alcove contribute to Critical Habitat for salmonid species, including spring-run Chinook salmon, winter steelhead, and cutthroat trout. Surrounded by a multi-layered deciduous forest canopy of black cottonwood, willow, and Oregon ash with an understory dominated by reed canarygrass, this habitat historically supported native turtles, river otters (*Lontra canadensis*), beavers (*Castor canadensis*), and bird species like belted kingfisher (*Megaceryle alcyon*), green heron (*Butorides virescens*), and waterfowl that use the pond for loafing, roosting, and shelter. During high flows, the area connects to seasonally flooded wetlands and sloughs, enhancing its ecological connectivity. This area is less accessible, making consistent documentation challenging; however, recent observations indicate encroachment by Himalayan blackberry.

- **Transitional Wetland Restoration Areas (1.7 acres)**
  Transitional wetland restoration areas in MICA are currently associated with the West Forest (Phase 3) Restoration Project. These areas are characterized by previously disturbed or degraded wetlands that had become overgrown with dense stands of reed canarygrass before undergoing five years of repeated treatment to reduce

invasive cover and have been planted with native wetland shrubs. The invasive reed canarygrass had formed extensive mats that choked out native vegetation, and although significant efforts have been made, the growth of the newly planted native shrubs has been slow, and these areas cannot yet be said to have transitioned to native deciduous swamps and shrublands habitat. In 2024, the City was awarded a new grant from OWEB to continue restoration work in the West Forest Restoration Area, and as such these areas will undergo five more years of treatment and additional planting.

OTHER HABITAT TYPES (NON-OCS STRATEGY CLASSIFICATIONS)

Built & Modified Areas (i.e. developed trails and trail infrastructure) – 2.8 Acres

The Built & Modified Areas cover approximately 2.8 acres and include paved trails designed to concentrate foot traffic and minimize recreational impacts on sensitive habitats (**Figure 17**). An unpaved path, likely a remnant of the site's industrial era, remains heavily compacted, preventing vegetation growth. While these areas provide essential access, they offer limited ecological value due to their altered, non-vegetated state.

Figure 17. Photograph of the paved path and benches in MICA

17. Special Status Species

At least 53 special status species have been confirmed or have the potential to inhabit the property, either currently or as restoration efforts progress. These species are relevant to the Conservation Values due to their designation under various statuses, including USFWS Birds of Conservation Concern, Oregon Conservation Strategy Species, Federal Threatened or Endangered, State Listed Threatened or Endangered, CE Focal Species, State Sensitive Species, Federal Species of Concern, and those protected under the Bald and Golden Eagle Protection Act. The property supports or will support the habitat needs of these species as outlined in this land management plan.

MICA is located within the region designated as Critical Habitat for spring Chinook salmon and winter steelhead, as outlined in § 226.212 of the Endangered Species Act. This

designation includes stream channels and their lateral extents up to the ordinary high-water line or bankfull elevation[2]. Accordingly, areas mapped as flowing water and shoreline and off-channel habitat in the current habitat map (**Figure 9**) are integral components of this Critical Habitat, supporting essential ecological functions for these species.

Table 4. Special Status, OCS Strategy, and Conservation Area Focal Species

***BCC** = USFWS Bird of Conservation Concern; **OCS** = Oregon Conservation Strategy Species; **FTE** = Federal Threatened or Endangered; **STE** = State Listed Threatened or Endangered; **CE** = Conservation Easement Focal Species; **SS** = State Sensitive; **FSC** = Federal Species of Concern; **BGEPA** = Bald and Golden Eagle Protection Act*

Common Name	Scientific Name	Status	Occurrence Potential
AMPHIBIANS			
Clouded Salamander	*Aneides ferreus*	SS; OCS	May occur in riparian forest habitat utilizing microhabitats such as decaying logs.
Northern red-legged frog	*Rana aurora*	CE; SS; OCS	May occur in aquatic and semi-aquatic habitats.
Oregon Slender Salamander	*Batrachoseps wrighti*	SS; OCS	May occur in mature riparian forests.
BIRDS			
Acorn Woodpecker	*Melanerpes formicivorus*	FSC; SS; OCS; CE	May occur occasionally in riparian forests utilizing dead limbs or snags for storing acorns.
Bald Eagle	*Haliaeetus leucocephalus*	BGEPA; CE	Known to occur. Eagles nest to north of site on Audubon property and to the south in MBIP.
Black Swift	*Cypseloides niger*	BCC; SS; OCS	Unlikely to occur except for occasional foraging, as their primary habitat requirements, such as nesting sites near waterfalls or cliffs, are not present in this area.
California Gull	*Larus californicus*	BCC	Unlikely to occur except for occasional foraging or resting in open aquatic or floodplain habitats.
Cassin's Finch	*Haemorhous cassinii*	BCC	Unlikely to occur due to lack of suitable habitat.
Chipping Sparrow	*Spizella passerina*	SS; OCS	Known to occur. Documented via eBird and likely to use forested areas, open habitats, and edges between these zones.

[2] Under federal regulations, critical habitat boundaries extend to the ordinary high-water line or, where undefined, the bankfull elevation, which is the level at which water spills into the floodplain, typically occurring every 1 to 2 years (33 CFR 319.11; 70 FR 52630). This includes stream channels and adjacent areas, ensuring the protection of habitats essential for species like spring Chinook salmon and winter steelhead.

Common Name	Scientific Name	Status	Occurrence Potential
Clark's Grebe	*Aechmophorus clarkii*	BCC	Unlikely to occur in MICA. May occasionally utilize Willamette Slough for foraging, especially during migration or periods of food scarcity elsewhere.
Common Nighthawk	*Chordeiles minor*	SS; OCS	May occur. Potential foraging habitat is present in open areas, such as riparian meadows, along flowing water, and at edges of riparian shrublands where insects are abundant.
Dusky Canada Goose	*Branta canadensis occidentalis*	SS; OCS; CE	May occur in open water areas during the winter and migration periods, utilizing riparian meadows, wetlands, and seasonally flooded areas for foraging and resting.
Grasshopper Sparrow	*Ammodramus savannarum*	SS; OCS	Unlikely to occur due to lack of suitable habitat (i.e. open grasslands and prairies).
Great Blue Heron	*Ardea herodias*	CE	Known to occur. Herons are regularly observed on the property.
Great Egret	*Ardea alba*	CE	Likely to occur year-round, using wetlands, marshes, riparian meadows, and seasonally flooded areas.
Lesser Yellowlegs	*Tringa flavipes*	BCC	May occur in MICA as fall migrants, utilizing shallow pools, water adjacent to mudflats, or seasonally flooded fields for foraging.
Little willow flycatcher	*Empidonax traillii brewsteri*	FSC; SS; OCS; CE	May occur in riparian shrublands or wetland edges with dense thickets of willows or other shrubs.
Olive-sided Flycatcher	*Contopus cooperi*	FSC; SS; OCS	May occur in forested areas at MICA, particularly at edges or openings with tall, prominent trees or snags used for perching and foraging.
Oregon Vesper Sparrow	*Pooecetes gramineus affinis*	BCC; FSC; SS; OCS	Unlikely to occur due to preference for grasslands with high structural diversity, which are not present in MICA.
Osprey	*Pandion haliaetus*	CE	Known to nest on and in vicinity of MICA. Frequently seen near the Willamette River, Willamette Slough, and other open water areas, where they forage for fish and perch or nest in tall trees along riparian edges.
Pileated Woodpecker	*Dryocopus pileatus*	OCS	May occur in riparian and plantation forests with large trees or snags for foraging and nesting.
Purple Martin	*Progne subis*	FSC; SS; OCS	May occur, particularly in older riparian forests along the Willamette River and Willamette Slough, where cavities in large trees and snags may provide nesting sites and open water offers foraging opportunities.
Rufous Hummingbird	*Selasphorus rufus*	BCC	Likely to occur, particularly in riparian forests, shrublands, and meadows for foraging during migration and potentially for nesting if suitable flowering plants and nesting sites are available.
Short-Eared Owl	*Asio flammeus*	SS; OCS	Unlikely to occur regularly in MICA but may occasionally use riparian meadows or marshes for foraging during winter or migration if suitable prey and open conditions are present.
Streaked horned lark	*Eremophila alpestris strigata*	FTE; SS; OCS	May occur in MICA if conditions align. Mudflats may provide suitable nesting habitat if water levels recede early enough to overlap with the breeding season (late March–July).
Western Bluebird	*Sialia mexicana*	SS; OCS; CE	Known to occur based on eBird records. Likely to occur in riparian meadows and forest edges, where open areas provide foraging opportunities and nearby trees or snags offer potential nesting sites.

Common Name	Scientific Name	Status	Occurrence Potential
Western Grebe	*Aechmophorus occidentalis*	BCC	Unlikely to occur regularly in MICA but may utilize the Willamette River or Willamette Slough for foraging during migration.
Western Gull	*Larus occidentalis*	BCC	May occur occasionally, especially near the river or slough, during dispersal or migration
Western Meadowlark	*Sturnella neglecta*	SS; OCS; CE	Unlikely to occur due to the absence of large contiguous grassland areas with appropriate vegetation structure.
Western Screech-owl	*Megascops kennicottiicardonensis*	BCC*	Likely to occur in MICA year-round, particularly in riparian forests and other wooded areas with a mix of dense cover and open hunting spaces.
White-breasted Nuthatch (slender billed)	*Sitta carolinensis aculeata*	SS; OCS	Likely to occur, especially in areas with mature, open forests or along forest edges with accessible tree cavities and diverse foraging opportunities.
Wrentit	*Chamaea fasciata*	BCC	May occur, especially in areas of dense, shrubland or bushy vegetation, such as in the dense Himalayan blackberry thickets.
Yellow-breasted Chat	*Icteria virens auricollis*	FSC; SS; OCS	Known to occur based on eBird records. Likely to occur in riparian shrublands or dense thickets along wetland and forest edges.
FISH			
Spring-run Chinook salmon (Upper Willamette River ESU)	*Oncorhynchus tshawytscha*	FTE; SS; OCS; CE	Known to occur in aquatic habitats on and adjacent to the site.
Coastal cutthroat trout	*Oncorhynchus clarki clarki*	FSC; SS; OCS; CE	Known to occur in aquatic habitats on and adjacent to the site.
Pacific lamprey	*Entosphenus tridentatus*	FSC; SS; OCS; CE	Known to occur in aquatic habitats on and adjacent to the site.
Western brook lamprey	*Lampetra richardsoni*	SS; OCS	May occur in aquatic habitats.
Winter steelhead (Upper Willamette River DPS)	*Oncorhynchus mykiss*	FTE; SS; OCS; CE	Known to occur in aquatic habitats on and adjacent to the site.
MAMMALS			
California Myotis	*Myotis californicus*	SS; OCS	Likely to occur in riparian forests, open areas, wetlands, and plantations, roosting in snags and foraging over water/edges.
Fringed Myotis	*Myotis thysanodes*	FSC; SS; OCS	May occur in riparian forests and shrublands, wetlands, and plantations, roosting in cavities/snags and foraging near water.
Hoary Bat	*Lasiurus cinereus*	FSC; SS; OCS	May occur seasonally in riparian forests, wetlands, open areas, and plantations.
Silver-haired Bat	*Lasionycteris noctivagans*	FSC; SS; OCS	Likely to occur in riparian forests, wetlands, open areas, and plantations, roosting in cavities/snags and foraging near water.

Common Name	Scientific Name	Status	Occurrence Potential
Western Gray Squirrel	*Sciurus griseus*	SS; OCS	Likely to occur in riparian forests, plantations, and edges, nesting in trees and foraging on seeds/nuts.
PLANTS			
Bradshaw's Desert Parsley	*Lomatium bradshawii*	FTE-Delisted; STE; OCS	Unlikely to occur until suitable habitat is restored.
Kincaid's Lupine	*Lupinus sulphureus ssp. Kincaidii*	FTE; STE; OCS	Unlikely to occur due to lack of suitable habitat.
Nelson's Checkermallow	*Sidalcea nelsoniana*	FTE-Delisted; STE; OCS	May occur in riparian areas with periodic disturbance and low competition by invasive plants.
Peacock Larkspur	*Delphinium pavonaceum*	FSC; STE; OCS	Unlikely to occur until suitable habitat is restored.
White-topped Aster	*Sericocarpus rigidus*	FSC; STE; OCS	Unlikely to occur due to lack of prairie habitats and high invasive plant pressure.
Willamette Daisy	*Erigeron decumbens*	FTE; STE; OCS	Unlikely to occur until suitable habitat is restored.
REPTILES			
Western pond turtle	*Actinemys marmorata*	Proposed FTE; SS-Critical; OCS; CE	Likely to occur, especially after suitable habitat is restored. Previously documented on the site.
Western painted turtle	*Chrysemys picta*	SS; OCS; CE	Likely to occur, especially after suitable habitat is restored. Observed in vicinity of site.
INVERTEBRATES			
Fender's Blue Butterfly	*Icaricia icarioides fenderi*	FTE; OCS	Unlikely to occur without Kincaid's lupine, its host plant, which is also unlikely to be present.
Monarch Butterfly	*Danaus plexippus*	FTE-Candidate; OCS	Unlikely to occur at present due to lack of documented observation in this area for decades. If populations rebound and Monarchs begin migrating through Salem, MICA's riparian forests would provide suitable habitat.

18. Invasive Species

MICA faces pervasive challenges from invasive plant species due to its industrial past, location near waterways, and unintentional seed transport by wind, wildlife, and human activity. Himalayan blackberry and reed canarygrass are the most dominant invasives, forming extensive monocultures that suppress native biodiversity, particularly in disturbed riparian areas, man-made berms, and low-lying wet habitats (**Figure 18**). Other invasive species, such as tansy ragwort (*Tanacetum vulgare*), Clematis (*Clematis* spp.), poison hemlock (*Conium maculatum*), teasel (*Dipsacus fullonum*), bull thistle (*Cirsium vulgare*), Canada thistle (*Cirsium arvense*), English hawthorn (*Crataegus monogyna*), and invasive cherry species (*Prunus* spp.), often emerge as secondary invaders following initial invasive plant removal, complicating restoration efforts. English ivy is prevalent in forested areas, climbing trees and smothering native vegetation, posing a significant threat to forest structure. Aquatic invasives like *Ludwigia* were once widespread along the Willamette Slough but have been significantly reduced through targeted efforts over the past four years.

Managing invasive species in MICA is complicated by the extensive seed bank, altered hydrology, access limitations, and challenging soil conditions in former industrial areas. Invasive plants are addressed through a phased restoration approach, integrating treatment with planting and seeding of native vegetation, and targeted efforts to establish native buffers such as the alcove and North Pond. Additional salmonid refugia is found in a remnant channel that connects to the Willamette Slough during high water events, providing refugia when the northern portion of MICA is inundated. Native turtles have also been observed in the remnant channel, the Willamette Slough and the North Pond.

Various restoration actions to restore or improve hydrology within the Conservation Area have been proposed. Before planning and designing occurs for any such actions, additional studies will be needed. For instance, before attempting to restore connectivity of the remnant channel, a study is needed to investigate the hydrologic and hydraulic effects of increasing the connectivity and complexity of the channel. This study should assess potential impacts on the abutments of the pedestrian bridge, the risk of providing habitat for non-native fish, and any possible negative impacts on existing native turtle habitat.

Another potential future restoration action involves breaching some of the berms to provide higher water levels in the marshes and mudflat habitat areas. Increased water levels in these areas could reduce reed canarygrass cover if water depths are raised to over 12 inches throughout the growing season, preventing seed germination and killing rhizomes. However, limited data is available regarding contamination in the soils of the former industrial lagoons, and additional soil information, along with a study of the hydrologic effects of removing the berms, is necessary to ensure the removal does not scour the soil surface of the lagoons.

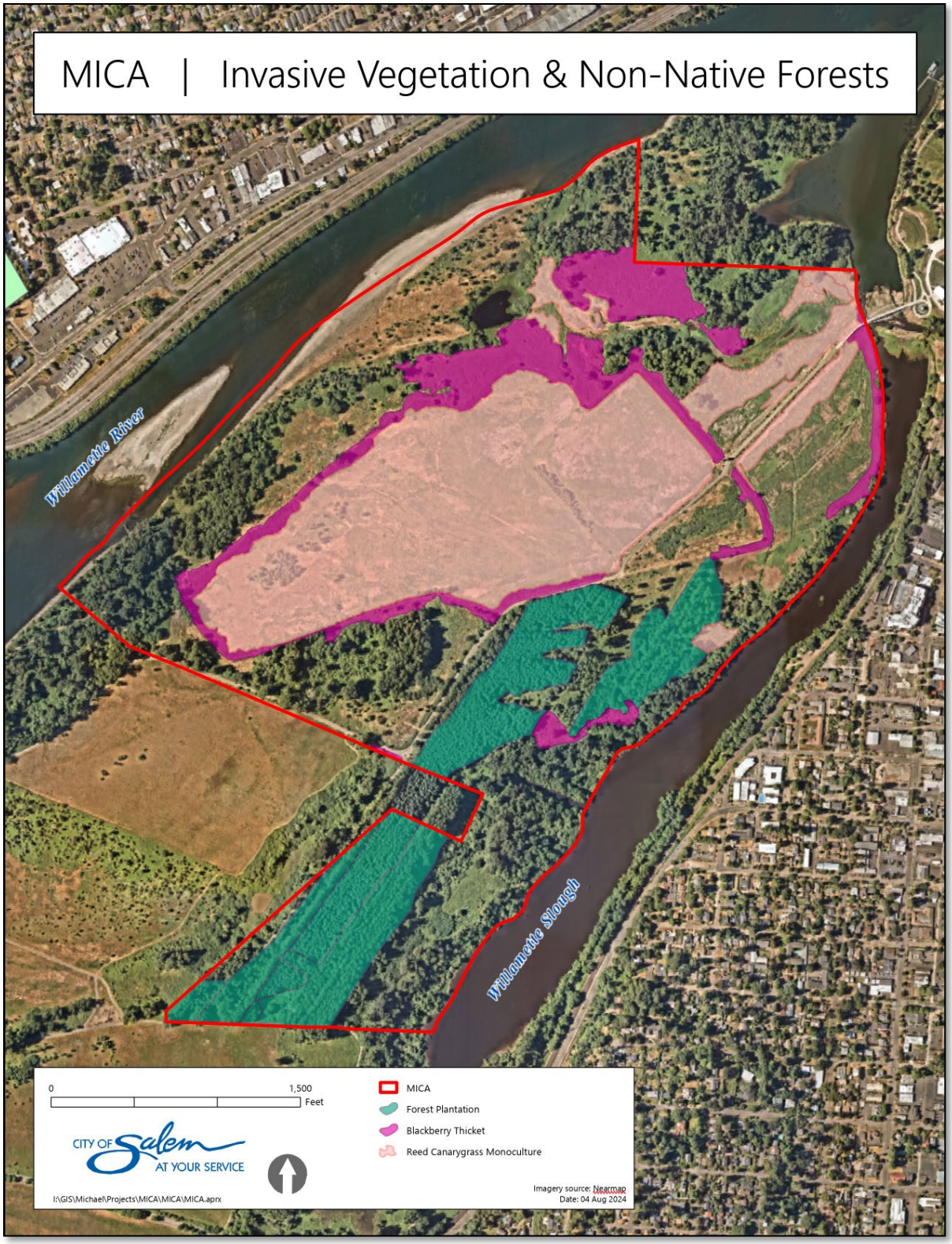

Figure 18. Invasive & Non-Native Habitats Map, showing approximate distribution of monocultures of reed canarygrass and Himalayan blackberry, as well as forest plantations.

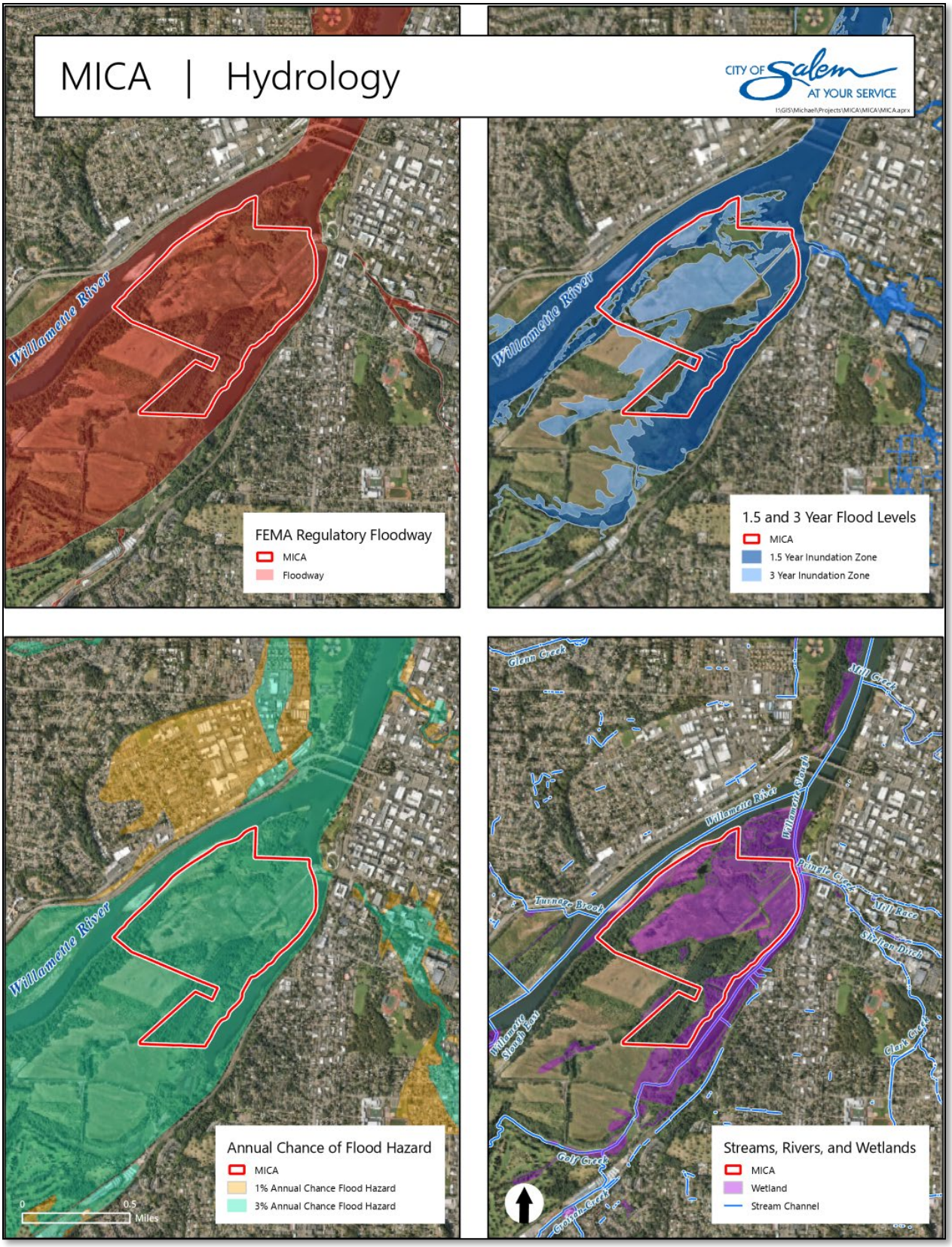

Figure 19. Hydrology Map

19. Soil Types

The diverse soil composition across MICA plays a critical role in shaping property management and guiding restoration strategies to achieve DFCs. The seven distinct soil types identified by the NRCS Soil Survey for Marion County in the project area vary in characteristics such as water retention, drainage capacity, and erosion susceptibility, which influence water holding capacity, seasonal ponding, and the functionality of off-channel habitats (**Figure 20**). These attributes guide the selection of native species based on their moisture needs, flood tolerance, and soil stability requirements, ultimately supporting diverse wetland and aquatic ecosystems.

Past industrial and agricultural uses of the property have further influenced soil characteristics, changing them completely in some areas and making county soil mapping less reliable for MICA. Two capped landfill areas, sealed with clean soil in 1985 following industrial site closure, present unique management considerations due to limitations on soil disturbances and altered conditions.

MICA also contains other previously industrial sites, including the 50- and 100-MG lagoons. Years of artificially ponded water and the settling of mill processing materials have likely influenced soil composition in these areas, potentially altering nutrient levels and other soil characteristics. As a result, county soil mapping is unlikely to accurately reflect the current soil conditions within the lagoons, necessitating specialized management and restoration approaches.

The berms surrounding these lagoons are composed of non-natural soils, which pose significant challenges for vegetation establishment. These berms often support dominant species such as blackberry due to poor soil conditions, while reed canarygrass dominates the lagoon and pond bottoms. Tailored management strategies are required to overcome these challenges and promote the establishment of native vegetation.

Figure 20. Soils Map, NRCS Web Soil Survey, 2023

20. Fire History or Planned Burns

There is no documented recent history of fire within MICA. However, the City has considered the potential use of controlled ecological burns as an alternative or supplement to chemical and mechanical treatments for managing invasive species, such as reed canarygrass, and to promote the restoration and protection of biological diversity. Given MICA's proximity to downtown Salem and risks associated with potential soil contamination in the former landfills, buried solids area, and lagoons[3], the use of controlled burns within the Conservation Area remains unlikely. Before implementing controlled burns in remediated areas, comprehensive toxicity testing of both soils and plant materials would be essential to identify specific toxins present, determine their absorption by plant materials, and assess any byproducts that would be released during the burning process. However, controlled burns outside of remediated areas could be considered as part of future restoration strategies in consultation with tribal entities, the local fire department, DEQ, and other key stakeholders. Such burns may offer valuable opportunities for firefighter training and interagency coordination while aligning with traditional land management practices and enhancing tribal collaboration. Controlled burns can also support the long-term goals of creating a more resilient and diverse landscape within MICA.

21. Threats to Conservation Values

The most significant threat to the Conservation Values of MICA stems from the lasting impacts of past industrial uses. These uses have drastically reduced habitat quality, and widespread invasive plant cover has altered the habitat structure, preventing the establishment of new generations of native plants. Over the past decade, the City has implemented multiple restoration projects aimed at reversing these impacts, focusing on restoring native habitat in heavily degraded areas while protecting more intact habitats. These efforts, while effective, are resource-intensive and rely heavily on competitive grant funding.

As the City continues to assess the efficacy of various restoration practices, the aim is to refine strategies for future projects, making them more efficient and impactful. MICA holds significant potential for the restoration of native riparian forests and wetland habitats, and a key priority for habitat management over the period covered by this LMP will be the removal of major infestations of invasive plants that hinder restoration efforts and spread unwanted species.

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[3] Burning can be an effective method for toxic soil remediation, but risks vary based on the soil and plant substances. Using fire to break down toxins in the reed canarygrass zone could enhance soil quality more effectively than simply capping it. However, the success and safety of burning depend on the specific toxins involved. While burning may volatilize or degrade some chemicals absorbed by plant roots, improving soil health, it can also release absorbed heavy metals into the air or into runoff, creating health hazards. Additionally, burning may increase erosion potential the following winter, potentially compromising the stability of soil caps and affecting overall land integrity.

The second threat to MICA's Conservation Values comes from increasing public use pressures. Authorized public access is currently limited to the paved path, which helps contain the area affected by public use despite high visitor levels. However, the trail's connectivity to other popular parks and off-street trails has led to a rise in requests, applications, and inquiries for more frequent and, in some cases, larger special events. These requests have prompted the need to update this LMP and implement measures to identify and mitigate impacts. Steps include improved signage, introduction of special event fees (see Section 10 – Income-Generating Activities), establishment of a robust native plant buffer along the paved trail, and biological monitoring during events to assess their impacts. Enhanced communication between the City's Natural Resources staff and Parks and Recreation staff has also improved coordination and management of activities within MICA. Event restrictions are regularly reviewed and updated to ensure alignment with conservation priorities.

A third threat to MICA's Conservation Values comes from illicit activities such as illegal camping, littering, off-leash dogs, and off-trail use. Trash receptacles are positioned along the trail and are regularly maintained to reduce litter, and existing signage along the trail reminds visitors to remain on designated paths. Although illicit activities occur at relatively low frequency, City Park staff, Minto Park Patrol volunteers, and the City's Park Ranger regularly monitor the area to enforce rules and regulations, remove trash, educate visitors, and cite violators. All illegal camping is immediately reported to the Salem Police Department and the City's homelessness liaison, who promptly post eviction notices and initiate clean-up actions as swiftly as allowed under state and local regulations.

The majority of illicit activities occur in the Douglas fir plantation east of the paved trail and outside of the former industrial areas. Additional off-trail use sometimes occurs along a user-created footpath parallelling the Willamette River on the west side of the property, also outside of former industrial areas. To date, no illegal camping has been observed in the former industrial areas of MICA, likely due to the placement and design of the paved trail, which includes steep grades and elevated alignment that make these areas highly visible to trail users and less accessible for illicit use.

To address the challenges posed by such illicit activities, the City has increased patrols, installed signage, and blocked user-creator trails using large logs, brush, and a native plant hedgerow with a gate to continue to allow restoration crew access. Additional measures that may be employed moving forward include installation of more signs, additional native plant hedgerows with gates for restoration access points, and split-rail fence along the sides of trails to promote compliance while allowing for wildlife passage.

22. Temporary Agriculture, Grazing or Forestry Activity and Phase-out Plan

No temporary agriculture or grazing is planned, except for the potential goat grazing to control invasive weed species as discussed above. Temporary forestry activities will likely need to be utilized as temporary stabilization and restoration measures related to

restoration of forest plantations and in response to EAB and the associated mortality of Oregon ash.

Restoration of the forest plantations may require selective thinning of Douglas fir, hybrid poplar, and other plantation or non-native trees. This targeted action aims to transition monoculture stands into diverse, multi-layered riparian forests, enhancing habitat complexity and ecological resilience. While the CE generally prohibits the removal of non-noxious vegetation, this limited thinning is aligned with restoration goals and adheres to established management guidelines.

A comprehensive assessment of forest health and composition will guide the development of a Forest Management Plan, determining the extent and scope of thinning activities to ensure ecological benefits while minimizing impacts. Timber harvested from these plantations will most likely remain on-site and be used for habitat features, barriers to guide public use along established trails (such as fences), and creating passive structures that support public use, wildlife observation, and education within MICA and MBIP. If any timber is sold, the proceeds will be deposited into the MICA Stewardship Fund and reinvested into property management and restoration.

While EAB has been confirmed in Marion County, it has not yet been detected in Salem. However, its arrival in Salem is almost guaranteed to occur within the term of this plan. When EAB first arrives in a region, aggressive removal of infested ash trees is often essential to slow the spread of this highly invasive and destructive insect, which threatens to decimate 99% of ash trees regionwide. Sites such as MICA are also important in studying EAB spread along the Willamette River. In order to limit and slow the spread of EAB and associated ash tree mortality in Salem, removal of some native Oregon ash trees within MICA may be necessary. The exact actions that will need to be taken when EAB is detected in MICA will be dependent on the extent of infestation elsewhere in the City and direction from state and federal agencies (e.g. Oregon Department of Forestry, Oregon Department of Agriculture, U.S. Forest Service, etc.). Removal of infested trees may be necessary to maintain public safety and/or to slow the spread of the pest. Proactive underplanting in ash groves with other native trees and shrubs that are adapted to the site conditions can help to facilitate the transition of habitats once EAB does arrive. Future activities, including any necessary removal of trees such as Oregon ash affected by EAB, will prioritize ecological health and be conducted thoughtfully within CE guidelines.

23. Environmental Regulations

Actions proposed in this plan are subject to the following environmental regulations. The City will comply with all applicable federal, state, and local laws, regulations, and requirements related to management, restoration, and other work conducted in MICA. Jurisdictional regulations that may necessitate consultation, permitting, or reporting as part of MICA's management activities include:

- Cultural Resource Review:

    - *National Historic Preservation Act (Section 106)*, administered by the State Historic Preservation Office (SHPO)
    - *State Historic Preservation Law (ORS 358.635)*, overseen by SHPO
    - *Salem Revised Code (SRC) Chapter 230: Historic Preservation*, managed by the City

- Wetland and Waterway Permitting:
    - *Clean Water Act Section 404*, regulated by the U.S. Army Corps of Engineers (USACE)
    - *Oregon Removal-Fill Law (ORS 196.765-990)*, administered by the Oregon Department of State Lands
    - *Clean Water Act Section 401 Certification*, overseen by DEQ

- Former Industrial Areas Consultation:
    - *Consultation with DEQ is required for any earth-moving activities or changes in public use within the former industrial areas, as outlined in the EES and Consent Judgment agreements. This ensures adherence to protective measures for human health and the environment. Consultation with BPA is also required to ensure consistency with the CE.*

- Pesticide Use:
    - *Pesticide General Permit 2300-A*, issued by DEQ
    - *Oregon Pesticide Application and Reporting Guidelines*, regulated by the Oregon Department of Agriculture (ODA)
    - *City of Salem Integrated Pest Management Policy (APP 3.23)*

- Endangered Species:
    - *Endangered Species Act Section 7 Consultation*, involving the USFWS and the National Marine Fisheries Service (NMFS)
    - *Listed Plant Permits*, issued by ODA

- Fish Passage:
    - *Fish Passage Plans (ORS 509.585)*, managed by the ODFW

- Birds:
    - *Bald and Golden Eagle Protection Act (16 U.S.C. §§ 668–668d)*, enforced by USFWS
    - *Migratory Bird Treaty Act (16 U.S.C. §§ 703–712)*, enforced by USFWS and ODFW
    - *Salem Migratory Bird Conservation Strategy*, overseen by the City's Natural Resources Planning Section

- Land Use Compatibility (Unified Development Code):
    - Administered by the City's Community Planning and Development Department

- Tree Protection:

    - *SRC 86: Trees on City-Owned Property*, managed by the City's Public Works Department

- Floodplain Management Standards:
    - *SRC 601: Floodplain Standards*, administered by the City's Community Planning and Development Department, Development Services Section
- Park and Trail Regulations and Development Standards:
    - Applicable standards and regulations related to park and trail management, overseen by the City's Community Services Department, Parks Planning Section

Section D. Goals, Objectives, and Strategies

24. Current and Desired Future Conditions Table

Table 6 provides a crosswalk between the extent of current habitat types and the ultimate DFC for each. This table details both the existing conditions and the strategic ecological improvements targeted under the DFC, and emphasizes a transition to OCS strategy habitats over time. Acreage totals for both current and desired conditions are included to provide a clear overview of the planned ecological transitions. Additionally, this section includes **Figure 21** to visually represent the DFC habitats, illustrating their spatial distribution.

Table 5. Current and Desired Future Conditions Comparison

Habitat Type (OCS types indicated in Bold)	Current Acres	Desired Acres
Flowing Water & Riparian	**195**	**196.5**
○ **Riparian Forest**	78	175.5
○ **Riparian Meadow**	6	5
○ **Flowing Water & Shoreline**	11	11
○ Transitional Riparian Restoration Areas	33	0
○ Degraded Riparian Forest (Plantation)	39	0
○ Degraded Riparian Habitat (Invasive Dominated)	28	0
○ Riparian Shrubland	0	5
Wetlands	**109.2**	**107.7**[4]
○ **Deciduous Swamps and Shrublands**	4	5.5
○ **Mudflat**	3	3
○ **Off-channel Habitat**	3	3
○ **Seasonal Ponds**	21	29.2
○ Degraded Marsh (Invasive Dominated)	76.5	0
○ Transitional Wetland Restoration Areas	1.7	0
○ **Marsh (including emergent marshes)**	0	67
Built & Modified Areas (Paved Trails)	**2.8**	**2.8**
	307	**307**

**** OCS Habitat Types** indicated in **bold** font.*

[4] A slight decrease in the total area categorized as wetland habitat is anticipated as part of the restoration process. This is due to the transition of degraded marsh areas adjacent to riparian forests into forested wetlands, which will be reclassified under the riparian forest habitat type. These changes reflect an improvement in habitat quality rather than a net loss of wetland functions.

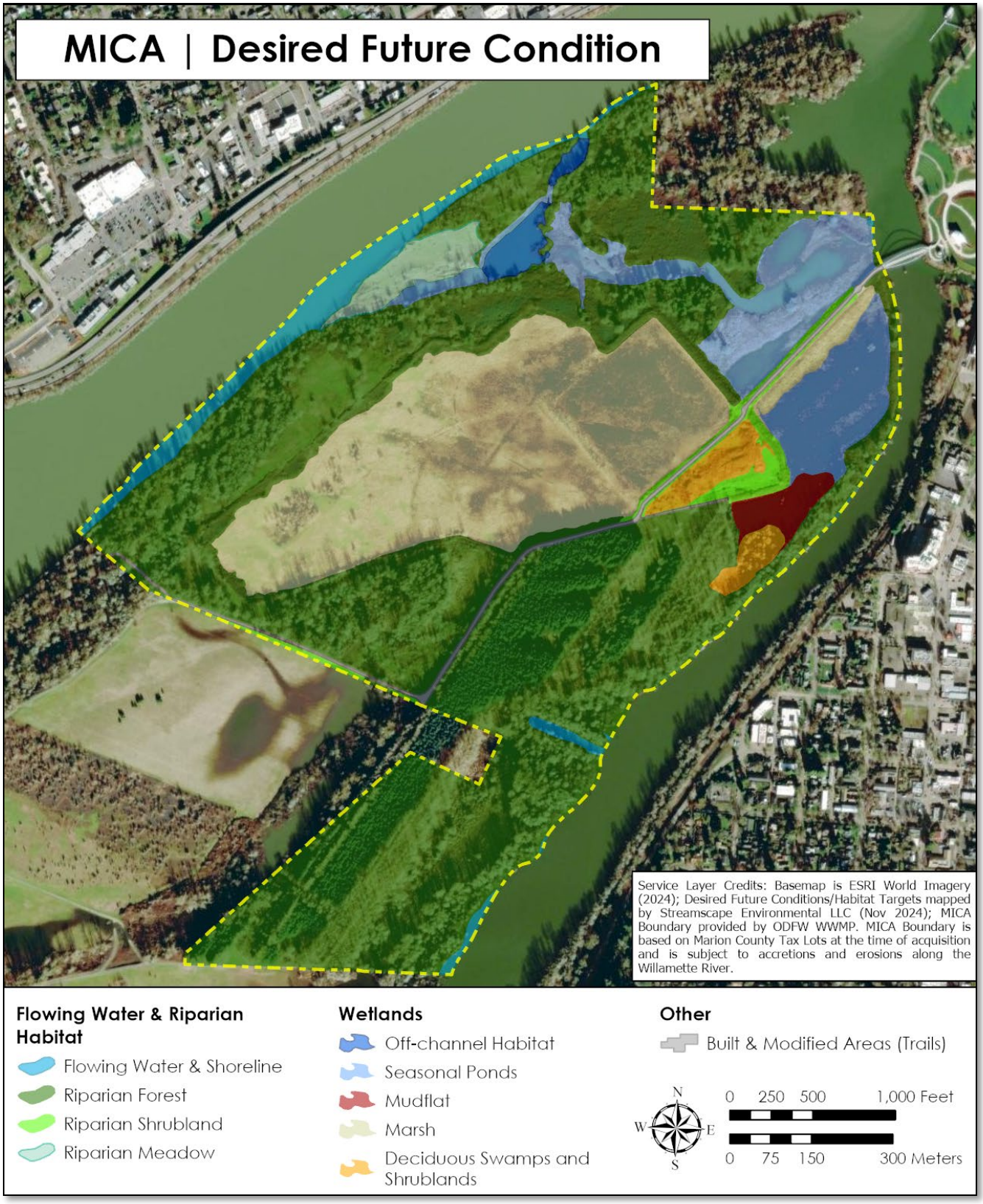

Figure 21. Desired Future Conditions Map

25. DFCs and Goals, Objectives, and Strategies

The City aims to enhance MICA's ecological integrity by transitioning and restoring its diverse habitat types to resilient and thriving conditions, as depicted in the DFC map (**Figure 21**). The primary goals focus on expanding and improving riparian and wetland habitats while minimizing the prevalence of invasive species and supporting a broad range of native wildlife.

Flowing Water & Riparian Habitat

The DFC for MICA's riparian habitat emphasizes expanding riparian forests and enhancing habitat complexity. This will involve converting most of the transitional riparian Restoration Areas, Degraded Riparian Forest (Plantation), and degraded riparian habitat (invasive dominated) into a healthy, multi-layered native riparian forest. These restored forests will support increased biodiversity, including a variety of native trees and shrubs, a diverse understory, and key habitat features such as deadwood, snags, and downed logs. The focus is to support riparian forest-dependent species, reduce habitat fragmentation, and create a resilient system with minimal invasive species.

Approximately 5 acres of the existing degraded riparian habitat, riparian meadow, and transitional riparian restoration areas will become riparian shrubland. These areas, primarily located along trail edges and within the eastern riparian meadow, are expected to restore native shrubs that can outcompete invasive grasses and forbs, given their suitability for the environmental conditions. The riparian meadow adjacent to the Willamette River on MICA's western boundary may eventually convert to riparian forest or shrubland as well; however, due to frequent floodwater scour, it will likely remain as a meadow within this plan's timeframe.

The flowing water and shoreline habitat, subject to ongoing accretions and erosions from the Willamette River and Slough, is expected to fluctuate in extent over time. While the specific changes are unpredictable, this habitat will be maintained to preserve vital aquatic and riparian functions.

Table 6. Goals, Objectives and Strategies for Flowing Water & Riparian Habitat

Goal/Objective/Strategy	Timeline	Stewardship Funding
Goal 1: Restore and enhance flowing water and riparian vegetation and habitat quality.		
Objective 1.1. Preserve and enhance existing riparian forests, maintaining an average range of 80-90% native cover.	2025-2035	Partial, as grant match
➢ *Strategy 1.1.1. Employ mechanical and chemical treatment methods to control English ivy and other invasive species within forested areas, while maintaining ongoing efforts to manage Himalayan blackberry encroachment along forest edges.*	2025-2035	
➢ *Strategy 1.1.2. Implement supplemental planting of native understory vegetation in areas vulnerable to invasion or where invasive species have been removed.*	2025-2035	

Goal/Objective/Strategy	Timeline	Stewardship Funding
➢ *Strategy 1.1.3. Monitor and manage the impact of EAB in Oregon ash groves through visual assessments, coordination with state and federal agencies, implementation of IPM strategies such as selective removal of infested trees, and proactive habitat adaptation such as underplanting ash groves with site-appropriate native species.*	2025-2035	
Objective 1.2. Develop and implement a Forest Management Plan after assessing and documenting forest health, composition, and hydrology in the forest plantations to guide restoration and management actions with targeted prescriptions (e.g., selective tree cutting) and Best Management Practices (BMPs) that align with restoration goals and adaptive management, contingent upon completion of initial assessments and securing necessary funding.	2025-2035	
➢ *Strategy 1.2.1. Conduct a baseline assessment of plantation forests, their edge habitats, and hydrology to evaluate habitat quality and establish ecological health indicators (e.g. species diversity) for ongoing monitoring.*	2025-2028	*
➢ *Strategy 1.2.2. Develop a forest management plan, in coordination with BPA, including targeted prescriptions and BMPs that align with restoration goals and adaptive management.*	2028-2030	*
➢ *Strategy 1.2.3. Implement the forest management plan and BMPs to enhance structural, species, and age-class diversity and create canopy openings to enhance growth conditions for larger trees and stimulate the understory layer.*	2030-2035	
➢ *Strategy 1.2.4. Aggressively manage invasive species during and after thinning and planting activities to ensure long-term ecosystem health and biodiversity.*	2030-2035	
➢ *Strategy 1.2.5. Introduce site-appropriate native species to increase habitat complexity and ecological resilience.*	2030-2035	
Objective 1.3. Transition 20 acres of invasive dominated degraded riparian habitats into healthy, multi-layered forest, shrubland, and meadow ecosystems by 2035.	2025-2035	
➢ *Strategy 1.3.1. Continued implementation of the West Forest (Phase 3) Restoration Project, for which the City has secured five more years of funding through OWEB. See Appendix E for a summary of the Phase 3 Work Plan for 2025-2030.*	2025-2030	
➢ *Strategy 1.3.2. Develop a restoration schedule for remaining degraded riparian habitats and seek grant funding.*	2025-2035	*Potentially partial, as grant match*
➢ *Strategy 1.3.3. Continue monitoring past restoration areas and conduct maintenance treatments of reemerging invasives as needed.*	2025-2035	*
Objective 1.4. Monitor flowing water and shoreline habitats for aquatic invasive species, and collaborate with Willamette Riverkeeper and other partners to identify, document, and effectively manage new infestations within one year of detection to prevent their establishment and spread.	2025-2035	

Goal/Objective/Strategy	Timeline	Stewardship Funding
➢ *Strategy 1.4.1. Establish a rapid response framework in collaboration with Willamette Riverkeeper and other partners who are already conducting Early-Detection Rapid-Response (EDRR) and aquatic invasive treatment in the Willamette River to ensure timely containment, removal, and management of identified aquatic invasive species, including resource allocation and communication protocols.*	2025-2028	
➢ *Strategy 1.4.2. Conduct regular surveys of MICA's flowing water and shoreline habitats using standardized EDRR protocols to detect and document aquatic invasive species, focusing efforts during peak growing seasons when species are most visible.*	2025-2035	

WETLANDS

The large expanses of degraded marsh dominated by invasive reed canarygrass present a complex restoration challenge. For the purposes of this plan, the DFC for these areas is to transition into healthy marsh ecosystems characterized by improved hydrology, reduced reed canarygrass dominance, and reestablished native vegetation. However, there remains uncertainty regarding the feasibility of this goal. Achieving this DFC is likely to require further studies to evaluate soil and hydrological conditions and identify potential options for enhancing these areas.

It is possible that, following these studies, portions of the degraded marsh may be better suited for conversion into deciduous swamps and shrublands. The existing willow-dominated swamps and shrublands in MICA have demonstrated stability and resilience, and their potential expansion could provide a more viable restoration pathway in some areas. Additionally, if conditions allow for deeper and more prolonged inundation, parts of the degraded marshlands could transition into mudflat habitat, further enhancing habitat diversity. Notably, incidental observations from regional restoration efforts indicate that changes in hydrology, particularly prolonged inundation that "drowns out" reed canarygrass, are the most effective strategy for its eradication. Of the degraded marsh, 67 acres are projected to transition into marsh, 8.2 acres into seasonal ponds, 1.5 acres into deciduous swamps and shrublands, and 1.5 acres into forested wetlands, reflecting the complexity of the site and the interconnectedness of neighboring habitats in shaping restoration outcomes.

Existing mudflat and off-channel habitat areas are anticipated to remain relatively stable in size. The DFC for these habitats is to increase resilience by minimizing invasive species and introducing wildlife habitat features, such as basking structures, suitable nesting sites, and egg mass attachment areas, to support a range of aquatic and semi-aquatic species.

Seasonal ponds are expected to expand with improved management of invasive plants within and adjacent to their current extents. This expansion will promote water

retention, benefiting native fish and wintering waterfowl by providing critical seasonal habitat and prolonged water availability.

Table 7. Goals, Objectives and Strategies for Wetland Habitat

Goal/Objective/Strategy	Timeline	Stewardship Funding
Goal 2: Evaluate how to enhance hydrological conditions to support restoration of 76.5 acres of degraded marsh currently dominated by Reed Canarygrass to develop more concrete DFCs, Goals, Objectives, and Strategies by the next LMP update.		
Objective 2.1. Conduct comprehensive feasibility studies over the next 10 years to assess hydrological restoration options for degraded wetlands, including potential topographical modifications, water flow adjustments, and contamination risks.	2025-2035	Partial, as grant match
➢ *Strategy 2.1.1. Identify and pursue funding opportunities to support comprehensive feasibility studies, including grants, partnerships with state and federal agencies, and collaboration with research institutions.*	2025-2028	
➢ *Strategy 2.1.2. Collaborate with hydrologists, soil scientists, and regulatory agencies (e.g., DEQ) to evaluate potential actions such as breaching berms, modifying topography, or other hydrological modifications that may improve wetland function while ensuring compliance with existing environmental regulations and agreements.*	2025-2035	
➢ *Strategy 2.1.3. Conduct detailed studies to understand potential impacts of proposed hydrological changes on infrastructure, such as the pedestrian bridge, walking paths, and adjacent properties, to prevent unintended adverse effects.*	2025-2035	
➢ *Strategy 2.1.4. Engage specialists, regulators, BPA, and stakeholders to explore habitat-specific enhancements and potential open-water habitat features for cold-water species and other native wildlife.*	2025-2035	
Objective 2.2. Explore alternative methods to reduce and control reed canarygrass dominance in degraded marsh areas to improve native plant establishment and habitat complexity.	2025-2035	
➢ *Strategy 2.2.1. Collaborate with experts to assess soil and hydrological conditions that may facilitate reed canarygrass suppression, such as hydrological modifications or enhancing shade cover from native shrubs and trees.*	2025-2035	
Strategy 2.2.2. Investigate and pilot innovative approaches to reduce reed canarygrass, such as increasing water inundation levels, controlled burns, or strategic mowing in conjunction with planting competitive native species. This includes conducting necessary studies like toxicity testing and consulting with DEQ and BPA to ensure the safety and effectiveness of these methods and compliance with the CE.	2025-2035	
Goal 3: Develop and enhance habitat features to support priority and sensitive species within off-channel habitat, seasonal ponds, and other wetland areas.		

Goal/Objective/Strategy	Timeline	Stewardship Funding
Objective 3.1. Enhance habitat conditions for turtles, waterfowl, amphibians, and other wetland-dependent species by incorporating key habitat elements in coordination with ODFW.	2025-2035	*
➢ *Strategy 3.1.1. Conduct surveys to assess the presence and habitat use of native turtles, particularly around the North Pond and other potential habitat areas within MICA. Collaborate with community scientists to expand survey capacity, addressing access challenges through coordination with relevant stakeholders and exploring solutions for improved site access.*	2025-2030	
➢ *Strategy 3.1.2. Incorporate turtle habitat elements such as basking structures and suitable nesting sites, in targeted areas, such as the North Pond.*	2025-2035	
➢ *Strategy 3.1.3. Incorporate amphibian habitat elements such as vegetation to support egg mass attachment in targeted areas, such as North Pond.*	2025-2035	
➢ *Strategy 3.1.4. Promote beaver habitat restoration through willow planting and other measures to encourage beaver presence and natural wetland engineering functions that can contribute to reed canarygrass control and improved hydrological conditions.*	2025-2035	
➢ *Strategy 3.1.5. Develop and implement monitoring protocols to evaluate the effectiveness of habitat enhancements for key species and adjust management strategies as needed.*	2025-2035	
Objective 3.2. Control and manage invasive species in less degraded wetland areas such as mudflats, off-channel habits, deciduous swamps and shrublands, and transitional wetland restoration areas to prevent the spread of reed canarygrass and other invasives, thereby preserving habitat quality and supporting priority and sensitive species.	2025-2035	*
➢ *Strategy 3.2.1. Develop and implement a monitoring program to detect new invasions in less degraded wetland areas, ensuring early intervention and cost-effective management.*	2025-2035	
➢ *Strategy 3.2.2. Employ mechanical removal and selective herbicide application to manage and reduce the presence of reed canarygrass and other invasive species in areas not yet dominated by these invasives. Focus on high ecological value or critical habitats, prioritizing methods that minimize impact on native flora and fauna.*	2025-2035	

Built & Modified Areas

Built and modified areas, including the paved trails, are not expected to change significantly. Any new trails will remain unpaved and be designed to blend with the surrounding habitats, minimizing disturbance and maintaining the ecological integrity of MICA. The DFC for existing paved trails is that they have well established native plant buffers along both sides that provide shelter for wildlife. Strategically placed wildlife viewing blinds will provide viewpoints where trail users can observe wildlife without

causing disturbance, regardless of time of year. Where vegetative buffers are not feasible, split rail fence or similar barriers will serve as visual reminders that trail users need to stay on trails. The opening of unpaved trails is expected to reduce the frequency of violations and allow for better maintenance and monitoring of remote areas.

Table 8. Goals, Objectives and Strategies for Built & Modified Areas (e.g. Trails)

Goal/Objective/Strategy	Timeline	Stewardship Funding
Goal 4: Enhance and maintain trails and other built infrastructure to support habitat integrity, public safety, and wildlife conservation within MICA.		
Objective 4.1. Maintain and improve native vegetative buffers along existing paved trails to provide wildlife shelter and reduce human disturbance.	Ongoing	*
➢ *Strategy 4.1.1. Continue conducting regular monitoring and maintenance of the trail buffers, prioritizing areas with the highest potential for wildlife disturbance or habitat connectivity.*	Ongoing	*
➢ *Strategy 4.1.2. Expand trail buffer to the south of its current extent, removing blackberry thickets adjacent to the Phase 3 Restoration Area and establishing hedgerows of native shrubs.*	2025-2030	
Objective 4.2. Minimize disturbance to wildlife and protect sensitive habitats through thoughtful design and management of public access areas.	2025-2035	*
➢ *Strategy 4.2.1. Install strategically placed wildlife viewing blinds along trails to allow visitors to observe wildlife without causing disturbance.*	2030-2035	
➢ *Strategy 4.2.2. Where native vegetative buffers are not feasible, install split rail fencing or similar barriers to visually guide trail users and discourage off-trail access.*	2025-2035	
➢ *Strategy 4.2.3. Develop and maintain approved unpaved trails (see Figure 7 and Exhibit G of the CE) that blend with surrounding habitats, improving access to remote areas east of the paved trail while reducing the frequency of unauthorized trail use and allowing for better monitoring. See also Goal 6.*	2025-2035	
Objective 4.3. Ensure public access infrastructure aligns with Conservation Values and minimizes negative impacts on MICA's ecosystem.	Ongoing	
➢ *Strategy 4.3.1. Conduct periodic assessments of all trails and public access features to evaluate their impact on surrounding habitats, making necessary adjustments to design or management practices.*	Ongoing	
➢ *Strategy 4.3.2. Collaborate with community groups and volunteers to support trail maintenance, habitat restoration, and education about minimizing human impact on sensitive areas.*	Ongoing	

OTHER GOALS, OBJECTIVES AND STRATEGIES

Public access and recreation within MICA are guided by a commitment to balancing public enjoyment with conservation and ecological integrity. The following goals, objectives, and strategies are designed to ensure that visitors can engage with the natural environment in a manner that supports wildlife protection, habitat restoration, and educational opportunities while minimizing negative impacts and maintaining Conservation Values. By implementing thoughtful management practices and adaptive strategies, MICA will continue to offer inclusive, sustainable, and meaningful access to its unique habitats and recreational assets.

Table 9. Goals, Objectives and Strategies for Public Access & Recreation

Goal/Objective/Strategy	Timeline	Stewardship Funding
Goal 5: Foster a vibrant and sustainable community connection to MICA through enhanced public engagement, education, and community-involved habitat restoration efforts, creating an inclusive space that promotes stewardship and environmental awareness, while complying with legal obligations in the Consent Judgment and EES.		
Objective 5.1. Implement regular community engagement programs that promote stewardship and connection to MICA, such as volunteer restoration days, guided nature walks, or citizen science initiatives.	Ongoing	
➢ *Strategy 5.1.1. Identify and pursue funding opportunities for MICA-specific community engagement programs, such as through indirect governance resource allocations from state and federal agencies.*	2025-2030	
➢ *Strategy 5.1.2. Partner with conservation groups, local schools, and organizations to develop and implement volunteer programs and educational initiatives, such as guided nature walks, citizen science projects, and habitat monitoring efforts.*	2025-2035	
➢ *Strategy 5.1.3. Improve informational signage and interpretive panels along trails to provide multilingual information about local ecosystems, observed species, and ongoing restoration efforts, reinforcing public access guidelines and MICA's conservation goals.*	2030-2035	
➢ *Strategy 5.1.4. Develop targeted social media and online educational campaigns to engage the broader community, keeping them informed of MICA's restoration projects, public access limitations, and opportunities for involvement.*	2025-2030	
Goal 6: Provide public access compatible with Conservation Values and consistent with the CE, Consent Judgment, EES, and other environmental requirements.		
Objective 6.1. Concentrate recreational use on the existing paved trail and site future proposed soft and unimproved trails (Figure 7 and Exhibit G of CE) in designated areas that minimize habitat disturbance.	Ongoing	
➢ *Strategy 6.1.1. Focus future trail development within the eastern half of MICA (east of the westernmost berm associated with the 50-MG Lagoon).*		

Goal/Objective/Strategy	Timeline	Stewardship Funding
➢ *Strategy 6.1.2. When developing proposed trails, utilize areas with existing impacts (e.g., user-created trails) to minimize new habitat disturbance.*		
➢ *Strategy 6.1.3. Use best management practices in the design, construction, and maintenance of trails to minimize new habitat disturbance.*		
➢ *Strategy 6.1.4. Coordinate wildlife and habitat surveys to guide trail placement and reduce impact on sensitive species.*		
➢ *Strategy 6.1.5. Ensure that unpaved trails adjacent to former industrial areas are covered and maintained in a DEQ-approved manner to minimize soil exposure and environmental risk.*		
Objective 6.2. Restrict public access to sensitive areas, particularly the western portion (west of the 50-MG lagoon) near the Willamette River, allowing access only for restoration, monitoring, and maintenance activities.	Ongoing	
➢ *Strategy 6.2.1. Install gates or other barriers and signage at restricted trail entrances, consistent with the CE and EES.*		
➢ *Strategy 6.2.2. Use enforcement patrols and monitoring to prevent unauthorized access into sensitive areas.*		
➢ *Strategy 6.2.3. Establish seasonal closures for future berm trails to protect waterfowl and other wildlife.*		
➢ *Strategy 6.2.4. Install signs along the western shoreline of MICA to discourage boaters from entering the Conservation Area, consistent with the CE and EES.*		
Objective 6.3. Design and install the proposed unimproved trail east of the existing paved trail through the existing Douglas fir and hybrid poplar plantations, as shown in Figure 7 and Exhibit G of the CE, by 2035.	2025-2035	
➢ *Strategy 6.3.1. Complete a site assessment to evaluate ecological conditions, identify sensitive habitats, assess drainage patterns, and determine potential impacts from trail construction, incorporating effective erosion control measures and native species planting, as needed.*		
➢ *Strategy 6.3.2. Conduct a cultural assessment and coordinate review with BPA and ODFW (including a LUA with BPA if required) to ensure compliance with regulatory and conservation requirements.*		
➢ *Strategy 6.3.3. Design a trail using natural materials that align with the surrounding environment, promoting accessibility for all users while minimizing ecological impact through low-impact construction techniques.*		
➢ *Strategy 6.3.4. Engage local volunteers and stakeholders throughout the planning and construction phases to foster community ownership and support and install multilingual trail signage to communicate public access restrictions and Conservation Values.*		
Objective 6.4. Establish and enforce guidelines for special events using MICA's paved trail to protect wildlife and minimize impacts, limiting large events to twice per bird nesting season with a maximum of 3,000 participants and requiring a minimum of three weeks between large events (see Appendix B for more detail).	Ongoing	

Goal/Objective/Strategy	Timeline	Stewardship Funding
➢ *Strategy 6.4.1. Collaborate with organizations like Salem Audubon to monitor wildlife before and after large events to assess impact on species, establishing protocols to assess impacts and adjust guidelines over time.*		
➢ *Strategy 6.4.2. Use a tiered fee system to fund stewardship, monitoring, and maintenance, based on event size, participant numbers, and anticipated impact, in alignment with conservation goals.*		
➢ *Strategy 6.4.3. Prohibit amplified sounds within MICA, and ensure support items, such as water stations, portable restrooms, and spectator areas, are located outside the Conservation Area to protect wildlife and minimize impact.*		
➢ *Strategy 6.4.4. Refer to and adhere to the full list of event restrictions outlined in Appendix B when planning, approving, and managing special events, ensuring compliance with participant limits, scheduling, and protective measures for MICA's Conservation Values.*		
Goal 7. Facilitate restoration and monitoring access while restricting public use in sensitive areas and ensuring the health and safety of restoration crews working within former industrial areas (i.e., the former lagoons, capped landfills, and berms).		
Objective 7.1. Provide controlled access to berm tops for restoration and monitoring activities, while preventing public access.	2025-2035	
➢ *Strategy 7.1.1. Install and maintain gates, signage, and physical barriers (e.g., split rail fencing or dense native plantings) to clearly mark and restrict public access while allowing entry for authorized staff and contractors.*		
➢ *Strategy 7.1.2. Conduct regular patrols and use monitoring systems to detect and prevent unauthorized access to sensitive areas.*		
➢ *Strategy 7.1.3. Use cut vegetation (e.g., blackberry canes) from path clearing as ground cover to reduce soil exposure and enhance worker safety.*		
Objective 7.2. Balance invasive species removal on the berms with protection of sensitive wildlife by timing Himalayan blackberry removal to avoid nesting and breeding periods.	Ongoing	
➢ *Strategy 7.2.1. Conduct pre-treatment wildlife surveys to identify sensitive areas and determine appropriate timing for blackberry removal to avoid disturbing nesting or breeding species.*		
➢ *Strategy 7.2.2. Revegetate cleared areas with native species to stabilize soil, support habitat restoration, and suppress regrowth of invasive species.*		
➢ *Strategy 7.2.3. Schedule blackberry removal during periods of low wildlife activity to minimize disturbance to sensitive species and habitats.*		
➢ *Strategy 7.2.4. Use selective removal and strategic plantings to guide public trail use, reducing off-trail impacts on sensitive areas until permanent barriers are established.*		
Objective 7.3. Ensure all restoration and monitoring activities adhere to the DEQ-approved MICA Work Plan, which outlines the remedial measures required for the property. This plan ensures that protective measures are implemented and maintained to safeguard human	2025-2035	

Goal/Objective/Strategy	Timeline	Stewardship Funding
health, welfare, and the environment. The DEQ Work Plan is included in Appendix F.		
➢ *Strategy 7.3.1. Develop a Worker Safety Plan to guide staff and contractors on best practices for identifying and managing areas with potential soil contamination (e.g., former landfills, buried solids, lagoons). The plan will outline measures to protect workers and public health during maintenance, restoration, and other off-trail activities, and to prevent the spread of contaminated materials.*		
➢ *Strategy 7.3.2. Provide a copy of the Worker Safety Plan to any contractors working in MICA and request that they review requirements regularly in daily safety briefings before beginning work on site.*		

Section E. Monitoring and Adaptive Management

Adaptive management is a process that promotes flexible decision-making that can be adjusted as outcomes from management actions and other events become better understood. The act of monitoring outcomes both advances scientific understanding and helps adjust ongoing management as part of an iterative learning process.

26. Monitoring

To ensure the effectiveness of conservation efforts and adherence to the Conservation Values, this section outlines a detailed plan for assessing progress towards achieving the identified goals, objectives, and DFC. **Table 11** details the monitoring activities that will be conducted, including the metrics used, methods employed, and the timing and frequency of each activity. This approach is structured yet flexible enough to ensure that adjustments can be made as necessary, allowing management and restoration practices to be adapted to respond to changing conditions and meet long-term conservation goals effectively.

Table 10. Monitoring Activities

Goal	Objective	Monitoring Activities	Timing/Frequency
Goal 1: Restore and enhance flowing water and riparian vegetation and habitat quality.	**Objective 1.1:** Preserve and enhance existing riparian forests, maintaining an average range of 80-90% native cover.	Vegetation Surveys: Assess native species cover, diversity index, and canopy density using line transects, quadrat sampling, and photo monitoring. Aerial Imagery Analysis: Utilize high-resolution aerial imagery, such as LiDAR or drone imagery, to detect broad-scale changes in forest health.	Ground Surveys: Conducted biennially (every 2 years). Aerial Imagery: Annually, or more frequently as new imagery becomes available.
	Objective 1.2: Assess and document forest health, composition, and hydrology within forest plantations to guide restoration and management actions.	Conduct a baseline assessment of forest health and composition, measuring species diversity, age classes, and hydrological conditions using tree surveys, soil sampling, and hydrology monitoring equipment (e.g. piezometers across representative areas perpendicular to the river) to establish metrics for species	Baseline assessment to be conducted prior to the development of the forest management plan (2025-2028).

Goal	Objective	Monitoring Activities	Timing/Frequency
		inventory, soil moisture levels, and hydrology indicators.	
		Track the progress of forest management interventions, such as tree cutting and canopy opening, by documenting the number and types of actions taken and measuring structural changes in the forest canopy and understory using drone imagery, manual canopy cover measurement, and vegetation transects.	Every three years following baseline assessment or following major interventions or natural disturbances.
	Objective 1.3: Transition 20 acres of invasive dominated degraded riparian habitats into healthy, multi-layered forest, shrubland, and meadow ecosystems by 2035.	Measure vegetation establishment by percent cover and species composition changes over time using vegetation plots, photo documentation, and mapping.	Annually for the first five years post-restoration, then every five years thereafter.
	Objective 1.4: Monitor flowing water and shoreline habitats for aquatic invasive species, utilizing EDRR protocols and collaborating with partners like Willamette Riverkeeper.	Conduct aquatic invasive species surveys, focusing on high-risk periods for species introduction, documenting presence/absence and size of infestation using visual surveys.	Annually.
Goal 3: Develop and enhance habitat features to support priority and sensitive species within off-channel habitat, seasonal ponds, and other wetland areas.	**Objective 3.1**: Enhance habitat conditions for turtles, waterfowl, amphibians, and other wetland-dependent species by incorporating key habitat elements.	Monitor and document changes in habitat features following the installation of enhancements, such as basking structures and nesting sites using direct observation, camera trapping, and/or site-specific habitat assessments to determine presence and use of enhancements by key species, changes in habitat	Annually for five years after enhancements, with follow-up assessments as needed for adaptive management adjustments.

Goal	Objective	Monitoring Activities	Timing/Frequency
		conditions, and vegetation establishment.	
	Objective 3.2: Control and manage invasive species in less degraded wetland areas such as mudflats, off-channel habits, deciduous swamps and shrublands, and transitional wetland restoration areas to prevent the spread of reed canarygrass and other invasives, thereby preserving habitat quality and supporting priority and sensitive species.	Conduct invasive species surveys, focusing on high-risk periods for species introduction, documenting presence/absence and size of infestation using visual surveys.	Annually
Goal 4: Enhance and maintain trails and other built infrastructure to support habitat integrity, public safety, and wildlife conservation within MICA.	**Objective 4.1:** Maintain and improve native vegetative buffers along existing paved trails to provide wildlife shelter and reduce human disturbance.	Conduct vegetation assessments using line visual observations and photo documentation to evaluate buffer health, noting percent cover of native vegetation, species diversity, invasive species encroachment, and signs of human disturbance along trail buffers.	Annually.
	Objective 4.3: Ensure public access infrastructure aligns with Conservation Values and minimizes negative impacts on MICA's ecosystem.	Conduct periodic assessments of trail conditions and adjacent habitat impacts, recording erosion levels, invasive species presence, and habitat degradation using visual inspections, erosion measurement, and species surveys.	Annually, with additional inspections following major events or high visitor periods.
Goal 5: Foster a vibrant and sustainable community connection to MICA through enhanced public	**Objective 5.1:** Implement regular community engagement programs that promote	Track attendance and participation rates at community events and programs, documenting types of activities conducted, participant demographics,	Annually.

Goal	Objective	Monitoring Activities	Timing/Frequency
engagement, education, and community-involved habitat restoration efforts.	stewardship and connection to MICA.	and feedback through surveys and participant logs.	
Goal 6: Provide public access compatible with Conservation Values.	**Objective 6.1:** Concentrate recreational use on the existing paved trail and site future trails in designated areas that minimize habitat disturbance.	Assess trail user compliance through visitor observations, trail camera data, and visitor feedback, documenting any off-trail impacts or disturbances.	Semi-annually.
	Objective 6.4: Establish and enforce guidelines for special events using MICA's paved trail to protect wildlife and minimize impacts.	Record and evaluate compliance with event guidelines, including participant limits and timing restrictions, through event reports, surveys, and coordination with Salem Audubon to conduct field observations of wildlife behaviors one week before and one week after large events, such as the Ironman Triathlon.	Annually, with additional monitoring for major events.
Goal 7: Facilitate restoration and monitoring access while restricting public use in sensitive areas.	**Objective 7.1:** Provide controlled access to berm tops for restoration and monitoring activities while ensuring they remain closed to public use.	Conduct inspections of access points, signage, and physical barriers to ensure restricted areas remain closed to unauthorized public access and document any breaches or vandalism.	Monthly.

27. Adaptive Management

To ensure that all management and restoration activities within MICA are responsive, effective, and aligned with the Conservation Values and DFCs of the site, all work will be conducted using an adaptive management framework. This approach emphasizes monitoring, evaluation, and timely adjustments to management strategies based on the results and changing conditions.

Adaptive management within MICA follows a cycle of planning, implementing, monitoring, evaluating, and modifying actions as necessary to maximize the success of restoration and management activities. Monitoring will track the status of key site features, the effectiveness of interventions, and progress toward achieving defined goals and objectives. Data from monitoring efforts will be reviewed regularly to benchmark progress, assess the need for adjustments, and refine management actions based on new information and observed outcomes. This iterative process will enhance practitioners' understanding, encourage the adoption of innovative methods, and foster real-time improvements rather than waiting until the conclusion of projects to make necessary adjustments.

Monitoring efforts as outlined in this plan will focus on habitat conditions, species populations, and public use impacts, providing crucial data to inform management decisions. For example, restoration treatment effectiveness will be assessed through contractor evaluations and feedback during active restoration phases. Partner organizations, including members of the TAC, regulatory bodies, and other experts, will be asked to provide periodic input and recommendations on an as-needed basis in response to emerging issues or challenges based on their areas of expertise. Assessments will be conducted at regular intervals, including five-year and ten-year evaluations, comparing conditions to baseline data to track progress and inform plan amendments and modifications as needed.

Through this adaptive management process, MICA's management team will ensure ongoing alignment with the site's Conservation Values and respond proactively to changing conditions, enhancing the resilience, ecological health, and community engagement within MICA.

Section F. Climate Change

28. Potential Climate Change Impacts

Throughout the state, significant changes in conditions are projected over the next century due to climate change. According to the most recent Oregon Climate Assessment Report (Mote et al., 2019), by 2100, annual temperatures are expected to rise by 4-9°F for all seasons, with mid-century forecasts indicating an average of 30 days annually with temperatures above 86°F, and in Salem, 23 days over 90°F (City of Salem, 2021). Precipitation patterns will also shift, with decreased rainfall annually, but heavier rains in winter, leading to drought conditions and greater flooding, surface runoff, slope instability and potentially contaminating drinking water (Mote et al., 2019). The declining snowpack, which is an important water resource, is expected to decrease 40 to 60% by 2040, and 80-90% by 2095 (Doppelt et al., 2009). Snowmelt will occur earlier in the season, altering the timing of growing season and exacerbating water scarcity and drought conditions. Under these conditions of warmer and drier summers, the risk of wildfires is projected to rise across the state, particularly in the Willamette Valley (Mote et al., 2019). Given these projections, it is essential to consider the potential impacts of a changing climate over the next century in order to adjust land management approaches, Conservation Values, and the DFCs specific to this property.

IMPACT OF CLIMATE CONDITIONS PROJECTED FOR THE NEXT 10 YEARS

Current conditions of warming, floods, heat waves, cold snaps, droughts and extreme precipitation would be expected to continue over the next 10 years. Systems already impacted by disease, invasive species, and insect pests are likely to experience greater stress. Invasive species like Himalayan blackberry and reed canarygrass may gain even more competitive advantage, posing a greater challenge to their eradication. The composition of herbaceous and shrub communities may change during this timeframe as conditions become more or less suitable for existing species. Changes in snowmelt are expected to alter the volume and timing of streamflow in higher elevations of the watershed. However, due to the regulated flows of the mainstem Willamette River controlled by dams, significant changes in water timing and volume at MICA are unlikely within this timeframe. Nevertheless, upstream impacts will pose threats to aquatic habitat quality and disrupt the spawning and reproduction of aquatic species that also rely on MICA as habitat. This underscores the importance of preserving and enhancing MICA's habitat to support the survival of these species.

IMPACT OF CLIMATE CONDITIONS PROJECTED IN 20 YEARS

Over the next 20 years, climate-induced changes in the Willamette Valley are expected to include increased temperatures, extreme precipitation events and droughts, heightened wildfire risk, and shifts in species ranges as plants and animals adapt to new environmental conditions. The MICA managers must be prepared to address these changes, as the most vulnerable species unable to adapt to altered habitat conditions may be lost, potentially reducing biodiversity and altering community composition.

Formerly non-invasive species may become dominant, necessitating flexible and adaptive management strategies.

Wetland areas, such as wet prairies, may transition to upland prairies due to changing hydrology, impacting water-dependent species. The anticipated decline in snowpack at higher elevations, with streamflow reductions and altered hydrology, poses a threat to cold-water aquatic species that rely on MICA's habitat, potentially benefiting warm-water native and non-native species instead. This shift underscores the need for ongoing monitoring, habitat enhancements, and species management to maintain ecological balance and conserve at-risk species.

Additionally, shifts in species interactions, such as asynchronous food availability, pollination, and seed dispersal, may disrupt ecological functions and reduce reproductive success. Riparian areas, which have historically provided buffers against climate impacts and refugia for many species, may lose their effectiveness as droughts and precipitation changes alter hydrological patterns. Restoration and management activities must focus on maintaining and enhancing climate resilience within these areas.

The MICA LMP must prioritize actions to mitigate these projected impacts, such as promoting fire-adapted native species, enhancing riparian and wetland resilience, managing invasive species, and fostering habitat connectivity. By focusing on adaptive management and conservation strategies tailored to future climate conditions, MICA can serve as a critical refuge and resource for species under climate stress during this timeframe.

IMPACT OF CLIMATE CONDITIONS PROJECTED IN 50-60 YEARS

Over the next 50-60 years, projected climate conditions indicate significant warming trends, with average summer temperatures expected to increase by 8-12°F and winter temperatures by 3-5°F in the state. Spring temperatures in the Northern Hemisphere have already been arriving earlier each decade, lengthening the growing season by a month over the past 30 years. This extended growing season, however, will require sufficient rainfall to support additional plant growth, posing a challenge as precipitation patterns may become more erratic.

Increased temperatures and altered precipitation patterns are likely to exacerbate wildfire frequency, size, and intensity, making fire a major driver of vegetation change. This shift would significantly alter the composition of plant and animal communities, as changing disturbance regimes, climatic conditions, and phenological timing disrupt established ecological patterns and species interactions. As habitats adapt or degrade under these pressures, MICA's ecosystems and their management will need to be flexible and adaptive, focusing on resilience and proactive restoration strategies. **Table 12** below summarizes some of the potential climate change impacts likely to affect land management, Conservation Values and DFC of the property, keeping in mind that the currently stated DFCs will change as management and Conservation Values inevitably change.

Table 11. Potential Climate Change Impacts and their Potential Effects on MICA

Potential climate impact	Potential impact on land management, CVs and DFCs
Change in precipitation patterns (e.g. flooding, wetter winters, drier summers)	Seasonal floods may be more extreme, and summers may be drier. Open water habitats may see greater connectivity in future with higher peak flows during snowmelt. The open ponds may not consistently provide the necessary conditions for rearing habitat for spring-run Chinook salmon, winter steelhead, and cutthroat trout, nor adequate shelter for native turtles, river otters, beavers, and bird species, or long-term protection from the Willamette River's current. Land management should continue to target DFCs that provide sheltered, low-energy environments for rearing, foraging, refuge, and basking.
Increased risk of wildfire	Wildfire is expected to be a major factor in modifying the landscape. Since fire has not historically been recorded in MICA, future drought-conditions leading to wildfire could burn large areas of the property. Uncontrolled wildfires will directly harm sensitive species and alter the natural and restored habitats in the property. There is also uncertainty regarding the types of emissions that could be released by wildfires burning in the remediated areas, which could include toxic byproducts depending on the soil and vegetation composition. This raises concerns similar to those associated with controlled burns, such as the potential release of heavy metals or other toxins absorbed by plant material or risk of erosion of soil caps post-fire. Conducting strategic vegetation management, increasing soil moisture retention, and controlled burns while climate conditions are favorable could reduce the intensity and severity of future wildfires in MICA, thereby preserving the ecosystem's resilience.
Change in hydrology and water supply	Heavily established reed canarygrass will result in diminished water availability for native plants and will disrupt natural water flow patterns. Land management of the property will need to consider the possibility of shifting soil as the landscape changes. DFCs should continue to focus on restoring and maintaining riparian and wetland habitat.
Warmer temperature (summer temperature, longer growing season, hot days) and warmer water temperature.	Earlier phenological cycles may become misaligned with ecological interactions, such as pollination and food availability. An extended growing season will require more water to support additional plant growth, posing challenges if sufficient water is not available due to changing precipitation patterns. Warmer water will benefit warm-water fish and aquatic species.
Species range shifts	Species of conservation concern with specific habitat requirements will be at risk, while generalist (including non-natives) species may gain the competitive advantage and outcompete natives.
Changes in plant communities	Riparian forest, riparian meadow and riverine wetland ecological zones which are shaped by seasonal flooding, scouring and deposition will likely shift according to flood events and sediment

Potential climate impact	Potential impact on land management, CVs and DFCs
	deposition and scouring, but will continue to support the diversity of the area. Should conditions become very unstable under future climate scenario, these areas may better support species that are well-adapted to a shifting substrate and variable hydrology. Disturbed plant communities will be particularly sensitive to climate impacts, including the spread of disease, invasive weeds, and exotic species. This underscores the urgency of accelerating successional processes to achieve stable and resilient habitat conditions as quickly as possible. Areas of the property with dense canopy may be vulnerable to disease outbreaks if plants are already stressed or become water stressed. Invasive species such as reed canarygrass and Himalayan blackberry will continue to have a competitive advantage until native vegetation establishes, which will become increasingly difficult as conditions change.
Change in public use	Increased public access possible under the Climate Action Plan may add pressure to an already stressed system.
Change in connectivity	Climate-induced changes may alter the connectivity between the property and adjacent land, thereby restricting the movement of fish and wildlife that the property supports.

29. Monitoring and Adapting to Climate Change Impacts

MICA is a priority restoration site for riparian and wetland habitat, and due to its position in a floodplain, it would be expected to continue serving as an important habitat for native species and as part of the conservation corridor, even under a vastly different climate scenario. Since future climate conditions may not support the same fish, wildlife and plant species found on the property today, an adaptive approach to land management is recommended. Focusing especially on improving water quality and quantity, nutrient cycling and protecting soil health will increase climate resilience. Even under a very different scenario, protecting the current Conservation Values and working toward the current DFCs are feasible because of the property's unique geographic location. As the climate changes, management of the property will benefit by considering the following:

- Monitor and curb the spread of current invasive species and identify newly invading species.
- Monitor hydrological changes in flow (depth, velocity), temperature, timing, duration and extent of inundation.
- Safeguard against management practices and public uses that could potentially pose a fire-risk to the property and adjacent properties or a risk to water quality as drought conditions grow worse.

- Use controlled burns to treat invasive vegetation alongside chemical and/or mechanical treatment or consider alternatives such as goats, with prior testing of soils and plant material for toxicity.
- More aggressive treatment of invasive species to accelerate the establishment of native vegetation before conditions worsen.
- Conduct studies of the capped areas to determine the risk of being impacted by changes in precipitation or hydrology.
- Evaluate whether DFCs will adequately support the habitats of focal species currently utilizing the property, such as the western pond turtle, northern red-legged frog, neotropical migratory birds, waterfowl, herons, osprey, and bald eagle, as well as those that may use it in the future, including the western bluebird (*Sialia mexicana*), dusky Canada goose, little willow flycatcher, and western meadowlark.
- Ensure that greenhouse gas emissions due to management of the property align with the City's goal to reduce overall emissions by 50% and be a Carbon Neutral City by 2050.
- Monitor the impact of increased public use resulting from outreach strategies, such as those in the Salem Climate Action Plan, to ensure a balance is maintained between protecting the property's Conservation Values and providing public access to green spaces.
- Monitor and improve connectivity which will allow for range shifts.
- Protect key habitats for anadromous species, focusing on enhancing cooler microclimates.
- Incorporate native species with higher tolerances to drought and increased temperatures into planting plans.

Section G. Supplemental Restoration and Management Information

30. Current and Potential Partners

Successful conservation efforts hinge on robust partnerships that bring together diverse expertise and resources. This section outlines the current partners who have contributed significantly to efforts in MICA and the greater MBIP, offering a range of support from habitat and species management to educational outreach and regulatory guidance. Each partner plays a crucial role in various aspects of our conservation work, ensuring that current and future environmental challenges are effectively addressed.

Additionally, the potential for expanding this network to enhance the scope and impact of conservation work in MICA is recognized. Listed below are potential future partners who could bring additional resources and expertise to MICA. The entities listed as potential future partners are aligned with the strategic goals of the MICA and could provide valuable resources and expertise to further conservation and restoration efforts.

CURRENT PARTNERS INCLUDE:

- Bonneville Power Administration
- Oregon Department of Fish and Wildlife: Habitat and species management support, permitting, and regulatory guidance.
- Oregon Department of Environmental Quality: Oversight and guidance on environmental compliance, contamination management, and water quality monitoring.
- Salem Audubon Society: Wildlife monitoring, public education, and conservation support.
- Willamette Riverkeeper: Aquatic invasive species monitoring and management, volunteer trash cleanup.
- Confederated Tribes of Grand Ronde: Restoration strategy and cultural insights.
- Elderberry Wisdom Farms: Traditional Ecological Knowledge and restoration assistance.
- Glenn Gibson Watershed Council: Community outreach and education and technical support.
- Marion Soil and Water Conservation District: Outreach and education, technical support, and potential funding source.
- Oregon Watershed Enhancement Board: Grant funding for Phase 3 Restoration Project.

POTENTIAL FUTURE PARTNERS INCLUDE:

- American Rivers
- Confederated Tribes of Siletz Indians
- Ducks Unlimited
- Trout Unlimited
- NW Steelheaders

31. Consistency with Previous Management Plan

This management plan maintains overall alignment with the previous plan while incorporating updates to reflect current habitat mapping and DFC. These updates are designed to align with OCS habitat types and provide a clearer understanding of current and desired habitats across the site, enhancing the ability to track progress and outcomes over time. Additionally, it incorporates lessons learned from a decade of managing the site under the previous plan and adaptations to changes in public use.

32. Past and Planned Restoration Funding Requests

Table 13 provides an overview of past and current restoration funding awards. As resources and staff capacity permit, additional funding will be pursued to support the implementation of the goals, objectives, and strategies outlined in this plan.

Table 12. Past and Planned Restoration Funding Requests and Permit Needs

Source	Date Applied	For What Purpose	Permits Required	Funding Status
Oregon Watershed Enhancement Board	Funded 2015	Phase 1 Restoration	None	Completed
Bonneville Power Administration	Awarded 2019	Phase 3 Restoration	None	Completed
Meyer Memorial Trust	Awarded 2019	Phase 3 Restoration	None	Completed
Bonneville Power Administration	Awarded 2020	Willamette Slough invasive species control and planting (Phase 2)	None	Completed
Oregon Watershed Enhancement Board	Awarded 2024	Continuing Phase 3 Restoration for 5 years	None	Finalizing grant agreement

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