



February 13, 2026

Willamette Cove Nature Park Master Plan



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Table of Contents

- 00 Executive summary**
- 01 Plan Overview**
 - Willamette Cove Nature Park Vision
 - Project Purpose & Goals
- 02 Context**
 - Project Background
 - Site History & Context
 - Technical Considerations
- 03 The Site Today**
 - Site Description
 - Hydrology, Wetlands, & Water Quality
 - Existing Vegetation
 - Wildlife
 - Topography, Soils, & Geology
 - Transportation & Site Access
- 04 Visioning**
 - Engagement Approach
 - Engagement Methods
 - How Did Engagement Inform the Master Plans?
- 05 Future Nature Park Master Plan**
 - Master Plan Vision
 - A New Nature Park Along the Willamette
 - Site Features
 - Cost Estimate
 - Habitat Improvements
- 06 Future Actions & Recommendations**
 - Future Studies & Assessments
 - Design Phase
 - Implementation
 - Operations & Maintenance
 - Partnership Opportunities
- References**
- Appendix i - Technical Studies & Reports**
 - A) Capacity Assessment
 - B) N Edgewater Railroad Crossing
 - C) Early Assistance Meeting Notes
- Appendix ii - Community Engagement Reports**
 - A) Phase 1 Engagement Summary
 - B) Phase 2 Engagement Summary
 - C) Phase 3 Engagement Summary
 - D) Accessibility Engagement Summary

Commonly used terms

Term	Abbreviation
Articulated concrete block	ACB
Compensation and Liability Act	CERCLA
Burlington Northern railroad	BNFS
Department of State Lands	DSL
Endangered Species Act	ESA
Ordinary High Water	OHW
Oregon Department of Environmental Quality	DEQ
Oregon Health Authority	OHA
Polychlorinated Biphenyls	PCBs
Port of Portland	the Port
Record of Decision	ROD
Union Pacific Railroad	UP
Volatile organic compounds	VOCs

Executive summary

Situated along the Lower Willamette River, the Willamette Cove Nature Park offers a rare opportunity to restore critical riverfront habitat and reconnect people to a recovering urban waterway

The Willamette Cove Nature Park master plan establishes a long-term framework for restoring, stewarding and opening a historically industrial riverfront site along the Lower Willamette River as a public nature park. Located within the Portland Harbor Superfund Site and part of the Voluntary Cleanup Program, Willamette Cove has been shaped by Indigenous stewardship, industrial use, environmental contamination, and ongoing remediation. This plan responds to the complex context by prioritizing ecological restoration alongside access to nature opportunities, recognizing that restoration and public use must proceed within the constraints of the cleanup efforts.

The provision of habitat is the nature park’s primary purpose. This plan prioritizes the restoration of three related habitat systems: shallow water habitat, riparian forest, and oak–madrone woodland. Unlike most nature parks, this place will require the development of thriving ecologies from a remediated but denuded site. The plan emphasizes the relationship of habitat and human use; designing habitat areas to maximize ecological value while acknowledging the importance of bringing people into relationship with a landscape that has a unique and dynamic connection to the Willamette River.

Public access is designed to be passive, inclusive and focused. Community and Tribal engagement consistently emphasized the desire for a quiet, nature-forward place that supports learning, reflection, and connection to the Willamette River rather than intensive recreation. The master plan establishes a framework which includes accessible trails, viewpoints, and gathering areas that are carefully located and scaled to protect sensitive habitats, respect remediation constraints, and align with long-term operations and maintenance capacity. Connection to the river is approached with restraint, prioritizing experiential access including; views, proximity, and interpretation. Physical access will require close coordination with the remedial teams and is proposed at the most essential locations.

The master plan was supported by a phased, iterative engagement process that included government-to-government coordination with Tribal governments, interviews, surveys, workshops, accessibility-focused discussions and on-going coordination with partners in the cleanup projects. Internal coordination with Metro’s science team, operations and maintenance staff, and planning staff ensured the plan is grounded in technical feasibility and stewardship capacity, with Metro Council engagement at key milestones.

A defining feature of the master plan is its close coordination with ongoing remediation of contamination. The master plan remains responsive to remediation sequencing and regulatory requirements and identifies next steps for implementation, permitting coordination, and partnerships to advance the site toward a fully restored nature park.



01
Plan Overview

Willamette Cove Nature Park Vision

The Willamette Cove Nature Park master plan envisions a place of ecological restoration, cultural continuity, and connection to the Willamette River. Part of a landscape shaped by Indigenous stewardship since time immemorial, then built up and used by industry for decades, and now being reshaped by on going cleanup, the cove has a history of harm and is now an opportunity for healing. This master plan charts a path forward that centers restoration, honors cultural relationships to the river and welcomes people into the landscape with intention and care.

The future park prioritizes healthy habitat as its foundation. Shallow water habitat, riparian forests and oak-madrone woodlands will be restored and protected to support wildlife, improve habitat connectivity and strengthen the river's ecological function. Public access is designed to be compatible with these systems so that people can experience the river and upland habitat without diminishing the conditions that sustain it.

Willamette Cove Nature Park will be a place of learning and belonging. Indigenous connection to this place is recognized as ongoing and essential, with space for cultural expression and community gathering. Interpretation and art are proposed to be integrated into the landscape to share stories of the river's past, present, and future, with an emphasis on sustaining living cultural relationships with the river and land. Trails, viewpoints, and gathering areas are proposed to invite reflection, support accessibility, and foster a sense of stewardship for the land.

Ecological recovery will take time. The nature park will evolve as restoration progresses, healthy soils develop, tree canopies mature and wildlife re-establishes its connection to the site. This master plan embraces that long view, guiding the site's transformation into a resilient riverfront landscape that serves both the natural systems and the ecological communities of the Willamette River, who seek connection, healing and respite along its shores.



Project Purpose & Goals

The Willamette Cove Nature Park master plan provides a long-term framework for restoring and stewarding a historically industrial riverfront site while opening it to the public through carefully designed, low-impact access. The plan translates community and Tribal priorities, scientific guidance, operations and maintenance needs, Metro agency goals, and regulatory requirements into a clear and implementable vision for a future nature park that supports ecological health, cultural presence and equitable access to nature.

Create a Vision that Includes both Habitat and Passive Recreation

Balance ecology and human use through the creation of a plan which honors the needs of both functions. Support long-term ecological recovery by restoring and protecting oak-madrone woodland, riparian forest and shallow water habitat, with an emphasis on habitat connectivity, resilience and minimal fragmentation. Create inclusive opportunities for passive recreational experiences of the river and surrounding habitats by means of accessible regional trail and nature trails, viewpoints, water access points, parking, and gathering spaces that are carefully located to protect sensitive habitat areas.

Use the best available science and technical guidance to inform shoreline treatments, trail placement, and habitat restoration, ensuring that public access infrastructure supports ecological function.

Provide Universal Access to the Regional Trail, Nature Trails and Water

Focus on accessibility when laying out the regional trail, nature trails and water access points. The provision of universal access to nature is among the projects highest purposes. Engage and consult with the accessibility community to understand preferences and leverage lessons learned through lived experience.

Define Parking and Gathering Areas

Ensure that there is space set aside for vehicular parking and community gathering. Identify the optimal location for vehicular entrance and design parking to minimize impacts to habitat and nature park amenities. Identify a range of gathering areas throughout the site to accommodate community needs and desires.

Conduct Consultation and Engagement with Tribes and Community

Consult and engage with Tribes and community throughout the planning process, and carry forward cultural values into the design, interpretation, and management of the park, especially to support Indigenous presence, stewardship, and storytelling.

Create Cultural and Educational Opportunities

Use feedback from Tribes and community to define opportunities for cultural and educational elements throughout the site. The cultural history of the place holds meaning and interest and should be presented with respect and care. The transformation of the site from industry to habitat is an important educational story which should be interpreted clearly for visitors.

Coordinate with Remedial Teams

The nature park design must be advanced in alignment with ongoing upland and in-water remediation efforts, allowing the park implementation and long term operations to respond to cleanup schedules, regulatory oversight, operational constraints and long-term environmental protection needs.

Plan for Adaptation & Long-Term Care

Establish a framework for implementation, adaptive management, and partnerships that respond to changing environmental conditions, agency operational capacity, climate impacts, and community needs over time.



02 Context

Project Background

Willamette Cove is a 27-acre site located along the east bank of the Willamette River in North Portland, adjacent to established neighborhoods, regional transportation corridors, a heavily industrialized stretch of the river and large habitat anchors at Forest Park and Smith and Bybee Wetlands. For much of the past century, the site was shaped by rail infrastructure, fill placement, shipping and industrial activity, resulting in altered shorelines, fragmented habitat, and contamination of soils and river sediments. These conditions reflect broader patterns of industrial development along the Lower Willamette River and have long limited both ecological function and public access at the cove.

In recent decades, Willamette Cove has become the focus of sustained public, Tribal, and agency interest in environmental cleanup, habitat restoration, and future access to the river. The site lies within the 11-mile Portland Harbor Superfund Site where multiple public agencies have been working to address legacy contamination and restore environmental health. The efforts specific to Willamette Cove include upland remediation led by the Port of Portland (“the Port”) and Metro under oversight by the Oregon Department of Environmental Quality (DEQ), and in-water and riverbank remediation led by the City of Portland, the Port, and Department of State Lands (DSL) under oversight by the U.S. Environmental Protection Agency (EPA). Together, these projects are essential to making future ecological uplift and public use of the site safe and feasible.

In parallel with cleanup planning, Metro and Tribal partners developed a long-term vision for restoration at Willamette Cove. Tribal partners for this work include: Confederated Tribes and Bands of the Yakama Nation, Confederated Tribes of Grand Ronde, Confederated Tribes of Siletz Indians, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon and the Nez Perce Tribe. This restoration vision is formalized in the Willamette Cove site conservation plan, which identifies priority habitats, conservation targets, and management principles for the site. The site conservation plan establishes ecological restoration as the foundation for

future park planning and provides the structure within which public access must be carefully considered.

The Willamette Cove Nature Park master plan translates conservation priorities, Tribal and community values, and regulatory constraints into a coordinated framework for future design and implementation. The master plan is intended to guide how and where access, trails, gathering spaces, and water connections may occur, while remaining responsive to ongoing remediation, habitat recovery and long-term monitoring requirements.

The planning process for the master plan has been shaped by extensive coordination with Tribal governments, community members, technical experts, remedial design teams and agency partners. Engagement efforts emphasized listening to community priorities, understanding trade-offs, and ensuring that the future park reflects shared values around habitat protection, accessibility and cultural recognition. Rather than pursuing intensive programming or development, the master plan responds to strong public interest in a place where nature is prioritized that offers respite, learning, and connection to the river.

These efforts position Willamette Cove for a gradual transformation, from a closed, contaminated industrial site to a restored riverfront landscape that supports ecological health, honors cultural relationships and provides meaningful public access. This master plan serves as the guiding document for that transition, outlining a realistic and adaptive path forward as remediation progresses and the site continues to recover.

At the time of writing, the cleanup plans are still being developed. The final conditions of the site after remediation remain uncertain, and therefore the master plan will need to be applied flexibly in order to respond to these unknown conditions. There are details in this plan that may need to shift, and that reality is acknowledged here. This will not trigger revisions to the master plan later but will be incorporated in subsequent project design and documentation. .



Site History and Context

Pre-Colonization

The Willamette River and its shorelines are part of the ancestral homelands, usual and accustomed areas and travel routes of Indigenous Peoples from multiple Tribes and Bands. Tribes and Indigenous communities continue to use and value the Willamette River and its shorelines today for life ways, ceremony, and other practices (Metro, 2023).

These practices include harvesting First Foods and other resources. First Foods are traditional subsistence resources with special significance to Tribes. Examples include salmon, Pacific lamprey, and wapato, among others, although the significance of such resources is unique to each individual Tribe. These sacred resources are essential to feasts, ceremonies, and other cultural uses. These relationships did not end with colonization or industrialization; they continue today, despite profound disruption and loss of access over time. (Metro, 2023)

Colonial settlement and subsequent industrial development fundamentally altered both the physical landscape and the ability of Indigenous communities to maintain direct relationships with the river. Shoreline modification, contamination and restricted access displaced cultural practices tied to fishing, gathering, travel and ceremony. These changes were accompanied by broader patterns of dispossession and exclusion that severed many people from places that had long sustained them. Nonetheless, Tribal relationships to the Willamette River are enduring and ongoing. Despite displacement, environmental degradation and restricted access over time, the river remains a place of cultural significance, responsibility and care.

Industrial Era

Beginning in the late 19th and early 20th centuries, the Lower Willamette River was rapidly transformed by industrial development. Railroads, shipping infrastructure, and adjacent industrial uses reshaped the shoreline, filled floodplain areas, and altered natural hydrology. Bulkheads, riprap, and other engineered bank treatments replaced natural river edges, while upland areas were graded and filled to support rail operations and industrial facilities. During this time Willamette Cove hosted a variety of industrial uses including commercial dry dock, cooperage, lumber mills, and rail lines. The cove in the Willamette River at this property was created through excavation to extend the land spit for the foundation of the adjacent railroad bridge beginning in the late 1890s (Oregon DEQ, 2021).

These activities contributed to widespread environmental impacts, including habitat loss, disruption of ecological processes, and contamination of soils and sediments. The industrial facilities and activities that occupied Willamette Cove from 1900s through the 1970s contributed contaminants to the site including; heavy metals, diesel fuel, polychlorinated biphenyls (PCBs) and dioxins (Oregon DEQ, n.d.).

Over time, the combination of physical alteration and pollution rendered the site unsuitable for public access and diminished its ecological function. The significant changes that have occurred at Willamette Cove also occurred in other Pacific Northwest waterways and upland habitats, leading to species declines including the collapse of fisheries and listing of several species as threatened or endangered under the Endangered Species Act (ESA) (Portland Harbor Superfund Site Record of Decision, 2017). By the mid-20th century, Willamette Cove had become emblematic of the industrial legacy shared by much of the Portland Harbor reach of the river.



Source: Willamette Cove Site Conservation Plan, Metro 2025

Public Ownership & Clean-Up

Metro acquired the Willamette Cove property in 1996 through the region's 1995 Open Spaces, Parks and Streams Bond Measure 26-26, recognizing the site's ecological significance, including riparian cottonwood forest, Oregon white oak and madrone stands, and its role in shoreline habitat connectivity along the Lower Willamette River (Metro, 2025). While the site held strong conservation value, subsequent investigations revealed that historic industrial activities along the Lower Willamette River had resulted in significant contamination in both upland soils and river sediments. Environmental investigations identified elevated levels of contaminants associated with past industrial uses.

On December 1, 2000, Portland Harbor (including Willamette Cove) was listed on the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) National Priorities List (known as Superfund), triggering regulatory oversight and a long-term focus on environmental cleanup and risk

reduction (EPA, 2017). Cleanup planning at Willamette Cove has involved multiple agencies operating under distinct regulatory frameworks, coordinated through the Portland Harbor Memorandum of Understanding. This agreement resulted in a remedial approach focused on two related but separate efforts: upland cleanup led by the Port and Metro under DEQ oversight, and in-water and riverbank cleanup led by the City of Portland, the Port of Portland and the State of Oregon, acting by and through the Department of State Lands under oversight by the EPA. Metro, the Port, and the DEQ entered into a Voluntary Cleanup Agreement to address contamination on the upland portion of the site. Together, these efforts address legacy contamination while establishing conditions necessary for ecological recovery and future public access.

Several interim and early remedial actions have already occurred at the site. In 2004, an articulated concrete block (ACB) armored cap was installed along a portion of the shoreline and into the river at the east end of the cove to address contamination migrating from

the adjacent McCormick & Baxter Superfund Site. McCormick & Baxter is a separate Superfund site overseen by DEQ and EPA, and includes extensive sediment capping and armored shoreline remedies that extend partially onto the Willamette Cove shoreline (Oregon DEQ, 2021).

In 2008, soils with elevated metal concentrations were removed from the central upland portion of Willamette Cove. In 2013, the Oregon Health Authority (OHA) recommended closure of the site for public health and safety due to contamination and physical hazards (Oregon Public Health Division Environmental Health Assessment Program, 2013). Additional remedial actions occurred in 2015 and 2016, when soils with the highest risks to human health of dioxins and furans were removed from the upland area. Excavated areas were subsequently replanted with native vegetation. Despite these actions, contamination remains throughout the site and within the river, continuing to pose risks to human health and the environment.

Demographic Comparison of Willamette Cove Service Area* to the Metro Region

Category	Demographic Variable	% Population		% Difference
		Metro Region	WC Service Area*	
Race	Black	5.4%	12.7%	7.3%
	Native American	2.6%	4.0%	1.4%
	Hispanic/Latino	13.6%	14.9%	1.3%
	Asian	11.5%	10.4%	-1.1%
	Pacific Islander	1.2%	2.8%	1.5%
	White	67.3%	59.2%	-8.1%
Socio-Economics	People of Color	32.7%	40.8%	8.1%
	Low Income	22.4%	28.5%	6.1%
	No Higher Education	38.5%	36.2%	-2.3%
	Cost Burdened Homeowners	10.3%	14.7%	4.4%
	Cost Burdened Renters	17.4%	18.9%	1.5%
	No Health Insurance	5.8%	5.4%	-0.3%
People with Disabilities	In a Household Without a Vehicle	7.7%	7.4%	-0.2%
	Low Food Access	10.8%	0.8%	-10.0%
	Ambulatory Disability	5.4%	12.7%	7.3%
	Hearing Disability	2.6%	4.0%	1.4%
Household Characteristics	Vision Disability	13.6%	14.9%	1.3%
	Cognitive Disability	11.5%	10.4%	-1.1%
	Youth	20.0%	19.1%	-0.9%
	Seniors	14.8%	9.4%	-5.4%
	Living Alone	11.8%	13.5%	1.7%
In a Single-Parent Family	11.4%	15.7%	4.3%	
In a Limited English-Speaking Household	3.3%	1.8%	-1.5%	

* Service area was calculated using a 2-mile radius from the site

** Data source: US Census Bureau American Community Survey (2022) and USDA Food Access Research Atlas (2019)

In 2021, DEQ issued its Record of Decision (ROD), the guidelines for a cleanup that will make Willamette Cove nature park safe for people, plants and wildlife. DEQ also incorporated a contingency remedy in the final cleanup plan to provide flexibility as Metro finalizes their vision in developing the property into a nature park.

Community Characteristics

Willamette Cove Nature Park is situated within North Portland, an area which is culturally, economically, and racially diverse. The site lies near established residential areas, regional transportation corridors, and employment centers, placing it within close proximity to people who live, work and travel through the area daily.

Demographic data for the surrounding neighborhoods within a 2-mile radius of the site indicate a higher-than-average presence of People of Color, specifically; Black, Native American, Hispanic/Latino, and Pacific Islander communities when compared to the Portland

metropolitan region as a whole. Socio-economic factors represented at a higher proportion than the Metro region include; low income, cost burdened homeowners and cost burdened renters. People with ambulatory, hearing and vision disabilities are also represented at a higher percentage than the Metro region. Households with people living alone or in single-parent families are present at a higher rate than the region overall. These characteristics shape how residents experience public space and underscore the importance of equitable access to safe, welcoming natural areas.

Historic and ongoing land use decisions along the Lower Willamette River have also influenced who has access to riverfront spaces. Industrial zoning, rail infrastructure, and contamination have limited opportunities for nearby communities (particularly those already experiencing environmental and social burdens) to interact with the river. As a result, many residents who live closest to Willamette Cove have had limited direct access to natural areas along the river despite its prominence in the landscape.

Access to Nature

Access to nature and water is unevenly distributed across Portland, and disparities are particularly evident along industrialized sections of the Willamette River. In the urban core and especially in North Portland, residents have fewer opportunities to reach publicly accessible river fronts, natural shorelines, and large, contiguous green spaces compared to other parts of the Willamette Shoreline (Oregon Coast Visitors Association, 2025).

Access to the Willamette River itself is especially limited, with long stretches of shoreline occupied by industrial uses, rail lines, or contaminated lands. For many nearby residents, experiencing the river has been largely visual rather than physical, with few safe or welcoming places to approach the water.

These conditions are compounded by broader environmental factors. Areas surrounding Willamette Cove experience higher exposure to industrial land uses, reduced tree canopy, and increased vulnerability to heat and flooding (Fahy et al., 2019). Together, these factors contribute to cumulative environmental burdens that affect health, comfort, and quality of life, particularly for communities with fewer resources to seek nature elsewhere.

Environmental Justice

Willamette Cove is located within an area that has experienced a disproportionate share of environmental burdens over time (Goodling, 2021). Historical and ongoing industrial activity along the Lower Willamette River has resulted in elevated exposure to contamination, air and noise pollution (NOAA, 2017). These conditions have affected nearby communities for decades and have shaped present-day disparities in environmental health and access to natural resources. Communities in North and Northeast Portland live in closer proximity to brownfields and Superfund sites, legacy contamination from leaking underground storage tanks, reduced tree canopy coverage, and increased exposure to urban heat (Metro, Parks and Nature, 2021). Major transportation and rail corridors further compound these impacts by contributing to noise, air pollution, and physical separation between neighborhoods and the river. Limited access to high quality natural spaces, combined with environmental stressors, can affect physical health, mental well-being, and overall quality of life, particularly for lower-income households, communities of color, elders, and people with disabilities (Baur et al., 2013; Britton et al., 2020; Jimenez et al., 2021; Kondo et al., 2018; Rowland-Shea et al., 2020; White et al., 2019; Wong et al., 2023). These conditions underscore the importance of addressing both environmental harms and access inequities as part of the site's future.

The Willamette Cove Nature Park master plan is informed by this environmental justice context. While remediation efforts are addressing legacy contamination and reducing environmental risk, the master plan focuses on how the benefits of cleanup, restoration, and public investment are realized by surrounding communities. The plan prioritizes restoring ecological function, improving climate resilience through habitat and tree canopy, and creating equitable opportunities to experience nature and the river in ways that are safe, inclusive, and culturally respectful. By aligning habitat restoration, remediation coordination, and equitable access, the Willamette Cove Nature Park master plan seeks to contribute to a more just riverfront system: one that acknowledges historical inequities, reduces cumulative environmental burdens over time, and ensures that the benefits of a restored Willamette Cove are shared by the communities who have generational connections to the place.

Technical Considerations

Regulatory Framework

Nature park development at Willamette Cove will be a complex process. The site is subject to multiple, overlapping layers of regulatory jurisdiction that reflect its Willamette River location, City of Portland zoning, and Portland Harbor Superfund Site designation. Together, these regulatory conditions create special considerations that influence the planning, design, remediation, and implementation of future park improvements. Additional information can be found in the Early Assistance meeting notes in the appendix.

Zoning & Land Use

Development is subject to City of Portland zoning and development standards. Willamette Cove is zoned Open Space (OS) with Willamette River Greenway overlay regulations, including environmental conservation and protection zones. These designations protect river-related natural resources, scenic qualities, and water quality, while allowing for low-impact recreational and educational uses consistent with open space and natural area objectives. City regulations impact design through prescribed setbacks, design standards, and mitigation requirements. The Master Plan provides a framework to support future City review and project-level approvals.

City of Portland Titles 11 & 33

Portland regulates tree preservation, removal, and replacement through Title 11 (Trees) and Title 33 (Planning and Zoning). These regulations govern the removal of native and non-nuisance trees and establish requirements for mitigation or replacement when trees are removed. Due to the presence of contaminated soils, extensive tree removal is anticipated as part of environmental remediation activities. Tree removal associated with cleanup actions will still trigger replacement or mitigation requirements, consistent with applicable code provisions. Park improvements may require additional tree and vegetation mitigation plantings.

City of Portland Title 24

The City of Portland regulates buildings and structures under Portland City Code Title 24, which adopts the Oregon Structural Specialty Code and related specialty codes. While many park improvements—such as trails, habitat restoration, and at-grade site work—do not constitute structures subject to building code review, future park elements that qualify as structures would be required to comply with Title 24. These may include buildings, shelters, elevated boardwalks, viewing platforms, retaining walls above regulated heights, stairs, railings, and other structural features.

Floodplain and Floodway Regulations

Large portions of Willamette Cove lie within mapped floodplain and floodway areas of the Willamette River. Development within these areas is subject to regulations intended to maintain flood conveyance, reduce risk to people and property, and preserve floodplain function. Within the regulated areas, cut and fill must be carefully balanced, and most new structures are prohibited unless detailed engineering analysis demonstrates that there would be no increase in flood elevations. These requirements are a key consideration for riverbank modifications associated with site remediation and future park improvements.

Stormwater Management and NPDES

Stormwater at Willamette Cove is regulated by the City of Portland and must comply with local and state stormwater management standards intended to protect water quality in the Willamette River. Stormwater design will influence grading, surface treatments, and drainage approaches and must be coordinated with environmental remediation to avoid mobilizing contaminants. Park improvements must also comply with the City of Portland's Municipal Separate Storm Sewer System (MS4) requirements where stormwater discharges to the public system or directly to the river. Construction activities that disturb one acre or more

require coverage under the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit administered by the Oregon Department of Environmental Quality (DEQ). Clean Water Act

Project work below the Ordinary High Water line of the Willamette River requires federal authorization under the Clean Water Act, including Section 404 permits from the U.S. Army Corps of Engineers, removal/fill permit approval from Oregon Department of State Lands, and Section 401 water quality certification from DEQ. These permitting requirements influence the design, timing, and construction methods for shoreline stabilization, restoration, and in-water work.

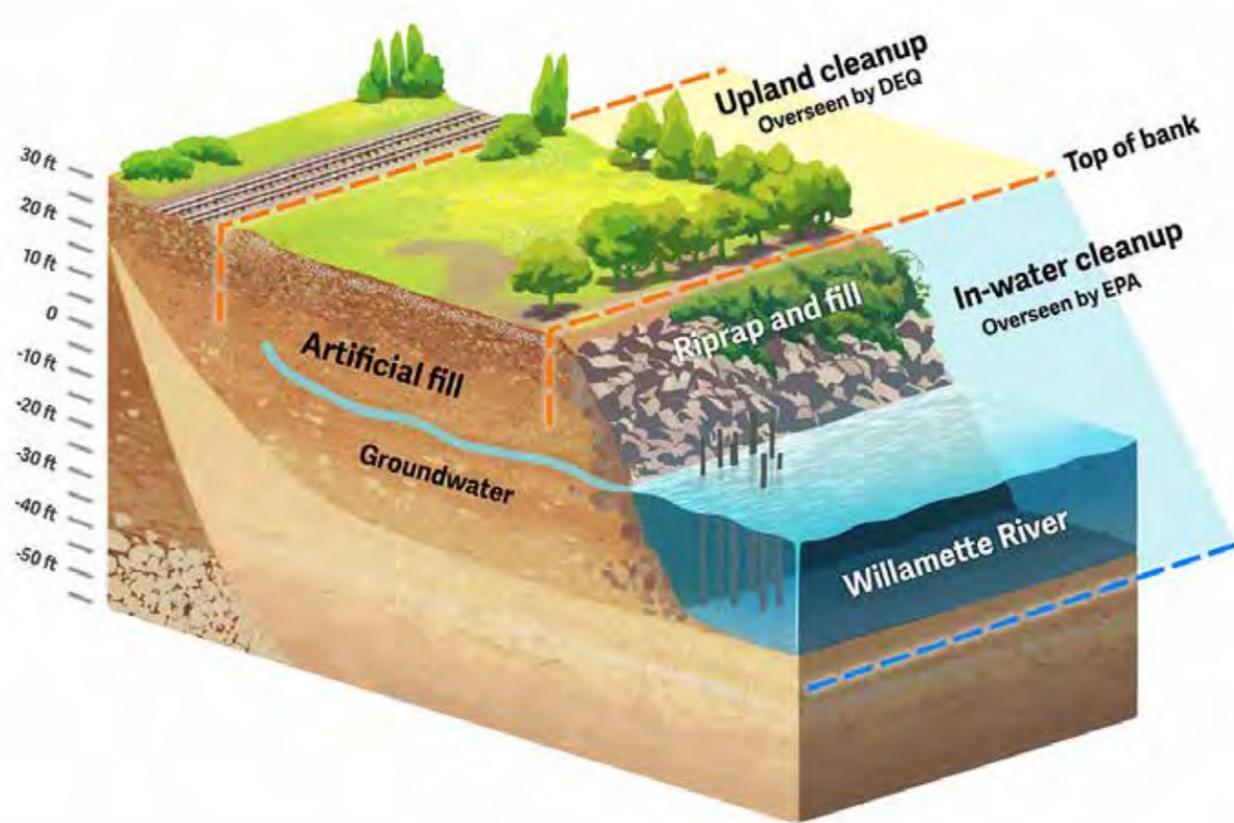
Rail Infrastructure & Safety Requirements

Active freight rail corridors border the inland boundary of Willamette Cove, introducing additional regulatory and safety considerations. Public access and park improvements adjacent to rail lines must comply with applicable railroad safety standards, state transportation requirements, local and site-specific safety criteria related to separation distances, sight lines, and crossings (Oregon Department of Transportation, 2020). These requirements may influence trail alignment, fencing, access points, and long-term park operations

For code references mentioned in this section, refer to the references section as well as the Early Assistance meeting notes included in Appendix i.



View looking into the cove along the Willamette riverbank



Remediation Activities & Project Coordination

Effective clean-up of the industrial contaminants is a prerequisite to Metro opening Willamette Cove as a public nature park. The toxic chemicals currently found in soils and sediments prohibit the realization of the site’s conservation and restoration goals, as well as the public’s ability to enjoy nature here in a safe and healthy manner. A summary of the complex remediation projects currently under way is a key to understanding constraints and opportunities for nature park design.

Contaminants are present in both upland soils and river sediments and require coordinated remedial action under state and federal regulatory frameworks. Cleanup efforts are intended to eliminate or control exposure pathways, prevent contaminant migration, and establish stable site conditions that support long-term environmental protection and compatible land uses. The remedial actions will result in the removal of trees across the site.

Remediation at Willamette Cove is proceeding through two related but distinct projects: upland

remediation, addressing contaminated soils landward of the riverbank under DEQ oversight, and in-water remediation, addressing contaminated sediments and riverbank conditions within the Willamette River under EPA.

Metro owns approximately 27 acres, extending to the ordinary low water line of the Willamette River, and including portions of both remediation projects. Ownership below the ordinary low water line lies with DSL, with no private ownership.

While each project is governed by separate regulatory processes and led by different agencies, coordination between the upland and in-water efforts is essential to ensure consistency in design assumptions, constructability, and long-term management.

In-Water & Riverbank Cleanup

Cleanup of contaminated sediments and riverbank areas at Willamette Cove is part of the broader Portland Harbor Superfund effort. The in-water project area includes approximately 46 acres of riverbed and riverbank within and downstream of Willamette Cove and addresses contamination resulting from historic

industrial activity along the Lower Willamette River. Remedial actions are critical to improving aquatic habitat, reducing exposure risks, and establishing conditions that support long-term ecological recovery and future public use. These actions are governed by strict regulatory requirements related to water quality, floodplain function, and habitat protection, and they significantly influence what forms of shoreline restoration and access are feasible.

Remedial investigations identified contamination in river sediments and along the riverbank, with primary contaminants of concern including polychlorinated biphenyls (PCBs), dioxins, and furans. Based on the distribution, depth, and risk associated with these contaminants, the in-water remedy employs a combination of engineered sediment capping, targeted dredging, and riverbank stabilization. Sediment capping is used where contamination is widespread or occurs at depth, while precision dredging addresses more localized contamination, with excavated areas backfilled to maintain existing riverbed elevations and avoid changes to river hydraulics. Along the riverbank, contaminated soils are removed or isolated through excavation, engineered caps, and slope regrading, followed by stabilization and revegetation.

As remedial design advanced, supplemental sampling refined understanding of contamination along downstream bank segments, resulting in the need for additional riverbank treatments and armored revetments in select areas. These revetments are designed to isolate remaining contamination, resist erosion from river currents and boat wakes, and protect the integrity of the remedy over time while supporting habitat function where feasible. Long-term protection of the in-water remedy will rely on institutional controls and monitoring to prevent disturbance of capped sediments and stabilized banks. These cleanup actions will establish a stable foundation for ecological restoration and directly inform the planning, phasing, and design considerations for the future Willamette Cove Nature Park. These actions will also result in constraints that will effect the long term site management.

Upland Cleanup

Cleanup of contaminated upland soils at Willamette Cove is being led by the Port and Metro under oversight by the DEQ through the Voluntary Cleanup Program. This work addresses legacy contamination associated

with historical industrial and rail-related uses of the site and is intended to reduce risks to human health and the environment. The upland cleanup is being implemented consistent with the March 2021 DEQ ROD and in coordination with Metro. The upland project area includes approximately 18.6 acres extending from the top of bank inland to the Union Pacific Railroad (UP) right-of-way and is divided into west, central, and east parcels based on site history and physical conditions.

Remedial investigations identified contaminants of concern across the uplands, including dioxins and furans, mercury, lead, PCBs, and other metals. While earlier interim actions reduced some of the highest human health risks, additional remediation is required to prevent exposure and limit migration of contaminants toward the river. The selected upland remedy combines targeted excavation and off-site disposal of contaminated soils with engineered soil caps in areas where residual contamination remains. Highly contaminated soils will be removed and disposed of at regulated facilities, while areas with lower-level contamination will be capped with clean soil at depths determined by residual risk and anticipated land use. In accordance with subsequent Metro Council direction, both highly and moderately contaminated excavated soils will be removed from the site rather than consolidated on-site, reducing long-term management requirements and increasing flexibility for future restoration. These remediation activities will result in the removal of all trees on site. Trees will be replanted during the development of the nature park but a fully mature canopy will take years to develop.

Following excavation and capping, upland areas will be restored with clean soil, with long-term protection provided through institutional controls, monitoring, and maintenance. Upland remediation activities will influence final grades, soil conditions, vegetation potential, and allowable disturbance across portions of the site, and therefore directly inform future restoration and access planning. The nature park master plan is structured to remain responsive to these conditions by avoiding assumptions about final grades or soil profiles in areas subject to remediation and emphasizing coordinated implementation once cleanup is complete and site conditions are confirmed. Together, the upland cleanup establishes safe and stable conditions that support ecological recovery and enable carefully managed public access consistent with the long-term vision for Willamette Cove.



03

The Site Today

Site Description

The Willamette Cove site is located in the city of Portland, bound by the lower Willamette River between river miles 6.2 and 6.8 to south, the Union Pacific (UP) railroad to the north, the Burlington Northern railroad (BNSF) bridge abutment to the east. Metro also owns a 3-acre property on the steep, upland northeastern side of the UP railroad, which is not considered part of the nature park.

Its landscape position is a mostly flat terrace built on anthropogenic fill, and, on its inland side, borders an extension of the North Willamette Escarpment, a landform associated with the Pleistocene-era Missoula Floods. It includes 0.7 miles of river shoreline, and the cove itself is a constructed inlet adjacent to the main

channel of the river created by the bridge abutment. The western half of its shoreline is open to the floodway of the river.

Most of the cove has a wider, gently sloping sandy shore below a steep wooded bank with concrete and other industrial debris found at and below the surface. Portions are covered in articulated concrete block (ACB) cap. The remainder of the riverbank is hardened with riprap except where erosion has exposed a mixed sandy and rubble bank. The site has a re-naturalized post-industrial land cover, hosting a variety of native and weedy vegetation and industrial remnants including concrete slabs, structures, wooden pilings, and a boat sunk to the bottom of the cove.

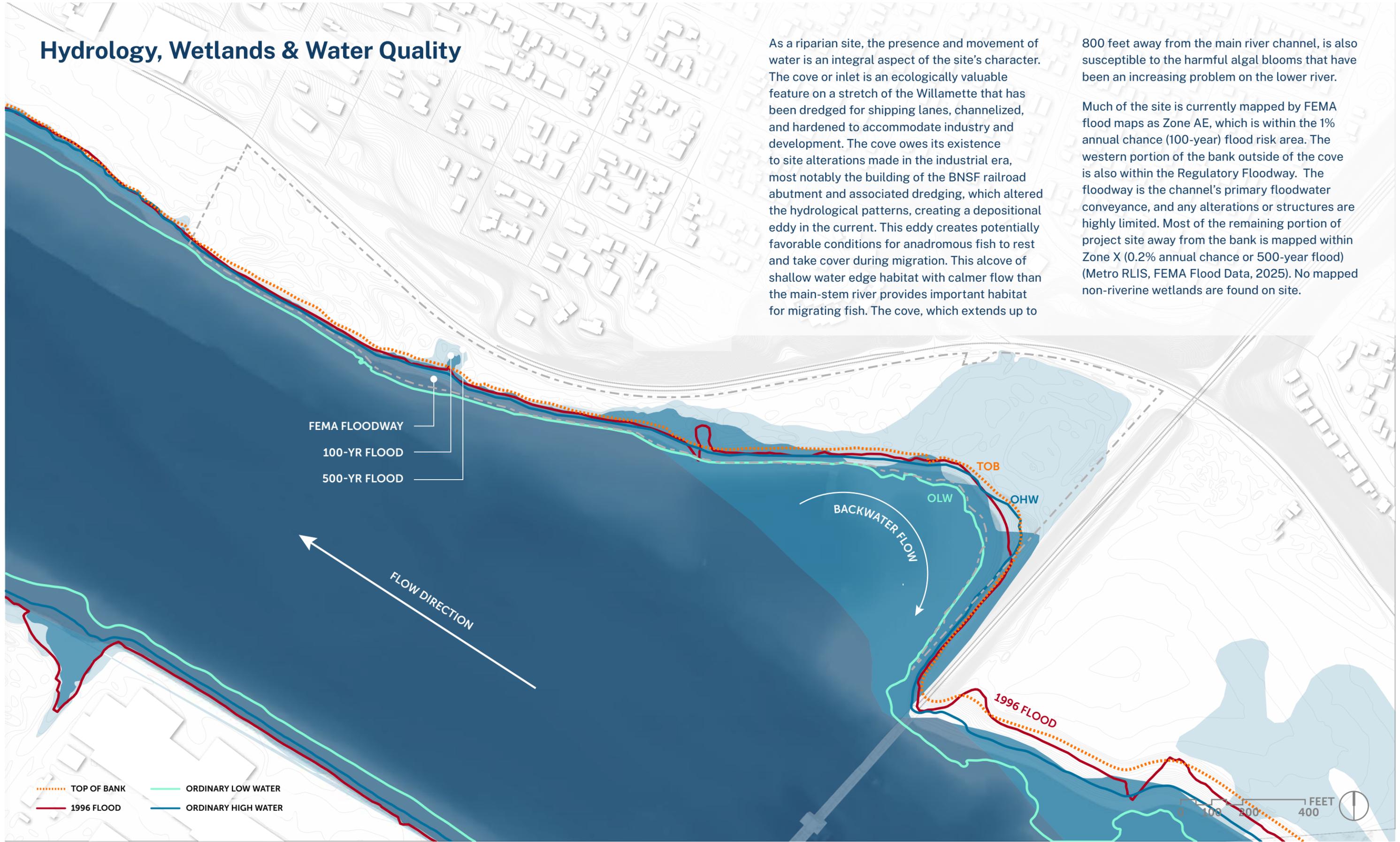


Hydrology, Wetlands & Water Quality

As a riparian site, the presence and movement of water is an integral aspect of the site's character. The cove or inlet is an ecologically valuable feature on a stretch of the Willamette that has been dredged for shipping lanes, channelized, and hardened to accommodate industry and development. The cove owes its existence to site alterations made in the industrial era, most notably the building of the BNSF railroad abutment and associated dredging, which altered the hydrological patterns, creating a depositional eddy in the current. This eddy creates potentially favorable conditions for anadromous fish to rest and take cover during migration. This alcove of shallow water edge habitat with calmer flow than the main-stem river provides important habitat for migrating fish. The cove, which extends up to

800 feet away from the main river channel, is also susceptible to the harmful algal blooms that have been an increasing problem on the lower river.

Much of the site is currently mapped by FEMA flood maps as Zone AE, which is within the 1% annual chance (100-year) flood risk area. The western portion of the bank outside of the cove is also within the Regulatory Floodway. The floodway is the channel's primary floodwater conveyance, and any alterations or structures are highly limited. Most of the remaining portion of project site away from the bank is mapped within Zone X (0.2% annual chance or 500-year flood) (Metro RLIS, FEMA Flood Data, 2025). No mapped non-riverine wetlands are found on site.



Existing Vegetation



The site is presently a mosaic of mixed deciduous riparian forest and open, ruderal grassland interspersed with shrubs and trees, with non-native vegetation generally dominating. Native trees include black cottonwood (*Populus trichocarpa*), Oregon white oak (*Quercus garyana*), Pacific madrone (*Arbutus menziesii*), Pacific willow (*Salix lasiandra*), Scouler's willow (*Salix scouleriana*), western red-cedar (*Thuja plicata*), Pacific yew (*Taxus brevifolia*) and big-leaf maple (*Acer macrophyllum*). The site hosts some particularly large specimens of Pacific madrone. The oak and madrone woodlands on site are part of a band of this priority habitat type in the

contiguous upland parcels, extending up and down the bluffs along the Willamette River

Exotic trees include Lombardy poplars, European birch, pin oaks, and non-native true cedars.

Native shrubs such as Oregon grape (*Mahonia aquifolium*), snowberry (*Symphoricarpos albus*), and red-flowering currant (*Ribes sanguineum*) are present, while substantial populations of invasive shrubs such as scotch broom (*Cytisus scoparius*), English holly (*Ilex aquifolium*), English ivy (*Hedera helix*), and Himalayan/Armenian blackberry (*Rubus armeniacus*) are found throughout.

INVASIVE TREES INCLUDE EUROPEAN BIRCH, EMPRESS TREE, AND ONE-SEED HAWTHORNE

DENSE RIPARIAN GROVE OF COTTONWOODS AND WILLOWS

CLUSTER OF SMALL OREGON WHITE OAKS

NUMEROUS MADRONES CLOSER TO THE RAILROAD

LARGE NON-NATIVES, INCLUDING LOMBARDY POPLARS, PIN OAKS, DEODARA AND ATLAS CEDARS

LARGEST DIAMETER TREES ON SITE - MADRONES AND COTTONWOODS

1,682 TREES >1.5" DIAMETER ON SITE

80% OF THESE ARE NATIVE, INCLUDING:

- 804 COTTONWOODS
- 214 WILLOWS
- 178 MADRONES
- 53 WHITE OAKS
- 12 WESTERN RED-CEDARS

19% ARE NON-NATIVE, INCLUDING:

- 163 TREES ON THE CITY OF PORTLAND NUISANCE PLANT LIST
- 148 OTHER NON-NATIVE TREES

- ◻ BLACK COTTONWOOD
- ◻ CONIFER
- ◻ MADRONE
- NEEDS IDENTIFICATION
- OTHER NON NATIVE TREE
- ✕ SNAGS
- ◻ OAK
- OTHER BROADLEAF
- CITY OF PORTLAND NUISANCE TREE

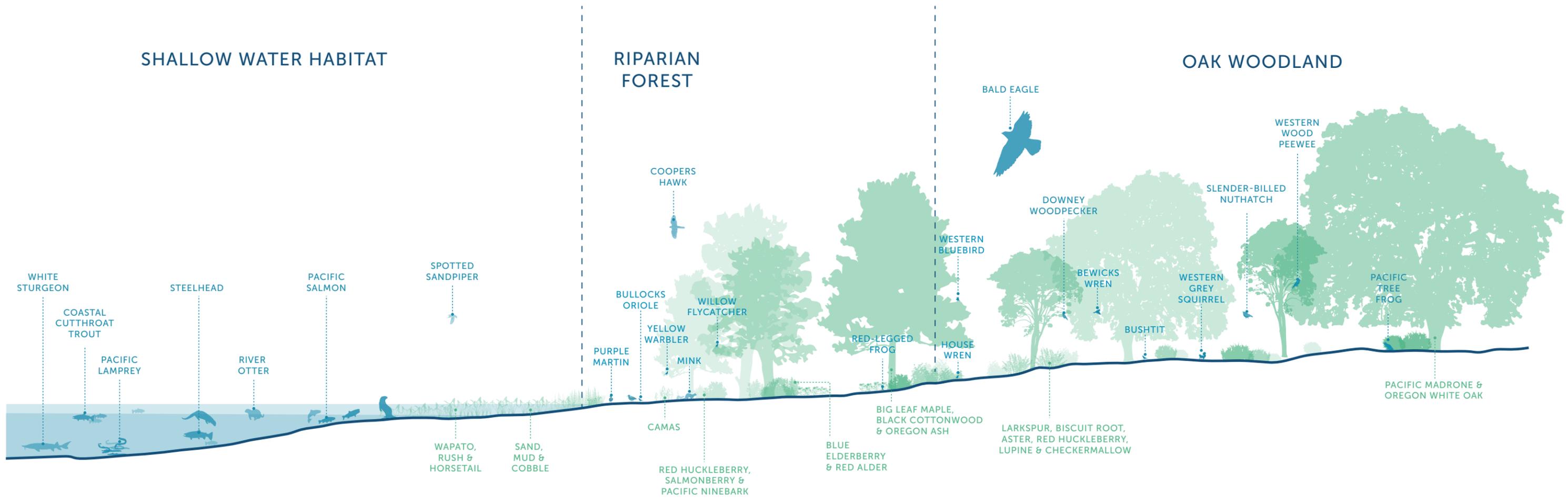


Wildlife

The Willamette River serves as habitat and a migratory corridor for numerous ESA-listed and tribally important fish species, such as Chinook salmon, coho salmon, steelhead, Pacific lamprey, and white sturgeon. The National Marine Fisheries Service has designated the lower Willamette River as critical habitat for two populations of Chinook salmon and two populations of steelhead, and is proposed critical habitat for Lower Columbia River coho salmon. Riparian areas are particularly important for neotropical migratory songbirds. In addition, bald eagle, osprey, and many native songbirds and wading birds are known to use

the site. Migratory and resident birds can also be important resources for tribal communities including species such as geese, ducks and herons. These bird species are present at Willamette Cove and are also important indicators of healthy ecosystems. Other birds and animals associated with the riparian habitat are bald eagle, osprey, double-crested cormorant, great blue heron, belted kingfisher, mergansers, cliff swallow, spotted sandpiper, mink, river otter, northern red-legged frog, and Pacific tree frog.

The site hosts many focal bird species for oak-madrone habitat, including slender-billed nuthatch, downy woodpecker, bushtit, western wood-pewee, Bewick's wren, and house wren. All these species have been observed at Willamette Cove over the past 25 years.



Habitat Connectivity

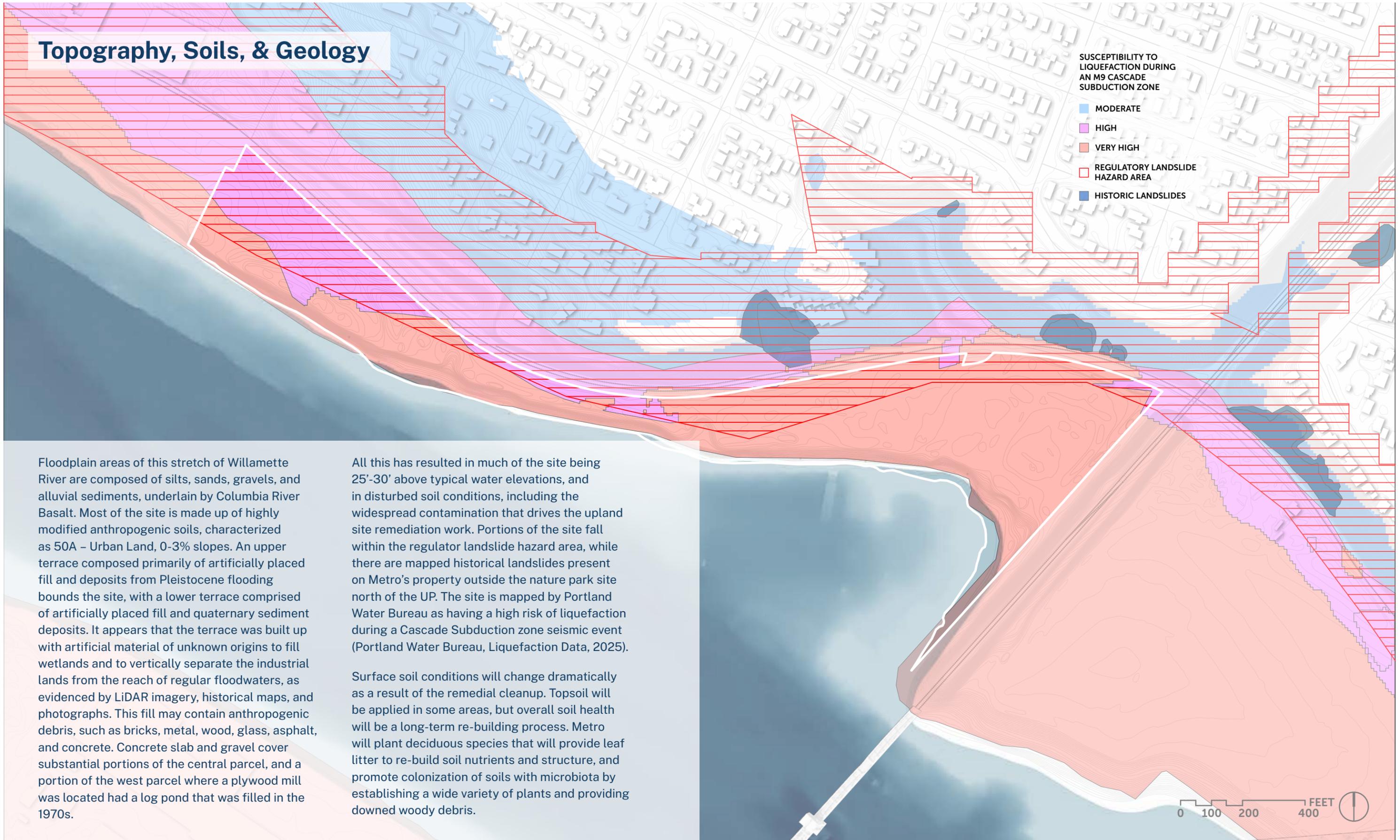


Willamette Cove lies between the Willamette Bluffs and the Willamette River. This section of the river is part of a river reach which extends from the Fremont Bridge to the Columbia River. Adjacent cottonwood gallery and riparian forests can be found to the north at Cathedral Park, Kelly Point, and the Columbia River beyond. Smith and Bybee Wetlands, an important area for migratory birds, is located nearby in the Columbia Slough watershed. The oak woodlands along the Willamette Bluffs are part of a long, patchy span of Oregon white oak habitat found along Willamette Bluffs, from Baltimore Woods in the

north to the escarpment oak woodlands of Oregon City and beyond. Across the river, Forest Park comprises thousands of acres of upland forested habitats frequented by migratory and resident birds.

Remnant or restored patches of habitat in a matrix of urban land cover can be significant for regional biodiversity, especially when connected along linear features like rivers. They can be critical stopover sites during migration, and support breeding populations of native wildlife when adequate resources are present.

Topography, Soils, & Geology



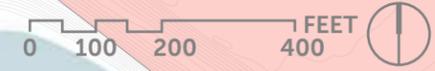
SUSCEPTIBILITY TO LIQUEFACTION DURING AN M9 CASCADE SUBDUCTION ZONE

- MODERATE
- HIGH
- VERY HIGH
- REGULATORY LANDSLIDE HAZARD AREA
- HISTORIC LANDSLIDES

Floodplain areas of this stretch of Willamette River are composed of silts, sands, gravels, and alluvial sediments, underlain by Columbia River Basalt. Most of the site is made up of highly modified anthropogenic soils, characterized as 50A – Urban Land, 0-3% slopes. An upper terrace composed primarily of artificially placed fill and deposits from Pleistocene flooding bounds the site, with a lower terrace comprised of artificially placed fill and quaternary sediment deposits. It appears that the terrace was built up with artificial material of unknown origins to fill wetlands and to vertically separate the industrial lands from the reach of regular floodwaters, as evidenced by LiDAR imagery, historical maps, and photographs. This fill may contain anthropogenic debris, such as bricks, metal, wood, glass, asphalt, and concrete. Concrete slab and gravel cover substantial portions of the central parcel, and a portion of the west parcel where a plywood mill was located had a log pond that was filled in the 1970s.

All this has resulted in much of the site being 25'-30' above typical water elevations, and in disturbed soil conditions, including the widespread contamination that drives the upland site remediation work. Portions of the site fall within the regulator landslide hazard area, while there are mapped historical landslides present on Metro's property outside the nature park site north of the UP. The site is mapped by Portland Water Bureau as having a high risk of liquefaction during a Cascade Subduction zone seismic event (Portland Water Bureau, Liquefaction Data, 2025).

Surface soil conditions will change dramatically as a result of the remedial cleanup. Topsoil will be applied in some areas, but overall soil health will be a long-term re-building process. Metro will plant deciduous species that will provide leaf litter to re-build soil nutrients and structure, and promote colonization of soils with microbiota by establishing a wide variety of plants and providing downed woody debris.



Transportation & Site Access



Before the site was closed to the public in 2013 in support of public safety, it would typically have been accessed from either N. Richmond Ave or N. Edgewater Ave. N. Richmond Ave has an informal parking area on the western edge of the parcel, while N. Edgewater Ave (which is closed and gated to the public one block south of N. Willamette Blvd) crosses the trail and continues east towards the McCormick & Baxter site. It was also frequently accessed from the Willamette River by boaters who would sometimes anchor within the cove.

Both streets are off of N. Willamette Blvd, along which Trimet runs bus service on Line 44 every 30 minutes between St. John's and PCC Sylvania via City Center and Rose Quarter. Currently, there are stops at the corner of N. Edgewater Ave., and several blocks west closer to N. Richmond Ave. Line 16 starts in downtown St. John's and crosses the St. John's Bridge into northwest Portland.

N. Willamette Blvd and N. Edgewater Ave are classified as city bikeways, without protected lanes in this area, although there are protected bike lanes several blocks further east, near the bridge over the BNSF railroad line.

As part of the master plan, the nature park vision includes a portion of the regional North Portland Greenway trail. There are developed portions of the trail nearby in Cathedral Park and across the University of Portland campus.

The Union Pacific railroad line that borders the site includes a 30-ft right-of-way on either side of the tracks.



04 Visioning

Visioning

The Willamette Cove nature park master plan is informed by and reflects the experiences, ideas and concerns of Tribes and community members and has been designed to reflect their input. The planning team centered the following community engagement goals:

- Develop a vision and design concept for the nature park that reflects tribal and community priorities and desires
- Build awareness about the master plan and its purpose; site conditions, constraints and opportunities; and design alternatives
- Provide the public with clear and transparent information about the site, the planning process, and decision-making
- Provide ample opportunities for public involvement, input, feedback and relationship building
- Address barriers to community participation, to the extent possible
- Understand cultural history and significance of the site, land, habitat and water
- Build relationships with existing and new partners for the engagement process and future implementation of the master plan
- Plan and implement engagement activities that are accessible for limited English-speaking populations and people with disabilities, and other marginalized communities in both a virtual and in-person environment
- Create outreach and communications materials that use plain language and meet accessibility standards



Engagement Approach

Metro and its partners conducted extensive community engagement for the Willamette Cove Nature Park master planning process, sharing information about site constraints related to contamination, remediation, habitat protection, and safety, while soliciting feedback for the development of the plan. Engagement included community members broadly, communities that have been systemically under-represented in the planning process, internal Metro teams and Metro Council, agency partners, conservation organizations, community-based organizations, advocacy groups, neighborhood associations, local schools, and trail advocacy groups. The resulting plan seeks to reflect both lived experience and technical expertise.

Equitable engagement principles were foundational throughout the planning process, prioritizing inclusion of historically under-represented communities, including communities of color, people with disabilities, youth, elders, and communities affected by industrial land use adjacencies. Activities were designed to reduce barriers to participation through multiple formats, languages, locations, and times.

Tribal governments were engaged as essential partners through direct coordination, with extended review periods supporting meaningful consultation and internal Tribal deliberation, informing subsequent engagement.

Phase 1 of the engagement process included interviews, an online survey, and in-person and virtual workshops to establish shared values and priorities before any concepts were introduced. Phase 2 tested these priorities and values through alternatives, targeted outreach at community events, surveys, and open houses, allowing participants to evaluate trade-offs related to access, habitat preservation, water interaction, feasibility, and cost. Phase 3 shared and solicited feedback on a draft preferred alternative, informing master plan refinement.

This integrated approach helped ensure that engagement outcomes were inclusive, informed, and actionable, and producing a master plan that reflects both community and Tribal priorities while remaining grounded in regulatory, ecological, and operational realities.



Engagement Methods

Metro Internal Engagement

The project team coordinated regularly with Metro's Parks and Nature science team, operations and maintenance staff, land management team, planning team, and community and stewardship staff members to review site analysis, evaluate alternatives, and test assumptions related to habitat restoration, access, safety, constructability, and cost. Input from operations and maintenance staff helped inform decisions about materials, trail configurations, and site features that can be sustainably managed over time. Metro Council was engaged at key milestones to review progress, confirm direction, and provide policy-level guidance, ensuring alignment between the evolving master plan and Metro's broader conservation, equity, and regional access goals.

Tribal Informal Consultation

The Willamette River is of significant historic and ongoing importance to multiple Tribes who have maintained strong ties to and relied upon the river for traditional and cultural practices, sustenance and subsistence, and trade and travel since time immemorial. In October 2021, Metro initiated consultation with the six Tribes involved in the Portland Harbor Superfund Site regarding near and long-term activities for the Willamette Cove uplands, and have continued consultation with the Confederated Tribes and Bands of the Yakama Nation, Confederated Tribes of Grand Ronde, Confederated Tribes of Siletz Indians, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon and the Nez Perce Tribe.

Metro's consultation with the Tribes in the Willamette Cove project is distinct from ongoing formal federal consultation that is part of the broader Portland Harbor Superfund Site. Coordination for Willamette Cove has focused on evaluation of the contingency remedy option, tribal priorities for future habitat restoration at the site, priorities for future passive recreational opportunities, and future implementation planning.

Tribes and tribal members have made it clear that renewed access and ability to safely gather and consume fish at Willamette Cove is important. Priorities include pursuing actions that will lead to clean, healthy water, riparian and upland habitat for salmon and lamprey, habitat that can adapt to climate change impacts, and desire for a gradual sloping transition between terrestrial and aquatic habitat.

Tribal consultation was throughout the master planning process, and will continue through design and construction documentation, and future restoration planning for Willamette Cove. During this process, if there are substantive changes or suggestions to planned habitat restoration actions, Metro will coordinate with the Tribes.

Interviews

Interviews were conducted at the beginning of the planning process to gather detailed, qualitative input from community leaders, agency partners, and Tribal representatives with long-standing knowledge of Willamette Cove and the surrounding area. Metro interviewed community-based organizations including Latino Outdoors, Bird Alliance of Oregon, Verde, Nesika Wilamut, Portland All Nations Canoe Family, ELSO, Ground Score Association, Aim 4 Access, Blueprint Foundation. These conversations provided important context on historic conditions, community priorities, and ongoing concerns related to the direction of the master plan, site-related environmental health concerns, access to the river, safety, and stewardship. Interviews were structured to allow participants to speak openly about values, lived experience, and perceived trade-offs. Insights from interviews helped ground the master plan process in positional knowledge, informed development of engagement processes and materials, and plan alternatives, and ensured that perspectives from community-based organizations were integrated early and consistently.

Surveys

Two surveys were implemented during the master planning process. Surveys broaden participation and provide accessible opportunities for input from a wider audience. Online surveys allow participants to engage on their own schedule and in a format that supported clarity and transparency. Questions for the surveys elicited feedback on values, priorities, and reactions to planning concepts, with an emphasis on understanding trade-offs related to habitat protection, access, and water interaction rather than selecting preferred features. Results from the surveys helped confirm themes emerging from workshops and interviews, identify areas of agreement and concern, and support data-informed refinement of the preferred alternative over time.

Workshops

Workshops were a primary opportunity for in-depth dialogue and collaborative learning. Conducted across multiple phases, workshops were intentionally structured to support listening, exploration of values, and evaluation of trade-offs rather than rapid decision-making.

Workshops included listening-focused sessions intended to establish shared values and priorities for Willamette Cove before any concepts were developed. They emphasized understanding how participants relate to the site and the Willamette River, what they value in a future nature park, and what concerns or constraints should guide future decision-making. Workshops also focused on testing initial planning directions and exploring trade-offs through a set of site plan alternatives. Lastly, an interactive and immersive open house presented the draft preferred alternative that created space for dialogue and gauged community support for the proposed vision.

Throughout the phases, workshop materials emphasized clarity and transparency about site constraints, allowing participants to engage meaningfully with realistic options. Input gathered during workshops complemented interview and survey findings and played a central role in shaping the vision, planning priorities, and key decisions reflected in the master plan.

Focus Groups

Focus groups with people with disabilities discussed inclusive design and water access, with particular emphasis on a floodable pathway as the site's most accessible route to the river. Participants included manual and power wheelchair users, adaptive paddlers, and advocates with expertise in mobility, vision, and sensory access. The discussion paired lived experience with transparent explanation of site constraints related to remediation, flooding, and constructability, allowing participants to respond to real design limitations rather than hypothetical conditions.

Feedback focused on pathway width, resting and passing areas, transfer opportunities, materials that provide tactile and visual cues, and alternatives to traditional handrails that would remain durable under frequent inundation. Participants also emphasized the importance of enabling meaningful contact with the river, such as placing feet or hands in the water or transferring to small watercraft while respecting ecological and safety constraints. Input from the focus group directly informed refinement of pathway dimensions, landing design, and water access concepts within the draft preferred alternative, ensuring that accessibility considerations were integrated as a core design driver rather than an afterthought.

Engagement reports are available in Appendix ii.



How Did Engagement Inform the Master Plan?

Phase 1 Engagement

Phase 1 of the project focused on the community's relationship to the site, as well as the values and vision they hold for it. Input from surveys and workshops during this phase helped define the foundational vision and criteria that later guided the development and evaluation of design alternatives. Phase 1 engagement results established a clear set of shared values and guiding priorities for the future of Willamette Cove.

Across workshops, interviews, and surveys, participants consistently emphasized that the site should function first and foremost as a nature-forward place, with ecological restoration and habitat protection as the

primary drivers of decision-making. There was strong support for passive recreation, opportunities to experience seasonal change and wildlife, and a desire to reconnect with the Willamette River in ways that feel respectful and safe. Participants also expressed clear expectations for transparency about contamination and remediation, recognition of Indigenous presence and cultural history, and equitable access for people with disabilities and communities historically excluded from riverfront spaces. These themes established the criteria used to evaluate design options in later phases and framed access as something to be carefully integrated rather than assumed.

Phase 2 Engagement

Building on the values and priorities identified in Phase 1, the project team developed three plan alternatives that varied in circulation, shoreline treatment, and distribution of amenities. During engagement Phase 2, these alternatives were shared with the community through online and in-person workshops, tabling outreach at local events, an online survey, and an open house. These alternatives are available in the Appendix. Engagement during this phase emphasized comparison and evaluation of project elements, asking participants to reflect on how different approaches supported or conflicted with ecological protection, safety, accessibility, cultural presence, and long-term stewardship.

Feedback across workshops, surveys, and tabling events showed strong alignment around protecting contiguous habitat areas and limiting shoreline disturbance, with concern about over-programming or introducing too many access points. Participants generally supported having a single primary access area with amenities clustered near the entry, rather than dispersing activity throughout the site. The alternatives process also surfaced important trade-offs: while participants valued water access, they favored approaches that emphasized proximity, views, and limited contact over extensive in-water infrastructure. Accessibility, an easily navigable trail network, and separation of faster and slower modes emerged as key considerations. Engagement during this phase did not ask community to select one alternative over others because the evolving approach to remediation design would continue to have a strong influence on possible configurations of site planning. Still, engagement results pointed toward combining preferred elements from each option while avoiding features perceived as incompatible with the site's ecological sensitivity.

Phase 3 Engagement

Phase 3 engagement focused on presenting the draft preferred alternative and confirming that it reflected the values, priorities, and trade-offs identified in earlier phases. Engagement activities included a public open house, and targeted outreach, accessible information about the refined plan and the decisions that shaped it. Materials emphasized how community, Tribal, and technical feedback from Phases 1 and 2

informed changes to site organization, access, habitat protection, and water interaction. Participants were invited to provide input on specific elements of the draft preferred alternative, such as circulation, gathering spaces, accessibility features, and water access, rather than revisiting broad conceptual questions. This phase also prioritized clarity around remediation constraints, phasing, and long-term stewardship to ensure feedback was grounded in realistic implementation conditions. Phase 3 engagement results largely confirmed that the draft preferred alternative reflected the priorities expressed earlier in the process, while helping refine specific program elements.

Feedback indicated broad support for the overall site organization, including the concentration of amenities near the entry, the emphasis on habitat restoration, and the restrained approach to shoreline access. Participants provided more detailed input on circulation, accessibility features, gathering spaces, and water access, reinforcing the importance of clarity, safety, and inclusive design. Phase 3 engagement also helped identify areas where additional explanation or refinement was needed, particularly related to remediation constraints, long-term phasing, and how accessibility would be maintained over time. Overall, the results demonstrated alignment between community values and the draft preferred alternative and helped fine-tune the plan to be both implementable and responsive.





05

Future Nature Park Master Plan

Future Nature Park Master Plan Vision

Restoration Goals

Ecological restoration and protection are the primary objectives for Willamette Cove. Consistent with the site conservation plan and guidance from Metro’s Science Team, the master plan adopts a habitat-based conservation approach that prioritizes ecological function, connectivity, and resilience within a highly altered urban river corridor. Site conservation targets are defined as habitat systems that collectively support water quality, fish and wildlife habitat, and regional biodiversity. These include shallow water habitat associated with the Willamette River migratory corridor, riparian forest along the river and interior drainage areas, and oak-madrone woodland within upland portions of the site. These habitats are understood as interconnected systems whose long-term viability depends on maintaining key ecological attributes such as continuity, patch size, structural diversity, hydrologic connection, and natural disturbance processes.

Community and Tribal engagement consistently emphasized that conservation should remain the site’s primary purpose, with public access integrated in a thoughtful manner to minimize impacts to conservation

targets. Metro operations staff further reinforced the importance of restoration strategies that are resilient, manageable and compatible with long-term stewardship capacity. These considerations establish conservation targets as the foundational lens through which all subsequent planning decisions are evaluated.

Access Goals

The master plan establishes clear objectives for public access that reflect community priorities, environmental justice considerations, remediation constraints, and operational feasibility. Engagement across all phases emphasized the desire for a peaceful, nature-forward place that supports learning, reflection, and connection to the river. Access objectives focus on providing opportunities for people to experience the site in ways that are safe, inclusive, and compatible with ecological recovery. Decisions about access are informed by habitat sensitivity, floodplain dynamics, upland and in-water remediation requirements, safety considerations, and long-term operations and maintenance capacity. Access is understood broadly to include physical access, visual and sensory connection, cultural presence, and opportunities for education and stewardship.

Connect to Nature

A central objective of the master plan is to support meaningful, everyday connections to nature within an urban and historically industrial riverfront setting. Engagement outcomes illustrated that connection to nature encompasses more than physical access and includes visual, sensory, emotional and cultural engagement with the landscape. This objective emphasizes experiences that allow people to slow down, observe ecological processes, and develop an understanding of the site’s natural systems over time. It also reinforces the importance of protecting large, contiguous habitat areas and minimizing disturbance so that visitor presence remains compatible with long-term ecological health. Equity and accessibility are integral to this objective. The planning process recognizes that access to restorative natural spaces has not been equitably distributed across the region and therefore prioritizes objectives that support inclusive access, clear wayfinding and a range of experiences that accommodate different abilities and ways of engaging with the landscape.

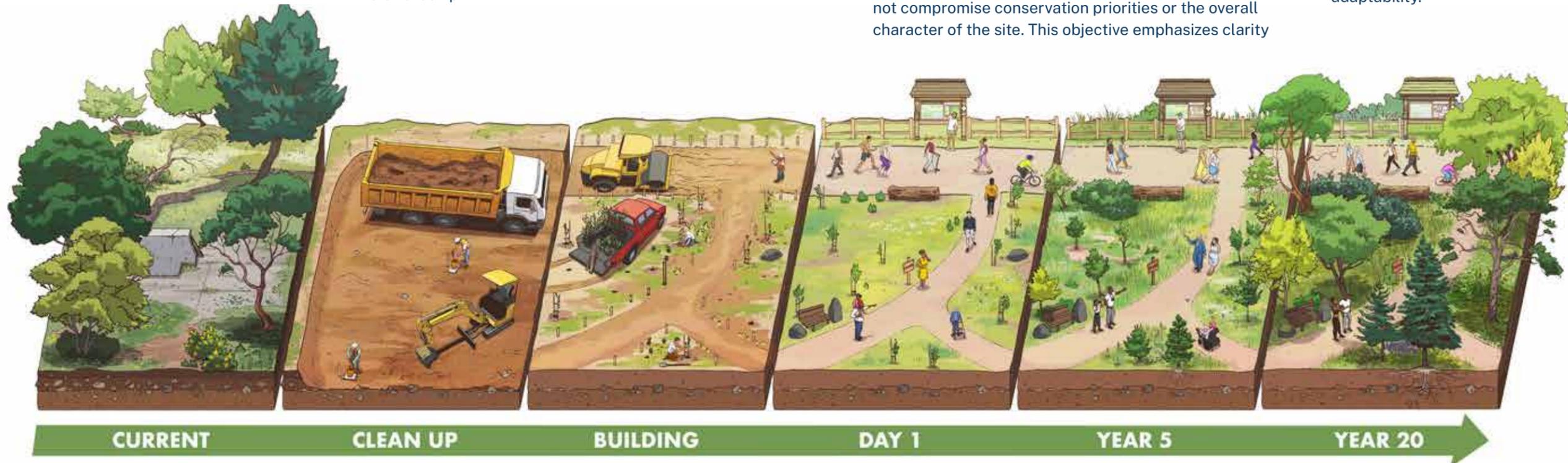
Extend the Regional Trail

The regional trail through Willamette Cove is recognized as an important component of the North Portland Greenway and Intertwine regional trail network. The objective is to accommodate it as a continuous, multi-modal corridor while ensuring that its presence does not compromise conservation priorities or the overall character of the site. This objective emphasizes clarity

of movement, safety, and compatibility with surrounding site features and habitats. It also establishes the need to distinguish and separate the faster-paced, multi-modal regional travel functions from nature-based experiences elsewhere on the site to minimize conflicts and support long-term stewardship.

Access the River

Access to the Willamette River is a defining goal for Willamette Cove. Tribal engagement, community feedback, and technical review consistently emphasized that the river’s edge should be approached as habitat first, with access shaped by opportunities presented around these conditions. This objective must be carefully balanced with ecological sensitivity, regulatory requirements, accessibility standards and guidelines, and ongoing remediation. Water access is envisioned as primarily experiential rather than intensive. The master plan focuses on opportunities for proximity, views, sound, and interpretation of river processes through accessible overlooks, shoreline trails and limited access points. Where physical access to the shoreline is provided, it is carefully sited based on proposed bank laybacks and remedial design, and compatible with shallow water habitat objectives. Given the complexity of the remediation and the fluctuating riverine environment, water access at Willamette Cove will not include docks or continuous over-water infrastructure, supporting both ecological recovery and long-term adaptability.



A New Nature Park Along the Willamette



Site Features

Site features within the Willamette Cove Nature Park are focused, consolidated, and strategically located to support public access while maintaining the site’s ecological function. The proposed master plan reflects extensive community and Tribal engagement, which emphasized habitat protection, nature-based experiences, clarity of circulation, and inclusive access. Collectively, site amenities concentrate activity where it can be operationally supported, minimizing intrusion into sensitive habitats to support sustainable public access over time.

Entry

The N. Richmond Street entry functions as the primary vehicular entrance to the park. This entrance will function as the gateway into the park and will be the first park experience for many visitors. Engagement feedback consistently supported clustering amenities near the entry to reduce disturbance elsewhere on the site, improve wayfinding, and create a clear transition from urban context to natural landscape. The entry zone is sited outside of sensitive habitat cores and coordinated with upland remediation caps and institutional controls to avoid future conflicts with long-term maintenance or monitoring.

Parking Lot

A parking area is located adjacent to the site’s vehicular entrance to limit vehicle circulation within the park and reduce impacts to restored habitats. Parking capacity is informed by the site capacity assessment (found in the appendix) and community feedback favoring a more nature-based experience at the park. The capacity assessment and parking study determined that providing parking for 26 vehicles at one time would support the desired usage levels without over stressing the designed infrastructure. The current layout accommodates 26 standard spaces and two accessible parking spaces, space for a school bus and a drop-off area. The parking lot is proposed to minimize impervious surface area and visual prominence. Grading and drainage will be closely coordinated with upland remedial design to avoid interference with the caps and ensure long-term integrity of the upland remedy.

Stormwater management systems will be required to perform to meet city standards. Vegetated stormwater facilities will utilize native plants in alignment with adjacent habitats.

Restroom

Restroom facilities located near the primary vehicular entrance would provide an essential visitor service while minimizing the need for utilities and maintenance infrastructure deeper within the site. Its location near the entry responds to both operational considerations and community feedback emphasizing accessibility and wayfinding clarity. Facilities would be designed for durability, flood resilience, and compatibility with remediation requirements, including limitations on subsurface disturbance. It is understood that if a flush facility is constructed that a new water connection and pump station would be required to serve this structure, and since there is no sanitary sewer line available, a connection would be made to the closest main, at the N Crawford St right-of-way. The closest combined main is located within the railroad ROW at N Richmond. If a vault option is determined to be most suitable, design considerations will focus on ensuring the vault is accessible for maintenance requirements and the subsurface requirements do not interfere with the upland remedial cap. Restroom facility options will be evaluated and determined during the design development phase.

Staging Area

The staging or unloading area serves as a flexible arrival and orientation space supporting drop-offs and smooth entry transitions for small groups, school visits, and community gatherings. It can accommodate boaters preparing their gear, bikers entering the regional trail and other groups needing space to assemble prior to experiencing the site, and is intentionally separated from the shelter and children’s trail to reduce conflicts. Benches are indicated in this location in the master plan to support visitor needs and to provide an opportunity for viewing the river. It also offers an important opportunity for wayfinding, interpretive and possibly public art.

Children’s Trail

A children’s trail near the entry offers a nature-based learning experience grounded in exploration and sensory engagement such as; flowering plants, smells and textures. Locating this feature near restrooms and gathering spaces reflects accessibility, supervision, and maintenance considerations raised during engagement. Its proximity to the entry limits impacts on interior habitats while supporting family-friendly use. This feature will provide visitors with a moment of discovery and curiosity as they build a personal connection to the place.

N. Edgewater Entrance

N. Edgewater Ave provides an important secondary point of connectivity to the neighborhood, public transit, and bike route network. This entrance into the park will primarily function as a bike and pedestrian access, with vehicular traffic restricted to emergency and

maintenance vehicles. This entrance will increase park connectivity to the regional trail network and provide an additional point of entry for multi-modal transit users. This access point is familiar to those in the community and has been historically used as a neighborhood connection to the water.

Union Pacific Crossing Improvements

Upgrading the public railroad crossing at N Edgewater will be an important life safety improvement for the nature park. On-going coordination with the railroad, ODOT and the City of Portland will be required to determine the extent of the improvements. At a minimum, upgrades to this crossing will include the addition of panels, cross bucks, signage and adjacent paving. This crossing remains an open public crossing, identified as 2B-002.24 in the ODOT crossing database. The crossing is intended be upgraded to handle bike and pedestrian traffic in addition to emergency and maintenance vehicular access.

Rendering of the entry as an access point for visitors on their way to the shoreline, nature trails, or regional trail



Gathering Spaces

Opportunities for groups to gather within the nature park are an essential component of desired public access needs. These spaces support rest, reflection, outdoor education, and cultural practices without encouraging prolonged or concentrated use in sensitive habitats. Their placement reflects engagement feedback favoring dispersed, low-key use alongside an interest in accessibility.

Shelter

A shelter structure provides covered space for nature-based education, cultural activities, family gatherings and small events. The consolidation of functions into a single structure responds to community direction to limit built features while still supporting meaningful use. The shelter also serves as a spatial buffer between more active entry functions and the more isolated interior areas of the park. The shelter is anticipated to accommodate between 6-8 picnic tables, with a size optimized for a smaller school group. The shelter will have utility connections available for use through special use permits.

Other Gathering Areas

Additional informal gathering areas are limited in number and located near the parking lot and in the upland area adjacent to the Cove. These places are anticipated to accommodate a myriad of small functions and educational needs. Gathering areas may be temporarily closed for special events to allow for private use for Indigenous community cultural events. These spaces will be refined with Tribal partners during the future design phase.



Rendering of covered shelter area looking east from the parking area provide a gathering space for groups

Water Access

Providing opportunities for accessing the Willamette River is a central goal of the master plan. Given the dynamics of the river, prioritization of habitat, and the requirements of the in-water cleanup and associated proposed bank layback, water access opportunities in the nature park master plan are deliberate, strategic and intentional. Overall, there are three points of access throughout the site that will be further explored in the design phase; an accessible floodable pathway, a stair and boat rail, and an access trail at the cove. These three proposed features provide opportunities to connect with the river and experience the water while preserving the overall habitat function of the shoreline and respecting the requirements of the remediation.

Floodable Accessible Path

An accessible pathway down the riverbank near the main entrance is the primary water access opportunity for the site. This pathway is envisioned as fully accessible, supporting visitors of all abilities and modes of travel. This pathway is intended to support launching small, human powered watercraft such as kayaks, stand up paddle boards and canoes, which will be hand carried to the water elevation and launched from the end of the path. Engagement, particularly from accessibility-focused conversations, emphasized the importance of inclusive, dignified access to the water. This project element is continuing to be coordinated with the in-water remedial team. Due to the necessity of this coordination, this element will be further refined during future phases of design work. This pathway is intended to be accessible, seasonally adaptable, and compatible with shoreline remediation, with no assumptions of permanent structures that could compromise caps or habitat function.

Staircase with Boat Slide

In addition to the floodable accessible path, the plan envisions a stairway leading directly to the river's edge; affording access to the river for visitors entering at the parks main entrance. This stair is the most direct route to the water from the parking lot and will help to mitigate unwanted habitat impacts that are likely to occur through user developed desire lines in the absence of such a feature. Both the stair and the floodable pathway connect to the Plaza overlook, which functions as an extension of the staging area for boaters, swimmers and other visitors focused on water access. The development of this stair will be done in tight coordination with the in-water remedial design team. Details of the rail system, and ability to integrate a kayak rail, will be further developed in the design phase and will consider functionality, resiliency and life safety concerns (minimizing entrapment risks in a flood condition).

Cove Beach

The Cove Beach is an important feature to the community as many recognize it as the primary identifying feature of the existing Willamette Cove site. This area of the riverbank is outside of the floodway and offers opportunities for experiencing the water in a setting that is protected from the currents of the main channel. It is envisioned that the beach area in the cove will be restored to a river sand condition and accessible pathway will be developed along the bank to provide a route to the beach for those with mobility restrictions. The beach itself falls within the in-water work and the beginning of the bank layback, offering a unique opportunity for river sand materials and gentler grades which will be explored during the inwater and upland remedial action.

Rendering of a path sloping down from the site entry area towards the floodable shoreline path



Rendering of several flights of stairs navigating the slope down from the entry area towards a put-in spot for boaters.



Overlooks

Overlooks are strategically located to provide opportunities to view the river and surrounding landscape while avoiding intrusion into riparian or shallow water habitats. Community feedback consistently favored overlooks as a means of experiencing the river without impacting the riverbank. These features are designed to emphasize priority viewpoints and are coordinated with bank stabilization and revetment design to avoid conflicts with in-water remedies.

Plaza Overlook

The Plaza Overlook is an at-grade feature riverside of the regional trail adjacent to the main entrance of the site. This feature offers territorial views of the river, Forest Park and the nearby bridges. This feature integrates seating opportunities, distinct pavements to distinguish the plaza and safety features to keep visitors from migrating down the slope of the bank. The overlook location will be a point of interest in the park, providing a passive, nature-based experience in an easily accessible location, and could be a meeting point or place to stage boats.

Regional Trail Overlook

The Regional Trail overlook is an opportunity to provide exceptional views of the Willamette River while offering a resting opportunity both for users of the regional trail as well as those navigating the park through the nature trail system. This feature will be designed to respond to the inwater/upland remedial action and spatial constraints which occur at the narrowest portion of the site. This overlook sits above a section of the riverbank which will be steep and hardened without trees allowing for sustainable long-term views in this location.



Rendering of a plaza space adjacent to the entry area provides an overlook opportunity

Trails

The trail system at Willamette Cove Nature Park is designed to accommodate both nature-based experiences and regionally connected multi-modal mobility while minimizing impacts on site’s ecological functions. There is a clear distinction between the nature trail network, which support slow movement, reflection, and immersion in restored habitats, and the regional trail, which functions as part of the broader multi-modal network and accommodates higher volumes and faster travel, including bicycling and dog walking. This separation of trail functions reduces conflicts and provides for the range of experiences that were voiced as community priorities. All trails are designed to be as accessible as possible for all visitors. The trail alignments will carefully consider impacts on wildlife and habitat connectivity, minimizing looped networks and positioning alignments in the least disruptive locations where possible.

Regional Trail

The regional trail is a part of the North Portland Greenway and the Intertwine. This segment will connect to yet to be constructed adjacent alignments to both the east and west of our site. The alignment within Willamette Cove will respect remediation and greenway zoning constraints and minimize habitat impacts. For the majority of the site the regional trail aligns along the northern property boundary adjacent to the railroad tracks. A fence or edge barrier will separate the trail from the railroad, prioritizing visitor safety. Within the park, the regional trail is intended to accommodate higher-speed through traffic, while more quiet experiences are encouraged along the nature trail system. The regional trail is a 12’ wide asphalt surface with 2’ gravel shoulders. There is an opportunity to use striping to enhance wayfinding and clarify the intended separation of uses. At the main entrance the regional trail surfacing may shift to concrete or other surface material with traffic control measures to encourage slower through traffic at a potential point of conflict where visitors are crossing the regional trail to access the river and park trail system.

Nature Trails

The upland nature trail network offers opportunities for slower-paced experiences through restored woodland and upland habitats. These paths are envisioned as 6’ wide hard surface walkways to ensure reliably accessible surface conditions and minimize operational and maintenance demands. Engagement feedback emphasized the importance of trail wayfinding clarity, limited redundancy, and avoidance of habitat fragmentation. The system consists of a single walking trail that trans-navigates the site and connects to spur trails which reach down the bank to connect to the water.

Rendering of the regional trail and adjacent overlook in an established mature landscape.



Rendering of a nature trail in an established mature landscape.



Public Art

Metro's Parks and Nature department has a 1% for the Art program. Art and interpretation is envisioned to be integrated throughout the site to support understanding of ecology, culture and history without concentrating activity in sensitive areas. Art may be in the form of sculpture, etchings or interactive pieces. There is opportunity to partner with Tribes and Indigenous community members on cultural storytelling elements to reinforce Indigenous presence as ongoing rather than historical.

Interpretive & Wayfinding

Interpretive themes identified during engagement centered on the site history, including its industrial legacy, and were desired to educate the public on the Portland Harbor contamination, cleanup, and ecological restoration. There are granite blocks on site from

the swing bridge that may be used to tell site history and re-used as seating. Wayfinding and regulatory signage provides orientation, safety information, and habitat protection messaging with a visual presence consistent with Metro standards for a nature park. Messaging related to swimming, safe fish consumption and ecological restoration will be a focus. Wayfinding on the regional trail will follow Intertwine wayfinding guidelines. Wayfinding will be implemented at transitions between the parking lot, nature trails and regional trail.

Site Furnishings

Site furnishings will be strategically placed to support comfort and accessibility without cluttering the landscape. Furnishing elements may include benches, trash and recycling receptacles, water fountains, bike racks, a kiosk, trailhead elements, and a water safety station. All furnishings are selected for durability, accessibility, and based on Metro standards, floodplain conditions and long-term maintenance requirements.

Rendering of trail overlook area at the narrowest part of the site



Estimate of Probable Cost for Construction

Description	Cost
1 Site Preparation and Demolition	
Construction Setup and Preparations	\$167,700
Demolition and Relocations	\$9,500
Earthwork	\$828,450
2 Site Improvements	
Edgewater Roadway and Railroad Crossing	\$200,700
Parking Lot	\$230,428
Pedestrian Paving	\$1,607,992
Site Features and Amenities	\$1,587,080
Site Furnishings	\$497,418
Landscape and Irrigation	\$849,548
3 Site Utilities	
Water Distribution	\$275,000
Sanitary Sewer	\$250,000
Stormwater Management	\$550,000
Site Lighting and Power Distribution	\$500,000
4 Site Development Total	\$7,553,816

	Rate	
Site Construction		
5 Contingency	30.00%	\$2,266,145
6 General Conditions and Requirements	12.50%	\$1,227,495
7 Office Overhead and Profit	5.50%	\$607,610
8 Subcontractor Default Insurance (OR)	1.75%	\$203,964
9 Corporate Tax (OR)	0.40%	\$47,436
10 Bonds and Insurance	2.00%	\$238,129
Metro policies		
Testing and Inspections	2.50%	\$303,615
Green Building Sites Requirements	2.50%	\$303,615
BOLI	0.10%	\$12,145
Warranty Period Problem Solving	1.00%	\$121,446
Site Construction Total		\$5,331,595
Construction Cost before Escalation		\$12,885,416
Escalation to Start Date 2030		\$2,596,411
Recommended Budget		\$15,481,827

A master plan level cost estimate was prepared alongside the development of this report. This cost estimate reflects a planning level understanding of the plan, program and structures envisioned and relies on the completion of remedial team activities for both the riverbank and the uplands. Certain items will require on-going close coordination with the remedial teams, including; water access paths, riverbank and beach areas, upland planting and irrigation, excavation of the concrete pad area, construction access roads and project timing.

Willamette Cove Habitat Improvements



Ecological restoration is the foundation of the future nature park and is guided by input from Tribal partners, as well as the conservation targets and key ecological attributes identified in the Willamette Cove site conservation plan. Habitat improvements are intended to restore the site’s most important ecological systems while accommodating compatible public access. Planning decisions related to park program, trail alignment, and access were evaluated against their effects on habitat continuity, human activity and disturbance, patch size, edge conditions, and long-term resilience.

Small trees will be planted during the construction of the nature park. While the maturation of the canopy will take time, once it’s fully matured the restored habitat will provide essential ecosystem services including shade and cooling opportunities during heat events. The provision of other ecosystem services will begin early in the restoration process such as stormwater and floodwater filtration, and nutrient cycling. These services will provide benefits to human and animal residents and visitors.

Habitat Improvements

Oak-Madrone Woodland

Oak-madrone woodland is a primary upland conservation target. A mosaic of closed-canopy woodland with periodic openings responding to disturbance regimes, site soils, and microtopography. Restoration strategies prioritize maintaining canopy cover generally within a 40%–60% range, minimizing encroachment by conifers and mesic broadleaf species to support wildlife and structural diversity. Design emphasizes maximizing interior habitat area and maintaining functional patch sizes to support representative species such as western wood pewee, slender-billed nuthatch, and western gray squirrel.

Trails and other built elements within oak-madrone areas are intentionally limited to avoid fragmenting habitat and increasing edge effects. Where trails are necessary, they are aligned along habitat transitions or edges rather than bisecting interior woodland to minimize disturbance associated with trail zones of influence. In areas near the park entry with more visitor amenities, patch sizes are more constrained, but focus on reinforcing ecological connections to adjacent habitat areas.

Riparian Forest

Riparian forest is a critical conservation target supporting both terrestrial and aquatic ecological functions. Restoration efforts focus on maintaining a structurally diverse forest dominated by native cottonwood, willow, and Oregon ash, with a target of 40%–60% canopy cover and minimal gaps in continuity. Where feasible, the design seeks to maintain a continuous riparian forest band along the floodplain to support habitat connectivity, shading, and wildlife movement.

Design parameters recognize that riparian habitat continuity will be constrained in some locations by remediation features, revetments, and the regional trail. In these areas, riparian forest continuity is prioritized over introducing multiple habitat types or redundant trail alignments. Planting is integrated into and adjacent to engineered bank treatments to achieve minimum canopy cover targets across revetments and

trail corridors, while limiting gaps to sizes consistent with target thresholds. Select inclusions of riparian shrubland, forested wetland pockets, and open shoreline features are incorporated where they can be achieved without compromising overall forest continuity.

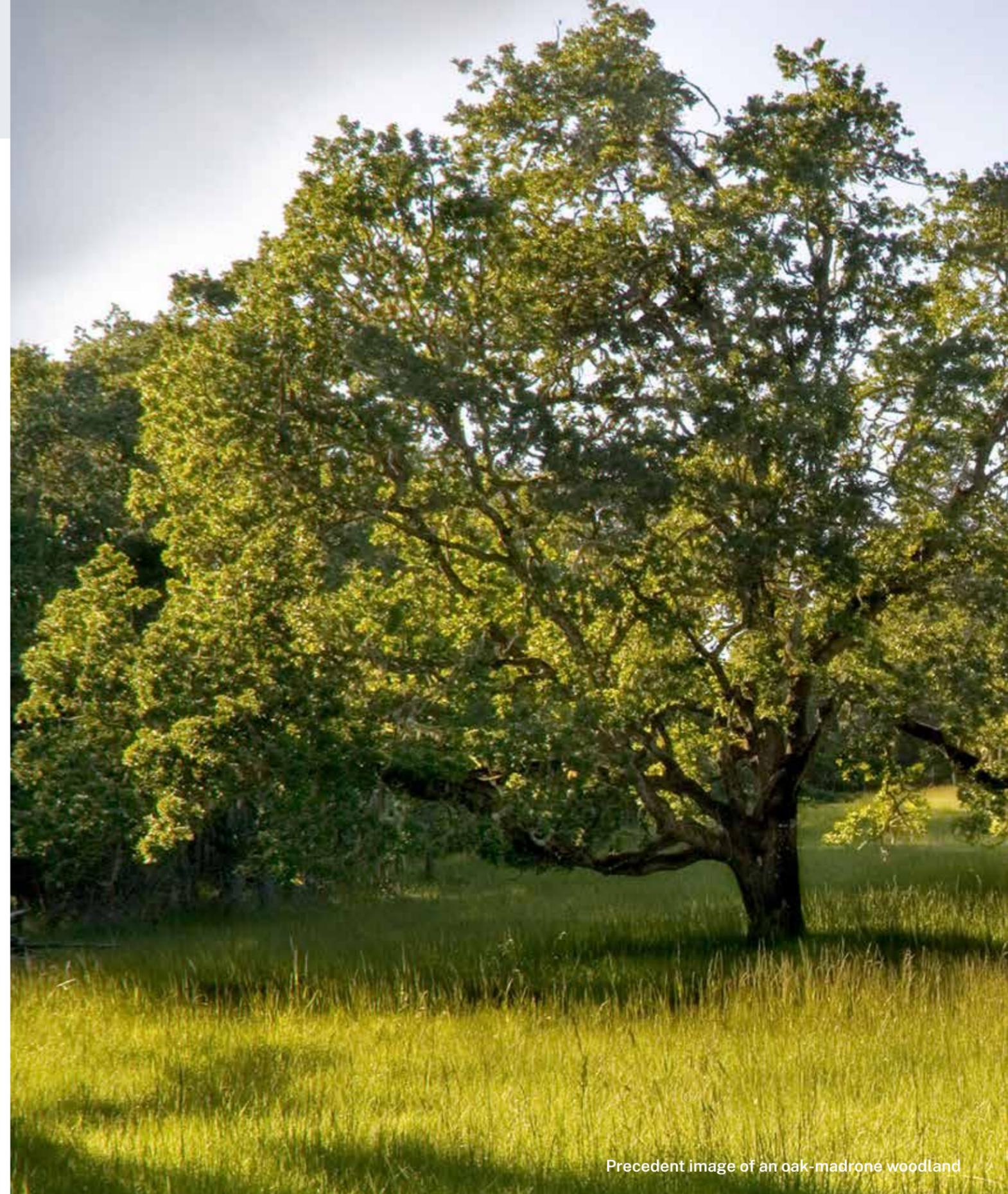
Shallow Water Habitat

Shallow water habitat along the Willamette Cove shoreline is a priority for Tribal and community partners, and is a key aquatic conservation target, particularly for juvenile salmonids and other aquatic species. Design intent focuses on maintaining low-velocity nearshore conditions with appropriate river substrates, shallow water depths (generally less than one meter), and structural complexity provided by large wood and bioengineered bank features. The extent and configuration of shallow water habitat are closely coordinated with in-water remediation design, grading elevations, and long-term river dynamics.

The design emphasizes creating functional shallow water habitat in areas along the bank that offer natural benches between 10' and 12' (NAVD88) in the final remedial design, and through the incorporation of large wood, boulders, and native emergent planting within the bioengineered stabilization where possible. Shoreline access for people in these locations is limited to preserve the integrity of restored habitat areas while still allowing experiential connection to the river at carefully designed locations.



Juvenile salmon in shallow water habitat



Precedent image of an oak-madrone woodland

Future Action & Recommendations

The development of this master plan is the first step in realizing the Willamette Cove Nature Park. The following section provides recommendations and key next steps to move the project from the planning phase through design, construction and the long term operations and maintenance of the nature park.

Future Studies & Assessments

Geotechnical analysis

Additional geotechnical analysis will be required to support the design of any project element which requires a structural interaction with the landscape and upland remedial action, including; the restroom, overlooks, the picnic shelter, kiosks, and paving profiles. Completing this work at the onset of the design and engineering phase is recommended.

Topographic survey

A detailed topographic survey will be conducted after upland and in-water remediation is complete to confirm final grades, bank conditions, and cap elevations. This survey will provide the base information necessary for design development, permitting, and construction documentation.

Harmful Algae Blooms

While this plan focuses on the development of a nature park, its proximity to water may prompt additional studies or research with local agency partners on a variety of issues that may include harmful algae blooms.

Design Phase

Sites Certification and other Metro Policies

In order to meet Metro site development standards, the nature park will be designed to meet Sites Gold certification standards alongside other operational and policy requirements including; clean air construction standards, bird friendly construction standards, low carbon materials and construction career pathways program.

Engineering

Civil, structural, and water resource engineering will be required to advance trail alignments, water access features, utilities, stormwater management, and structural elements in coordination with remediation constraints and floodplain requirements.

Irrigation & Utilities

Design will include irrigation and utility systems to support establishment of restored habitats, park amenities, and operations while minimizing subsurface disturbance in accordance with remedial constraints and long-term maintenance demands. Metro irrigation standards will provide a basis of design.

Public Art

Metro's Parks and Nature department has a 1% for Art program that requires one percent of capitol construction funding to be dedicated to the design, fabrication and installation of public art. As part of the percent for art program, art should be considered at this site. There is an opportunity to work with Tribes and Indigenous community members to create art for the site. These opportunities should be explored further during design refinement.

Implementation

Coordination with Remedial Activities

Implementation of park improvements will be closely coordinated with upland and in-water remediation schedules, institutional controls, and post-cleanup monitoring requirements to ensure compatibility with long-term remedial requirements.

Permitting

Future implementation will require coordination with multiple regulatory agencies to acquire permits related to land use, floodplain development, shoreline and water quality protections, and railroad safety requirements. Please see the regulatory framework section on page 14 for more detailed information.

Right-of-way Improvements

Improvements within public rights-of-way along N. Edgewater Ave. adjacent to the public rail crossing will be coordinated with the City of Portland to support safe access, utilities, and regional trail connections.

Railroad Crossing Improvements

Upgrades to railroad crossings will be required to support safe pedestrian, bicycle, emergency, and maintenance access. On-going coordination with Oregon Department of Transportation, the City of Portland, and Union Pacific Railroad will be necessary to define design standards and approval pathways. Preliminary diagrams of potential crossing approaches are included in the appendix.

Historic and Cultural Resources Protection

All future ground-disturbing activities will comply with applicable state and federal requirements for cultural resource protection.

Inadvertent Discovery Plan

An Inadvertent Discovery Plan will be implemented during design and construction to guide response procedures if archaeological or cultural resources are encountered, including notification of Tribes and the State Historic Preservation Office.

Budget Constraints

Implementation will be informed by estimates of probable cost, capital improvement plan priorities and funding, and operational resources and constraints. Design changes may be required to align improvements with funding capacity.

Funding Sources

Potential funding sources may include Metro capital funds, grants, partnerships, and other public funding opportunities aligned with habitat restoration, access, and environmental justice goals.

Constructability

Design and engineering will consider site access, sequencing, remediation constraints, floodplain conditions, and railroad adjacencies to ensure that improvements can be permitted, safely and effectively constructed with standard means and methods achievable within the project budget.

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Operations & Maintenance

Park Regulations

Park rules at Willamette Cove Nature Park will be consistent with Metro's Title 10 Parks and Nature Regulations, which govern the use of Metro's parks, cemeteries and natural areas by members of the public.

Pet policy

Metro's pets policy will be enforced consistent with Metro's Title 10 Parks and Nature Regulations. Dogs will be allowed on the regional trail only. Dogs will not be permitted on nature trails, restoration areas or water access points.

Signs

For public security and safety, hours of operation and regulatory signs will be installed at each access point, North Richmond Ave parking lot and North Edgewater Ave trailhead. An orientation map of the natural park will be installed at the parking area and at North Edgewater Ave to assist visitors and emergency and police response teams with wayfinding. Regulatory signs will include public use restrictions on pets, fires, camping, motorized vehicles, hunting, smoking, intrusive noise, plant collecting and other uses outlined in Metro's Title 10 rules. See the site features wayfinding section for additional information related to signage.

Safety and Security

Access Control

Vehicle access to the parking area will be controlled with automatic gates which will lock after hours. Open hours are sunrise to sunset. Automatic locks will be included on restrooms which will be locked at night. In areas where the site is adjacent to private property, boundary markers will be installed to clearly delineate the public/private edge. If social or demand trails develop that are not part of the adopted trail network will be decommissioned.

Emergency management

Emergency management at the site will be coordinated with local emergency response services. Additionally, an Incident Action Plan will be developed in coordination with local agencies, to assist cooperating agencies responding to a fire or an emergency at the site.

Willamette Cove Nature Park Master Plan

Monitoring & Maintenance

Park Facilities

Maintenance of the park should include cleaning the restrooms, litter pick-up, walking the regional trail, nature trails, water access points and general monitoring. Maintenance of the park should include upkeep of the restroom facilities, shelter, benches, picnic tables and signs, and maintaining or periodically mowing gathering spaces and stormwater facilities.

Trail Maintenance

Trail maintenance will improve trail safety and prolong the longevity of the trails. The trails should be monitored on a regular schedule to identify trail problems early, and to catch and decommission “social” or “demand” trails. The trails will be patrolled and inspected routinely to remove litter and identify potential areas of erosion and/or trail surface failure or pavement decline such as cracks and tree roots.

During the first year following construction of the trails, more frequent inspections should be completed to review the trail, drainage features and the potential for erosion. Ongoing trail maintenance activities will typically include clearing the trail surface and trailside vegetation to keep passages and selected views open, maintaining drainage features, overlook and culvert clearing and upkeep, litter and illegal dumping clean up, sign replacement, and closing “social trails” through the use of natural barriers and vegetation.

Habitat and Natural Area Management

After initial site restoration, ongoing natural area management is expected to include invasive plant control, especially near trails and along the perimeter of the property, monitoring for hazard trees and hazard tree removal, monitoring for and removing illegal trails and illegal camping, and trail network maintenance.

Adaptive Management Framework

Once the project is built, nature park and trail use should be monitored for appropriate use, and make sure that they function as intended. The trails and site features should be modified in the future to adapt to new information, new site conditions and a better understanding of how people and wildlife use the site. If issues are identified, they may require adjustments

to managing the site and trail uses. Possible responses could include removing unauthorized trails, implementing seasonal trail closures or adapting allowed uses.

Harmful Algae Blooms

The Oregon Health Authority closely monitors the lower Willamette River and is responsible for notifying the public of harmful algae blooms. Metro’s Willamette Cove team closely monitors the Oregon Health Authority’s notices about harmful algae blooms in the lower Willamette. When an advisory is posted, Metro posts warning signs on Willamette Cove’s beach. These signs are usually placed within a day of the advisory being posted.

Annual operation and maintenance cost

The addition of this nature park to Metro’s portfolio is expected to require additional budget and staff time for the annual operation and maintenance of facilities and ongoing natural resource management.

These costs may be on par with other nature parks in Metro’s portfolio and ongoing operation and maintenance needs will be monitored and adapted to changes in visitor use as needed.

Long term Monitoring and O&M

For the upland cleanup, a cap inspection and maintenance plan, a contaminated media management plan, and a community and outreach plan will be developed. In addition to regular inspection, the cleanup action will be subject to periodic reviews, which provide an opportunity to evaluate the implementation and performance of the remedy to determine if it remains protective of human health and the environment.

For the in-water cleanup, long-term monitoring and maintenance of isolation caps placed on riverbanks and in-water areas will be conducted in perpetuity and monitoring for natural recovery will be conducted.

Partnership Opportunities

From education and research to restoration, there are many opportunities for partnerships to enhance the public benefit and community relationship with Willamette Cove nature park. Metro regularly works with community groups and organizations to do service and team building activities and with scouts and school groups to do hands-on service learning. We often work with service clubs, faith-based organizations, school clubs or classes, youth groups, community-based organizations, book clubs, hiking or walking groups and singles or other Meetup groups. Potential partnerships could be centered on culture and history of the site, habitat improvement and connectivity protection. Partnerships like the following could also be centered on site restoration or experiencing nature.

Tribal governments

Tribal consultation and engagement should be an ongoing part of this project in coordination with Metro’s Tribal Affairs program and Tribal Policy guidelines. Tribes should be consulted with respect to historic and cultural resource work and informed of project next steps before they begin to assess where they see opportunities for collaboration. For example, during the design phase Metro will collaborate with Tribes to best deliver the “gathering spaces”

Partner agencies

Metro operates as a regional government and regularly evaluates its program and operations in relationship to the surrounding park and natural resource providers. We will continue to work with local governments and other partners to understand how this property addresses regional recreation and ecological uplift needs.

Indigenous communities

Partnerships with local Indigenous community organizations should be explored. Coordination on developing art and interpretation could both be explored as well as stewardship opportunities

Community-based organizations

Willamette Cove is located in North Portland, where several community organizations are based. Once the nature park has been developed, there will be opportunities for these organizations to host outdoor

programs and nature walks. Additionally, there are opportunities to explore partnerships to work together on parts of implementation, ongoing restoration and nature exploration.

Site Stewardship

Metro is committed to furthering people’s relationships with nature through hands-on experiences. Site-based opportunities strive to build appreciation and understanding of people’s relationships with nature by offering hands-on habitat restoration activities, guided tours, leadership programs, and support to community gatherings. Site stewardship and volunteers are important means of enhancing Metro’s operations capacity at its parks and natural areas. There is an opportunity to continue working with community organizations and leaders to be liaisons, tour guides and nature park ambassadors to welcome members of their community. These are opportunities to foster a reciprocal relationship in taking care of the land, trails and habitat areas. Metro works with volunteers to assist in restoration efforts in its parks and natural areas. Volunteers may perform ongoing monitoring to help assess and evaluate the success of restoration and other management activities. Other volunteer activities may include planting native trees and shrubs, invasive plant removal, creating habitat for wildlife and native seed collection. The nature park will be a great asset for North Portland community members, including students and teachers.

Nature Education

Metro has a well established nature education program in place to deliver site-based learning experiences that seek to increase individual and collective knowledge. Metro also partners and contracts with content and experience specialists to lead nature walks, forest bathing, plant or animal identification and other activities for the public and civic groups, and to deliver outdoor education programs such as school field trips.

Relationships with existing nature education providers should continue to be fostered as a means of leveraging existing resources thereby expanding opportunities for all. In some cases, established groups need natural places in which to conduct their own education programs. Metro should continue to work with partners to meet their needs. Community groups can help Metro activate Willamette Cove.

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