



## MASTER PLAN

# Willamette Falls

# Riverwalk

**ADOPTED BY METRO  
COUNCIL**

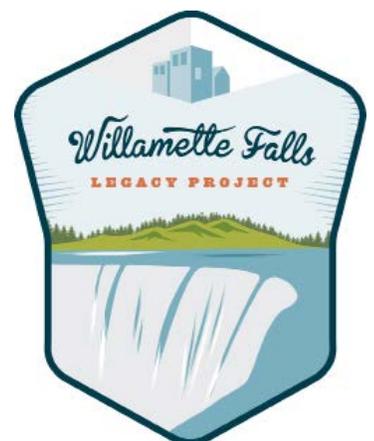
**JANUARY 2018**

**RESOLUTION NO. 17-4824**

**ADOPTED BY OREGON  
CITY COMMISSION**

**FEBRUARY 2018**

**RESOLUTION NO. 18-04**



# ACKNOWLEDGEMENTS

## Project Partners

City of Oregon City  
Clackamas County  
Metro  
State of Oregon

## Technical Advisory Committee and Project Staff

City of Oregon City  
Clackamas County  
Metro  
State of Oregon

## Property Owners

Falls Legacy LLC  
Portland General Electric

## Native American Tribes

Confederated Tribes of the Umatilla Indian Reservation  
Confederated Tribes of the Grand Ronde  
Confederated Tribes of Siletz Indians  
Confederated Tribes of Warm Springs  
Confederated Tribes and Bands of Yakama Nation

## Design Team

Snøhetta  
Mayer/Reed, Inc.  
DIALOG  
JLA Public Involvement  
KPF Consulting Engineers  
Flowing Solutions LLC  
DKS Associates  
NW Geotech, Inc.  
DCW Cost Management

## Technical Consultants

CH2M  
Stillwater Sciences  
MIG, Inc.  
ECONorthwest  
Maul Foster Alongi, Inc.  
Rick Williams Consulting  
Heritage Resource Associates, Inc.

## Follow the Willamette Falls Legacy Project

website:

[willamettefallslegacy.org](http://willamettefallslegacy.org)



@willamettefallslegacyproject



@willamettefallslegacyproject



@WFLegacyProject

#willamettefalls

#wflp



Metro



*Willamette Falls*  
**LEGACY PROJECT**

# TABLE OF CONTENTS

## **Executive Summary** **1**

## **Part I: Introduction** **5**

Willamette Falls: A Natural Treasure

Metro Parks and Nature

Oregon City Parks and Recreation

Project Background

Previous Work: Laying the Foundation

Site Ownership

Purpose of this Document

## **Part II: About the Site** **13**

Site Location

Site Description

Site History

Habitat Conditions

Flooding and Hydrologic Conditions

Geology and Topography

Neighboring Uses, Site Access and Connections

Buildings, Structures and Special Features

## **Part III: Process and Community Engagement** **37**

The Design Team

Design Principles

The riverwalk is more than a walk!

Stakeholder Input

Community Engagement Opportunities

Technical Studies

Alternatives Evaluation

## **Part IV: Recommended Riverwalk Concept Design** **61**

Key Uses

Falls Viewing Access

Paths, Walkways and Biking Trails

Collective Gathering and Event Spaces

Habitat Restoration and Natural History Interpretation

River Access and Activities

PGE Dam

Historic and Cultural Interpretation

Honoring Native American Presence: Past, Present and Future

Economic Redevelopment

Riverwalk Access and Connections

Parking, Access and Transportation Strategy

Riverwalk Design - Area 1: The North Riverfront

Riverwalk Design - Area 2: The South Riverfront

Riverwalk Design - Area 3: PGE Dam and Mill E

Riverwalk Design - Area 4: Canemah Connection

## **Part V: Implementation** **105**

Cost Estimates

Permitting

Demolition

Brownfield Remediation

Infrastructure

Additional Planning and Community Engagement Efforts

Phasing

Operations and Maintenance

Security and Interim Access

Funding

Rediscover the Falls

Catalytic Impact and Economic Benefits

## **Figures** **115**

## **Appendix** **131**



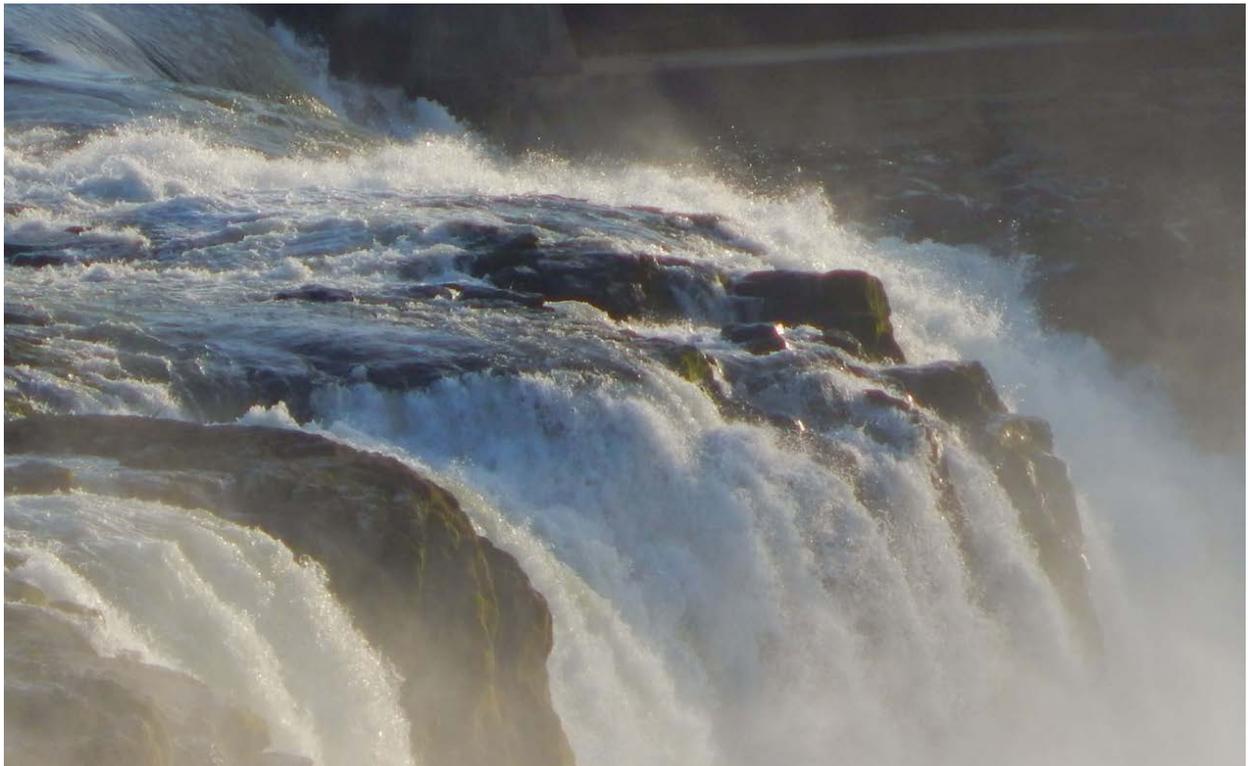
# EXECUTIVE SUMMARY

Willamette Falls is one of the nation's most beautiful and historic natural wonders. The second largest waterfall by volume in North America, it has long been an important cultural and gathering place for Native American tribes. Industrial development, beginning in the 1830s, blocked the Falls from public access and greatly modified the riverbank with man-made industrial structures. The Blue Heron Paper Company was the most recent in a succession of various industries that nested itself on the east bank of the Willamette River at Willamette Falls. The closure of the paper mill in February of 2011, due to bankruptcy, allowed the opportunity to bring public access to the Falls for the first time in more than 150 years.

Following the paper mill's closure, the City of Oregon City, Clackamas County, Metro and the State of Oregon joined together as Project Partners to form the Willamette Falls Legacy Project. These four government agencies have partnered since 2012 to establish and carry out a vision for the 22-acre site and reduce and remove barriers to redevelopment. A key feature of the vision for the project site is the creation of a world-class riverwalk to allow for public access and viewing of Willamette Falls.

The Willamette Falls Legacy Project site in Oregon City contains more than 50 industrial buildings, various degraded natural habitat areas, and is partially within the Willamette River floodplain. At the southern end of the project site, and on Willamette Falls itself, is a dam owned and operated by Portland General Electric (PGE). The site presents many opportunities and challenges. Opportunities for the riverwalk include strong ties to Native American tribes and culture, a site rich with the history of the Oregon Territory, the industrial west and power generation, and a fully operational dam walkway that can draw visitors close to the Falls to feel the mist and hear the roar of the water. Challenges for site development include hazardous building materials, flooding risks, state and federal protection of fish and wildlife species and dam operations.

In 2014, Falls Legacy LLC purchased the mill site and donated an easement along the shoreline to Metro for the purposes of building a public riverwalk. Metro has taken the lead in riverwalk design using funding from its 2006 Natural Areas Bond, along with contributions from the other three agency Partners and the private property owner.





Guided by the project's four core values of economic redevelopment, public access, historical and cultural interpretation and healthy habitat, the riverwalk design began in 2015. Robust community engagement has shaped the riverwalk conceptual design; thousands of people have participated in events, surveys, tours and meetings related to the Willamette Falls riverwalk.

Based on community and site owner input as well as technical studies and conservation science, the recommended riverwalk plan takes inspiration from the power of the Falls, selectively carving away concrete, steel, wood and stone from the project site to reveal the rich cultural, ecological and geological layers of history aggregated on the site.

The Willamette Falls Legacy Project site lies within an area of the Willamette River watershed that Metro and other conservation groups have identified for important habitat restoration and boasts several rare native plant species that thrive in the mist of the Falls. Improvements made to create healthy habitats and enhance natural environments can make a big difference for salmon, steelhead and Pacific lamprey migrating past the site.

The riverwalk is expected to be a catalyst for the redevelopment of the remainder of the site and for economic improvement in adjacent downtown Oregon City and neighboring West Linn. Throughout the riverwalk design, public spaces intertwine with redevelopment parcels and buildings in order to increase economic viability. Pathways and promenades connect islands of re-used industrial structure and large areas of restored habitat. Exploring the site, visitors will travel through a rich sequence that celebrates Willamette Falls in its fullest depth of nature, culture, industry and time. The design includes the following elements:

- A wide promenade for visitors to walk along the river
- Explorer Trails that provide additional pathways to bring visitors closer to the river and navigate through and over wildlife habitat areas and historic structures
- Removal of several industrial buildings and structures along the river with low redevelopment and historic value

- A new boat dock for light watercraft, both motorized and non-motorized
- Exposure of industrial water channels, also known as tailraces, to promote healthy floodplain function
- A flexible public plaza for events and gatherings
- Removal of a large amount of structural fill to restore historic shoreline conditions near the Woolen Mill
- Reuse of a historic mill building for covered gathering space, interpretive elements and a visitor center
- Multiple viewpoints of the falls, both up close and from building rooftops
- Removal of invasive plants and industrial debris from the river's edge and planting of native tree and shrub species
- Addition of large woody debris in shoreline areas to create natural habitats for river species
- A walkway on the PGE dam and a destination falls overlook from an old powerhouse foundation
- Reuse of the large clarifier tank for landscape of oak savanna habitat and connection to pedestrian bridges
- A vertical play structure that utilizes the steel structure of a mill building
- A pedestrian bridge to the McLoughlin Promenade, rising 100 feet above the site
- Immersive experiences and historic and cultural interpretation throughout the public space
- Opportunities for integration with future private development
- Visitor parking areas and access improvements for all transportation modes



The Woolen Mill Alcove and Public Yard



The Woolen Mill Overlook



The Clarifier Landscape and PGE Dam Promenade

The overall concept will be constructed in phases, with Phase 1 beginning once the Partners reach an agreement with the private property owner. Phase 1 will include habitat restoration, historic and cultural interpretative elements and open public access closer to the falls. Phase 1 will focus demolition and site preparation in the Yard and Mill Reserve areas and provide a viewing area in the Mill H building and Boiler Plant complex.

The project has also spurred the creation of a 501(c)3 nonprofit friends group, Rediscover the Falls, that is dedicated to advancing the Willamette Falls Legacy Project through building friendships and fundraising.

Keeping the four core values of economic redevelopment, public access, historical and cultural interpretation and healthy habitat as a guide, the riverwalk will be one of the many transformations of this site over time. Metro and the Project Partners are writing a new chapter--one that honors history, provides healthy habitat, fosters the economic development opportunities and connects people with downtown Oregon City and Willamette Falls.





## **PART I: INTRODUCTION**

### **Willamette Falls: A Natural Treasure**

Willamette Falls is one of the nation’s most beautiful and historic natural wonders, but also one that is largely hidden from the public. It is the second largest waterfall by volume in North America and has long been an important cultural and gathering place for Native American Tribes.

The Falls, on the Willamette River, sits at the end of the Oregon Trail and is flanked by the cities of Oregon City and West Linn. In the late 1800’s, on the eastern side of the Falls, you would have found a thriving frontier city—it became the site of energy generation for Oregon’s early industries, including the state’s first paper mill and the world’s first long-distance electrical power transmission line from Oregon City to downtown Portland.

The former Blue Heron Paper Company spanned the eastern side of the Falls and was the last in a succession of businesses that contributed to a strong working waterfront in Oregon City. They closed their doors in 2011, leaving a gap to be filled in the city’s historic downtown and local economy, but also an opportunity to bring people to Willamette Falls.

Nowhere else will you find quite the same juxtaposition of history, culture, industry and nature. The riverwalk was conceived during a visioning process in 2013 and 2014 that resulted in an undertaking to give the public an up-close view of Willamette Falls and a unique and breathtaking waterfront experience.

Willamette Falls is one of the nation’s most beautiful and historic natural wonders. The second largest waterfall by volume in North America, this has long been an important cultural and gathering place for Native American Tribes.

## Metro Parks and Nature

Within Metro's 2016 Parks and Nature System Plan, the Willamette Falls riverwalk is classified as a Regional Recreation Area. Regional Recreation Areas offer access to some of the region's most distinctive natural features for boating, swimming, picnicking and other activities. While some include sensitive lands and areas managed and treasured for their cultural habitat and ecosystem values, Regional Recreation Areas generally support high levels of activity and use.

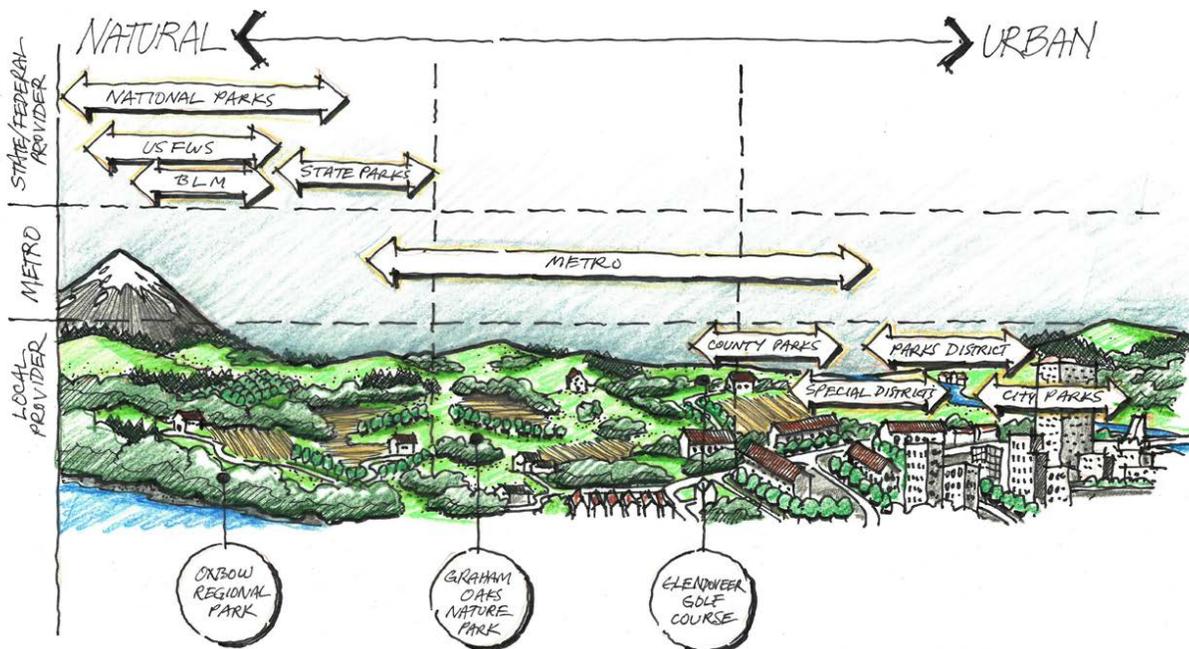
The riverwalk is envisioned as a catalyst for a much larger transformation of the site: a thriving, connected downtown anchor, with room for housing, public spaces, habitat restoration, education and employment.

The riverwalk is just one site that sits within the greater regional context of properties and natural areas owned and managed by Metro in and around Oregon City. Some other notable sites include: Newell Creek Canyon Natural Area, Canemah Bluff Nature Park and the Willamette Narrows Natural Area.

## Natural Areas Bond Measures

In 1995 and 2006, voters approved general obligation bond measures to protect water quality, restore fish and wildlife habitat and provide opportunities for nature-based recreation across the region. This public investment is responsible for the growth of Metro's portfolio of parks and natural areas, which today totals roughly 19,000 acres.

Given the site's significant historic associations and strong connection to the Willamette River and Willamette Falls, the site has been identified as a "legacy opportunity." The Willamette Falls riverwalk design was funded from multiple sources, including contributions from Metro, the City of Oregon City, Clackamas County, and Falls Legacy LLC. Utilizing \$5 million in Natural Areas Bond funding, Metro is playing a lead role in the development of the riverwalk and long term stewardship of natural areas. The construction funding for the riverwalk Phase 1 will also come from multiple sources. More information on project funding is found on [page 110](#).



As a park provider, Metro focuses on large-scale natural area conservation close to home in an urban setting. Metro acquires, restores and provides access to large sites that typically are beyond the reach of local jurisdictions, but closer to population centers than those managed by state and federal providers.

## Oregon City Parks and Recreation

The addition of the Willamette Falls riverwalk will create a regional park in historic downtown Oregon City and expand recreational opportunities in the greater metropolitan region. The Oregon City Parks and Recreation 1999 Master Plan and the 2008 Master Plan Update identify goals which are met through the realization of the riverwalk. These goals include acquiring park land for a growing community, improving efficiencies and level of service through strategic partnerships, improving connectivity through trail development, as well as prioritizing sustainability.

Sustainability is recognized by the Oregon City Parks Department as a top priority. This is achieved through protecting natural resources, public resource stewardship, cultural resources, fostering economic development and utilizing other sustainability practices.

The Willamette Falls riverwalk, as envisioned, will connect the people of Oregon City to Willamette Falls and will reconnect residents, businesses and visitors alike with the rich history of the area.



Clackamette Park



Rivercrest Spraypark



The McLoughlin House



The Oregon City Public Library and Carnegie Library Park

## Partners Group Members, 2017

### Metro

Council President Tom Hughes

Councilor Carlotta Collette

Chief Operating Officer Martha Bennett

### Clackamas County

Commissioner Paul Savas

Commissioner Martha Schrader

Administrator Don Krupp

### City of Oregon City

Mayor Dan Holladay

Commissioner Renate Mengleberg

City Manager Tony Konkol

### State of Oregon

Senator Alan Olsen

Representative Mark Meek

Deputy Director of State Parks MG Devereux

Metro Regional Solutions Coordinator Raihana Ansary

## Project Background

After the Blue Heron Paper mill closed in 2011, four government partners – Oregon City, Clackamas County, Metro and the State of Oregon (“the Partners”) – came together as the Willamette Falls Legacy Project to secure public access to Willamette Falls, which has been hidden behind the growth of industry in Oregon City for more than 150 years.

The Partners have been working together since 2011 to establish a vision for the former mill site, craft a site-wide master plan, and build a world-class riverwalk. Each agency brings a unique perspective and set of goals.



Partners Group members with project staff, members of Rediscover the Falls and riverwalk design team members

When the Blue Heron Paper Company closed, Oregon City was faced with 22-acres of vacant industrial waterfront property next to its downtown and wanted to reduce barriers for acquisition to make redevelopment a reality. Clackamas County joined the partnership to assist with redevelopment and job creation. Metro entered the partnership recognizing the once-in-a-lifetime opportunity for public access to Willamette Falls and the need for restoration of habitat in this unique section of the Willamette River. Similarly the State of Oregon saw the opportunity to create public access and also to honor the history and culture of the site’s Native American and industrial history.



Aerial drone footage of the former Blue Heron Paper mill

## Previous Work: Laying the Foundation

Together in 2012, the Partners identified four core values in order to bring the Willamette Falls Legacy Project to life. The values have been used as a framework for all project decisions and will continue to guide future decisions as the project moves forward.

### Four Core Values

**Public Access:** Visitors will get a front-row seat to experience the majestic and truly extraordinary Willamette Falls. Inaccessible for public enjoyment and effectively removed from the public consciousness for more than 150 years, the Falls are one of the most scenic places along the Willamette River. They also provide an important opportunity for Oregonians to connect with the river, which is isolated from many of the communities along its route.

**Historic and Cultural Interpretation:** This section of the Oregon City riverfront is rich with history. Willamette Falls served as an important cultural site for Native American tribes. The Falls also tell the story of the area's industrial development - John McLoughlin built the Pacific Northwest's first lumber mill here, and in 1844 Oregon City became the first incorporated city west of the Rocky Mountains. As the end of the Oregon Trail and the birthplace of Oregon, the region served as a transition point for thousands of new Oregonians.

**Economic Redevelopment:** With the closure of the Blue Heron Paper Company, Oregon City lost 175 jobs - a blow that can be redressed through redevelopment. The Partners' actions to date have been aimed at returning part of the site to private development, reinvigorating the downtown as a hub of employment, shopping, businesses and tourism. The riverwalk is seen as a catalyst that will attract private development and investment to the site and to surrounding areas in Oregon City and neighboring West Linn.

**Healthy Habitat:** Protecting and restoring natural habitats at Willamette Falls is important for water quality, fish and wildlife habitat in this reach of the lower Willamette River.

Historically, the Falls were surrounded by unique plants that thrived in microclimates created by the mist. Protecting the site provides an opportunity to re-establish native plant communities and improve fish habitat, enhancing this ecologically diverse stretch of the Willamette River.

## Four shared values will shape the riverwalk:

Public Access

Historic and Cultural Interpretation

Economic Redevelopment

Healthy Habitat





Governor Kate Brown with Metro Councilor Carlotta Collette and former Governor Barbara Roberts on a site tour

## 2013 to 2014: Visioning and Master Planning

In 2014, the Partners created the Framework Master Plan to guide future development of the site. It creates a new, mixed-use Willamette Falls Downtown zone to replace industrial zoning and provided a plan for anticipated patterns of development. The master plan identifies general areas for redevelopment, open space, streets, habitat restoration and shows the riverwalk connecting the existing sidewalk on Hwy 99E to an overlook at the edge of the Falls.

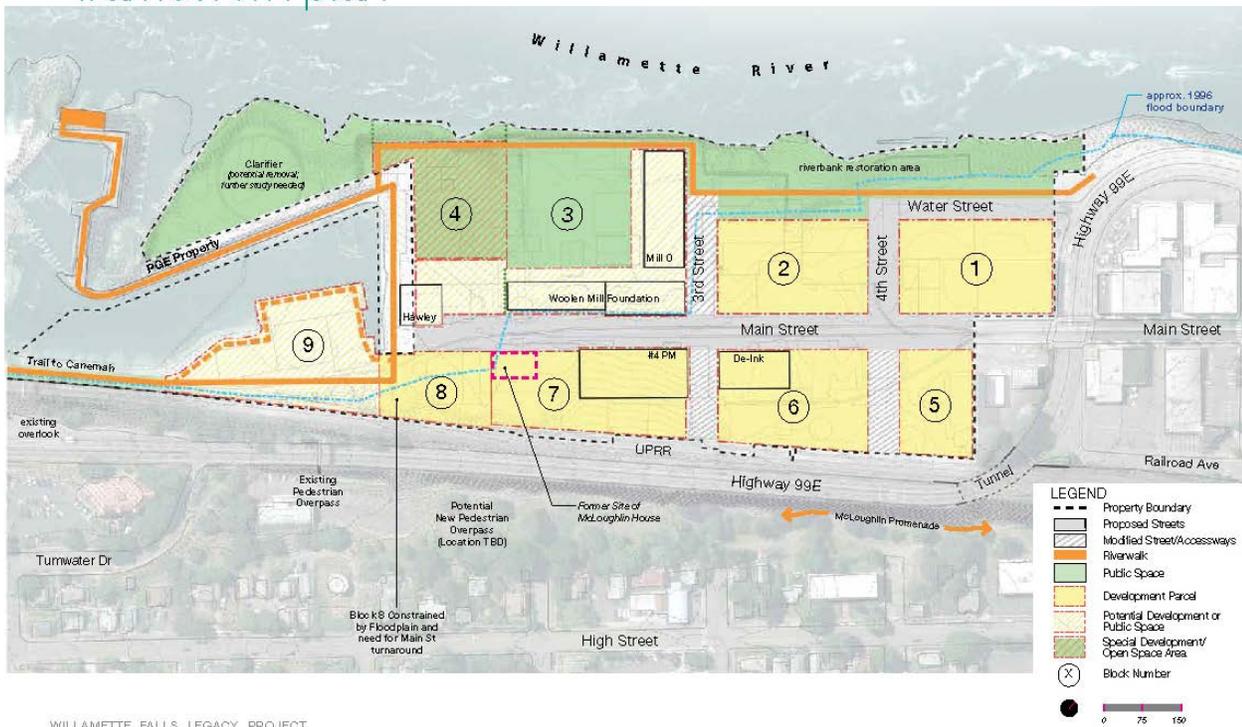
Development standards for the area and design guidelines for future buildings are part of the plan, as well as a clear process for future builders to follow when they propose specific projects. Existing protections for flood zones, natural resources, geologic stability and the Willamette River Greenway remain in place.

The “Vision for the Willamette Falls Legacy Project” was also adopted in 2014. This document summarizes the public’s input around the core values, their desire to reconnect with the river and Willamette Falls and the need to redevelop the site. It described the riverwalk as including a series of overlooks, platforms and docks along the river’s edge to the Falls, and connecting to the proposed street grid and future open spaces.



Community members celebrate the end of the visioning process in 2014

## framework plan



WILLAMETTE FALLS LEGACY PROJECT

## Site Ownership

The site is privately owned. Falls Legacy LLC purchased the former mill property in 2014 and Portland General Electric (PGE) owns the dam on the site. The Partners were granted an easement from Falls Legacy LLC to construct the riverwalk on its property and PGE granted the Partners an easement option that would allow the public to walk on the dam as part of the planned riverwalk. The Partners adopted an Intergovernmental Agreement that placed Metro in charge of holding the easement and designing the riverwalk, with support and close coordination from all the Partners. The Intergovernmental Agreement established a decision-making process that relied on consensus of all four agencies, at the staff level and by elected officials.

## Purpose of this Document

In early 2015, the Partners initiated a public master planning process for the riverwalk. The master plan provides a long-term vision and implementation strategy to guide future public use and development of the riverwalk. This document establishes project goals and objectives, key public uses, outlines site resources and conditions and summarizes the planning process. It also lays out a framework for implementation, including phasing, future maintenance and operational needs and funding.

The Partners intend to develop public access to the site in a sensitive and balanced way that ensures all four core values are considered now and into the future.

## A Vision for the Willamette Falls Legacy Project

The riverwalk is a critical first step in providing public access to the Falls and in demonstrating public commitment to creating an amenity that will spur the future redevelopment of the site.



Willamette Falls at sunset



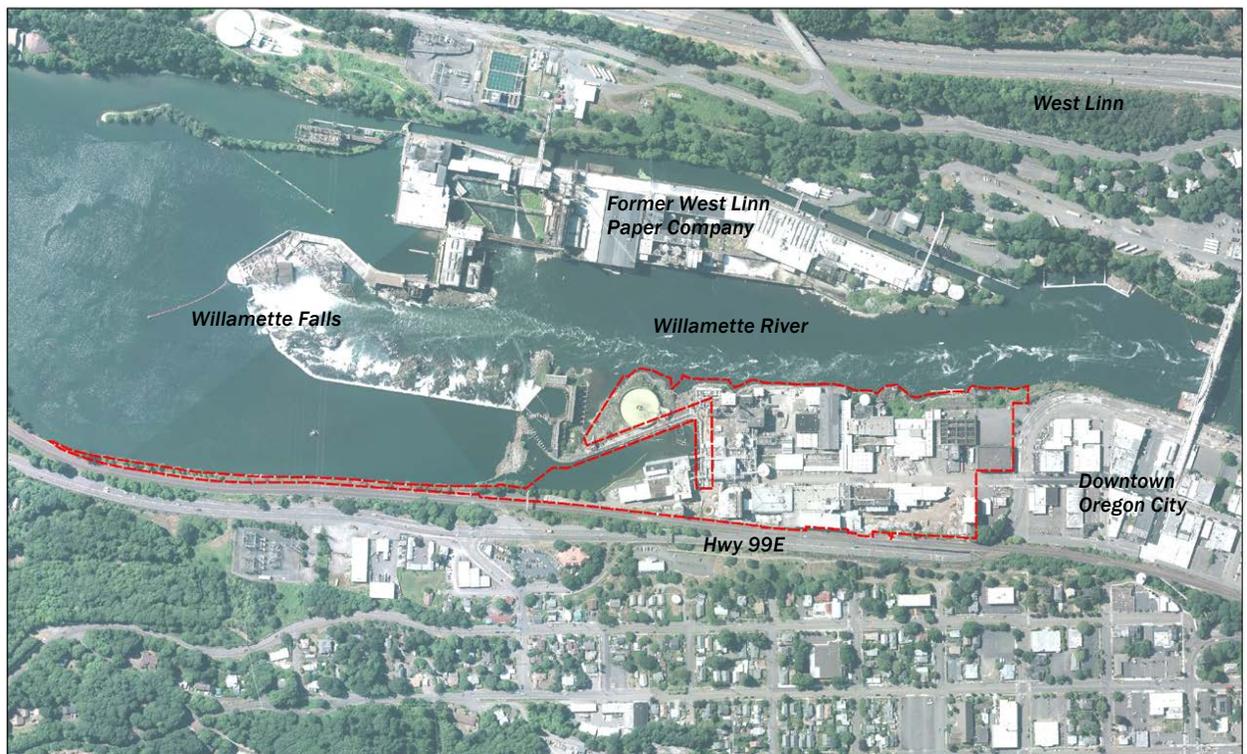
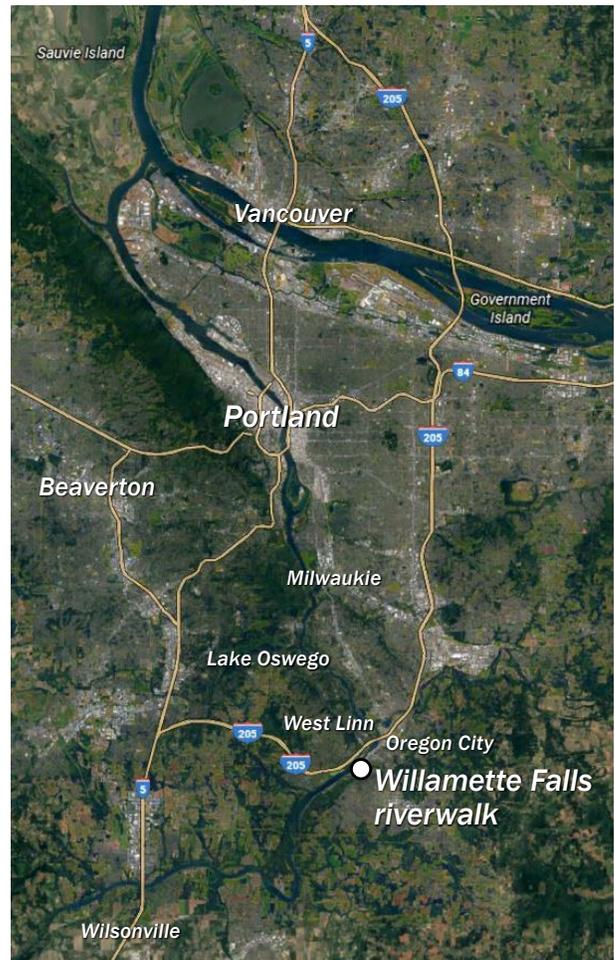
# PART II: ABOUT THE SITE

## Site Location

The Willamette Falls riverwalk is located in the heart of the Pacific Northwest, on the Willamette River in Oregon City, Clackamas County, Oregon. The 22-acre riverfront site is an accessible destination within a 30-minute driving distance of several Northwest cities, including Portland, West Linn, Lake Oswego, Vancouver, Gresham and Wilsonville.

Its placement along the Willamette River makes this site highly visible to anyone visiting or driving past downtown Oregon City. It is less than a mile from Interstate 205 and 13 miles from downtown Portland. The Portland International Airport is less than 20 miles from the site.

Oregon City itself, with a growing population of 34,000 is classified as a Regional Center under the Portland metro region's long range plan.

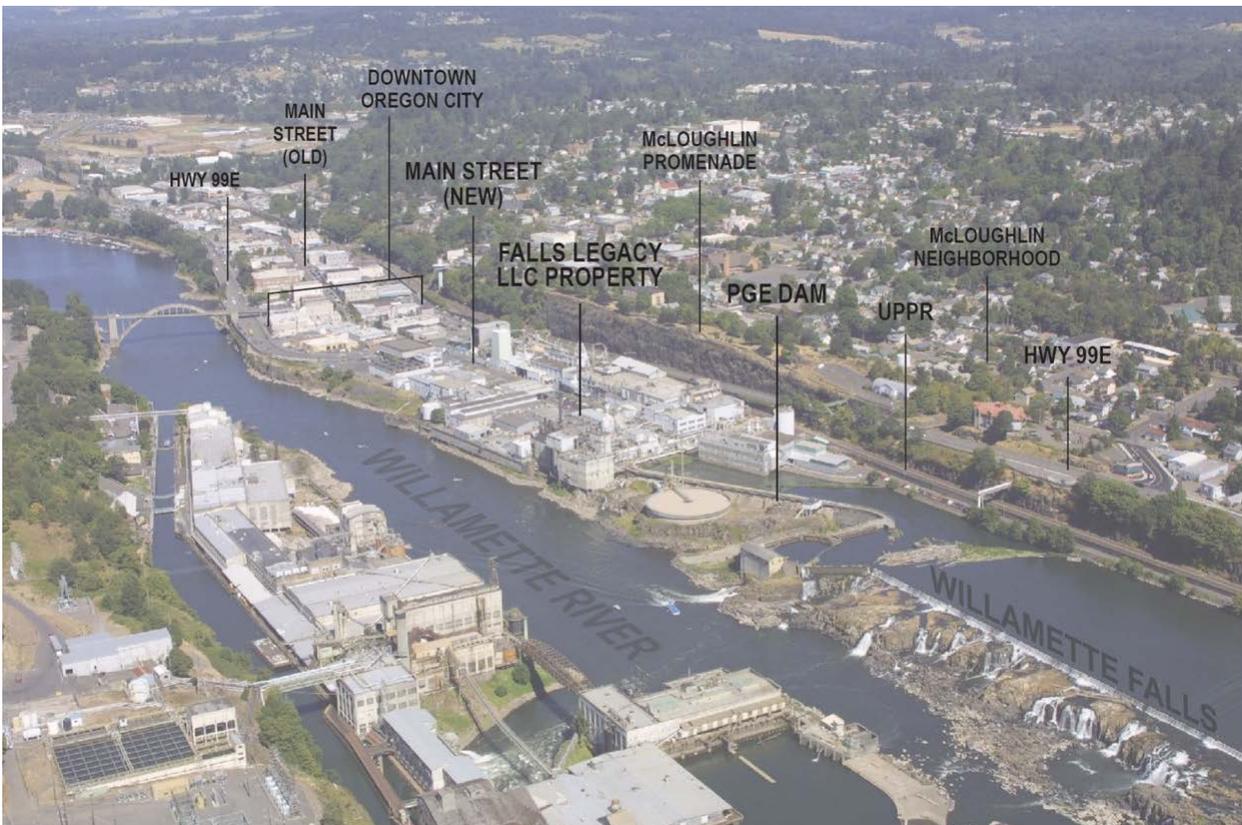


Red outline indicates the former Blue Heron Mill site boundary

## Site Description

The project site sits along almost a mile of Willamette River frontage. The southern portion of the site borders the calm, upper portion of the falls. The main portion of the site is largely defined by heavy industrial use and is currently occupied by old paper mill structures and remnants of buildings from earlier industrial eras of wool and flour processing layered upon each other and interwoven into a highly complex assembly. There are dozens of buildings on the site of various ages and conditions. The buildings sit empty; all equipment and infrastructure that had any value was removed during bankruptcy by a salvage contractor. There are also dozens of tanks, cylinders and other industrial structures scattered throughout the site. For ease of understanding and purposes of design, the site was divided into four distinct areas:

- **Area 1: North Riverfront:** from Highway 99E to 3rd Street
- **Area 2: South Riverfront:** from 3rd Street, including the Public Yard, Pipe Chase and Mill Reserve areas
- **Area 3: PGE dam and Mill E:** Clarifier, PGE dam, intake basin and Mill E
- **Area 4: Canemah Connection:** narrow strip of land along railroad tracks, which ends at the northern edge of the Canemah neighborhood

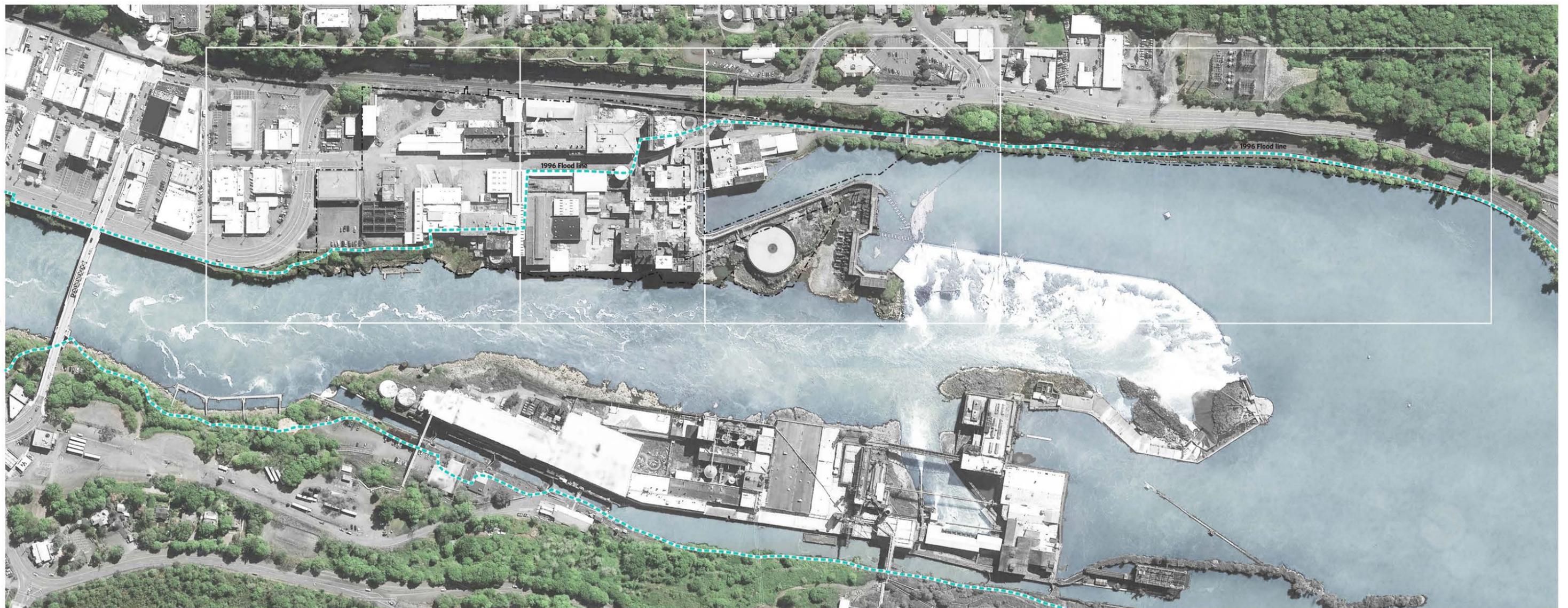


**Area 1**  
North Riverfront

**Area 2**  
South Riverfront

**Area 3**  
PGE Dam and Mill E

**Area 4**  
Canemah





## Site History

From time immemorial people have been drawn to Willamette Falls. The area around Willamette Falls was home to a large population of native peoples spanning multiple tribes. Villages around the falls are described by many of the early explorers. In addition to those who resided nearby, Willamette Falls was a major center of regional intertribal contact and commerce.

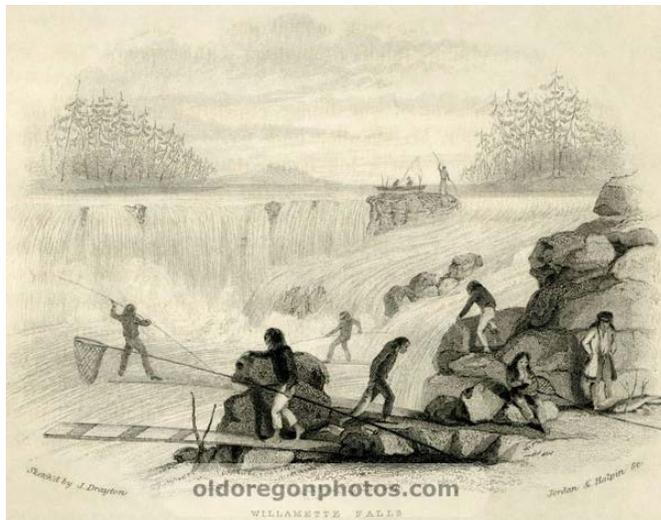
Anadromous fish congregating below the falls and awaiting favorable river conditions for moving upstream could easily be taken by Native fishermen. Some of the earliest evidence of prehistoric peoples in the Pacific Northwest has been found at archaeological sites on the Columbia River, most notably at Celilo Falls near The Dalles, where the record of occupation extends back 10,000 years. A similar, very long record of Native American occupation may be in evidence at Willamette Falls.

After The Dalles, Willamette Falls is often cited as the second most important trading center in the Pacific Northwest. Willamette Falls is mentioned prominently in the oral literature and stories of Native Americans, including the Chinookan and Kalapuyan peoples.

The importance of this place as a transition point along the main transportation artery meant that it also became a destination for settlers. Long before streets were platted in Seattle, Portland or San Francisco, Oregon City's Main Street extended from the falls, through this site and north through the basalt bench, becoming the spine of a thriving pioneer community and the end of the legendary Oregon Trail.

New settlers built industries and businesses centered on the transport of goods around the Falls and on the use of the roaring volume of water to produce power. As the U.S. entered the electric age, the 30 to 40 feet of water height, or "head," at the Falls was a natural source for power generation, and the location was promoted as the "Niagara Falls of the West." During this time white settlers worked and lived amongst Native American people, who later were removed to reservation lands through treaties with the United States Federal government. After reservations were formed, tribal members continued to fish at the Falls in accordance with their treaty rights.

Using generators originally employed in a Portland sawmill, the Willamette Falls Electric Company, a precursor of Portland General Electric, produced the nation's first long-distance transmission of electricity on June 3, 1889. Power traveled from Station A in Oregon City to the streetlights in Portland 14 miles away. Power generation later moved to the West Linn side of the river, with remnants of the old turbines and equipment remaining on the Oregon City side.



American Indians at the Falls fished using platforms that allowed them to balance over the water, scooping the salmon as they tried to pass, c. 1842



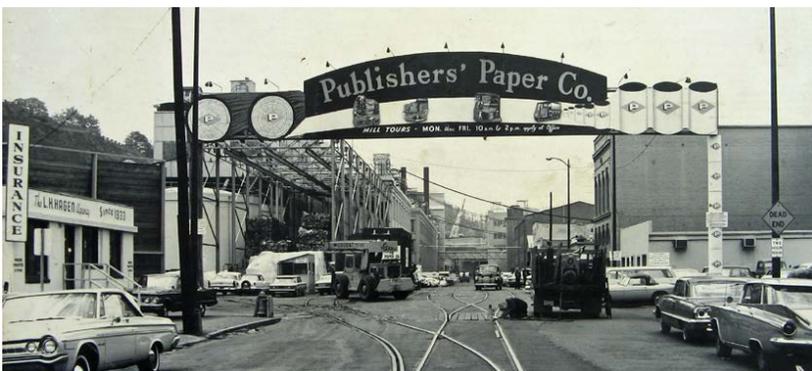
This drawing shows what would have been one of the last American Indian settlements near the Falls, at Abernathy Creek. Disease and conflict destroyed what had once been a vibrant community of tribes, 1857

If Oregon has a spirit of place, it would be embodied at Willamette Falls. This landscape's spirit is impossible to ignore since it emanates an almost palpable energy attracting people generation after generation. Recognizing, understanding and respecting a place's spirit is critical for future planning so that it can re-emerge if it's been obscured or can come through in new ways with respect to the past.

Over time the site transformed into part of a burgeoning town, with industries clustered around the falls and various residences, business, churches and hotels built along Main Street. As industry grew, and papermaking replaced wool and flour mills, the homes and businesses were replaced with large industrial buildings. In 1948-1950 Hawley Pulp & Paper sold and Publisher's Paper was established. By the 1970s, the southern end of Main Street, along with 3rd, 4th, and Water Streets, were vacated by the city and turned over to the mill to create one 22-acre site. In 1986 Jefferson Smurfit Co. purchased the mill and in 2000 the employees established the Blue Heron Paper Company, the last industrial operation to occupy the site. Thousands of people were employed by the mill over the years, and despite a variety of mergers and name changes, it was the economic engine of Oregon City. At the time of its bankruptcy in 2011, 175 people worked at the Blue Heron Paper Company.

### Habitat Conditions

The site is located within the Willamette Greenway and serves as a linkage to other natural areas in the lower Willamette River such as the Canemah Bluff Natural Area, Camassia Nature Preserve, Coalca Landing, West Linn White Oak Savanna, Willamette Islands and the Willamette Narrows. These natural areas, including the project site, provide linkages from central and south Willamette valley north to the Portland metropolitan area and are essential to regional biodiversity conservation in an area of urbanization.



Left, above: 1892 image of early industry on the river

Left, below: Main Street entrance to Publisher's Paper in the 1960s

Right: Mill workers at a log lift in 1951

Currently, habitats on the site are relatively small and highly fragmented due to the historic site development, highways (I-205 and 99E) and the adjacent railroad. Historic fill and grading of the site have further decreased the amount of natural habitat available. Remaining habitat in natural or semi-natural condition includes areas wetted by tidal action and seasonally high waters of the Willamette River, areas of seasonal or perennial spring seepage and basalt outcrops with varying exposures.

Due to these processes and existing site conditions, six major habitat types are present or potentially present at the site and are described below.

### **In-channel river**

In-channel river habitat areas on the Willamette are important to a wide range of native fish and wildlife species. Integrating tributary headwaters down to the valley floor, this habitat type extends from tributary headwaters to the mouth of the river and represents an iconic feature of the Northwest landscape. It includes open water riverine areas with no vegetation and islands of basalt rock formed in-channel at low water. In general, rivers, streams and open waters provide multiple ecological services, including: attenuating flood flows, recharging groundwater, sediment storage and transport, diluting and converting harmful nutrients, water delivery and atmospheric heat moderation. Mainstem rivers such as the Willamette also support high levels of biodiversity and provide critical migration and movement corridors for fish and wildlife.

### **Off-channel alcove**

Highly diverse and dynamic in nature, off-channel alcove habitat on the Willamette River serves as an uncommon and important resource for native fish, wildlife and plant species. Alcove habitat historically existed in greater abundance along the site shoreline. Much of the former off-channel habitat has been filled in and covered by infrastructure. Emergent native wetlands, as well as floating aquatic plant communities are associated with off-channel alcove areas.

### **Riparian basalt**

The basalt outcrops and rocky substrate along the shoreline contribute to the mosaic of rocky habitats located to the north and south of the project site in and along the Willamette River. The outcrops are a relic of the Missoula (also known as the “Bretz”) Floods, and exposures along this part of the Willamette River provide important habitat for both dry and wet plant species more common in the Columbia River Gorge. Shallow depressions that hold water on the basalt also provide unique wetland habitat. The vegetation assemblages found on the basalt outcroppings of the site are similar to those found in neighboring oak habitat and key habitat for pollinators and birds.

### **Riparian forest**

Riparian forests are associated with alluvial soil and springs and seeps emerging from the site. Large areas of the site may have been historically



Juvenile spring Chinook salmon  
(*Oncorhynchus tshawytscha*)



Pacific lamprey  
(*Entosphenus tridentatus*)



Riparian basalt habitat



Basalt surrounding the Clarifier on site



Example riparian basalt plant community from nearby Willamette Narrows

dominated by this habitat, but due to significant alterations and industrial development, this habitat has been reduced to small areas.

**Upland forest**

Upland forests with large conifer and deciduous trees are found on the valley floors and up to the mid-slopes of the valley, as exemplified at the Canemah Bluff and Willamette Narrows natural areas. The interior portions of the project site may have been historically dominated by this habitat but due to significant alterations and industrial development, this habitat is now limited to a narrow corridor alongside the railroad spur.

**Oak woodland savanna**

Oak woodland and savannas are dry to wet grasslands occurring on hilltops and slopes with patches of shrubs and Oregon white oak trees. This habitat type surrounds the Willamette Falls site and can be found along the McLoughlin Promenade. Oak savanna is an Oregon Department of Fish and Wildlife conservation strategy habitat for the Willamette Valley.



Example upland forest habitat

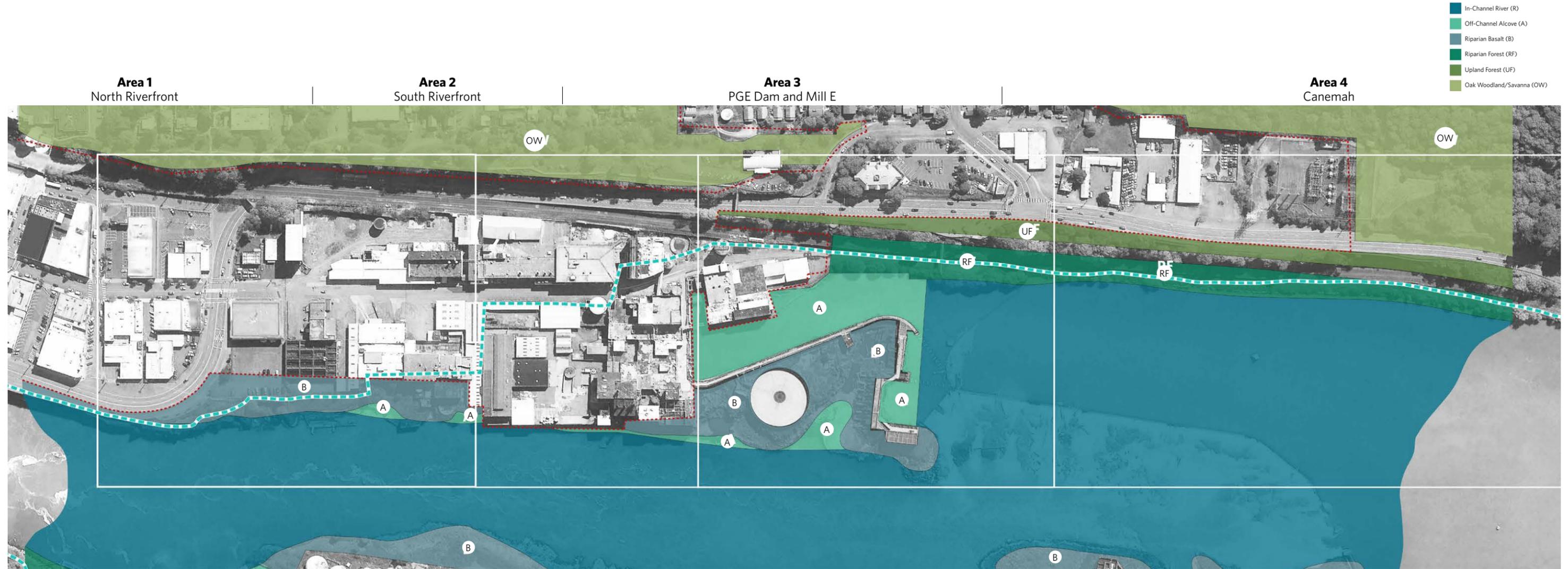
**Existing Habitat Types**

A more in-depth description of these habitat types, their condition and examples of plants and animals that are native to each habitat type are found in the Baseline Habitat Conditions Report in [Appendix A](#). The habitat areas referenced on the Existing Habitat Types plan are not necessarily demonstrative of high-quality habitat. Many of the existing habitat areas are in various states of degradation from human use, industrial development and invasive species. That said, the site’s existing conditions are unique and well-positioned for ecological restoration.



Willamette Falls and riparian forest habitat from the McLoughlin Promenade

# Existing Habitat Types





## **Flooding and Hydrologic Conditions**

Willamette Falls is the second largest waterfall by volume in North America, second only to Niagara Falls. Flow rates downstream of the project site range from an average of 8,390 cubic feet per second (cfs) in August to 76,100 cfs in December, which roughly equates to more than a half million gallons per second. The Willamette River is also tidally influenced up to Willamette Falls.

Located on the right bank of the Willamette River, a significant portion of the riverwalk site, 12.5 acres, is within a city-designated 100-year flood overlay. The southern portion is subject to flooding and last experienced major flood events in 1996 and 1964. Floods on the site result from the river level below the falls rising and from water above the falls overtopping the PGE dam and flowing into the site from the south. The unique hydraulics at the site make flood modeling challenging.

Surface water is generally the result of treated stormwater that flows through historic channels, small waterfalls, and alcoves. Seepage below outcrops and spillways is an additional hydrologic characteristic of the site, and these springs and seeps could provide cold water input to the Willamette River, benefiting native fish and other aquatic species.



The flood in 1964 impacted almost the entire west coast and brought significant changes to the mills. Water rushed over the basin and across the Mill Reserve area, but the dam seems to have withstood the torrent. The flood is considered by some as the worst in Oregon history



Onlookers watch the 1996 flood from McLoughlin Blvd/Hwy 99E.

## **Geology and Topography**

The Willamette Falls area expresses the sequential effects of two catastrophic geologic events— the eruption of many hundreds of cubic miles of flood basalts that blanketed much of what is now the states of Washington and Oregon about 15 million years ago; and the voluminous release of floodwaters across much of the same region, previously impounded by the melting North American ice sheet between about 18,000 and 13,000 years ago.

The Columbia River Basalts are a sequence of lava flows that erupted from vents in eastern Washington and Oregon, mainly between about 17 and 14 million years ago.

At the close of the last global glacial era, the ice sheet that covered much of northwestern North America began retreating from its terminal position in northeastern Washington State. The Columbia River and its tributaries, long-dammed by the ice to form a voluminous lake in eastern Washington and Idaho, discharged catastrophically beneath the thinning ice margin to create the Missoula Floods. Although the primary flood continued down the Columbia River to the Pacific Ocean, discharges were so great that water backed up the Willamette River up to and well south of the project site, depositing extensive terraces of silt, sand and gravel. This glacial era flooding occurred many dozens of times over a period of at least several thousand years, with multiple iterations of scour and deposition resulting from them.

The site now sits at 60 feet above sea level, with the basalt cliff east of the site towering an additional 100 feet. The grade on site falls from 60 feet toward the river and Willamette Falls. Much of the natural grade is hidden by built up structures and buildings with multiple basement levels.

## Neighboring Uses, Site Access and Connections

### Downtown Oregon City

Downtown Oregon City is directly adjacent to the proposed riverwalk. Main Street is the vehicular entrance to the site and also provides transit connections, with the closest bus stop (Line 33) at 8th and Main Street.

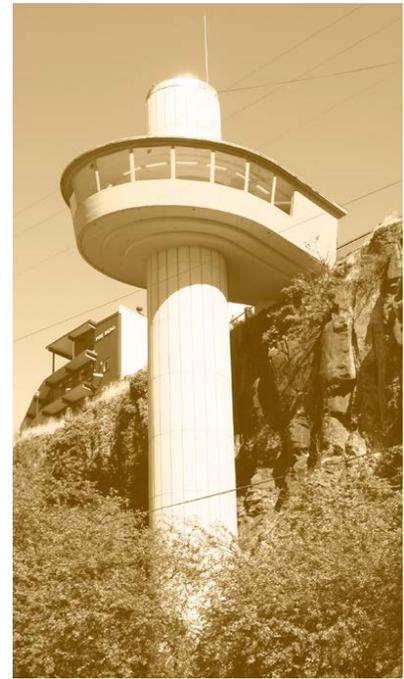
### Historic Oregon City

Downtown is a small but thriving district of offices, shops and restaurants along Main Street. The historic core stretches from 5th to 10th Street, and the north end - from 10th to 15th Street - has significant development opportunities. The celebrated municipal elevator connects downtown to the bluff at 7th Street, and the transit center is located on Main and 11th. The riverwalk is envisioned to be the connector to seamlessly integrate downtown into the new Willamette Falls District.

Potential boat access to the downtown core exists via an old dock site located at McLoughlin and 8th Street. Residents have expressed interest in a water taxi service between Oregon City and Portland, and the 8th Street dock site has the potential to become an iconic water gateway to downtown.

### West Linn Paper Company

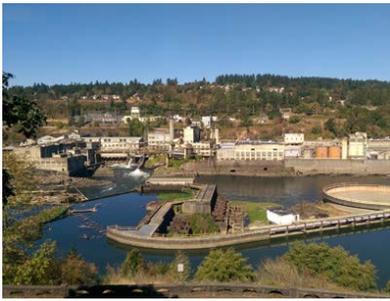
West Linn Paper Company (WLPCo), formerly Crown Zellerbach, was West Linn's largest employer and sits directly across the river from the former Blue Heron mill. Using a long term lease from PGE, WLPCo operated on an island between the river and the Willamette Falls Locks; however, the company announced its closure in October 2017. The West Linn Paper Company made different paper products from what was manufactured at Blue Heron.



Upper Right: Oregon City Municipal elevator

Middle: Local businesses on Main Street in downtown Oregon City

Lower: Looking toward the former West Linn Paper Company



Aerial view of the dam, looking toward the Sullivan Plant and the former West Linn Paper Co across the river

“Out of this State Heritage Area designation, we intend to foster ‘heritage tourism,’ drive key economic development and enhance cultural offerings in and around Oregon City, West Linn, Lake Oswego and beyond. But this is an equally important milestone as we move toward designation at the national level.”

-Alice Norris, president of the Willamette Falls Heritage Coalition

Middle: PGE Sullivan Plant in West Linn from Oregon City

Lower Right: North entrance to the Willamette Falls Locks

### **PGE Sullivan Plant**

PGE operates the T. W. Sullivan Hydropower Electric Project just across the river from the Blue Heron mill site and next to the former West Linn Paper Company. The dam is PGE’s oldest and has a capacity of 18 megawatts, enough to power about 11,000 homes.

Station B opened on the West Linn side of Willamette Falls in 1895. PGE closed Station A in 1897, but B continued operating, taking the name in 1953 of the PGE hydraulic engineer who designed the station, Thomas W. Sullivan. The entire development was called the Willamette Falls Hydroelectric Project.

PGE’s dam wraps all the way around the horeshoe of the falls and hits the edge of the river on the Oregon City side. The walkway that runs along the top of the spillway and some portions of the dam on the Oregon City side of the river will be part of the riverwalk project. PGE has given Metro an option for an easement on this portion of the dam.



### **Willamette Falls Locks**

The Willamette Falls Locks, built in 1873, are not currently operating, but a separate effort that is outside of the Willamette Falls Legacy Project is underway to reopen them for commerce and tourism. The 40-foot wide lock chambers previously enabled barges, commercial boats, fishing boats, kayakers and canoers to bypass the Falls.

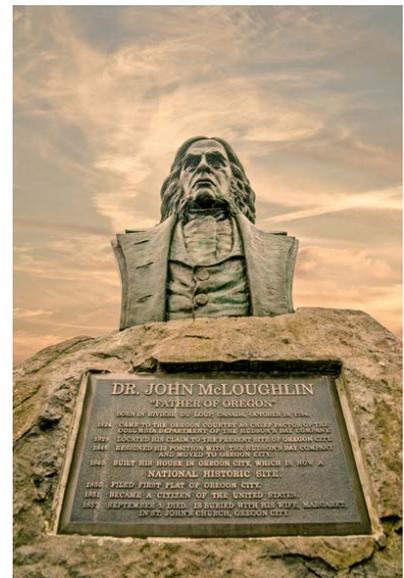


### **Willamette Falls Heritage Area**

The Willamette Falls Heritage Area, which encompasses 26 square miles of natural and historic areas of Oregon City, West Linn and Lake Oswego, earned a State Heritage Area designation from the Oregon Heritage Commission in 2015. The Coalition’s mission is to advocate for and strengthen the identity and economy of the communities around Willamette Falls by preserving, enhancing and promoting the nationally significant and distinctive stories of the area, while cultivating public-private partnerships to develop its natural, cultural, industrial, scenic, recreational and historic resources.

### **McLoughlin Conservation District**

The McLoughlin Conservation District, overlooking the site from the bluff, is referred to as the “second level” in Oregon City, reflecting its topography and relationship to the original town of Oregon City. In the 1850s few people built homes on the second level, but as the downtown area became more crowded, and after completion of the Oregon and California Railroad in late 1869, more residents moved up the hill. In 1986, the city designated the area as a historic district. The municipal elevator offers a convenient pedestrian link between downtown and the McLoughlin Conservation District.



John McLoughlin statue in Oregon City

### **Ganemah National Register District**

The Ganemah National Register District is located south of the riverwalk site, just above the falls. The community lies within a crescent-shaped hollow in the basalt cliffs that rise above the river to the south. Its name is said to derive from a Native American word “kanim” for “canoe place,” and it was the existence of a graveled beach there that gave rise to the town’s establishment in 1845. Because of the falls, cargo and passengers had to be portaged at this point.



Passengers unboarding form the streetcar in Canemah



This location allowed the founding of the town for the purpose of river boat building and as a trade destination during the 1850s through 1870s. Canemah is significant to the state as one of only a few remaining intact former riverboat towns. Canemah was annexed to Oregon City in 1928 and boasts dozens of historic homes in a unique and heavily wooded neighborhood. Canemah also includes a commercial business area along McLoughlin Blvd (Hwy 99E).

**Museum, McLoughlin House and McLoughlin Promenade**

Just above the riverwalk site, on the bluff, lie a handful of significant historic destinations, including the Museum of the Oregon Territory, the McLoughlin Promenade and the McLoughlin House. There is an opportunity to create connections or partnerships that link the riverwalk to these surrounding historic destinations.



**Trail Connections**

Trail connections to the site include the Willamette Terrace, which begins in Clackamette Park on the north end of Oregon City, runs along the river, and ends at 10th Street. Between 10th Street and the riverwalk, a wide shared-use path is planned, but currently this route consists of a 5-foot wide sidewalk.



The Trolley Trail is a shared-use path that connects the Springwater Corridor to Oregon City. The Springwater Corridor Trail is the major southeast segment of the 40-Mile Loop, the greater Portland region’s most iconic trail system. The Trolley Trail runs through Milwaukie, Oak Grove, Jennings Lodge, and Gladstone, before crossing the Clackamas River and connecting to Oregon City’s Clackamas River Trail and eventually the Willamette Terrace. Connecting these routes provides a pleasant and safe bike connection all the way to the heart of Portland and to other areas of the region.

Upper: McLoughlin Promenade

Middle: Existing sidewalk along McLoughlin Boulevard between 10th Street and the project site

Lower: Willamette Terrace, an esplanade along McLoughlin Boulevard from 10th Street to Clackamette Park

The Oregon City Loop Trail is a proposed trail that will run along the edge of Oregon City, and the section that hugs the river would include the riverwalk. The riverwalk will then connect to the future McLoughlin-Canemah Trail segment of the Loop Trail.

Passenger trolleys once passed through the site on their way to a public park at Canemah, bringing weekenders from Portland to enjoy the falls vicinity. A rail spur remained through the site as an important freight route in and out of the mill. This spur, which is part of the 22-acre site, has incredible recreational potential as a connection to the Canemah Bluff Natural Area and Willamette Narrows beyond.



Upper Right: The McLoughlin-Canemah Trail Plan project aims to connect the riverwalk and McLoughlin Promenade to Old Canemah Park and Canemah Children's Park with a shared use trail

Middle: Overgrown railroad spur line to Canemah, with Union Pacific railroad tracks, Hwy 99E and the McLoughlin Promenade above. The spur line is part of the 22 acre former mill site

Lower Left: Clackamas River Trail in Oregon City, which connects to Gladstone and eventually the Trolley Trail

## **Buildings, Structures and Special Features**

The existing mill site contains over fifty buildings and multiple tanks and industrial structures. Many of these elements have a unique character and, if retained, can help tell the industrial history of the site. Buildings have been highly modified over the years as the mill expanded and as equipment sizes changed, and many of the buildings had multiple uses, owners and functions. Major materials on site include basalt, wood, steel and concrete.

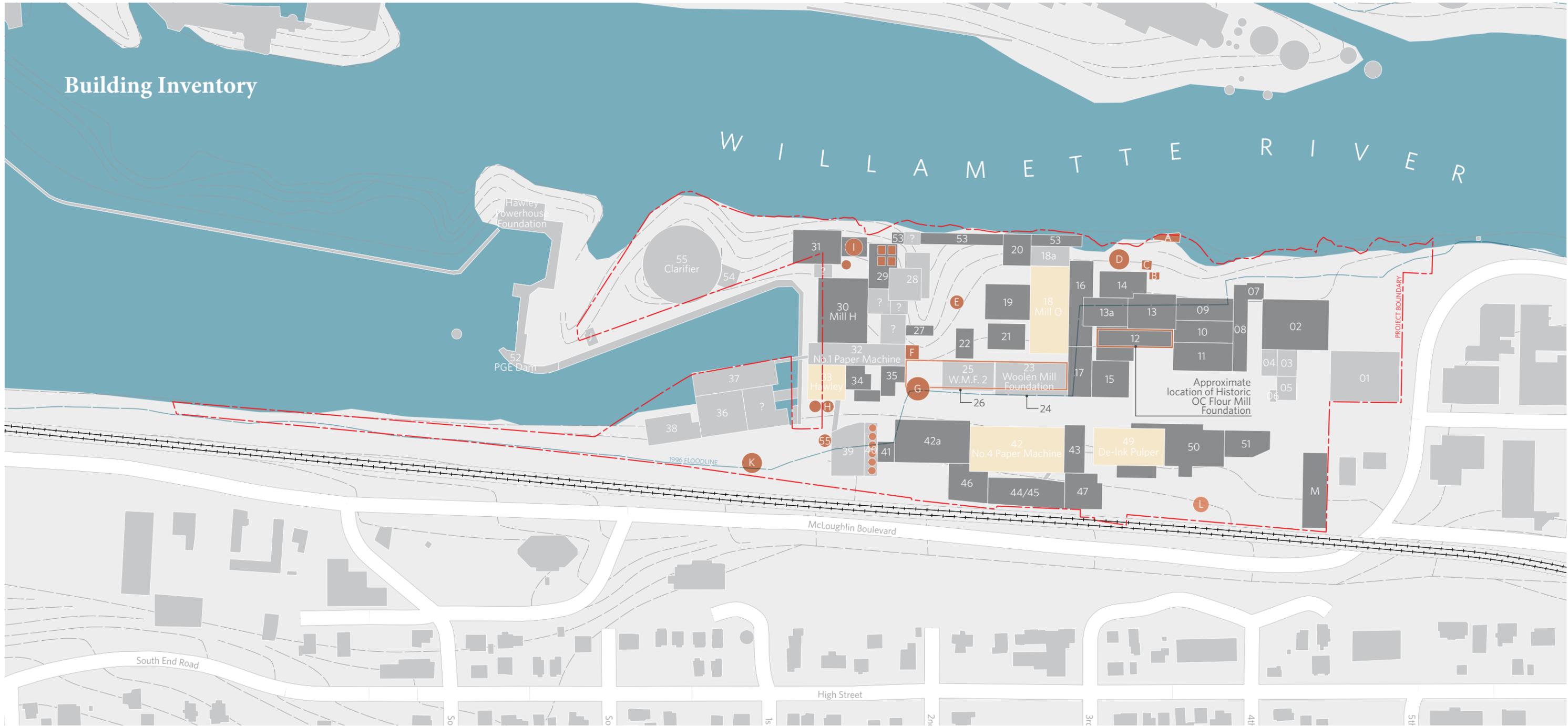
### **Building Inventory**

During the visioning and master planning process in 2013 and 2014, the Partners inventoried all the existing buildings on the mill site. Fifteen of the approximately fifty total structures were determined to be potentially eligible for the National Register of Historic Places. Of those fifteen, five were identified to be intact based on architectural integrity, reuse potential, or were otherwise thought to be more historically significant due to their age or use. Two of these buildings, Mill O and the Woolen Mill foundation, are part of the riverwalk plan, and the other three are part of future private development areas on site. The adopted Framework Master Plan placed protections on these five buildings, requiring that they be integrated in some way in the redevelopment plans for the site. Other non-building elements such as the digesters, boilers and other tanks throughout the site were also identified and protected through the Framework Master Plan. All remaining structures are not required to be reused, but may offer opportunities for reuse.



Chimneys at Mill C.

# Building Inventory



- Inventory Building / Structure
- Building / Structure yet to Inventory
- Historic Building to Remain

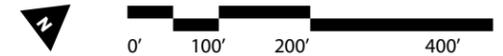
- 01 Blue Heron Paper Office Area
- 02 Water Filtration Plant
- 03 Water Filtration Plant
- 04 Fire Station
- 05 Office
- 06 Guard Shack
- 07 Mill D North Train Siding
- 08 Mill D Metal Roof
- 09 Mill D
- 10 Mill D Warehouse No.3 Finishing
- 11 Mill D Warehouse No.2 Finishing
- 12 No.2 Paper Machine
- 13 No.3 Paper Machine
- 13a No.3 Paper Machine Demo
- 14 No.3 Paper Machine 2

- 15 Butler Building
- 16 Roof Structure Over 3rd St. Access
- 17 Roof Structure Over 3rd St. Access
- 18 Mill O
- 18a Mill O Lab
- 19 Carpentry Shop
- 20 Pipe Shop
- 21 Millwright Shop
- 22 Auto Shop
- 23 Woolen Mill Foundation
- 24 North Woolen Mill Roof Structure
- 25 Woolen Mill Foundation 2
- 26 South Woolen Mill Roof Structure
- 27 South Substation
- 28 Recovery Boiler

- 29 Boiler Plant
- 30 Mill H De-Ink/THP Area
- 31 THP Reject Refining
- 32 No.1 Paper Machine
- 33 Hawley Building
- 34 No.1 Paper Mill Bleach Plant
- 35 No.1 Paper Mill Rewind
- 36 Receiving and Store Room
- 37 Mill E Offices
- 38 Weld Shop
- 39 Sulphite Plant
- 40 Digester
- 41 Save All
- 42 No.4 Paper Machine
- 42a No.4 Paper Machine South Addition

- 43 No.4 Paper Mill North Addition
- 44 No.4 Finishing Room and Warehouse
- 45 No.4 Finishing Room and Warehouse 2
- 46 No.4 F.R. and W.H. South Addition
- 47 Shipping Shed
- 48 North Substation
- 49 De-Ink OMG Pulper
- 50 De-Ink ONP Repulper
- 51 De-Ink ONP Repulper
- 52 PGE Dam
- 53 Pipe Chase
- 54 Clarifier Control
- 55 Sulphite Sphere

- A Platform
- B No.3 Paper Machine Machinery 1
- C No.3 Paper Machine Machinery 2
- D Circular Foundation 1
- E Tank 1
- F Grotto
- G Tank 2
- H Hawley Tanks
- I Tank 3
- J Dam Building 1
- K Tank 4
- L Tank 5
- M Truck Dump





**Mill O**

Mill O was built in 1917 as an annex to the Woolen Mill. It sits along 3rd Street and is partially within the city-designated floodplain. Mill O has a footprint of approximately 18,000 square feet and has two main stories plus a partial third level that housed a variety of functions related to paper manufacturing operations.



Mill O, second story

**Oregon City Flour Mill Foundation**

The structure was completed in the fall of 1866 and converted into a flour mill in 1868. The business was called the Oregon City Flouring Mills, but was known locally as the “Brick Mill” because of the red brick exterior. The foundation that remains is buried under the No. 2 Paper Machine.



The Brick Mill had different owners and different functions over time, but was part of Oregon City’s visual landscape and anchored Third Street for many years, 1890s

**Woolen Mill**

The Woolen Mill was built in 1865 with a foundation of basalt stone from a quarry near Carver, Oregon and was a major fixture of Original Main Street. The mill was initially powered by water and still boasts an archway in the basalt foundation where the spent water poured back into the river. For many years, the three-story brick building was covered in ivy vines and in 1980, the building was mostly demolished except for the stone foundation. The remaining foundation is approximately 10 feet tall, and the old windows have been filled in with concrete, but their forms are still visible.



Woolen Mill basalt stone foundation walls



The Service Yard

### **Service Yard**

The service yard is a fairly flat, paved surface that is approximately an acre in size and includes the Carpentry Shop and other small structures. It is bounded by the Woolen Mill foundation, Mill O, the Pipe Chase and the Boiler Plant. The service yard was partially flooded in 1996, the year of the last major flood.

### **Pipe Chase (Pipe Tunnel)**

The Pipe Chase is a hollow, concrete tunnel structure on the edge of the site, right along the banks of the Willamette. The 390-foot long tunnel held pipes that carried effluent from the paper-making process to the clarifier for treatment. The pipes were removed after the mill shut down in 2011.



The Service Yard, standing on the Pipe Chase looking at the Boiler Plant complex



Inside the Pipe Chase

### **Carpentry Shop**

The building first shows up on a 1911 Sanborn map, prior to construction of Mill O. It appears to have been built for the Oregon City Woolen Mill as a pullery building on or around 1902. At some point the use of the building was changed by Publishers Paper, which renamed it the Carpentry Shop. The building's previous siding was removed and today it is completely covered in corrugated metal. However, the interior of the building is constructed of exposed timber framing. This structure, which sits next to Mill O, is the oldest building on site that is still mostly intact. Water damage has compromised the upper floor, but much of the old growth wood within is in good condition.



### **Boiler Plant**

The Boiler Plant was constructed after World War II, when naval warship boilers were installed in the mill. In 1955, the original Mill H was reconfigured as the primary boiler location for the entire Publishers Paper mill and its corporate successor operations. The hulking metal structures are grouped together in one building, where they convey an impressive and daunting industrial era.



Upper: Interior of the Carpentry Shop

Middle: Mill H and the boiler stacks

Lower: View of the Clarifier from the river

### **Clarifier**

The Clarifier tank was built in 1968 to treat effluent from the papermaking process. This large concrete cylinder once held two million gallons of effluent at a time. The structure was built just below the dam on a basalt outcropping overhanging the river – a feat that would not be permitted today due to environmental rules that better protect river habitats. The footprint of the Clarifier is approximately 19,000 square feet.



## Hawley Powerhouse Foundation

Built in 1916, the Hawley Powerhouse is connected to the PGE dam and once held large turbines that generated power for the early paper mills. A small building was removed from the foundation in 2009. The structure offers the best and closest views of Willamette Falls on the Oregon City side of the river. From here, one can feel the mist of the Falls, see the wildlife in the river and experience the immense power of the water rushing over the Falls.



## Industrial remnants

The numerous tanks and cylinders add to the site's industrial intrigue – one in particular is the Horton Sphere. It housed sulfuric acid used to break down pulp for paper production. It was left on site by the decommission company because it was too difficult to remove – the exterior is steel and the interior is lined with concrete. The abandonment of industrial remnants is an opportunity to maintain and preserve intriguing relics of the property's industrial past.



Upper: Hawley Powerhouse  
Foundation

Lower: Horton Sphere



## **PART III: PROCESS AND COMMUNITY ENGAGEMENT**

### **The Design Team**

Metro, on behalf of the four agency partners, contracted with a collaborative design team that included lead design firm Snøhetta, local design firm Mayer/Reed and development specialist DIALOG. These designers brought unique international perspectives to the project. JLA Public Involvement led the project's community engagement effort.



“The first time I visited the Blue Heron site I was immediately inspired and connected to this landscape as though it were a long lost friend. I’m intrigued not only by what is visible here, but by so much that is invisible. It’s an incredible three-dimensional place that’s absolutely inspiring and powerful.”

-Michelle Delk,  
Snøhetta

## Design Principles

After gaining a detailed understanding of the site, and considering the four core values and the community’s vision, the design team developed five design principles to guide their future design work.



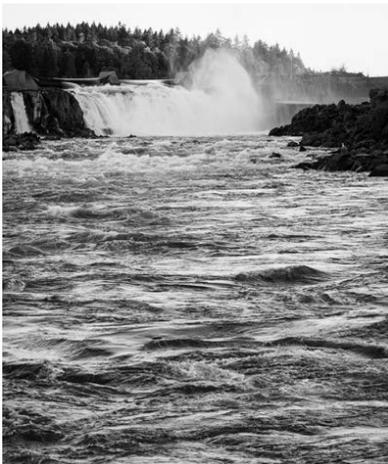
### Ground

This site’s rugged ground has always played a role in shaping use and access. From the layers of basalt, structural platforms, existing buildings and new construction, the design will mindfully distinguish where and what is ground.



### Time

The site, like all landscapes, has always been and always will be in a state of becoming. The design will work in a way that uses time as a driver for designing riverwalk elements with day and night, the full year and long future in mind.



### Water

The site’s powerful hydrology dictates not only what goes where on the site, but also what can safely occur and when. The design will respect the capricious nature of the river, recognizing it is the ultimate determinant of success and resiliency.



### Context

The site’s profound importance and potential impact demands that an understanding of its place in the region and in history is imbued in the design; which thinks bigger than the site’s boundaries.

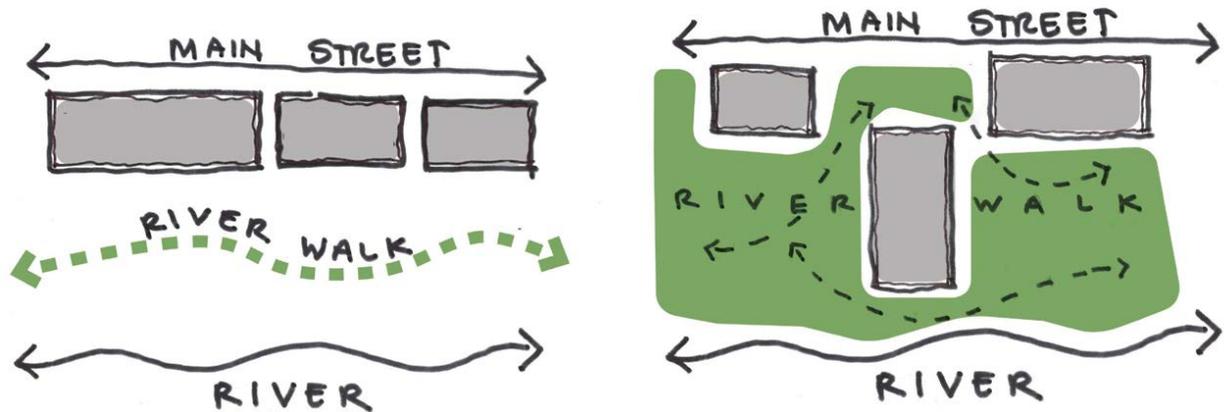


### Spirit

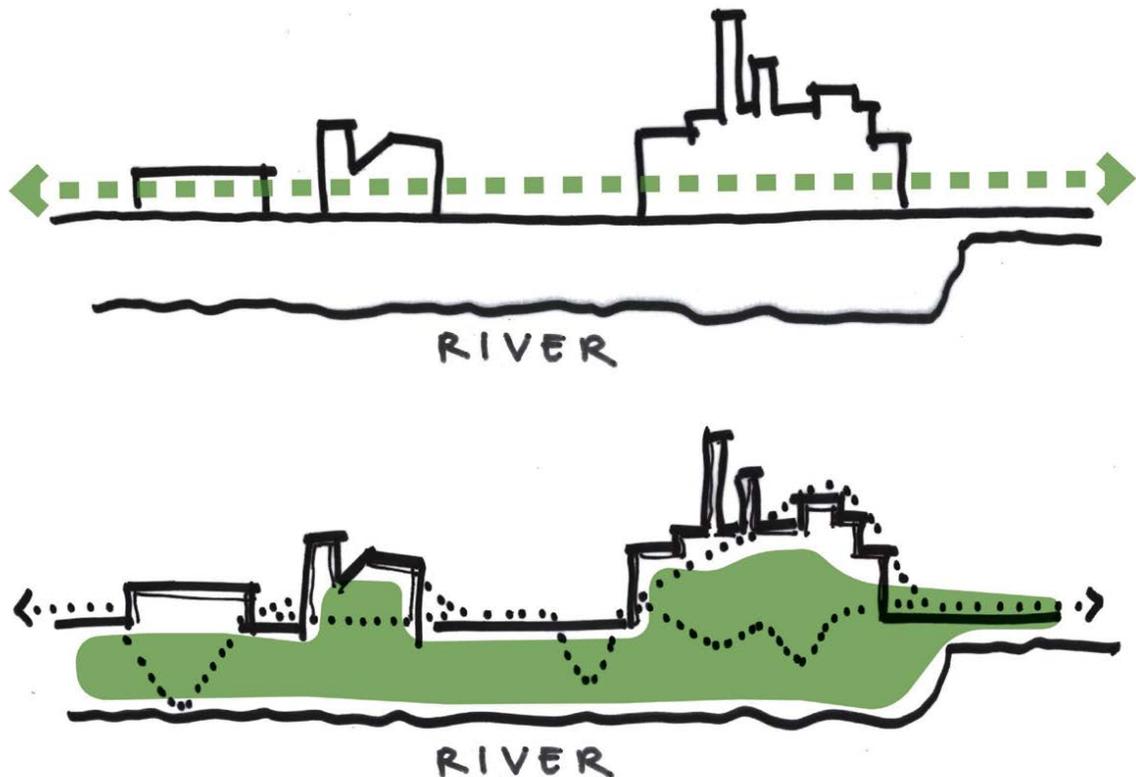
The design will aim at editing and adjusting the site, not recreating it, so that the spirit remains palpable.

## The riverwalk is more than a walk!

In addition to the design principles, it was important to communicate to the public and partners that the riverwalk is more than just a sidewalk. The plan image on the left shows a typical configuration of a linear riverwalk walkway occurring between the river and the private development. However, the plan image on the right illustrates that it can be more. The riverwalk could weave in and out of buildings to create a more dynamic experience that integrates with the whole site and river.



And, instead of building a riverwalk that connects from point A to point B, as shown in the elevation graphic below, the riverwalk could embrace the three-dimensionality of the site and take into consideration the multiple layers and levels that make it so unique; further adding to the dynamic experiences. Exploration of these basic concepts, coupled with the design principles created an important base to begin design.



## Stakeholder Input

“This site can become a world-class bicycle and pedestrian destination, if bicycles and pedestrians are prioritized over cars within the site. Connecting the site to surrounding areas with safe bicycle and pedestrian facilities is crucial, so that it is a clear benefit to neighbors.”

-Public Comment

### Who are the stakeholders?

Intricate planning and coordination between Metro, partner agencies and the large consultant team shaped a public process to meet the needs of the project’s many stakeholders. Receiving, considering and incorporating public input is essential to a successful outcome. During the planning process, this project generated an incredible amount of public interest. The project’s stakeholders are numerous and diverse, and they include but are not limited to:

- Neighbors of the site, including residents and business owners in downtown Oregon City, the McLoughlin and Canemah neighborhoods, and West Linn
- Native American Tribes with ties to the site and to the falls
- PGE, the Locks and West Linn Paper Company
- User groups advocating for river dependent activities such as fishing, kayaking and pleasure boating
- Boating companies such as Willamette Jetboat and the Portland Spirit
- Cultural and heritage organizations and advocates
- Federal, state and local agencies, environmental organizations and advocacy groups interested in establishing healthy habitats and protecting water quality and river health
- Business and tourism organizations providing economic development input
- The non-profit friends group, Rediscover the Falls



Fishing boats on the Willamette River

## **Stakeholder Meetings and Focus Groups**

The project team organized focus groups and met with other stakeholder groups to discuss specific riverwalk elements. These included:

- Programming and Operations Focus Group
- River Activities Focus Group
- Habitat Focus Group
- Downtown Oregon City Association meetings
- Interpretive Plan Focus Group
- Public Yard Focus Group
- Rediscover the Falls Friends Group
- Multiple Oregon City Boards and Committees

## **Programming and Operations Focus Group Participants**

- City of Oregon City
- City of Portland
- Clackamas County Tourism
- The Oregon Zoo
- Oregon City Farmer's Market

## **Interpretation Focus Group Participants**

- City of Oregon City
- Clackamas County Tourism
- Lower Columbia Archaeology
- City of West Linn
- Portland State University
- Ice Age Floods Institute
- Willamette Falls Heritage Area Coalition
- Clackamas County Historical Society
- McLoughlin Neighborhood Association
- Local residents and historians

## **Public Yard Focus Group Participants**

- Downtown Oregon City Association
- City of Oregon City
- Clackamas County Tourism
- Clackamas County Arts Alliance
- Rediscover the Falls
- Local residents
- Clackamas Repertory Theater



Rediscover the Falls, the project's non-profit friends group, board retreat

## **River Activities Focus Group Participants**

- Willamette Falls Locks
- Willamette Jetboat
- Willamette River fishermen
- West Linn Paper Company
- Oregon City Boat Club
- Portland Spirit
- City of Oregon City
- Oregon State Marine Board
- Oregon Department of Fish and Wildlife
- U.S. Army Corps of Engineers
- We Love Clean Rivers
- Willamette Riverkeepers

## **Habitat Focus Group Participants**

- Oregon Department of Fish and Wildlife
- NOAA Fisheries
- Portland General Electric
- U.S. Army Corps of Engineers
- Oregon Department of Fish and Wildlife Service
- City of Oregon City's Natural Resource Committee
- Greater Oregon City Watershed Council
- Clackamas River Basin Watershed Council
- Audubon Society of Portland
- Urban Greenspaces Institute

## **Tribal Advisory Board**

Since 2013, the project has made great effort to reach out to the five tribes with historic and current ties to Willamette Falls, including the Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Grand Ronde, Confederated Tribes of Siletz Indians, Confederated Tribes of Warm Springs and the Confederated Tribes and Bands of Yakama Nation.

Engagement with Native American tribes is different from the engagement that public agencies conduct with local communities and neighborhoods. Tribal governments are independent sovereign entities that have treaties with the federal government. Many of these treaties, like the 1855 Walla Walla Treaty, required Native Americans to surrender much of their land, while retaining the legal rights of tribal members to hunt and fish in their usual areas, both inside and outside of reservation land. These treaties are relevant to this project because Willamette Falls is a place where Native Americans historically fished and gathered and still do today.

It is important to understand the painful history of Native American tribes in the Pacific Northwest and throughout the country. This history has lasting legacies and continues to shape the way we interact today. Past government actions have greatly harmed tribal communities, and that history is not easily forgotten or forgiven.

Building trust between tribes and government agencies, such as the Willamette Falls Legacy Project Partners, takes time. As Armand Minthorn, Member of the Board of Trustees for Umatilla said at the riverwalk event on June 3, 2017, “We need to truly listen, and we must be open to change.” The Partners could not agree more.

To engage the tribes early and often and provide opportunities for meaningful feedback during the design process, a Tribal Advisory Board was established between the local tribes and state and local governments, with the intention of establishing a model for successful tribal engagement in future public projects. The board meetings are in addition to the required formal consultation with the federal government. A key element to the project’s core value of Historic and Cultural Interpretation is to recognize and honor Native Americans’ enduring presence at Willamette Falls in the past, present and future. The project is working to build relationships with local tribes to ensure tribal involvement and guidance as the project progresses.



Drummers from the Confederated Tribes of Grand Ronde Community of Oregon singing *Stankiya*, an old word for Coyote. Pictured from left to right Grand Ronde tribal members: David Harrelson, Travis Stewart and Sophia Stewart

The Partners have held numerous meetings and visits about the project with the tribes over the past four years:

### 2013

- Grand Ronde Tribal Council visit and site tour (September 2013)
- Umatilla site tour with Chair Minthorn (November 2013)

### 2015

- Warm Springs site tour and visit (May and October 2015)
- Cultural Landscape Report meeting with Grand Ronde (May 2015)
- Cultural Landscape Report meeting and site tour with Siletz (October 2015)
- Cultural Landscape Report meeting with Umatilla (July 2015)
- Cultural Landscape Report meeting with Warm Springs (October 2015)

### 2016

- Columbia River Intertribal Fish Commission meeting and site tour (May 2016)
- Tribal Advisory Board (July 2016)
- Tribal Advisory Board (November 2016)
- Grand Ronde visit (November 2016)
- Umatilla visit - Board of Trustees (November 2016)

### 2017

- Tribal Advisory Board (January 2017)
- Cultural Landscape Report meeting with Umatilla (January 2017)
- Cultural Landscape Report meeting with Grand Ronde (January 2017)
- Umatilla visit - Cultural Resources Commission (March 2017)
- Umatilla visit - Fish Commission (May 2017)
- Grand Ronde visit (May 2017)
- Umatilla site tour and cultural investigations in Oregon City (May 2017)

The input the Partners heard from the tribes is reflected in the design and in other project work. The Willamette Falls Legacy Project is committed to continuing to work with tribal leaders and communities, and while the Partners are listening and learning from the Native American community, it is not appropriate to repeat or share their input with the public.

“After nearly two centuries of broken treaties, fractured relationships and superficial inclusion on projects that were far too far along in the process for tribal communities to have any meaningful input, tribes have been understandably wary of collaborating with government agencies. Often, tribes are asked for project input once plans have already been all but finalized - with news arriving in the mail with a rapidly approaching deadline for input on a project they’ve never heard of before. The Willamette Falls Legacy Project Partners are seeking to create a model for successful engagement with Native American tribes. I’m hopeful this can be used as a standard in future public projects that seek tribal input and collaboration.”

- Judy BlueHorse-Skelton,  
Tribal Advisory Board  
facilitator

### **Property Owners: Working with PGE and Falls Legacy LLC**

The property owners were closely involved in the design process through design submittals, one-on-one meetings and group meetings. Both Falls Legacy LLC and PGE received submittals at each concept design checkpoint. Project staff held individual meetings with Falls Legacy LLC to review and discuss design progress and direction, focusing on integration with private development. Project staff also held individual meetings with PGE to address interfacing the design with the dam and analyzing vehicular access to the dam. In addition, project staff held meetings with both Falls Legacy LLC and PGE to help facilitate communication between all three parties because of the close interface between the riverwalk, the PGE dam and possible private redevelopment.

At each milestone, meetings were held to discuss the designs and hear comments first hand. Subsequent iterations of the design incorporated comments from both property owners. Comments received closer to the release of the final design required significant modifications that were incorporated by providing generalized alternatives due to the limited opportunity to fully implement the recommended changes. It is anticipated that critical modifications to the design will be implemented during the next phases of design. Because of the iterative design approach, feedback from the property owners was instrumental in validating the design. This was particularly true regarding vehicular access to the site in regard to maintaining PGE's access to the dam and possible areas of future private development.



View of Mill E, the intake basin and the PGE dam

## Community Engagement Opportunities

In addition to stakeholder meetings and focus groups, there were multiple opportunities for the public to participate in the design. This project set a high bar for large-scale public engagement events, meticulously designed to be fun, yet informational and to actively solicit targeted feedback. Instead of traditional open houses, the Willamette Falls Legacy Project Partners created true community affairs.

At each event, exit surveys allowed stakeholders to provide input on the event and help shape the future engagement activities to better meet community needs.

Throughout the design process, the project team provided consistent communications to the public and stakeholders across the Portland metro area. Regular project updates and check-ins were implemented to make sure the community was informed about the project's progress and how they could participate. The Partners will continue conversations with the community beyond the completion of the riverwalk design. Some notable communications during the project include:

- A 60-second video screened at movie theaters in the Portland metro area and bolstered online communication
- A Community Check-In provided a project update for stakeholders and a short survey to capture more thoughts from the community
- Numerous presentations and facilitated conversations were held for local groups or organizations. Staff met with over 50 groups during the design process
- Weekday tours of the site were offered to community organizations and general public tours were held a few times throughout the planning process



Community members at the November 2016 community event

"Getting close to the falls is the thing I most long for - to experience up-close the beauty and power of the falls and feel the spray on my face!"

-Public Comment



Coloring lamprey at the kid's activity table

## Programming Input

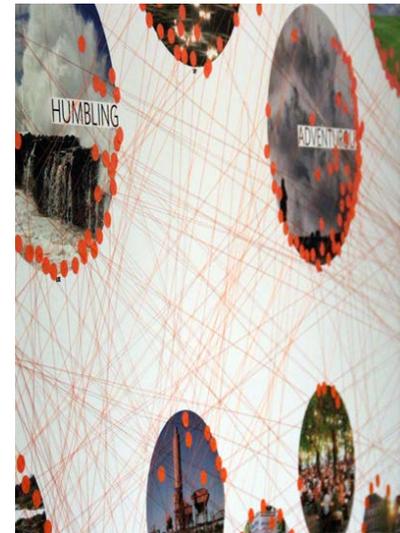
In March 2016, the project held a large community event to begin talking with the community about riverwalk programming and experiences. There was great community enthusiasm for this event held in downtown Oregon City, with an estimated attendance of 800 people at the in-person event and almost 1,200 visitors for the online event. A series of activities were available at the event for people to give input in creative ways.

For one of the event activities, the most common type of experiences people wanted to have on the riverwalk were described as: Adventurous, Breathtaking, Fascinating, Humbling, Celebratory, Calming, and Reflective.

The most common riverwalk activities desired were: whitewater kayaking, learning about tribal history, nighttime viewing, habitat restoration, discovering the site via natural trails, exploring and outside dining. The design team used the results to inform the types of activities and experiences to include in the riverwalk design.



Left: The girls in the photo above want to have some type of play experience in the riverwalk design



Right: Community input on riverwalk experiential opportunities

Riverwalk activities and programming element ideas project staff heard included the following:

### Recreational Activities

- Experiencing the Falls
- Fishing
- Exploring
- Urban spelunking
- Birdwatching
- Athletic sports
- Nature play
- Playground
- Fitness
- Photography
- Geo-caching
- Climbing
- Water trail portage
- Art-making
- Meditation
- Access to nature
- Sitting
- People watching
- Picnicking
- Kayaking/Canoeing

### Habitat Elements

- Habitat restoration
- Salmon
- Lamprey
- Sturgeon
- Bird species
- Water quality
- Geological interpretation
- Flooding and hydrology Interpretation

### Cultural Activities and Elements

- Civic Gathering Space
- Public Institution
- Ceremonial Space
- Public 'Living Room'
- Tribal access and heritage
- Pioneers
- Explorers
- European expansion
- Other cultures
- Industrial heritage



In another event station, the design team asked participants to choose images that they reacted to positively and negatively. Each participant was given three post-its for images they liked and three for images they didn't like and could write comments on the post-its to explain their thinking.



These three images received the most positive reactions. The design team used the results to inform their design of the look and feel of the riverwalk.



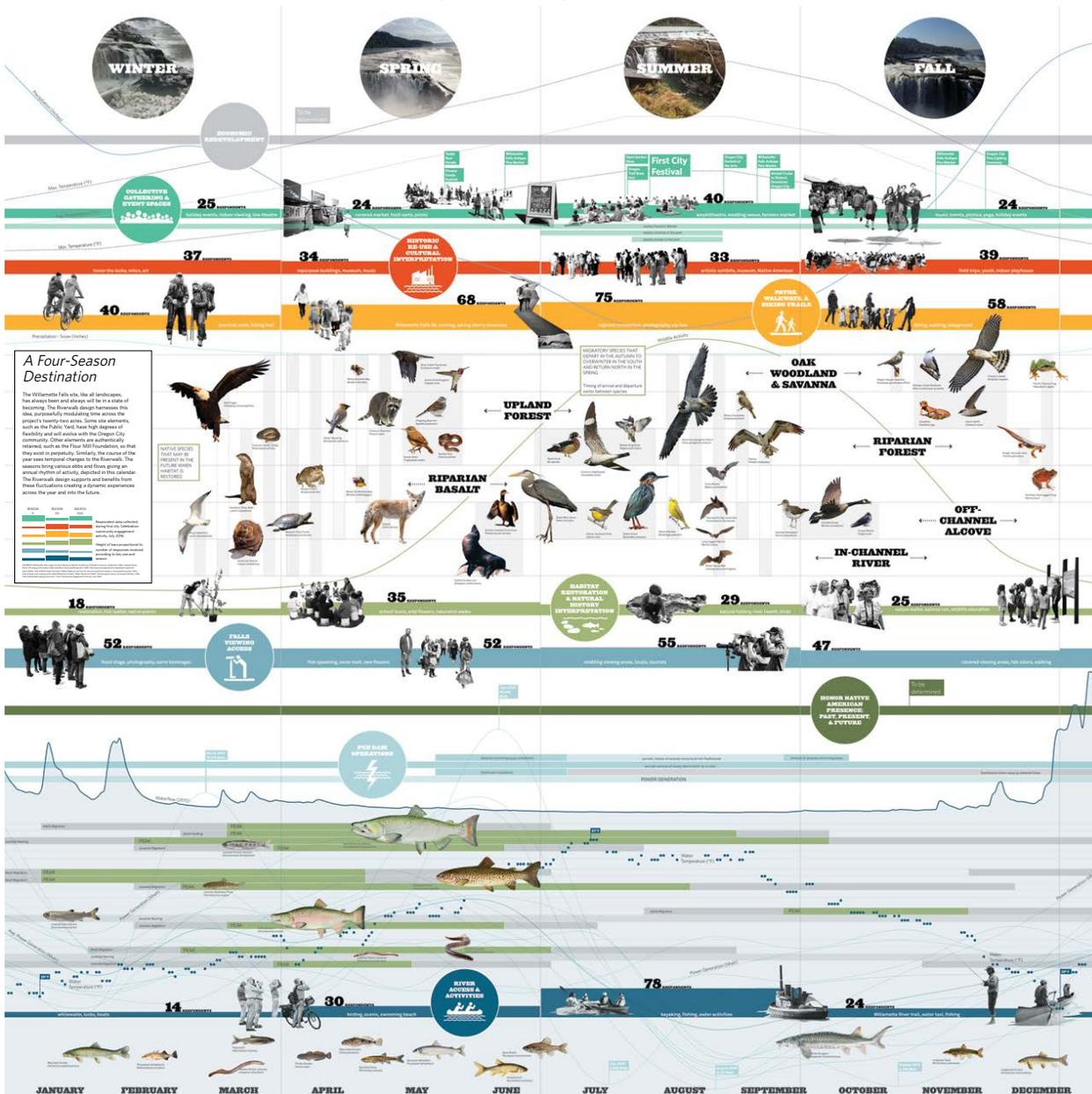
These three images received the most negative reactions.

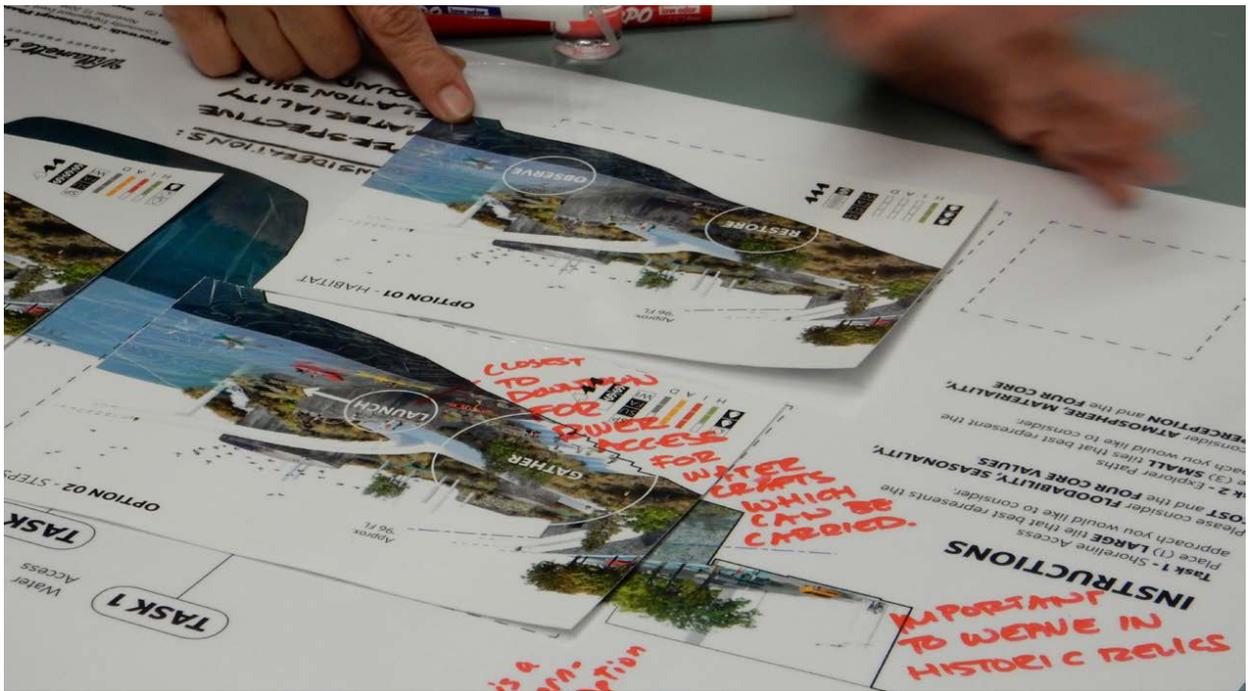
## Programming and Seasonality Input

The input from the March community event was taken to Oregon City's "First City Celebration" in July 2016 so that participants could continue to provide feedback. The project team asked more in depth questions, specifically, looking to understand when people want to be on site for any given activity.

Willamette Falls flow levels change drastically throughout the year. When the Falls are at their most powerful, the weather can be unpleasant. When the weather is pleasant, the Falls can be almost dry. The seasonality for programming and other uses on the riverwalk will balance activity on the site and create a place that is dynamic year round.

The community participation results were graphically represented in a riverwalk four-season calendar which demonstrated the anticipated activity across the year.



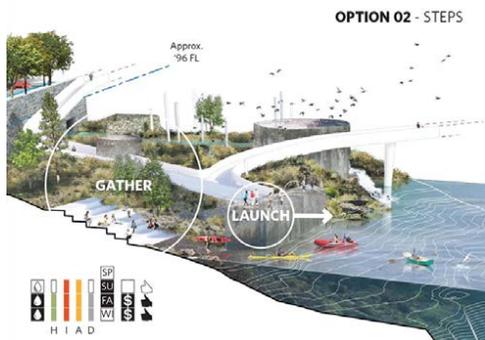


### Design Options Input

In November 2016, the project held another event for the public to weigh in on ideas for six key areas of the site. Well over 500 people attended the event at Clackamas Community College in Oregon City. The event included an open house staffed by project staff and site experts and offered a facilitated workshop activity. An online survey version of the event was also made available and received 1,200 entries.

One activity in the workshop allowed participants to review design ideas for water access along the riverwalk. Below are some feedback themes related to water access:

- The design should accommodate a variety of uses, such as watercraft, fishing, swimming and enjoying nature.
- There is broad support for water access, including the ability to launch non-motorized craft.
- There is some support for motorized craft, but also a concern about safety, noise, pollution and conflicts with other uses.
- There should be consideration of accessibility for different users (widths of trails, materials, etc.).

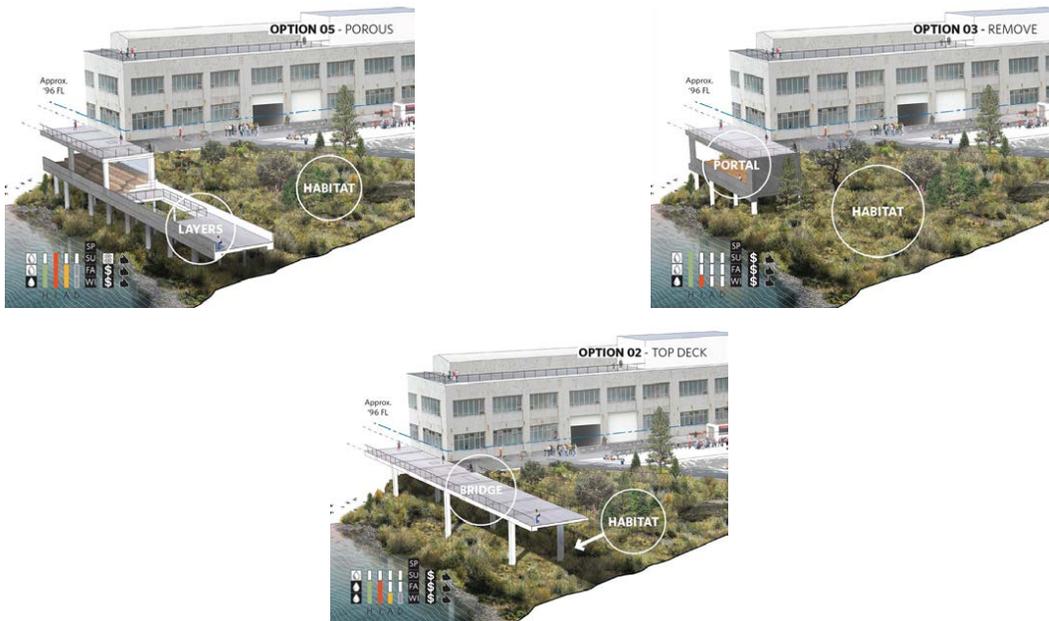


"I am most interested in a pathway that would allow for canoes and kayaks to bypass the falls. Either a short portage route, a small lock system, or a manufactured rapids would meet my needs. Completion of the Willamette River Water Trail is very important to me."

-Public Comment

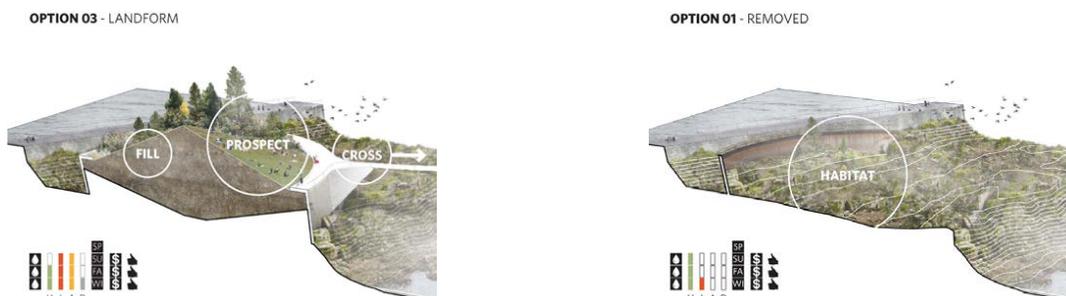
In another activity, participants from the workshop and survey were asked to provide feedback on materials and design ideas for the Pipe Chase and Yard elements of the riverwalk. Some feedback themes related to these design options showed that:

- Views are important. A Pipe Chase element should include broad views, perhaps to both sides of the river. There was also a concern that the Pipe Chase would block views from the Yard.
- There were many suggestions for design tweaks to the Pipe Chase, such as opening up views to the river, opening some portions to the sky, keeping some portions completely closed in, planting vegetation on top, etc. Many liked having at least some protection from sun and rain to increase seasonality.
- Suggestions for interpretive information and/or an area for cultural presentations were supported.
- There was support for habitat restoration and also trails through habitat to access the Pipe Chase.



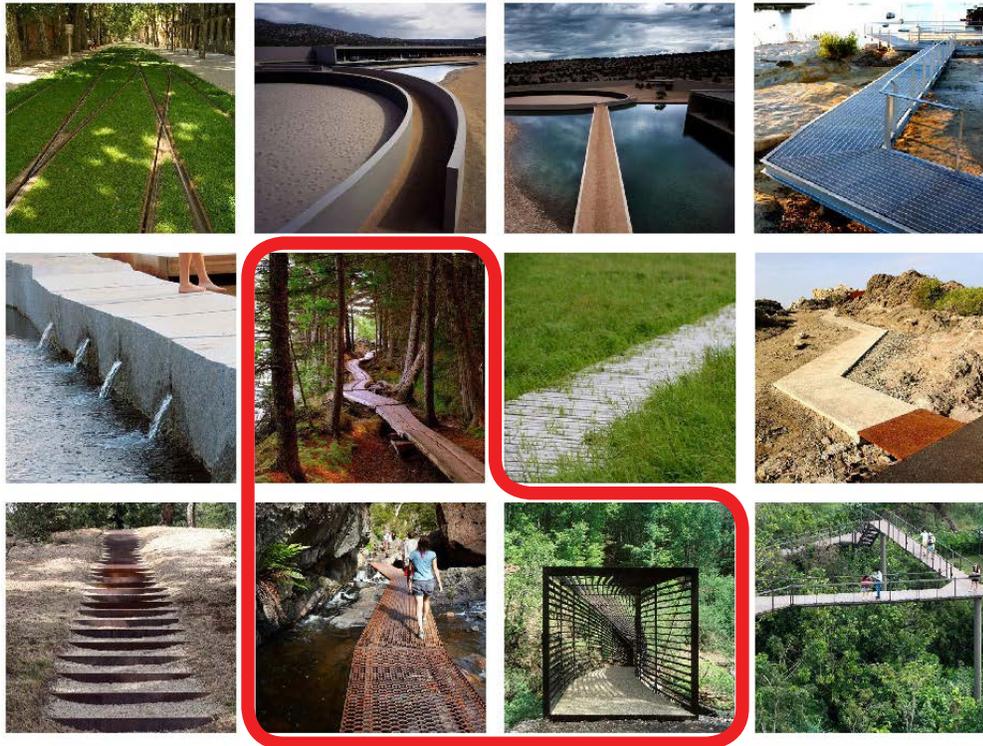
Another question for participants focused on design ideas for the Clarifier. Below are some general feedback themes related to the Clarifier:

- There were mixed opinions on keeping versus removing the Clarifier. Some consider it an iconic element of the site. Most consider it part of the site’s history and support keeping at least portions of the structure.
- As with other areas within the riverwalk project, there was a high level of support for using natural materials (stone, greenery) mixed with industrial materials (salvaged materials, Clarifier relics).
- There was support for habitat restoration and supporting native ecosystems. Some liked the landform concept for this reason, whereas others wondered whether the landform was natural.
- Many indicated a desire for views from the Clarifier.





At this event and in the online survey, participants were asked about materiality through a series of precedent images. Some of the most popular selections are outlined in red below:



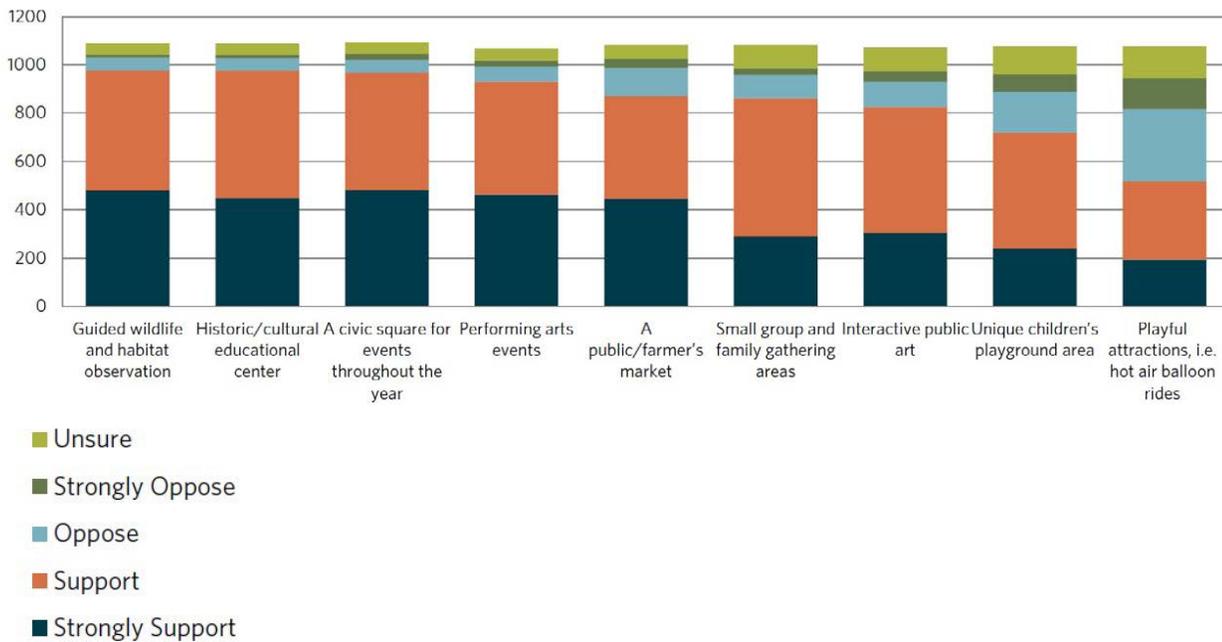
“Oregon City has a history of being family oriented and supportive of family and small group gatherings. Having gimmicky events such as hot air balloon rides, while fun, will not be supported long term. Also, don’t build something that would be significantly destroyed should the waters flood the area.”

-Public Comment



The online survey gave participants a chance to weigh in on the design options without actually being part of the workshop. One question in particular dealt with the seasonality of the falls; acknowledging that during the summer, the water flowing over the falls is low and the riverwalk may want to provide other items of interest. See results in the “Support for Summer Programming” graph below:

### Support of Summer Programming



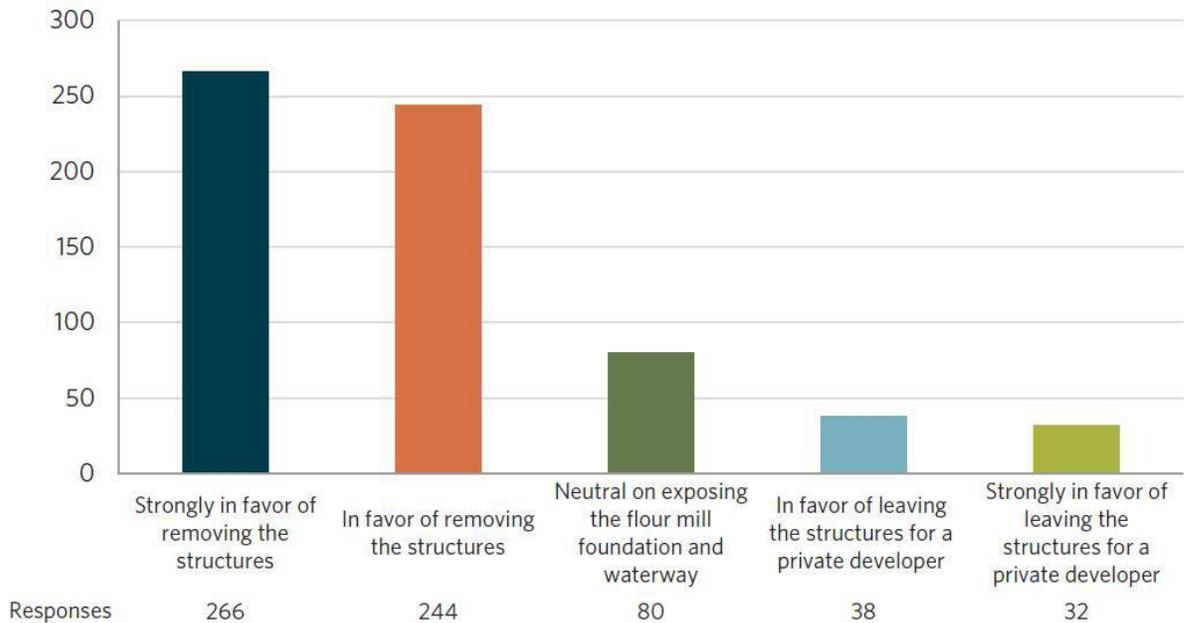
### Community Check-In

A Community Check-In was conducted from March 6 through 20, 2017 to provide an update on the project progress, reflect on feedback from the community events, describe next steps and collect feedback on site-specific questions. The Community Check-In was hosted on the project website and included short topical videos and a brief survey. Almost 700 people responded to the survey.

The survey questions encompassed several categories of community interest, including the Flour Mill structures, access to nature and bank fishing.

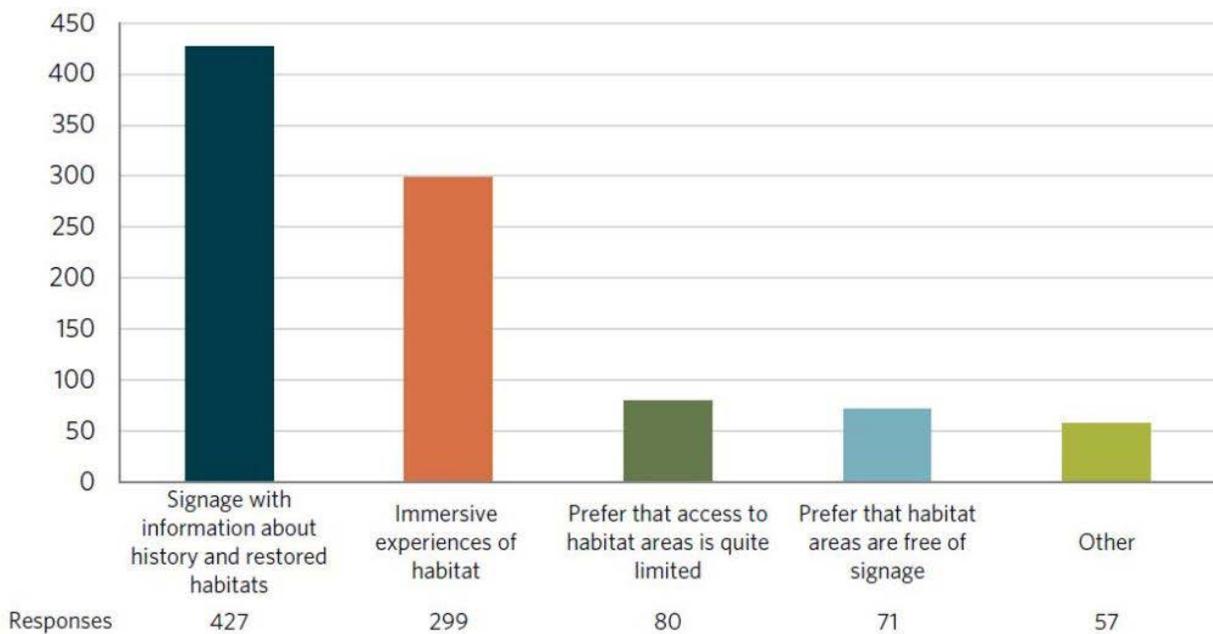
**The Flour Mill:** The riverwalk design process included decisions about which structures and stories should be highlighted. Survey participants were asked whether they preferred that the Flour Mill structures be removed to expose the building foundation and waterway to create open space, or if the structures should be left in place for the site's private developer to redevelop.

of the 660 responses, 77% were either strongly in favor or in favor of removing the structures. In the write-in comments section, a small but passionate group of people advocated for the preservation of the structures.



**Access to Nature:** Access to natural areas along the riverwalk is an important priority in the riverwalk design, which will include pathways providing access through (but not upon) sensitive habitat areas. Survey participants were asked what type of experience they would like to have while on these pathways.

Of the 934 responses from 661 people (who had the opportunity to provide up to two preferences), the top choices were: signage with information about history and restored habitats (46%) and immersive experiences of habitat (32%). In the write-in comments section, the key theme that emerged was a desire for less activity and fewer structures within the natural areas, allowing the focus to be on the habitat itself.

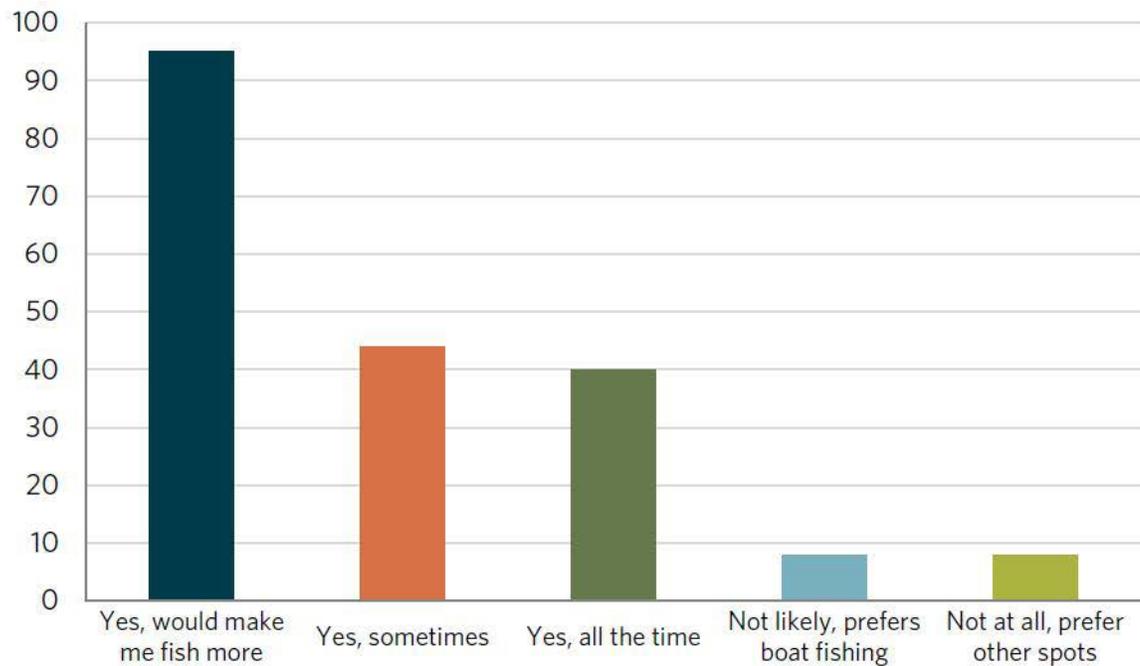


**Fishing Near Willamette Falls:** Survey participants were asked if they were interested in fishing near the falls. Of the 672 people who responded, the majority (68%) said no.

**Bank Fishing:** of the 207 survey respondents who said they were interested in fishing, the majority said they would utilize access to the shoreline along the riverwalk for bank fishing if it were available.

Dozens of people provided comments on what makes for an ideal fishing spot. Key themes that emerged include: secluded areas away from human activity, seasonal restrictions and various ways to provide for access and safety.

The community participation and feedback has contributed greatly to the recommended design.





1953 - Flood

## Technical Studies

As design of the riverwalk began, the Partners identified technical studies that could provide critical information to the design team and help inform decision-making.

### Habitats

Restoring natural conditions on the site conserves sensitive habitats and addresses regional and local conservation priorities. Conservation science provides context to help make decisions about restoration priorities and investments. This focus on science also helps create a unique destination where visitors can experience and appreciate Oregon's natural treasures in the context of a special historic setting at Willamette Falls.

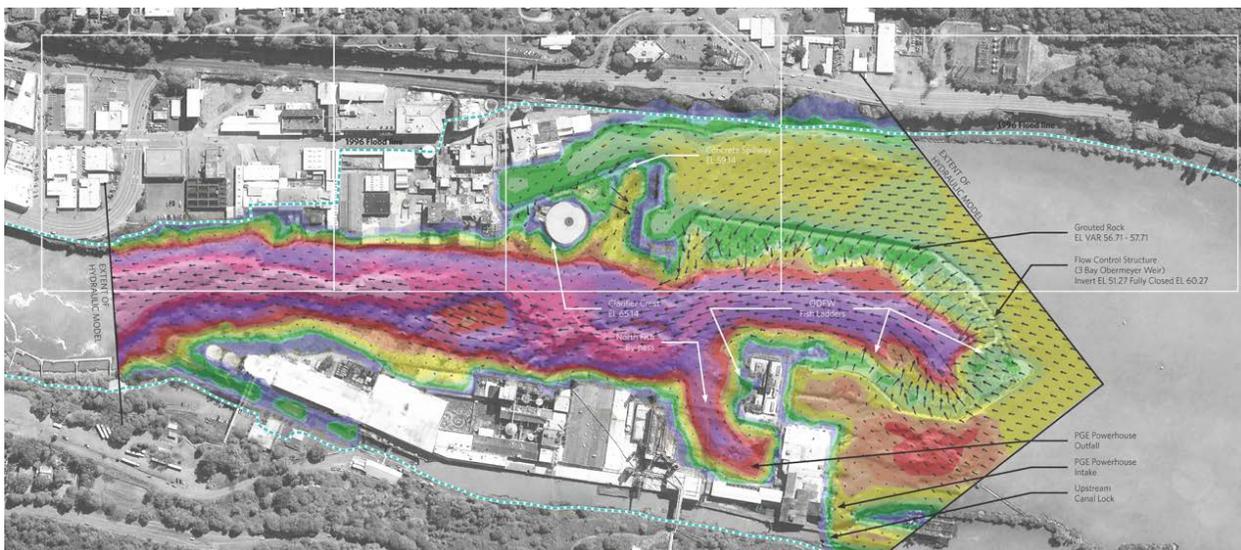
As part of the design process, Metro hired CH2M and Stillwater Sciences to understand existing conditions related to the river and habitat and to apply information learned to inform the riverwalk design. Technical studies included: understanding habitat baseline conditions, developing habitat restoration designs, mapping extents of Columbia River basalt formations, developing and running a hydraulic model and jurisdictional determination of ordinary high water for the site. Information learned can be found in the Baseline Habitat Conditions Report in [Appendix A](#) and the Habitat Restoration Concept Design Report in [Appendix B](#).



High water flows below the Boiler Plant complex in February 2017

### Hydraulic Modeling and Ordinary High Water Determination

A team of hydrologists and geomorphologists from CH2M were hired to understand river conditions, develop and run a hydraulic model to test designs and propose jurisdictional water elevations for the conceptual design for the riverwalk. Information learned can be found in the Hydraulic Model Development and Characterization of Existing Conditions Report found in [Appendix C](#).



Existing hydrology: Total water depth in a 2-year flood. The dark purple/red color represents deeper water and the yellow/green color represents shallower depths

## Rare Plant Survey

Historic and current site vegetation was documented in a 2015 site survey by the Oregon Biodiversity Information Center at Portland State University. Although the site is highly altered, the survey reported native vegetation as being in good conditions relative to elsewhere in the Portland metropolitan area. At least 16 plant species rare to the area were observed including *Penstemon richardsonii* which had not been seen at the site since 1976.

## Geotechnical Drilling

Tailraces are natural water channels that run below the site that have been filled in or channelized as industrial development progressed at the site. Geotechnical explorations, testing and reporting were required to better understand existing fill conditions and establish bedrock elevations in the Yard area with a focus on the historic tailrace location.

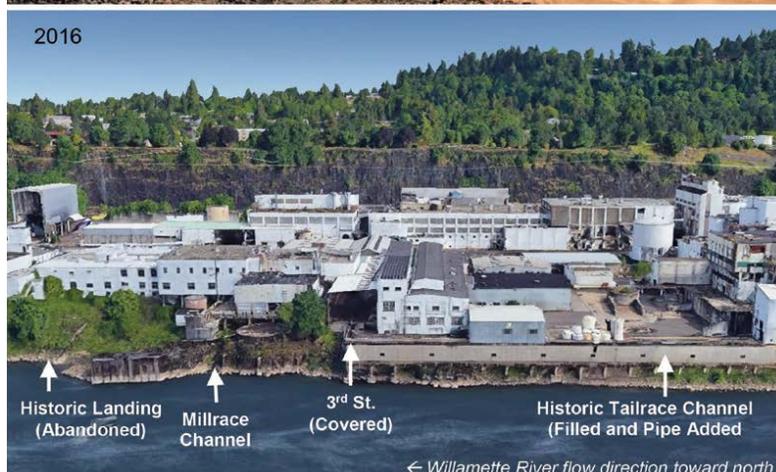
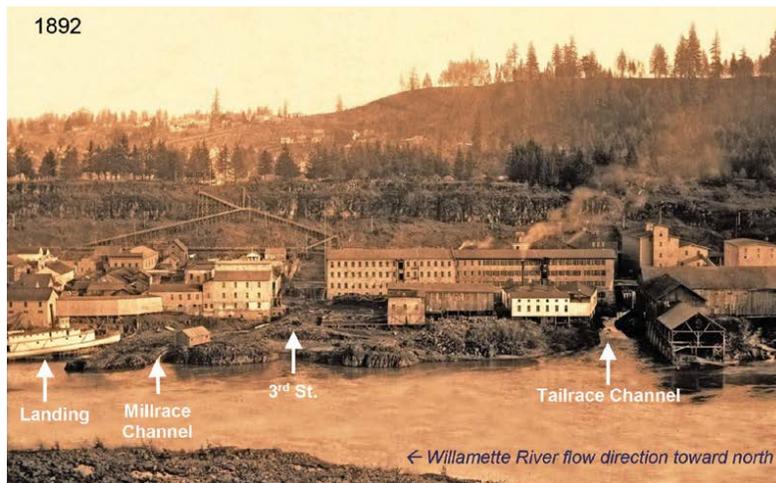
To determine the depth to bedrock and provide background for characterizing the existing fill, two types of subsurface drilling explorations were performed. The results of this technical investigation informed the design team's technical understanding of the site. The design plan calls for the removal of a significant portion of the historic fill to re-expose the bedrock surface and potentially create a restored habitat and expanded shoreline area. For more in-depth information, see the report by Northwest Geotech, Inc. in [Appendix D](#).



A view of the falls from the McLoughlin Promenade



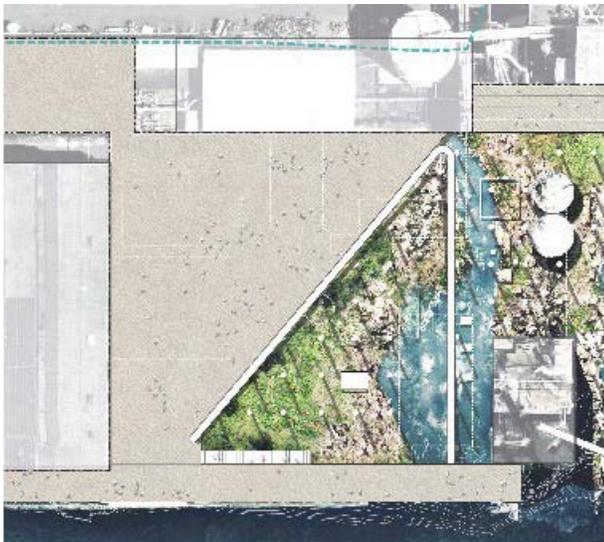
A sample from one of the geotechnical borings



Upper: Basalt bedrock exposures along the river margins based on a historical ground-based photograph taken in 1892 looking toward the unpaved 3rd Street (source: Metro archives)

Lower: Contemporary imagery from 2016 with 3-dimensional topography and buildings rendered in Google Earth

### Area 2 - Alternative A



### Area 2 - Alternative B



### Area 2 - Alternative C



## Alternatives Evaluation

The design is a culmination of a complex two-year planning process, underpinned by a robust community engagement effort, technical investigations and consideration of a variety of concept alternatives for each of the four areas of the site.

The project team evaluated each alternative based on the following criteria:

- Public access to Willamette Falls and the river
- Public gathering and event space
- Historic and cultural interpretation
- Engagement of the river experience
- Accommodation of upland mixed-use development
- Minimization of cost for structure removals
- Floodplain protection and natural river conditions
- Removal-fill below ordinary high water elevation (OHWE)
- Protection and enhancement of fish and wildlife habitat
- Relation to developable areas

The riverwalk project team selected alternative designs, by riverwalk project area, that best met the criteria while minimizing environmental impacts. Public input received at the community event in November 2016 also played a large part in the evaluation of the alternative design concepts. The design alternatives were then further refined after hearing stakeholder feedback from the Community Check-In and from project partners such as PGE and Falls Legacy LLC. The graphics shown on this page illustrate an example of the alternatives developed for Area 2: South Waterfront. The team identified a list of opportunities and constraints for each alternative which helped to provide direction in the evaluation process. Multiple alternatives were developed for each of the four project areas. The alternatives with the most consensus were cobbled together to create a base plan, which was refined into the final riverwalk design.

## Celebrating the Riverwalk Design

After years of planning and countless rounds of community input, a final community event was held on June 3, 2017 at the Oregon Museum of Science and Industry (OMSI). More than 600 people attended to celebrate the unveiling of the riverwalk design.



Attendees thoroughly examined information boards. In addition to design, the project shared information about habitat restoration, interpretive plans, parking and transportation plans and flood modeling



Attendees gathered to learn about the non-profit group Rediscover the Falls, the friends group working to raise awareness and funding for the riverwalk



A live lamprey, on loan from the Confederated Tribes of the Umatilla Indian Reservation and part of a traveling US Fish and Wildlife/OSU Extension/4-H Club exhibit, made an appearance at the event



A full house listened in the OMSI auditorium as the project team describes the riverwalk design





## **PART IV: RECOMMENDED RIVERWALK CONCEPT DESIGN**

### **Key Uses**

Key uses for the riverwalk were derived from the riverwalk-specific community engagement events in the spring and summer of 2016.

Project staff heard many ideas from the public, which informed and guided the design of the riverwalk. Redevelopment uses will be inspired and invigorated by these key uses. Each key use is described in further detail below.





## Falls Viewing Access

The riverwalk experience will include multiple views of the Falls and also views of the river, the Arch Bridge and the newly formed habitat areas. [Figure 1](#) shows multiple great viewpoints that will be provided. See the Figures section at the end of this report.



## Paths, Walkways and Biking Trails

Paths, walkways and trails are a core component of the riverwalk. All paths are designed to be accessible for people of all ages and abilities. The riverwalk design includes a “Primary Path” along with secondary “Explorer Trails” and the cycling route is planned to utilize Main Street and connect to the Canemah Neighborhood via the rail spur. These connections could fill a missing segment in the regional trail system. See [Figure 2](#).



## Collective Gathering and Event Spaces

In today’s downtown Oregon City, outdoor gathering space is extremely limited. Designing for public gathering spaces will allow for public and private events, festivals, performances and markets. The riverwalk will open up possibilities for events and programming, with multiple flexible spaces, both covered and uncovered. There are a variety of flexible use and event spaces programmed into the design of the riverwalk. See [Figure 3](#).



## Habitat Restoration and Natural History Interpretation

Using onsite natural habitat types and regional conservation planning efforts as guides, conservation targets and restoration designs were developed to encompass the site’s biodiversity values and regional conservation priorities. Restoration of riparian forests, basalt outcroppings, off-channel habitat, Oak woodland and savanna habitat areas are included in the design to restore healthy habitat and provide a natural experience for visitors. See [Figure 4](#). More information about habitat restoration can be found in the Habitat Restoration Conceptual Design Report included in [Appendix B](#).



## River Access and Activities

Connecting with nature means connecting with the river, not just through views but also through direct access to the water. The Falls create a spectacular, but turbulent river. Slightly north of the Falls, the water begins to calm, but is still fast-moving. This creates challenges for some types of river access. Swimming in this portion of the river is not advised due to the fast current, but motorized and non-motorized boating is safely practiced by many river users today. The riverwalk will provide access for boats, as well as a place for visitors to touch the water in the alcove. Depending on the future of the Locks, the site could also provide a portage route for kayakers and canoers. See [Figure 5](#).

While the riverwalk does not include any provision for commercial boat access, the shoreline area along the intake basin could be considered for potential commercial boat access as part of the private redevelopment of Mill E structure. PGE safety and operational requirements would need to be taken into consideration.

## PGE Dam Operations

As mentioned earlier in this report, PGE has granted the project an option for an easement to route the riverwalk onto the existing dam walkway. As a working dam, it will need to be closed periodically for PGE maintenance and operations and the riverwalk design must obey safety and operational requirements. This design work is ongoing and will be closely coordinated with PGE.



## Historic Re-Use and Cultural Interpretation

The Willamette Falls Legacy Project site is among the most historic places in Oregon. The layers of history represented on the site can provide a much deeper understanding of the power of this place.



## Cultural Landscape Report

In 2014 MIG, Inc. was hired by Oregon City to prepare a Cultural Landscape Report (CLR), which is a place-based research and planning document that ties information from the public record— documents, photographs, illustrations, and oral histories—to a place, focusing on how it has developed and changed over time. Developing a CLR respects and supports the task of revealing and honoring a complex history and its relationship to the landscape.

The Willamette Falls CLR was developed based on guidelines established by the National Park Service, the leading agency for cultural resource planning and management. Following those guidelines, a mixture of primary and secondary research materials was gathered, and key stakeholders were engaged as part of the research phase. The CLR serves as a primary source of information for those interested in telling the site's story, specifically through means addressed in an Interpretive Framework Plan.

While the Interpretive Framework Plan focuses on implementation of interpretive elements along the riverwalk, the CLR focuses on the entire Willamette Falls redevelopment site and can be used by other public and private developments.

The CLR includes a narrative summary of the site's history that is



Onsite Archaeology explorations



The water level relative to Station A was one indication of the severity of the flooding in the late nineteenth century, 1890



The Brick Mill, a flour mill in the converted paper mill was constructed on stilts, likely to mitigate the impacts of flooding, 1870



c. 1900 PERIOD PLAN DRAFT



**WILLAMETTE FALLS  
CULTURAL LANDSCAPE REPORT  
OREGON CITY, OR**

- SOURCES**
1. Metro Regional Land Information System, Oregon City GIS Department
  2. Google Earth Aerial Image, 2015
  3. Site Survey, 2015
  4. Sanborn Map, May 1900
  5. Historic Images, 1895-1905



supported by thousands of primary and secondary resources and hundreds of historic illustrations and photographs, a set of historic era plans that provide a snapshot of the site at different moments in time depicting its transformation and an annotated chronology that provides additional details about the site’s metamorphosis. It also includes period plans from 1851, 1884, 1900, 1925, 1950, and 1970, which are maps showing what was present on the site at each point in time. See [Appendix E](#) for a draft of the Cultural Landscape Report, which will be further refined during the federal Section 106 permitting process.

**Interpretive Framework Plan**

Using the CLR as a resource, the Interpretive Framework Plan for the riverwalk was created. The Interpretive Framework Plan is a guide for creating an interpretive experience at the riverwalk that affects people on a visceral level and compels them to return, season after season. The Interpretive Framework Plan, along with the CLR, provides critical context to guide the riverwalk design approach and provide a lens for interpretation.

The framework is not a completed catalog of people and stories; it constitutes an approach and is a living document that will change as the phases of the riverwalk are realized. Ongoing efforts are being made to find opportunities to share stories of the site’s past, present and future—highlighting its historical, cultural, ecological and economic significance.

The goals of the Interpretive Framework Plan include:

- Creating high expectations and encouraging an innovative approach to interpretation
- Identifying criteria for future projects to be funded or supported
- Establishing a partnership approach that supports the work of interpretation in phases
- Honoring native peoples’ stories and relationship to Willamette Falls and planning for a long-term approach to tribal engagement and interpretation
- Developing a framework that will celebrate, challenge and grow our understanding of the site and connection to it

When these goals are met, people who visit the riverwalk will be able to learn, experience and imagine and visitors from the local community, across the nation and around the world will have different but equally powerful experiences.

As with many historic sites, the interpretive opportunities on the former Blue Heron mill site are plentiful. It is important to remember that not all stories can be told on site. By defining interpretive take-home messages, thoughtful prioritization of elements which support these messages is possible.

	<b>NATURAL HISTORY</b>	<b>SIGNIFICANCE TO NATIVE AMERICANS</b>	<b>INDUSTRY &amp; INNOVATION</b>	<b>EUROPEAN IMMIGRATION, COLONIZATION &amp; GOVERNANCE</b>	<b>PRESENT &amp; FUTURE OREGON CITY</b>
	The unique hydrology and geology of the Willamette River and Falls is critical habitat for fish, birds and animals.	Willamette Falls is significant to <b>Native Americans</b> who have gathered and fished here since time immemorial.	This site is significant to the birth of <b>industry</b> and <b>innovation</b> in Oregon.	This site and Oregon City are important to <b>United States history</b> as the terminus of the <b>Oregon Trail</b> and <b>Oregon State history</b> for <b>colonization</b> and the <b>establishment</b> of <b>state government</b> .	Oregon City is a great place to <b>live, work</b> and <b>recreate</b> . The community contributes to the <b>past, present</b> and <b>future</b> of the site.
THEMES					
FLOOD	X				X
FISHING	X	X		X	X
FLORA & FAUNA	X	X		X	X
HABITAT	X	X			X
18TH & 19TH CENTURY EXPLORATION	X		X	X	
EUROPEAN COLONIZATION		X	X	X	
CULTURAL GROUPS			X	X	X
RELIGION/SPIRITUALITY		X		X	X
GATHERING		X		X	X
TRAGEDY		X			
FLOUR			X	X	
WOOL			X	X	
WOOD	Covered under Flora & Fauna	X	X	X	
WATER	Covered under Flood		X	X	X
TRANSPORTATION		X	X	X	X
LABOR/WORKFORCE		X	X	X	X
PARTNERSHIPS		X			X
WILLAMETTE RIVER	X	X	Covered under Water	X	X

### Interpretive Take-Home Messages

Good interpretive design provokes attention and curiosity, relates concepts and facts to visitors' own lives and reveals key messages in unforgettable ways. The Interpretive Framework Plan defines three main approaches: immersion, narration and reintroduction. Together they aim to engage future visitors with the site intellectually, physically and emotionally. See [Appendix F](#) to reference the full Interpretive Framework Plan.



HONOR NATIVE  
AMERICAN  
PRESENCE:  
PAST, PRESENT,  
& FUTURE

## Honor Native American Presence: Past, Present and Future

Defining tribal-related key uses is an ongoing process and will need to be coordinated with the Tribal Advisory Board. In addition to meeting legal obligations through the federal permitting Section 106 consultation process, the Partners fully intend to continue to work with the Tribal Advisory Board, form agreements with the tribal governments regarding management and operations of the riverwalk, and work together to develop interpretive elements for the riverwalk that respectfully convey the tribal connections to the site.

ECONOMIC  
REDEVELOPMENT

## Economic Redevelopment

With a world-class riverwalk to attract visitors and locals alike, the site will become an attractive redevelopment opportunity. The ultimate redevelopment of this site will take time, money and well-coordinated public and private support. The riverwalk is a key strategic investment for attracting private interest in the mill property, creating an opportunity to leverage public investment for economic development returns and a future increase in tax revenues.

Building upon the previous Framework Master Plan, the planning process determined what parts of the site will become the riverwalk and public open space versus private development. See [Figure 6](#). Much of the area shown in green is subject to periodic inundation.



A vision for the re-connection of Main Street through the mill site, with mixed-use development and revitalized historic structures facing a walkable, multi-modal streetscape, image extracted from the 2014 Vision Plan

### **On-Site Development Opportunities**

The 2014 Vision Master Plan estimated the amount of private development that could occur on site, considering the zoning, building height regulations, open space and right-of-way needs, reuse of some buildings, and market factors. While this is an estimate, it reflects a reasonable expectation and range of various development types on site.

We can expect that development at the site will fall within the following ranges:

- 290 – 700 new residential units (apartments, condominiums, senior living)
- 100,000 – 240,000 square feet of new office, flex office, craft industrial space
- 50,000 – 70,000 square feet of new neighborhood-serving and destination retail
- 18,000 – 35,000 square feet grocery store
- 120 – 200 room limited service hotel
- 640,000 – 835,000 gross square feet new development (not including structured parking)
- \$115M – \$220 million estimated ending market value
- 600 – 1,270 permanent jobs (full-time equivalent)
- 920 – 1,140 construction jobs (full-time equivalent)

“This site can become a world-class bicycle and pedestrian destination, if bicycles and pedestrians are prioritized over cars within the site. Connecting the site to surrounding areas with safe bicycle and pedestrian facilities is crucial, so that it is a clear benefit to neighbors.”

-Public Comment



While the estimate considered the entire 22 acres, there are a few specific redevelopment opportunities within the riverwalk area:

### **Woolen Mill Foundation**

The Woolen Mill foundation could be privately redeveloped, except for the southern end that will be a public viewpoint. With ample frontage on Main Street and proximity to the Public Yard, ground-level active uses such as retail and restaurants could be an ideal complement to the public space. Upper floors could include office, hotel or residential uses.



The Woolen Mill in 1904

### **Flour Mill**

The Flour Mill foundation could be built upon and private development could take advantage of the wide riverwalk promenade with space for café seating, and be complementary to the future nearby boat dock.



The Chicago Riverwalk, design precedent

### **Mill O second story**

While the ground floor of Mill O is planned as public space, the upper floor could be a unique opportunity for private offices or other private uses.

### **Mill E**

Private redevelopment opportunities would capitalize on views of the falls and would be integrated with the riverwalk to offer additional activity, commerce and activation of the intake basin edge. One possible location of the pedestrian bridge to the McLoughlin Promenade is within a renovated and reused Mill E.



Looking across the intake basin to Mill E

### **Remainder of site**

The riverwalk was designed to anticipate and accommodate private uses adjacent to it. By providing ample spaces for overflow café seating, large public gathering spaces like the Yard, and multiple connections to the street grid, the riverwalk will complement and catalyze vibrant economic development.



The former mill is flanked by the river on the west and the bluff along the eastern edge of the site

## **Development Strategy**

In a separate effort, but integral to the success of the riverwalk, the Partners are working together to reduce and remove barriers to redevelopment of the site. As the project lead, Oregon City was awarded funds from the Community Planning and Development Grants Program administered by Metro (now called the 2040 Planning and Development Grants) to further understand and reduce development barriers onsite. This includes evaluating finance and funding options, understanding the current and future market conditions and site strengths and conducting infrastructure planning and phasing strategies. However, Falls Legacy LLC walked back from the core value of economic redevelopment when they stopped this grant-funded work to plan private development in November 2016.



A view of the Arch Bridge, with Willamette Falls in the distance

### **Main Street Terminus**

This area of the site affects a number of stakeholders, histories and pragmatic needs; thus requires additional technical consideration to arrive at a preferred approach. Factors at play relate to PGE dam access, potential for redevelopment, reconstruction of Main Street, Union Pacific Railroad requirements, potential for flood mitigation, tribal considerations, interpretation of mill structures and connection to the bluff.

Two options offered as part of the concept design, as seen on the next page, will serve as the basis for continued design conversations moving forward. Both options maintain riverwalk access throughout the site and fulfill the goals of the four core values.

**Option 1:** Main Street extends to the northern leg of PGE dam allowing public vehicular access to the southernmost portion of the site. Potential private redevelopment (6) includes a hotel proposal for the Mill E site as well as the Mill H area on the north edge of PGE dam in the mill reserve. This option presumes the reconstruction of Main Street and the railroad trestle area south of the Woolen Mill (5). Public circulation routes are shared with PGE access and service areas for redevelopment.

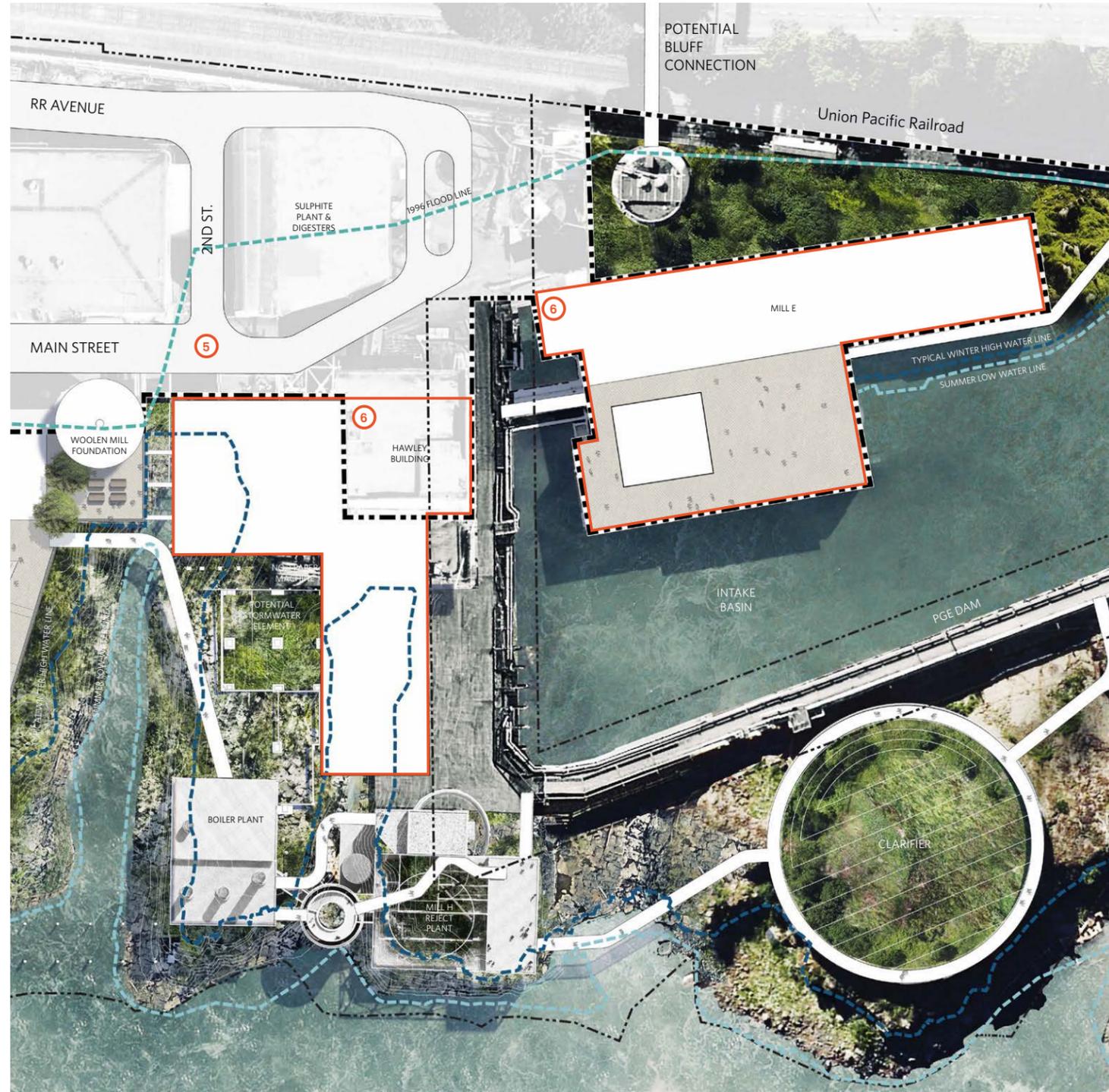
**Option 2:** Main Street extends to the southern end of the Woolen Mill with a turnaround located between No. 4 Paper Machine and the Digesters. Public connection to the bluff occurs through an elevator and stair within the Digesters structure. Potential private redevelopment (6) includes a hotel proposal for the Mill E site as well as the Mill H area on the north edge of the PGE dam in the mill reserve. This option presumes that Main Street south of the Woolen Mill is not reconstructed for potential flood control (5). PGE and redevelopment service access occurs east of the Digesters and Sulphite Plant.

Both options require further discussions and coordination with PGE and Falls Legacy LLC for selection and refinement.

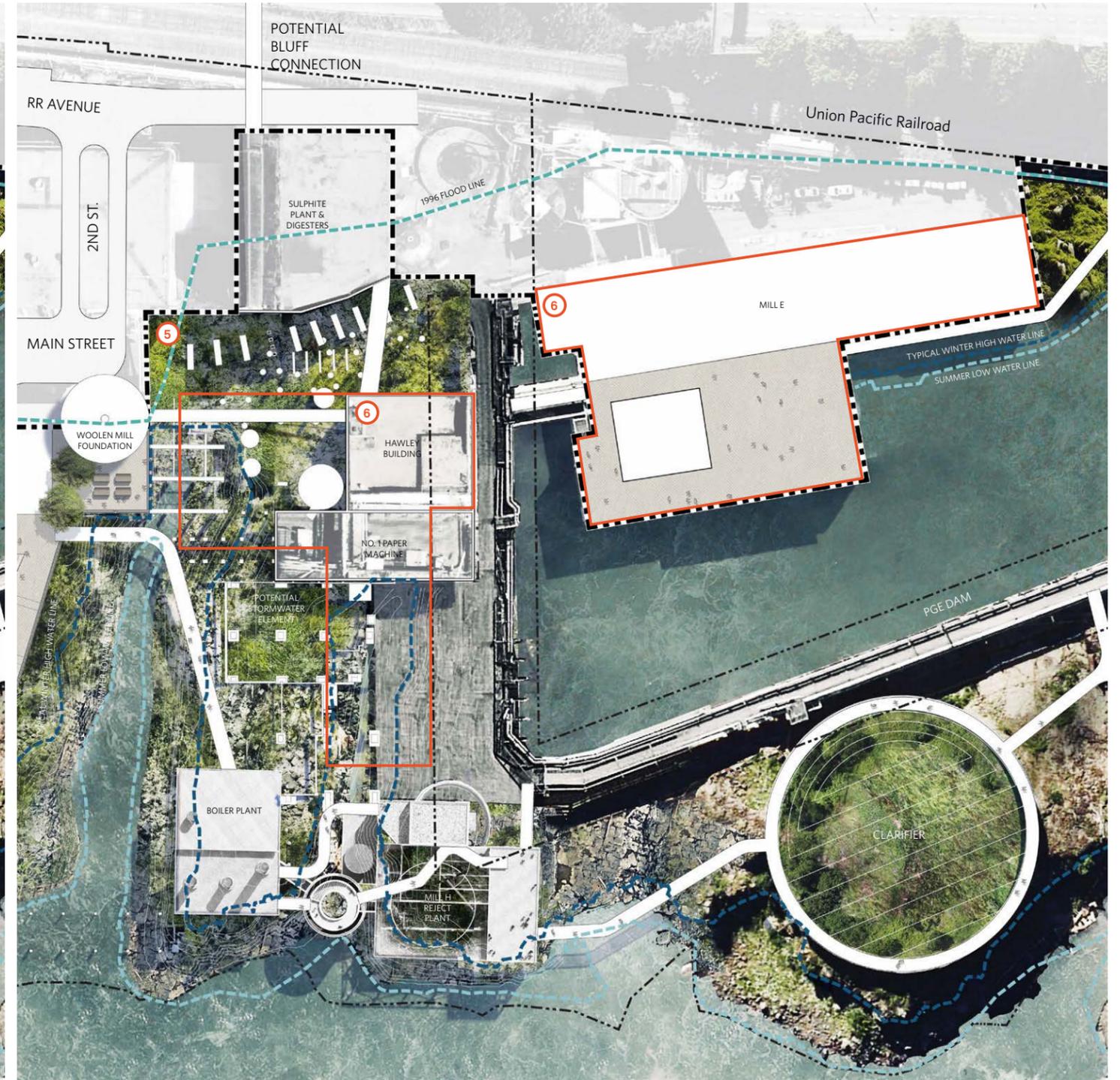


Standing on Mainstreet, looking at the terminus

### Option 1: Main Street Terminus



### Option 2: Main Street Terminus





## Riverwalk Access and Connections

**Main Street:** Main Street will be the primary motor vehicle access to the site, while also accommodating bicycles and pedestrians. This Main Street connection will reconnect the site to downtown Oregon City.

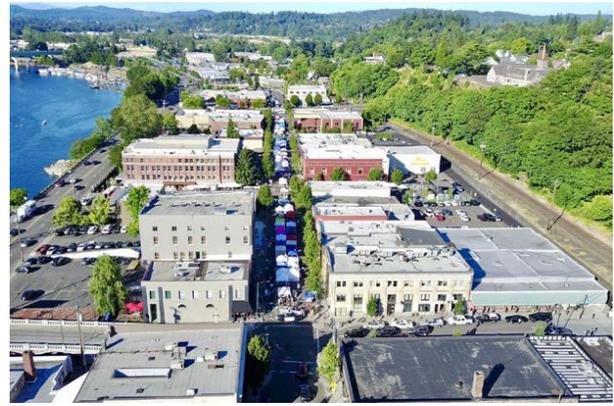
**Water Street:** Water Street, parallel to Main Street, is a secondary vehicular access from Hwy 99E. It will allow for right turns in and out only and will be connected to Main by 4th Street. The riverwalk promenade in the north riverfront portion of the site will be built alongside Water Street.

**McLoughlin Boulevard Viaduct Replacement:** Also known as McLoughlin Blvd. Plan Phase 3, this project, which is adjacent to the riverwalk, will replace the viaduct with a new roadway and ample pedestrian and shared use space along the waterfront, filling the gap between 10th Street and the riverwalk. Timing of the project is uncertain, but it is critical to full connection of the pedestrian and bicycle network.

**Bridge to McLoughlin Promenade:** A pedestrian bridge proposed in the riverwalk plan will link the riverwalk to the McLoughlin Promenade, approximately 100 feet above the site. An elevator will likely provide the connection, but a ramp is also a possibility. There are a few potential locations for the bridge, and a final location will be more apparent when future private redevelopment in the area of the site near Mill E and the digesters occurs. The benefits of the pedestrian bridge could provide:

- A direct connection to Oregon City community and institutions atop the bluff
- Unique falls views from the bluff
- Re-use of historic structures for bluff connection
- Links to McLoughlin Promenade and Canemah Bluff Natural Area

Multiple options allow for review and feedback from stakeholders, such as ODOT, Union Pacific and adjacent property owners on the bluff.



A festival on Main Street in historic Downtown Oregon City



Water Street, looking north toward the Arch Bridge



Public connection to the bluff could occur through an elevator and stair connection within the chip cylinder east of Mill E



Oregon City Transit Center on 10th and Main Street

## Parking, Access and Transportation Strategy

An important piece of the riverwalk plan is how visitors will access the new public space. A Parking, Access and Transportation Plan has identified solutions for transportation and parking for the riverwalk. This plan optimizes the riverwalk experience, reduces its impact on neighbors and can be phased in as development occurs over time.

Goals for the plan include:

- Reach a shared understanding among stakeholders, including transportation and parking issues, tools and goals for this project
- Create a long term metric-based strategy that can guide the community through the many phases of private and public development onsite
- Achieve Oregon City Planning Commission approval of the strategy and plan as part of the upcoming riverwalk land use approval, including identification of proportional requirements for Phase 1 of the riverwalk
- Identify actionable next steps that the community and the city can implement

Early riverwalk phases will include interim on-site parking, utilizing open paved areas on the property. In addition to this new parking, which will be market-priced in coordination with existing downtown public parking, the Parking, Access and Transportation Plan includes a variety of actions to increase the “universe of trips” by cultivating and improving the connections for all modes of transportation. These improvements will be implemented with a near, mid and long term lens though the use of a cross-stakeholder implementation committee. Not just specific to the riverwalk project, the plan includes strategies such as pedestrian and bicycle improvements, the potential addition of a new transit stop and development of a wayfinding system for the entire downtown area. Several more strategies are identified in the Transportation Demand Management Plan, which is included in [Appendix G](#).

“Light-rail should be extended from Clackamas Town Center or Oak Grove (or both) to downtown Oregon City and up to CCC. The I-205 bike path should be extended to the falls site. A safe connection to the Trolley Trail should be constructed. Sidewalks and crosswalks in Downtown Oregon City should be improved upon.”

-Public Comment

“Parking is the biggest challenge for those arriving in cars. Encouragement to use public transit seems the best option if nearby convenient stops are available, or if large scale parking is at a distance, coordinated with shuttles can be made a reality. What I do not want to see is McLoughlin neighborhood becoming the parking lot for this attraction.”

-Public Comment

# Riverwalk Concept Design

**Off-Site**  
Downtown Oregon City

**Area 1**  
North Riverfront

**Area 2**  
South Riverfront

**Area 3**  
PGE Dam and Mill E

**Area 4**  
Canemah





## **Riverwalk Design**

### **Area 1: The North Riverfront**

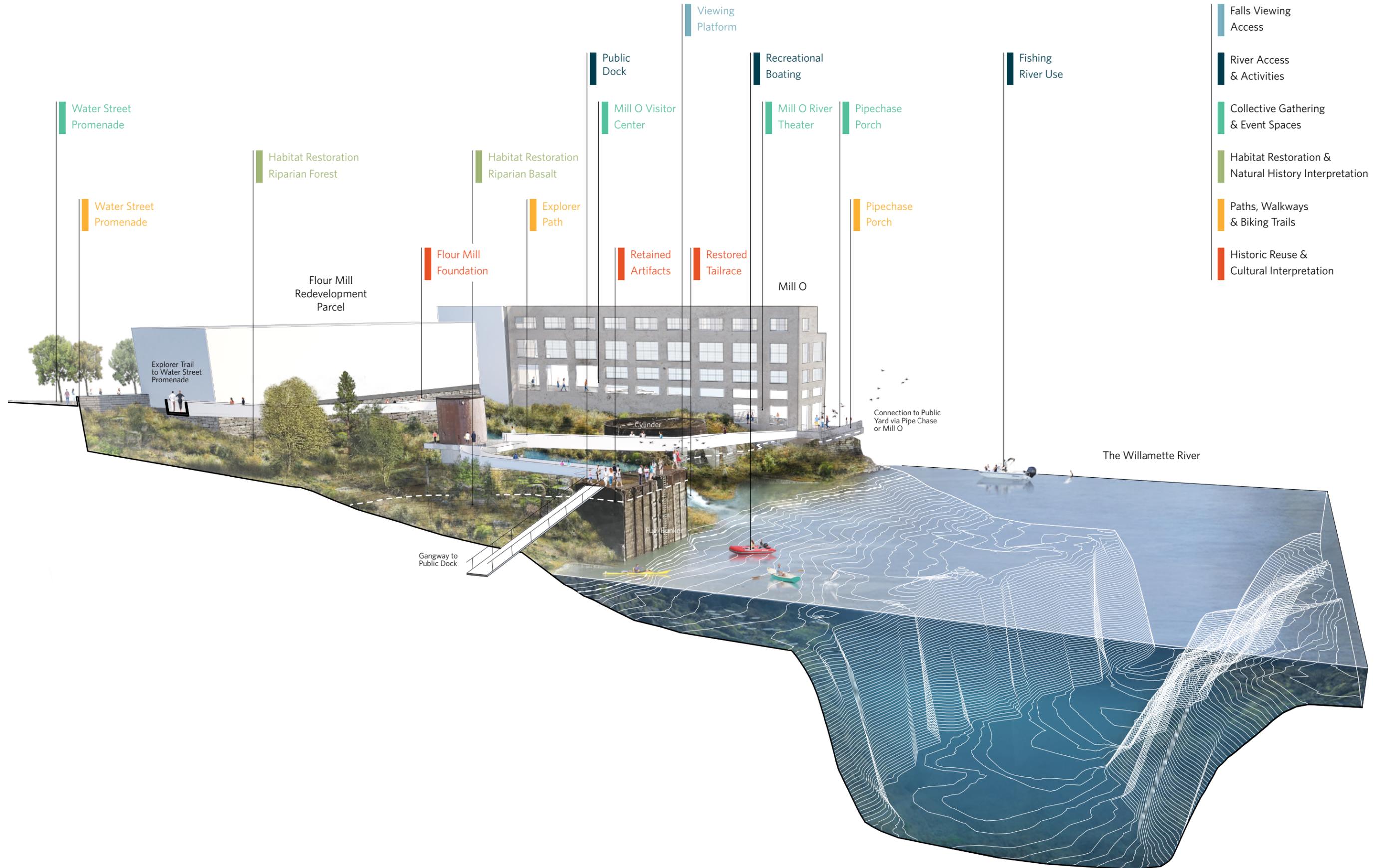
In the North Riverfront area, existing structures and platforms are peeled away to expose the outcrop of ancient basalt on which the historic 1860s Flour Mill was constructed. An elevated Explorer Trail draws visitors through the area, providing interpretive access to the restored riparian basalt habitat, basalt masonry foundations, tailrace and machinery of the Flour Mill. The path also provides access to a historic fuel bulkhead on the water that is re-used as both a viewpoint as well as an access point to a proposed dock to the north.



The North Riverfront, existing condition



# The North Riverfront and Flour Mill Foundation



## Riverwalk Key Uses

- Falls Viewing Access
- River Access & Activities
- Collective Gathering & Event Spaces
- Habitat Restoration & Natural History Interpretation
- Paths, Walkways & Biking Trails
- Historic Reuse & Cultural Interpretation

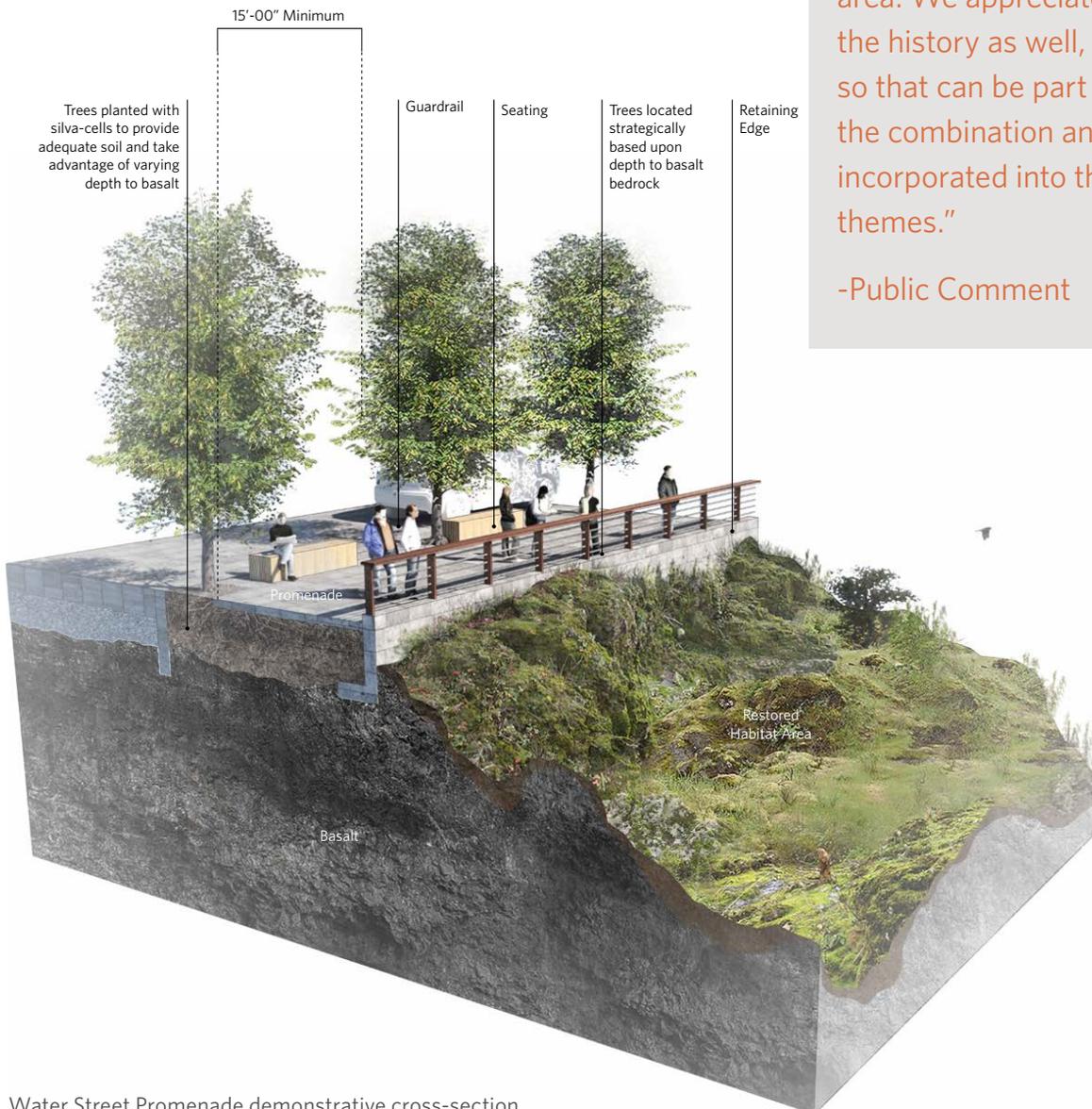


Stairs or ramps to the river's edge are not included in the North Riverfront area concept design. The riverbed quickly drops off, and currents are strong; however, the location south of the existing Oregon City Boat Club dock has potential for a moored, floating dock devoted to small, private motorized and non-motorized craft. This location provides the potential depth for boat access, as well as an existing structure to establish mooring.

**Water Street Promenade:** The Water Street Promenade extends from the northernmost portion of the site at McLoughlin Boulevard. It parallels the proposed extension of Water Street and weaves its way to the east of the exposed Flour Mill before tying into 3rd Street. This orientation establishes a strong connection to the energy and activity of Main Street, and funnels activity to the Public Yard. Along its length, canopy trees, furnishings and a guardrail establish a complimentary character to the adjacent redevelopment parcels and restored habitat areas.

“We would like to see it be an area like the San Antonio Riverwalk only with a natural habitat feel. Little shops or eating cafes, or a farmers market can be there and an area to hold events like concerts and movies, with a kid/adult play area. We appreciate the history as well, so that can be part of the combination and incorporated into the themes.”

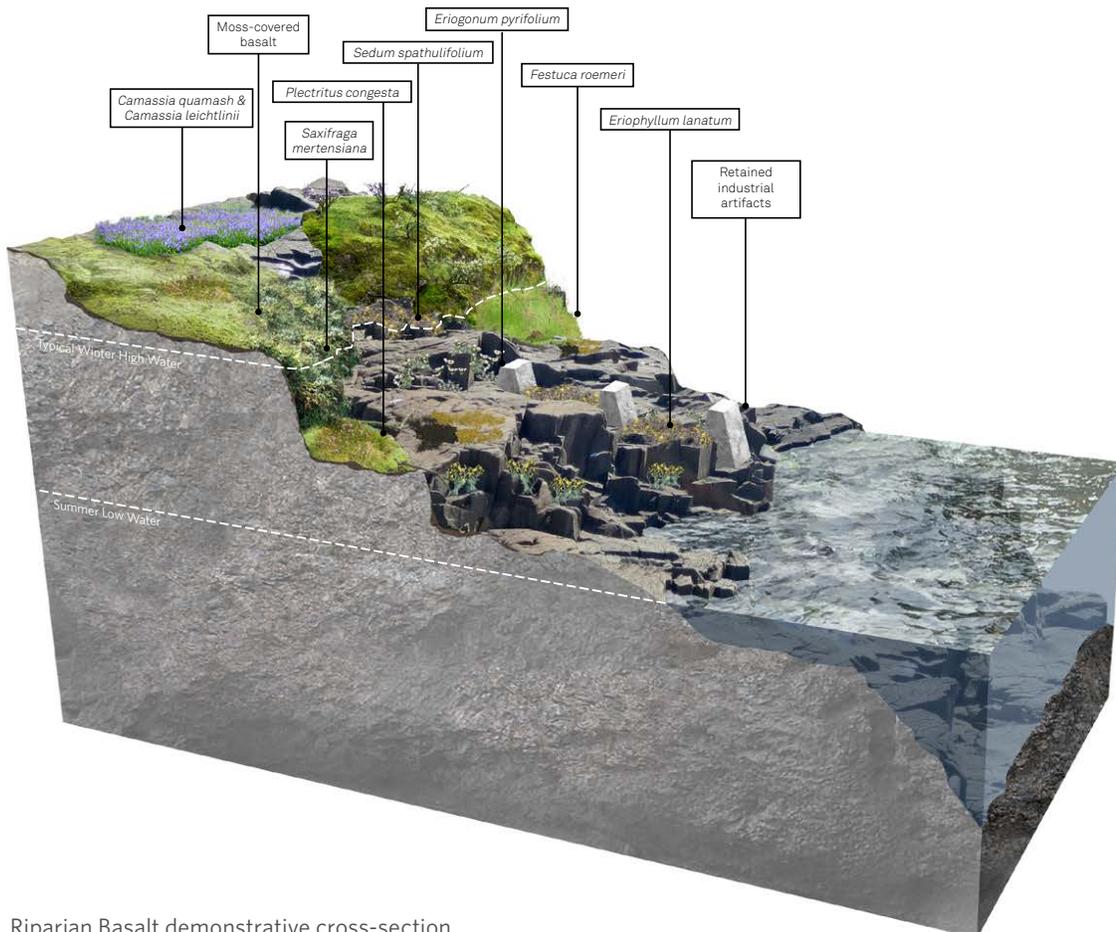
-Public Comment



Water Street Promenade demonstrative cross-section



**Riparian Basalt:** In this stretch of the river and adjacent to the Water Street Promenade, basalt outcrops and rocky substrate along the shoreline provide habitat for unique plant species and are important habitat for pollinators and birds. The riverwalk plans include removal of invasive species, removal of structures and industrial debris not necessary for re-use or historic preservation, repair of damaged basalt with concrete patches and planting native grasses and wildflowers in these areas. Public access in riparian basalt habitat should be restricted to protect the sensitive plants and wildlife that live here.



Riparian Basalt demonstrative cross-section

## Riverwalk Design

### Area 2: The South Riverfront

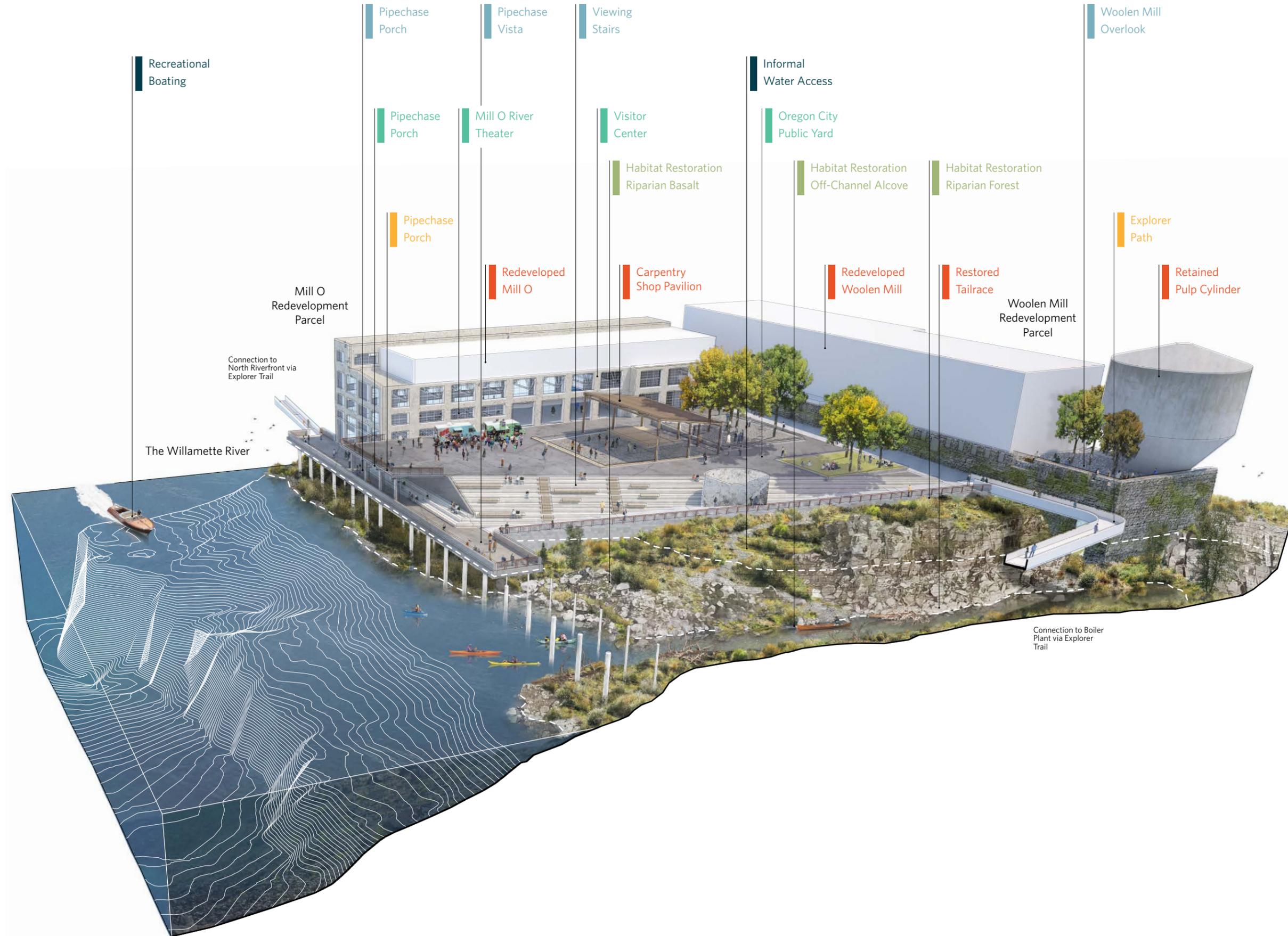
Visitors following the main promenade pass between Mill O and the Woolen Mill foundation arriving at the Public Yard, a broad plaza with expansive views toward the Falls and PGE dam to the south. The Yard and adjacent structures provide a highly flexible public space where people can mingle and congregate in a new civic heart for Oregon City. The Yard is able to host a variety of events: beer festivals, food carts, concerts, movie screenings, or even a summertime regatta when the river's flows are low. The Carpentry Shop (Woolen Mill Pullery) is featured as a central focal point of the Yard. It is retained and the restored historic wood structure serves as an informal pavilion or outdoor stage for performances or other events. At the southern edge of the Yard, the concrete structures and urban fill area are removed to expose the historic shoreline and basalt bedrock, with unique riparian basalt plant communities and off-channel alcove habitat.



The South Riverfront, existing condition



# The Public Yard and Woolen Mill Alcove



Recreational Boating

Mill O Redevelopment Parcel

Connection to North Riverfront via Explorer Trail

The Willamette River

Connection to Boiler Plant via Explorer Trail

Pipechase Porch

Pipechase Vista

Viewing Stairs

Woolen Mill Overlook

Pipechase Porch

Mill O River Theater

Visitor Center

Informal Water Access

Oregon City Public Yard

Habitat Restoration Riparian Basalt

Habitat Restoration Off-Channel Alcove

Habitat Restoration Riparian Forest

Pipechase Porch

Redeveloped Mill O

Carpentry Shop Pavilion

Redeveloped Woolen Mill

Restored Tailrace

Woolen Mill Redevelopment Parcel

Explorer Path

Retained Pulp Cylinder

## Riverwalk Key Uses

- Falls Viewing Access
- River Access & Activities
- Collective Gathering & Event Spaces
- Habitat Restoration & Natural History Interpretation
- Paths, Walkways & Biking Trails
- Historic Reuse & Cultural Interpretation



**The Woolen Mill Alcove and Public Yard:** More passive public river access uses are designed within the Yard area alcove, where currents and depths are expected to be more gradual. This is where future riverwalk users will be able to dip their toes in the water, and potentially launch a kayak from an informal water access path. Due to the existing basalt bedrock, this informal access path would not likely meet ADA accessibility guidelines (the accessible water access point would be located in the North Riverfront area via the dock). The alcove could also serve as a lower portage connection and water access point, with the upriver connection located along the Canemah extension.

To support public access, the walls of the Pipe Chase are selectively removed, leaving behind lower portions of the structure re-used as a porch-like promenade at the water's edge. Removing structure lessens shadowing impacts on river ecosystems, while retained remnants of the structure enrich historical interpretation of the water's edge, allowing people to mentally reconstruct what once occurred on the site.



The Woolen Mill Alcove and Public Yard

**Mill O Visitor Center and Pipe Chase Porch:** Visible from Main Street and commanding a presence from the water, Mill O, the historic extension to the Oregon City Woolen Mill is well-positioned to serve as the riverwalk's visitors' center. The exterior shell of the building is reinforced and retained, while the interior is opened up to make a large public hall, and offers opportunities to re-use the interior wood structure. Large portions of the ground floor spill out to the adjacent Public Yard, creating flexibility and all-weather use. The eastern end of the structure is conditioned and provides restrooms, a kitchen, storage and flexible use spaces. It also supports upper stories of the building being devoted to redevelopment.

A generous stair and ramp at the western end of the structure spills down to the lower level of the Pipe Chase creating a river theater: a flexible location for events, such as concerts and classes, but also a sheltered place to watch the river go by. The existing Pipe Chase structure is selectively removed, producing a porch-like promenade parallel to the river. Connected to Mill O, Explorer Trails to the north and the Public Yard to the south, it serves as a key accessible location for visitors to get close

“Make this a place for the community that is respectful of the nature, wildlife and history of the falls area. Keep commercialization to a minimum using attractions that emphasize history, the arts, nature, and healthy activities.”

-Public Comment

to the water and have views of the falls. Certain portions of the upper level of the structure are maintained at the yard level, providing additional vantage points above, and sheltered areas below.



The Mill O Visitor Center and Pipe Chase Porch

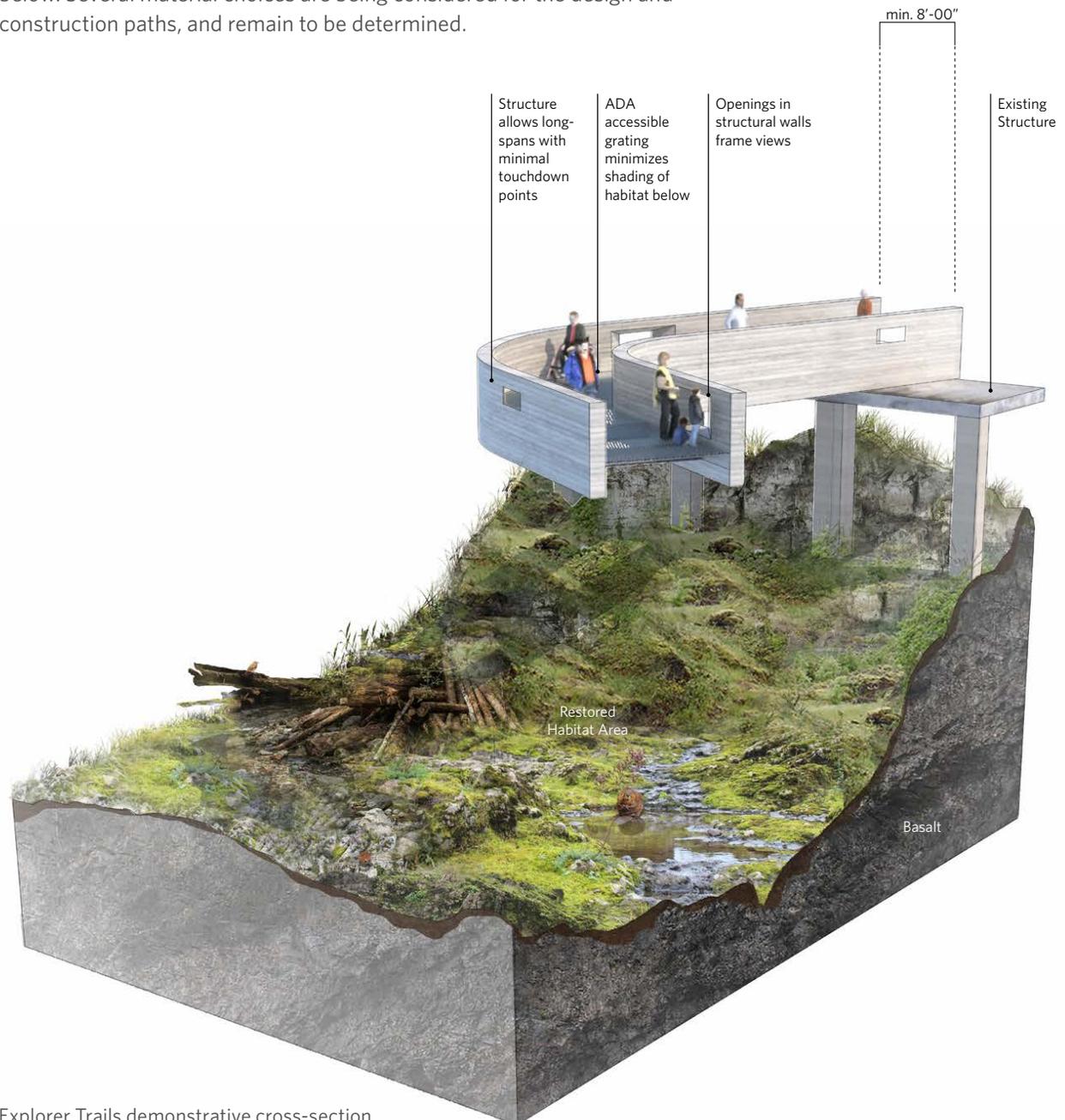
**The Woolen Mill Overlook:** The Woolen Mill Overlook serves as the public terminus of Main Street, offering 360 degree views of the PGE dam, the historic boiler complex, the restored river alcove and the Public Yard.



Woolen Mill Overlook

Through selective removal of existing structures and platforms, the full height of the PGE dam is revealed and the historic boiler plant complex becomes a defining focal point of the riverwalk. An elevated Explorer Trail connects the yard area to the boiler plant complex, providing interpretive opportunities focused on the restored alcove habitat and the historic Woolen Mill foundation. Explorer Trails provide intimate access to habitat and historic interpretation opportunities throughout the site.

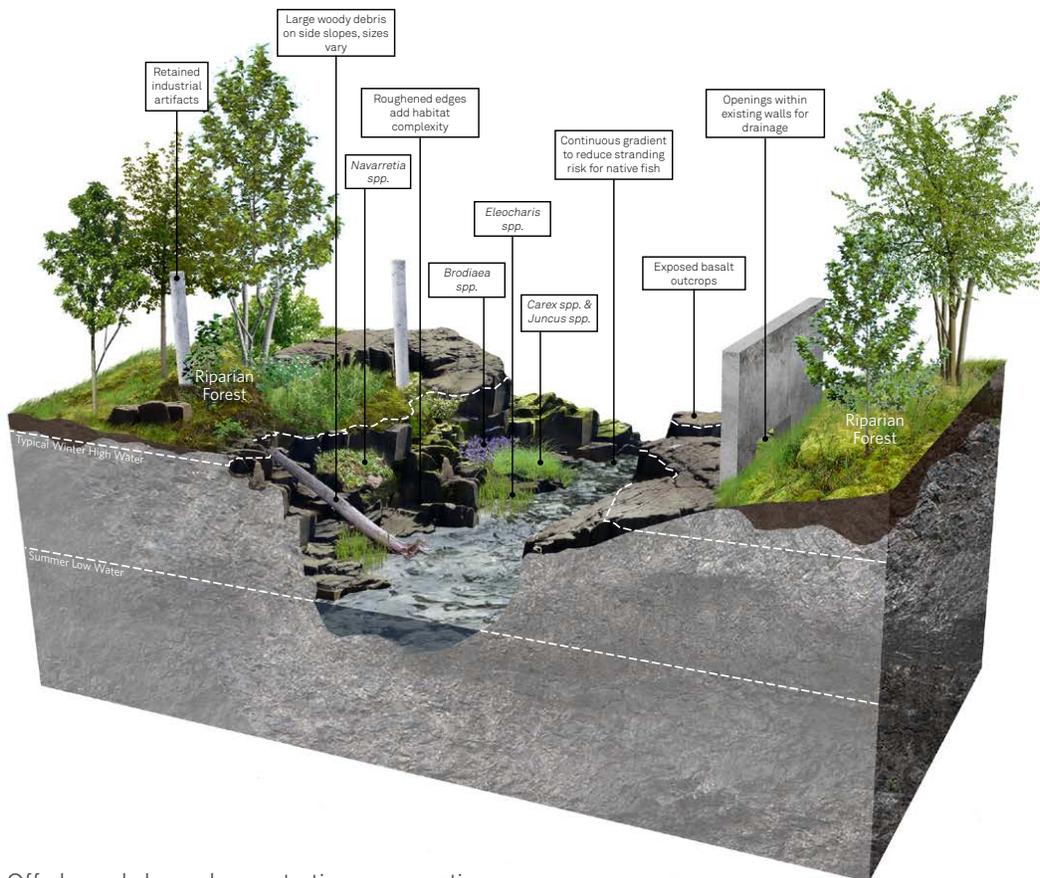
**Explorer Trails:** The custom paths are designed to take advantage of existing walls and columns for structural support, and offer universally accessible routes to the far reaches of the site. Openings in the structural walls of the paths focus attention on interpretive moments, while the grating below, minimizes environmental impact on the restored habitat below. Several material choices are being considered for the design and construction paths, and remain to be determined.



Explorer Trails demonstrative cross-section



**Off-Channel Alcove:** In the South Riverfront Area, restoration of off-channel alcove habitat serves as a key opportunity for enhancing areas for native fish, including federally listed spring Chinook, steelhead and Pacific lamprey. Fish require habitat complexity along the Willamette River and alcove areas provide opportunities for them to rest during high flow conditions. The riverwalk design includes actions to increase shoreline complexity by removing areas filled in or covered by structures, establishment of wetland plants and placement of large woody debris. These restored off-channel alcoves also provide important habitat for great blue herons, beavers, river otters and other aquatic species that depend on the river.



Off-channel alcove demonstrative cross-section

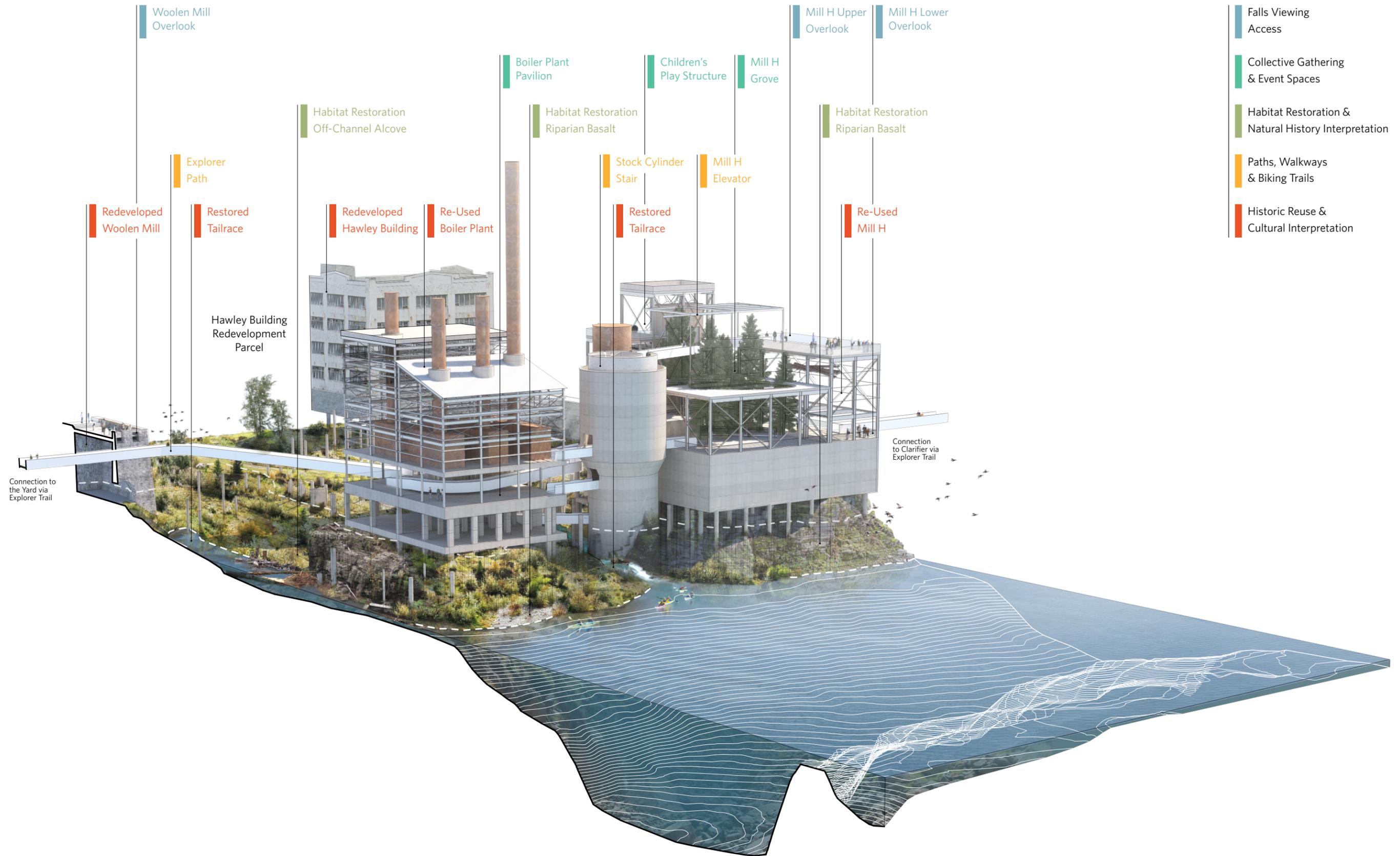
**The Mill Reserve and Mill H Overlook:** A lofted pathway passes over the restored Woolen Mill tailrace connecting to retained industrial structures that are preserved and repurposed to showcase the history of uses. Together the Boilers and Mill H structures provide an iconic destination perched at the edge of the river with a falls viewpoint, proposed as Phase 1. Selective preservation and reuse of these key structures features interpretive historic artifacts and access to the lowest and highest reaches of the built site. Minimal interventions allow the cathedral-like space of the boiler plant and its machinery to speak for itself, while Mill H is portioned into three distinct volumes – a conifer grove, a children’s play tower, and a lower and upper level overlook structure. Elevated paths, an elevator and stairs provide public access to these points. The rugged topography and multiple levels of structure are ADA accessible throughout, including high level overlooks, the lofted network of catwalks, and the promenade areas along the water’s edge.



The Mill Reserve area, existing condition



# The Mill Reserve and Mill H Overlook



## Riverwalk Key Uses

- Falls Viewing Access
- Collective Gathering & Event Spaces
- Habitat Restoration & Natural History Interpretation
- Paths, Walkways & Biking Trails
- Historic Reuse & Cultural Interpretation



**The Mill H Grove and Overlook:** To offer prominent views of the Falls and river valley to the south, the industrial corrugated cladding of the existing Mill H structure is peeled away. The structure is opened to light and air while revealing the reinforced steel and concrete structure of the mill. Portions of the Mill H ceiling are carved to further open the space connecting the interior to the sky. The concrete foundation of Mill H is repurposed to hold a large volume of soil to support a grove of native conifer tree species, referencing the historic wood-based papermaking processes that once took place in the structure. Upper levels of the structure provide Falls viewing vantage points, while lower levels draw visitors to the Clarifier path and the Hawley Powerhouse Foundation Falls overlook beyond. The Mill H aspects of this view - the grove, the overlook, and improvements to the structure, are planned to be included as part of Phase 1 of the riverwalk.

One potential redevelopment scenario proposed by Falls Legacy LLC illustrates a hotel along the northern leg of the PGE dam, reusing the Hawley Building and Mill E, and building above Paper Machine #1 and Mill H. The proposed concept would capitalize on views of the Falls and would be integrated with the riverwalk to offer additional activity, commerce and activation of the intake basin edge.



The Mill H Grove and Overlook

## **Riverwalk Design**

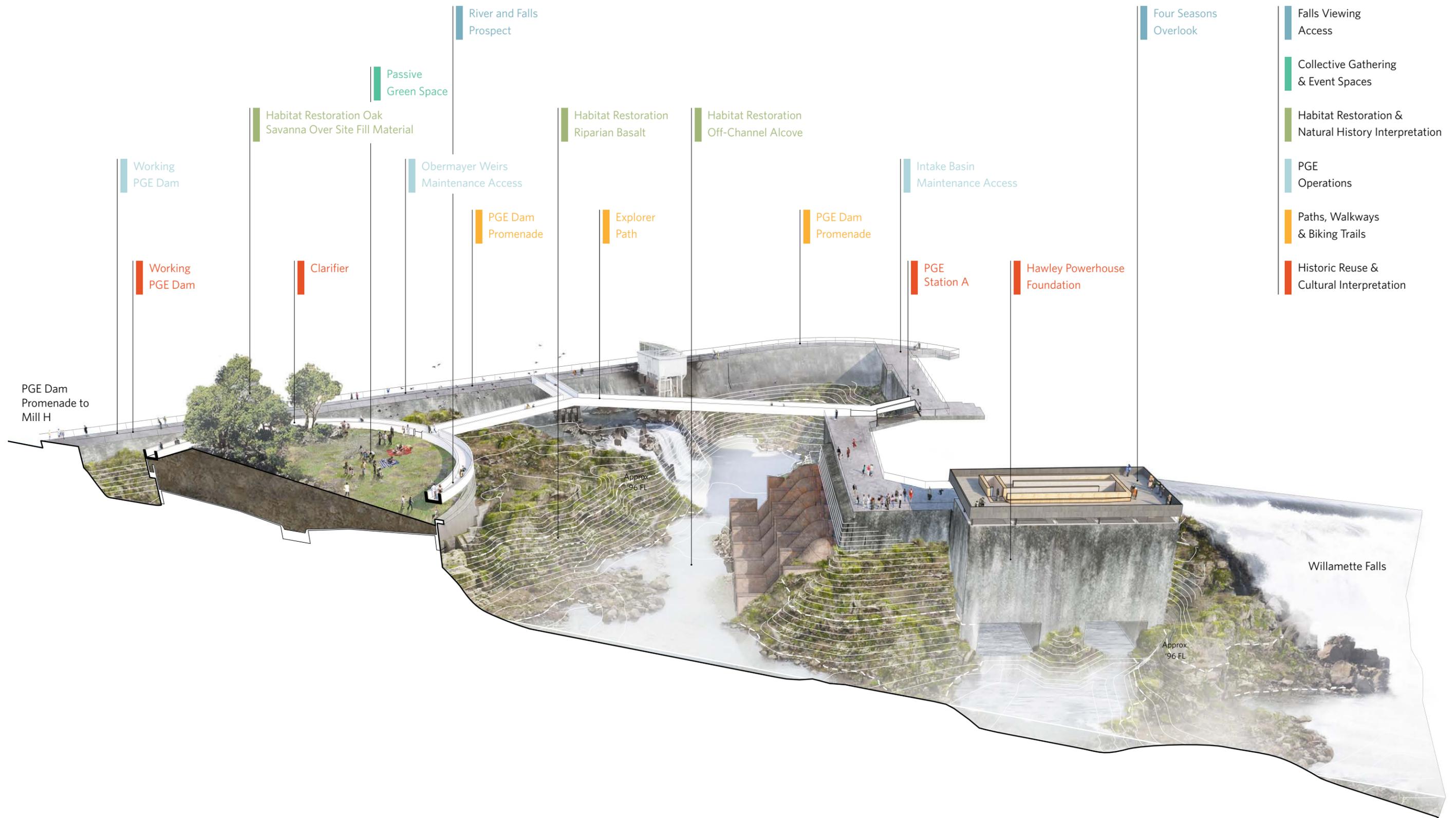
### **Area 3: PGE Dam and Mill E**

The sequence of elevated Explorer Trails extends south like stepping stones, connecting Mill H to the Clarifier, to PGE dam at Station A, to the overlook at the Falls at the historic Hawley Powerhouse Foundation. The paths are designed to accommodate PGE dam closures for operations and maintenance, providing access to the Falls year-round. The paths in this area are designed to reveal the full height of the Falls, as the ground drops away before reaching the final Falls overlook destination. The pathway structures are engineered to take advantage of existing site structures for support, minimizing the use of vertical construction and reducing impacts to the restored riparian basalt habitat below. Arriving at the overlook, visitors experience a 360 degree view from its privileged position at the center of the river and the Falls.



The PGE Dam and Mill E, existing condition

# PGE Dam, The Clarifier and The Falls Overlook



- ### Riverwalk Key Uses
- Falls Viewing Access
  - Collective Gathering & Event Spaces
  - Habitat Restoration & Natural History Interpretation
  - PGE Operations
  - Paths, Walkways & Biking Trails
  - Historic Reuse & Cultural Interpretation

PGE Dam Promenade to Mill H

Working PGE Dam

Working PGE Dam

Passive Green Space

Habitat Restoration Oak Savanna Over Site Fill Material

Clarifier

River and Falls Prospect

Obermayer Weirs Maintenance Access

PGE Dam Promenade

Habitat Restoration Riparian Basalt

Explorer Path

Habitat Restoration Off-Channel Alcove

PGE Dam Promenade

Intake Basin Maintenance Access

PGE Station A

Hawley Powerhouse Foundation

Four Seasons Overlook

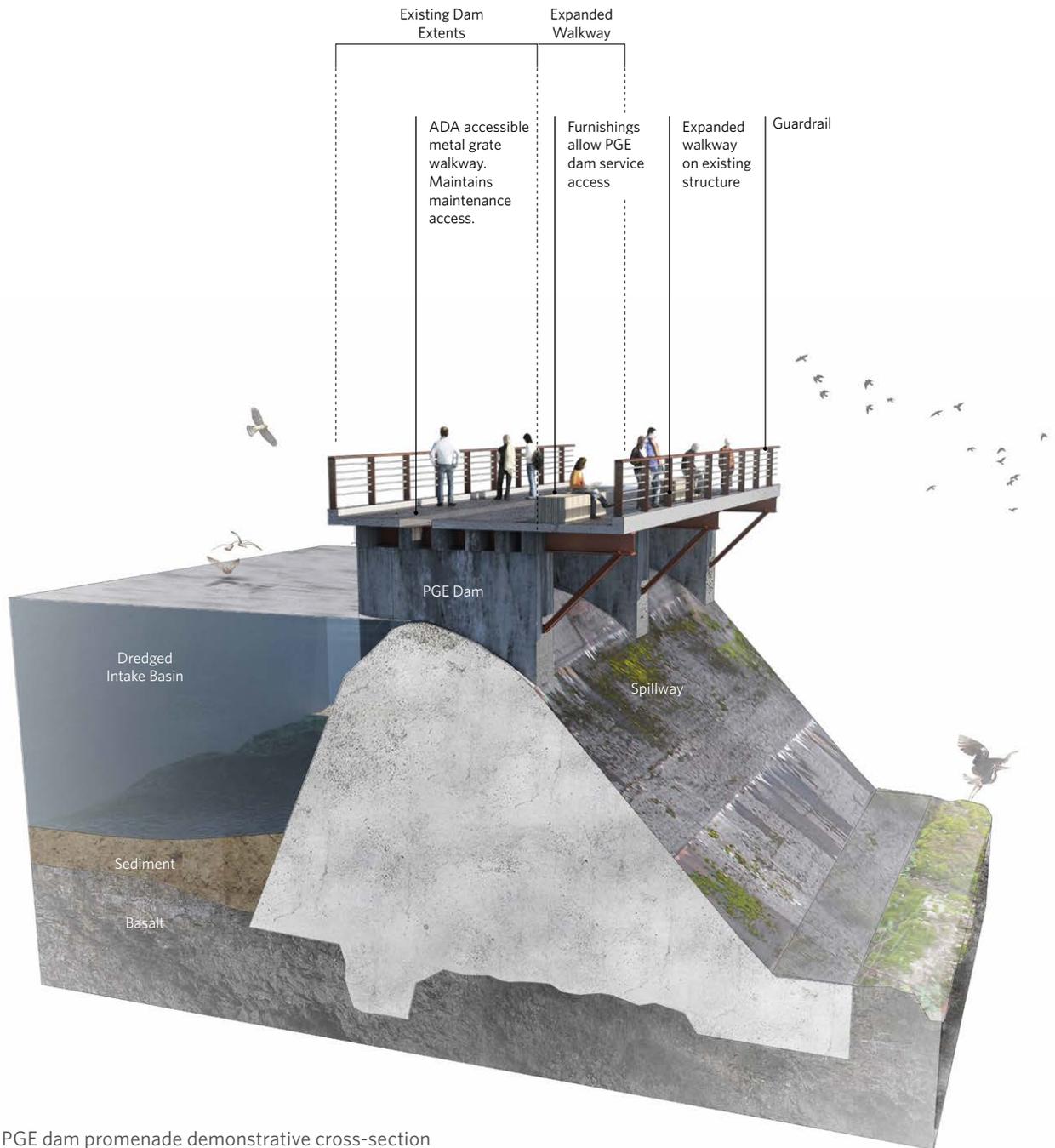
Approx. '96 FL

Approx. '96 FL

Willamette Falls



**PGE Dam Promenade:** The existing, historic PGE dam still functions as part of PGE power generating operations today. With recent installment of modern weir structures, regulation of the intake basin water level has become, in part, automated; however, PGE still requires maintenance and operations access to the dam. Public access improvements propose to expand the walkable dam surface, provide seating, replace guardrails and provide utilities. Minimum access requirements are maintained and the dam may be safely and securely closed as necessary by PGE.



PGE dam promenade demonstrative cross-section

“I think restoring habitat is an important part of this project, the more that can be done, the better. Also more removal of the structures will open up more views of the natural beauty of the falls and river.”

-Public Comment

**The Clarifier Landscape and PGE Dam Promenade:** A proposed walkway rings the Clarifier. The landscape interior of the Clarifier is inspired by the region’s oak savanna habitat featuring characteristic Oregon white oak and camas plantings as well as basalt salvaged from the site. Visitors can gather, picnic or rest in the landscape with expansive views to the river and the former West Linn Paper Company. The clarifier pathway links Mill H to the Falls overlook, allowing full public access to the Falls when the PGE dam promenade is closed for operations and maintenance. At high flows, water released from the spillway surrounds the Clarifier, making it an island perched between the upper and lower basins of the falls. Improvements to the surface of the PGE dam create a public promenade, yet maintain PGE operation access to this historic working riverfront. The Mill H overlook and vertical play tower is shown in the distance.



The Clarifier Landscape and PGE Dam Promenade

**Oak Woodland and Savanna:** Oregon white oak woodland and savanna habitat primarily exists on the bluffs surrounding the riverwalk project site. Savanna and oak woodland habitat is proposed in the clarifier to restore Oregon white oak, camas and other native plants which may have historically been present at the site. This managed landscape will create a special gathering place and provide wildlife habitat.

“I have spent many years looking up at these structures while fishing near the falls. From the river it is a very industrial view, so some changes to make the view skyward up from the river more natural should be considered.”

-Public Comment



Oak Savanna demonstrative cross-section



Oak Savanna habitat at Camassia Natural Area



The overlook at the Hawley Powerhouse Foundation



View from the Hawley Powerhouse Foundation

**The Falls:** The destination overlook of the riverwalk takes advantage of the precipitous location of the historic Hawley Powerhouse Foundation. The overlook is composed of two levels, each ADA accessible. Above, a new platform opens up an unimpeded 360 degree view of the surrounding region from the center of the river and Falls. The viewing platform offers integrated seating, places to pause and provides two routes of entry to ease circulation. In addition to the panoramic, outward-looking views, the platform design focuses visitors inward, with grating and openings, allowing experiential glimpses into the industrial turbine chamber below. At dam level, the underside of the upper viewing platform provides shelter and compresses visitors as they approach the second falls viewpoint. At the brink of the Falls, a few steps down and the shelter of the upper platform pulls away, leaving the power, mist and exposure of the location to play upon the senses.

## Riverwalk Design

### Area 4: Canemah Connection

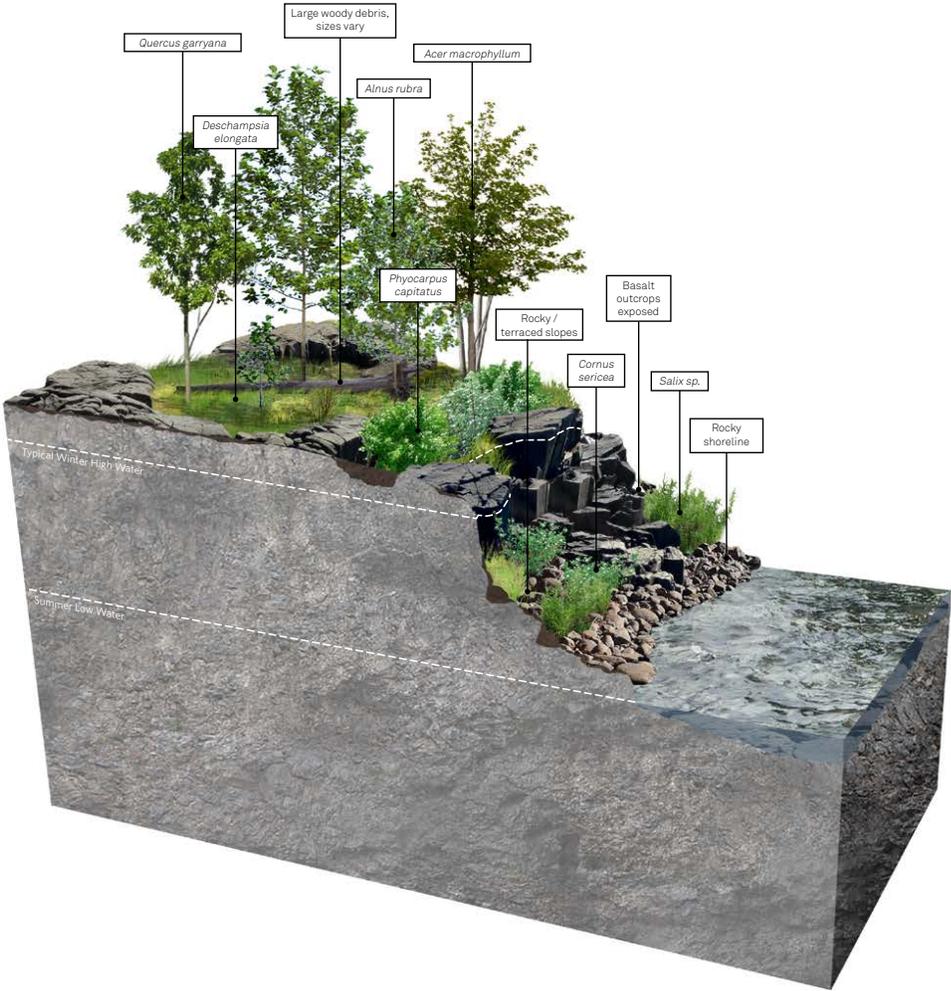
The Canemah connection is a pedestrian route, that when combined with Mill E development opportunities, can create a vibrant experience along the shoreline above the Falls. The future connection will likely require significant investment in an overpass of the Union Pacific Railroad; however further study is required. The connection would link to the sidewalk on Hwy 99E, close to Hedges Street in the Canemah neighborhood.



Rail spur adjacent to the Union Pacific railroad and Hwy 99E above



**Riparian Forest:** Healthy riparian forests are relatively wide (typically 100-200+ feet each side of the stream) with a dense mix of native trees and shrubs with rich native species diversity in all layers. Downed wood and snags are important components of riparian forest composition to support wildlife diversity. Riverwalk plans include removal of invasive species, removal of structures and industrial debris not necessary for re-use or historic preservation and planting native trees and shrubs to shade the river and off-channel alcove habitats. Preservation of views is important for redevelopment and will need to be balanced with tree placement, habitat value and permitting requirements.



Riparian Forest demonstrative cross-section





## PART V: IMPLEMENTATION

### Cost Estimates

A high level cost estimate was prepared based on elements shown in the final plan, see [Appendix H](#). Assumptions were made for materials, quality and construction. The construction estimate is based on 2016 unit costs for each specific work item and is organized by public access elements, habitat restoration and re-use and removals of specific structures.

The estimate uses an aggregate of 60 percent markup on all work elements and a 20 percent contingency to cover unforeseen costs. The costs are not all-inclusive of investment needed. There will be other capital costs associated with the riverwalk, such as:

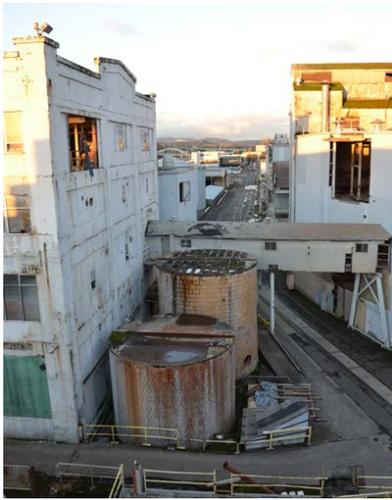
- Upgrades including re-use options
- Operations and maintenance
- Soft costs for permitting, additional studies and engineering

A third party cost review was completed and determined that the major work elements were identified and included in the estimate, however the reviewer was not able to determine cost reasonableness of the estimate without knowing the estimate classification and the applicable accuracy range. The recommendation is to prepare an estimate in greater detail that includes crew productions based on the unique site character and the surgical nature of the demolition and construction likely to be required.

As the plan is refined, the estimate will be updated to reflect the level of completion.

“It turns out that the hard things to do are really what matter in the end. Think about all the people who came across the Oregon Trail in wagons. And they thought it was worth it. People have already done a lot of hard things here at the Falls. This is one more.”

-Public Comment



Main Street, looking north toward downtown Oregon City



Mill H building



Willamette Falls viewpoint from the top of the north end of the Pipe Chase



No. 2 Paper Machine

## Permitting

### Local Land Use Process

The former Blue Heron mill site is located in Oregon City and falls under its jurisdiction. In 2004, Oregon City adopted a Comprehensive Plan that requires any future development of the mill site to undergo a Master Plan process, which is a land use process that applies to large phased developments in Oregon City. In 2014, after the mill declared bankruptcy, the City approved the Framework Master Plan and a Comprehensive Plan Amendment and Zone Change to allow mixed use development on the site. The Framework Master Plan established a street network, open space, development space and design guidelines for the entire site. It also established a review process for future development, requiring all new development (save most demolition and construction projects less than 1,000 square feet) to be approved through a Type III land use process.

### Federal and State Section 106/ORS 358 Process

Removal of potentially eligible buildings, potential archeological work and in or over-water work requires compliance with state and federal permitting processes. Section 106 of the National Historic Preservation Act of 1966 requires federal agencies to take into account the effects of their undertakings on historic properties, and allow the Advisory Council on Historic Preservation a reasonable opportunity to comment. Because of the historic nature of the project site, a Section 106 review is necessary, along with the submission of the Joint Permit Application for wetland fill/removal on the project site. This process will be guided by the U.S. Army Corps of Engineers (USACE) with assistance from the State Historic Preservation Officer (SHPO). The consultation process will result in a Memorandum of Agreement (MOA) to guide the project over time, identifying mitigation and allowing for check-ins with consulting parties. There will be an MOA with USACE and with SHPO and they each may cover different “permit areas.” MOAs can be signed and finalized even if there is an appeal over a decision about who gets to be a consulting party.

Metro will prepare permit applications, drawings and narratives that comply with all local, state and federal regulations, on behalf of the four Project Partners.

### Demolition

Development of the riverwalk will require significant demolition of structures on the site. The design team has inventoried building materials and intends to repurpose or recycle as much as possible.

The Framework Master Plan contains a provision that prior to demolition, each building must have an intensive level survey following the guidelines set forth by SHPO (if potentially eligible for the National Register of Historic Places) or a reconnaissance level survey (if not deemed potentially eligible) which shall include at a minimum photos of all interior floors/rooms and exterior context. These surveys will be produced at each phase of the riverwalk for the buildings or structures that are being demolished.

Demolition will only begin after building permits are obtained and an MOA through the Section 106 process is signed.

Due to the presence of hazardous materials, a brownfield assessment and abatement plan is also needed for each building.

### **Brownfield Remediation**

Brownfields, which are former industrial sites with real or perceived contamination, can be difficult to redevelop due to cleanup costs. While many industrial sites suffer from contaminated soil, the riverwalk site is relatively clean due to lack of soil – most of the site was built on basalt. Phase I and II Environmental Site Assessments have been completed for portions of the property, with a focus on soil and groundwater, but the existing structures on the property have not yet been formally assessed. Based on the existing studies, ground contamination will be manageable with just a few areas with heavy metal contamination.

Due to the presence of dozens of old industrial buildings, there is a large amount of lead and asbestos on the site. Each building will be tested and assessed for contamination areas and levels and will be abated according to DEQ and EPA standards when it is demolished or renovated.

The project site is part of the McLoughlin Corridor Brownfield Assessment Area and will benefit from EPA funding obtained by Metro, Clackamas County, and Oregon City. This funding will go toward onsite building assessments related to the Phase 1 riverwalk construction.

### **Infrastructure**

The mill operated largely on a private infrastructure system, most of which was removed after bankruptcy. To be redeveloped, the site needs new water, sewer, stormwater and street infrastructure, as well as private utilities such as electric, natural gas and fiber. Simultaneous to riverwalk design processes, the Willamette Falls Legacy Project has worked with the site owner to develop site-wide infrastructure and utility plans. Sharing of infrastructure systems to serve both the riverwalk and private development will be the most efficient way to provide infrastructure on the site.

### **Additional Planning and Community Engagement Efforts**

While the master planning process for the riverwalk is complete, the Partners have several bodies of work that will continue into the future. These efforts will allow for continued community engagement in the riverwalk project in preparation for riverwalk construction and operations.

- **Transportation Plan Coordination:** The Parking, Access and Transportation Plan calls for an implementation committee charged with assisting in the coordination and implementation of the plan. This committee will be formed in the near future and will meet at least twice annually to coordinate and oversee projects and programs that are identified in the Parking, Access and Transportation Plan.



Contractors visually inspecting the old industrial buildings



Volunteers posing next to the pile of garbage hauled out of the river during the 9th Annual Great Willamette Clean Up

- **Interpretive Implementation Committee:** A strong recommendation that came out of the Interpretive Framework Plan involves creating an interpretive review board or committee as a means to determine future interpretive activities and physical additions to the site. This board or committee will be responsible for reviewing all proposed interpretive elements for alignment with the Interpretive Framework Plan prior to funding and design approval.
- **Programming Plan:** Whichever agency or entity will be responsible for programming and operations of the riverwalk will create a programming plan that identifies activities and events that will be provided for riverwalk visitors. For example, guided tours, educational programs and special events and celebrations will take place on site. The seasonal calendar shown on [page 48](#) is the beginning of a programming plan.
- **River Clean Ups:** Project partners and stakeholders are committed to supporting river cleanup events such as the Great Willamette Clean Up. There are multiple opportunities along the site's shoreline to clean debris, refuse and invasive plants.
- **Riverwalk Naming:** As discussed on [page 39](#), the riverwalk is designed as more than just a walk. Project Partners have considered a naming process to give the riverwalk an official name that better communicates its purpose. A naming process would involve the public and would likely take place before or at the grand opening of the Phase 1 riverwalk.

## Phasing

The overall riverwalk is an aspirational plan that anticipates future funding commitments, grants and fundraising efforts. It is anticipated that the design of the riverwalk will be built in phases as funding becomes available.

Phase 1 detailed design and engineering is the next step for the Project Partners, with Phase 1 construction planned to begin as soon as design engineering and permitting are complete.

Goals for Phase 1 include providing a prominent view of the Falls, safe and secure interim access and building demolition that will prepare the site for future phases of the riverwalk. See [Figure 7](#). Phase 1 will include habitat restoration work, historic and cultural interpretive elements and public access closer to the Falls. The project will focus demolition and site preparation in the Yard and Mill Reserve areas and

provide a viewing area in the Mill H building and Boiler Plant Complex.

The sequence in which riverwalk elements are constructed is dependent upon multiple factors, including private development coordination, fundraising, permitting requirements and community support. The Willamette Falls Legacy Project remains flexible in the timing of each riverwalk element or phase in an effort to be fiscally responsible and to leverage the project to achieve economic development and fundraising dollars.

## Restoration

Habitat restoration work will be combined with each phase of implementing the riverwalk project. Phase 1 restoration work may include the following actions:

- Removing industrial debris and other structures not necessary for re-use or historic interpretation
- Removal of small dams and impoundments on tailraces to eliminate entrapment of fish
- Collecting native seed from onsite plants that are rare or unique to the area and propagating them for future plantings
- Invasive weed removal

## Operations and Maintenance

The four Public Partners - Oregon City, Clackamas County, Metro and the State of Oregon - will continue to work together for operations and maintenance of the riverwalk. While one or more of the Partners will likely take on ownership itself, all four agencies have committed to funding the operations and maintenance of the riverwalk. Metro has skill and expertise in the management of habitat areas and will take on the care of these areas of the riverwalk. Oregon City's Parks and Recreation Department may play a role in operations and maintenance of public spaces and pathways.

Operations and maintenance can be partially funded by revenues generated from parking fees, event rental fees and vendors. With ample public gathering space, the site will be a compelling place to hold events and rental revenue could be significant.

Private development will also be contributing to operations and maintenance as based on the agreement with the site owner. Other funding sources include funds from each of the four Public Partners and donations.



Contractors treat invasive weeds in the intake basin, Sept. 2017



Oregon City concert in the park

## Security and Interim Access

Even after Phase 1 of the riverwalk project is complete, large portions of the site may remain unchanged from today's conditions. These areas will need to be secured once public access is provided into the site. Security on the site is of high importance due to deteriorating buildings, toxic materials and safety hazards. The Phase 1 project will include security fencing and other security measures to restrict access in non-riverwalk and undeveloped areas of the site, but will need to be further explored during design engineering to finalize the accessible, safe and secure alignment. The Partners will continue to work with Falls Legacy to identify the appropriate safety and security measures necessary.

## Funding

The riverwalk concept design assumed a total riverwalk cost of \$60 million, with approximately \$12.5 million available to fund the initial phase of the riverwalk. This effort represents the responsible expenditure of funds contemplated in the Project Partners' Intergovernmental Agreement (IGA), including:

- \$12.5 million: State lottery bonds dedicated by the Oregon State Legislature
- \$5 million: Metro Natural Areas Bond Measure Program
- \$1.2 million: A combination of City, County, and site owner contributions
- Roughly \$8 million is expected to be raised through private fundraising by 2022

Future phases of the riverwalk are anticipated and will be funded by a combination of sources including future public investment, private fundraising and investment from private development. Private fundraising is led by the nonprofit friends group, Rediscover the Falls. Formed in 2015, this group is launching its first fundraising campaign, seeking \$10 million to contribute to development of the riverwalk.

The City of Oregon City has added the riverwalk to its Transportation System Plan and Trails Master Plan, making it eligible for System Development Charges funding sources. The riverwalk has also been added to the Metro's Regional Transportation Plan and Regional Trails Plan, making it eligible for federal and state funding allocated to the Portland metropolitan region. Other potential funding sources for future riverwalk phases could include:

- Federal grants
- State grants
- Hotel tax revenues
- Funding from public and private partners
- Private foundations
- Private development



Security measures will need to be in place before the public can safely access the site

## Rediscover the Falls

In 2015, the Willamette Falls Legacy Project Partners created Rediscover the Falls, a 501c(3) nonprofit organization to build friends and fundraise for the project. Rediscover the Falls is helping make the riverwalk vision a reality.

Over the last year, Rediscover the Falls has been working in collaboration with the Partners to ensure the public is well informed and engaged in the riverwalk project. Rediscover the Falls is launching a major capital campaign designed to help bring experiential elements of the riverwalk to life. This effort is being led by an executive director and board of directors. Together, the Willamette Falls Legacy Project and Rediscover the Falls are working to ensure that all Oregonians and visitors have access to a world-class experience at Willamette Falls while also enjoying the natural beauty of the Willamette River.

## Catalytic Impact and Economic Benefits

The riverwalk will be a catalyst for economic development and job creation on the site and in the surrounding area. The 2014 Vision Plan estimated the benefits of redevelopment at the site to be significant and could result in the following gross economic benefits:

- During construction: a total of about 1,460 new jobs, including direct construction jobs, indirect (business-to-business) jobs, and induced jobs created from increased household spending
- Once construction ends: a total of about 1,480 permanent full-time equivalent positions, including people with jobs at the site (direct jobs) and in businesses that support the people and businesses that are located at the site (indirect and induced jobs)
- \$2.3 million in estimated annual tax revenue, benefitting the City of Oregon City, Clackamas County, school districts and others
- \$14 million in estimated annual spending from visitors arriving from outside of the Portland region

Additional benefits are less quantifiable, but are equally important to Oregon City and Clackamas County's ongoing economic development

## Rediscover the Falls Mission Statement

Our mission is to champion and sustain a world-class Willamette Falls experience that offers year-round access to the grandeur of the Falls, historic and cultural interpretation, healthy habitat, public open spaces, and that showcases the hospitality of historic Oregon City.

Website:

[www.friendsofwflp.org](http://www.friendsofwflp.org)

REDISCOVER  
*The Falls*



efforts. Redevelopment of the site transforms Oregon City's downtown into an attraction that is important at the national level, bringing new energy and more people to downtown Oregon City's existing businesses, and creating a completely unique place that all can enjoy.

### **Tourism opportunities**

The site has the potential to become a significant tourist destination in Oregon. The Crown Point Vista House in the Columbia River Gorge offers an especially good comparison for the Blue Heron site. It has historical significance, scenic views, free entry, and is located about 30 minutes from downtown Portland. The Vista House receives an estimated 775,000 to 1,290,000 visitors annually. That level of visitation could catalyze development of other tourism assets such as new hotels, shops, recreational attractions, and restaurants. Already, Oregon City boasts several outdoor recreation-related small businesses. Additional tourists could foster the creation of new small businesses to complement these, both on and off the site.

Future riverwalk visitors could include:

- Oregon City and West Linn residents, friends and family who visit frequently
- Portland metro area residents who visit often
- National and international travelers who visit occasionally
- School and educational field trips
- Families
- A range of age, race and socio-economic status
- Primarily English speakers. Non-English speakers may increase as visitation grows
- Physically challenged individuals or groups
- Economically disadvantaged individuals or groups



## Development Opportunities in Surrounding Areas

The Framework Master Plan adopted in 2014 plans for extension of the downtown street grid into the site, reconnecting the Falls to historic Main Street in Oregon City. Downtown Oregon City has seen tremendous growth in small businesses in recent years, boasting dozens of new restaurants and shops that are popular with locals and those who work in downtown. The City has seen success in attracting traded-sector jobs downtown as well. A small but growing cluster of creative firms in the filmmaking, media production and gaming fields call downtown Oregon City home. Jobs at these businesses tend to pay above average wages and bring in new dollars to the local economy. In order to attract more housing into the downtown area, the City also adopted a vertical housing tax credit. Developers are beginning to recognize the opportunity and have proposed several new projects in the area that include housing on upper stories. The riverwalk will be a world-class amenity for future residents living downtown, and for new businesses and workers.

Potential redevelopment opportunity sites surrounding the riverwalk include city-owned properties downtown, undeveloped downtown sites between the mill site and 15th Street, areas on the bluff above the site zoned for mixed use, the Clackamas Cove area which is currently being developed with housing, the former landfill site just north of downtown and the portion of West Linn just across Abernathy bridge. The riverwalk is expected to boost opportunities for these sites, making them more attractive to the private development community.



Undeveloped lot in downtown Oregon City on 12th and Main Street



# FIGURES

**Figure 1: Falls Viewing Access**

**Figure 2: Walkways, Pathways and Biking Trails**

**Figure 3: Collective Gathering and Event Spaces**

**Figure 4: Habitat Restoration and Natural History Interpretation**

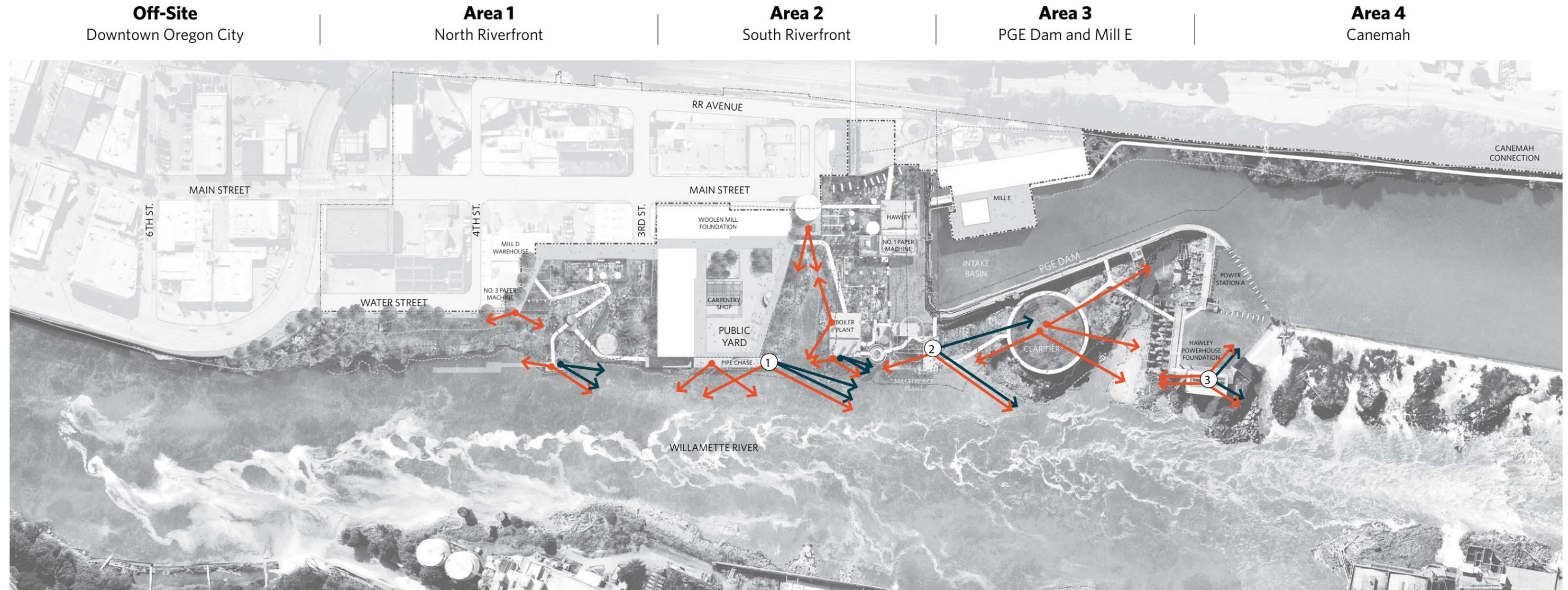
**Figure 5: River Access and Activities**

**Figure 6: Economic Redevelopment**

**Figure 7: Phase 1 Diagram**



**Figure 1: Falls Viewing Access**



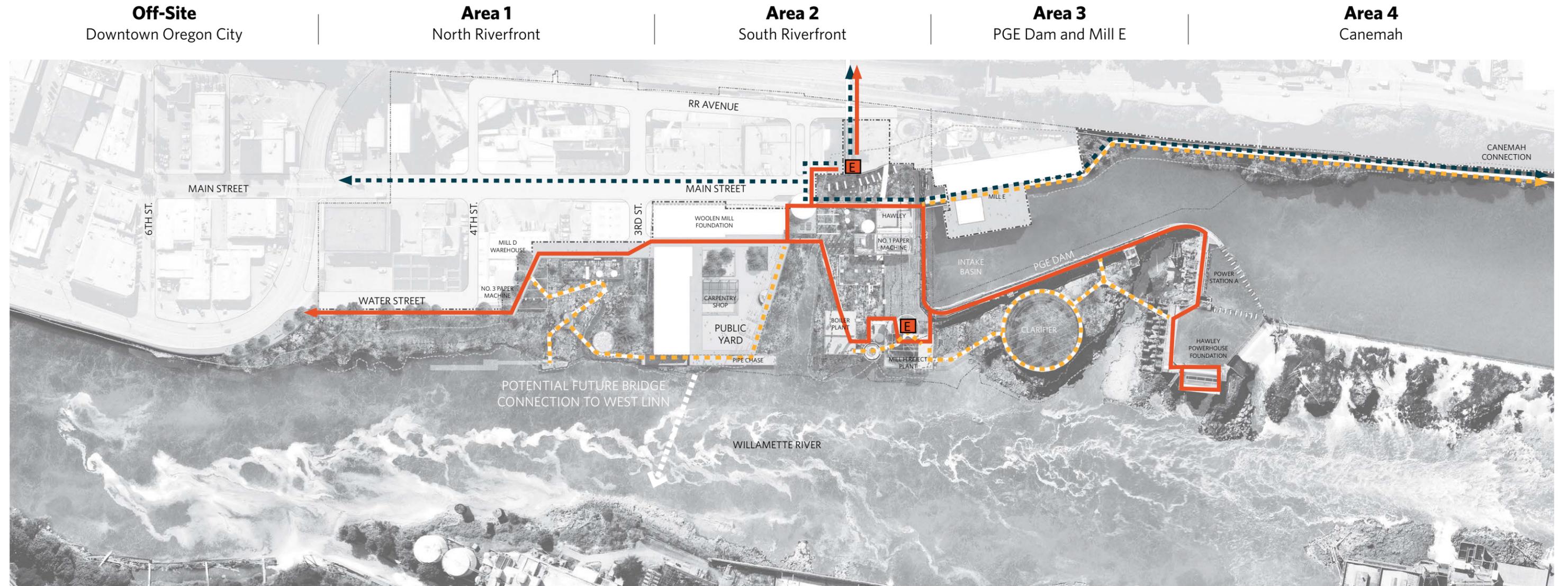
- Legend**
- Falls Viewpoints
  - River Viewpoints
  - ⓧ Prominent Falls Viewpoints

- ① Pipe Chase Viewpoint
- ② Mill H Viewpoint (Phase I Viewpoint)
- ③ Hawley Powerhouse Viewpoint

**Assumptions** - Redevelopment areas not shown on key use diagrams. Refer to illustrated site plans for potential redevelopment parcels, and supporting information.



**Figure 2: Paths, Walkways and Biking Trails**



- Legend**
- Riverwalk Primary Path
  - - - Riverwalk Secondary Paths
  - - - Cycling Route
  - E Public Elevators

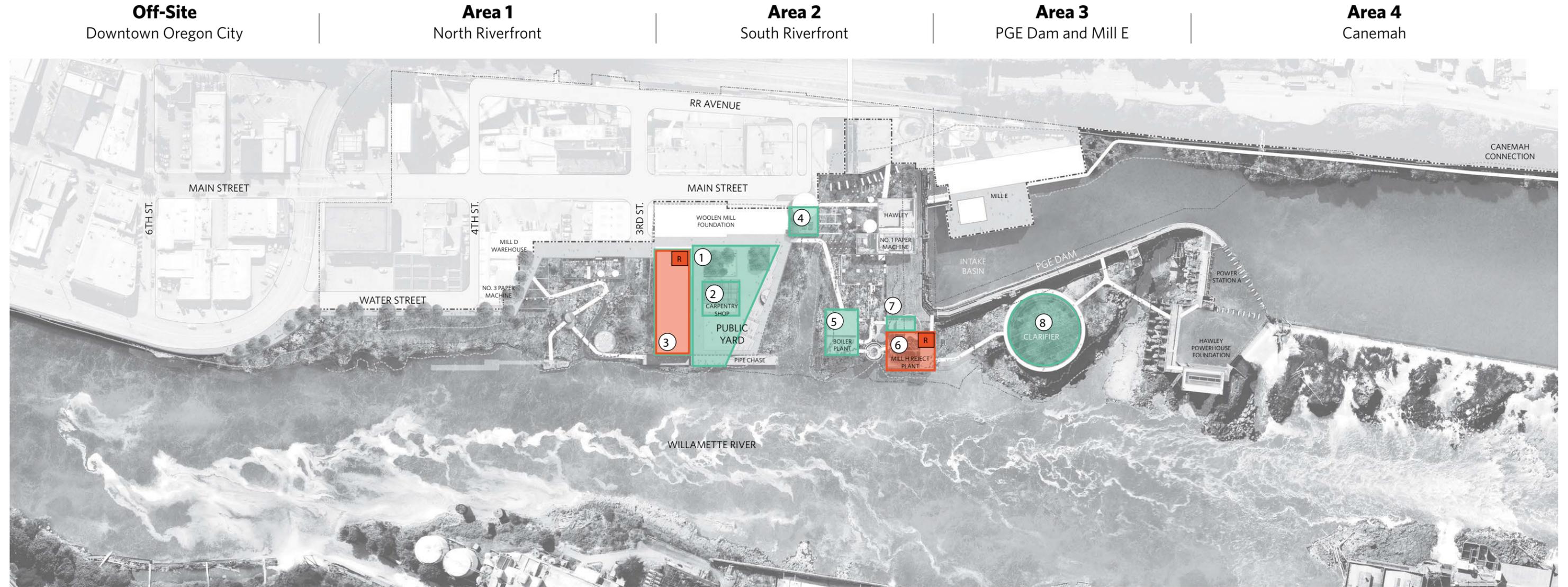
**Assumptions**

- Hawley Powerhouse and PGE Dam listed as eligible for the National Register, work done associated with them must consider recommendations and guidelines from State Historic Preservation Office (SHPO). (PGE)
- Main Path routes to be classified as an Oregon City 'Regional Trail' and meet associated requirements (Metro). This means:
  - Users include bicyclists, pedestrians, wheelchairs, baby strollers, equestrians, and skaters. Additional clarification regarding bicyclists, skaters, and equestrians will occur in future phases.

- Width = 10-12' minimum
- Surface is to paved or other smooth rolling surface.
- Primary and Secondary path slope less than 4.5%, or no greater than 8.3% with ramps and landings.
- 10' vertical clear sight line zone
- Redevelopment areas not shown on key use diagrams. Refer to illustrated site plans for potential redevelopment parcels, and supporting information.



**Figure 3: Collective Gathering and Event Spaces**



<b>Legend</b>	<span style="background-color: #4CAF50; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Flexible Use and Events	① Public Yard - 30,300 SF	④ Main Street Overlook - 3,400 SF	⑦ Mill H Play Tower - 6,400 SF (4 Levels)
	<span style="background-color: #FF9800; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Riverwalk Support - Storage, Office	② Carpentry Shop - 5,300 SF	⑤ Boiler Plant - 18,900 SF (3 Levels)	⑧ Clarifier Meadow -17,000 SF
	<span style="background-color: #FF9800; border: 1px solid black; display: inline-block; width: 10px; height: 10px; text-align: center; vertical-align: middle;">R</span> Restrooms	③ Mill O - 16,500 SF	⑥ Mill H Overlook - 10,400 SF	

**Assumptions**

- Identified flexible use, riverwalk support elements, and events structures and surfaces listed here to be quantified as part of 90% submission.
- Mill O to provide support services to Riverwalk, including restrooms, flexible use spaces, exhibit and/or classroom space, storage, maintenance space, and kitchen. Additional services and amenities to be coordinated with redevelopment.
- Mill H to provide support services including restrooms, storage, maintenance space, and potential vending.
- Redevelopment areas not shown on key use diagrams. Refer to illustrated site plans for potential redevelopment parcels, and supporting information.



**Figure 4: Habitat Restoration and Natural History Interpretation**



**Assumptions**

- Off-Channel Alcove, Riparian Basalt, and Riparian Forest are priority conservation targets for habitat restoration on the site.
- Baseline habitat conditions and restoration concept designs provided by Stillwater Sciences.
- Further resolution of habitat restoration strategies to be coordinated with Metro.

**Legend**

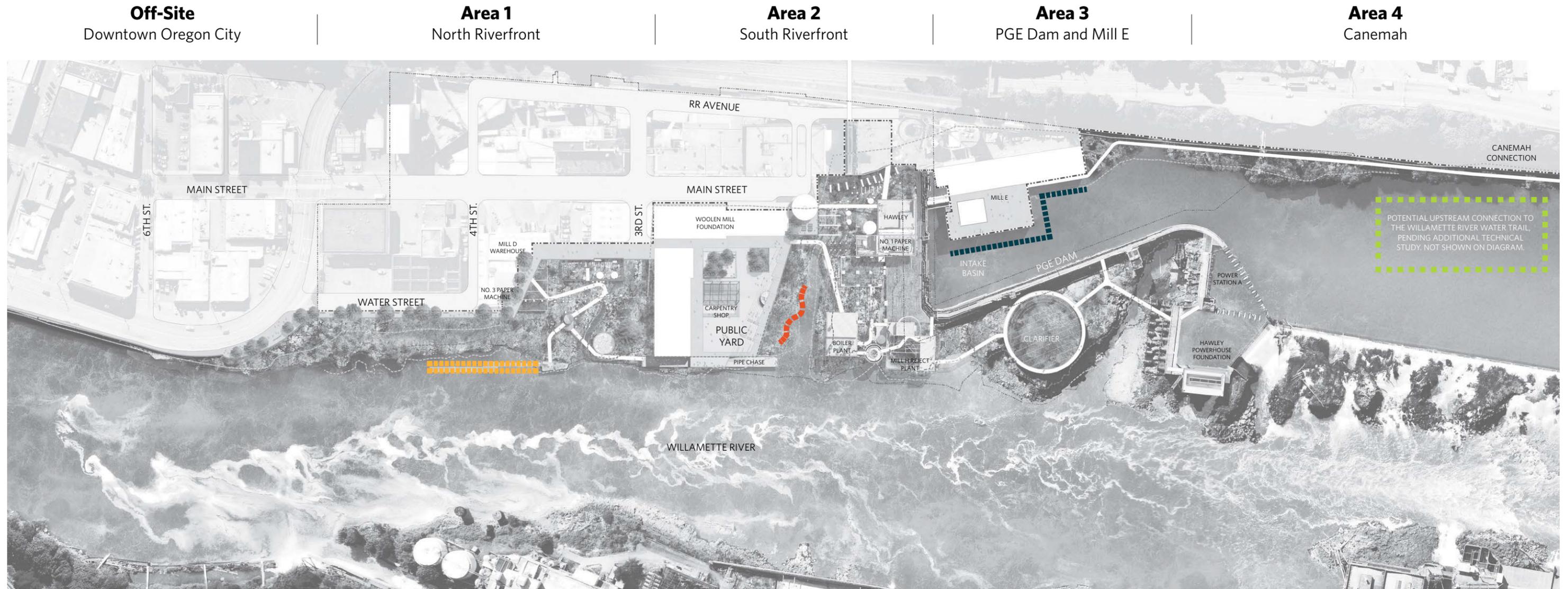
Oak Woodland & Savanna (OW)	Edge of Basalt Outcropping	1996 Flood Line
Riparian Forest (RF)	Presumed Edge of Basalt Outcropping	Typical Winter High Water
Riparian Basalt (B)	Large Woody Debris	Summer Low Water (2015)
Off-Channel Alcove (A)		
In-Channel River		

0' 60' 120' 240'





**Figure 5: River Access and Activities**



**Legend**

- Shoreline under consideration for light watercraft tie-up and 'toes in water' access.
- Area under consideration for shared, transient dock (Motorized and light watercraft). Reliant upon many factors, such as potential user conflicts, safety concerns, river hydrology and flooding and permitting.

- Shoreline area to be considered for potential commercial boat access as part of redevelopment of Mill E structure. Reliant upon many factors such as PGE safety and operations requirements.

- Potential connection to the Willamette River Water Trail, pending additional technical study. Not shown on diagram.

**Assumptions**

- Portage trail through site and portage connection point above falls contingent upon resolution of alcove and north riverfront river access.
- Potential river access locations to consider PGE safety and operations requirements, applicable permitting requirements, and hydraulic modeling.
- Redevelopment areas not shown on key use diagrams. Refer to illustrated site plans for potential redevelopment parcels, and supporting information.



**Figure 6: Economic Redevelopment**



**Legend**

- Riverwalk Primary Path
- (X) Development Block Numbers per Framework Masterplan

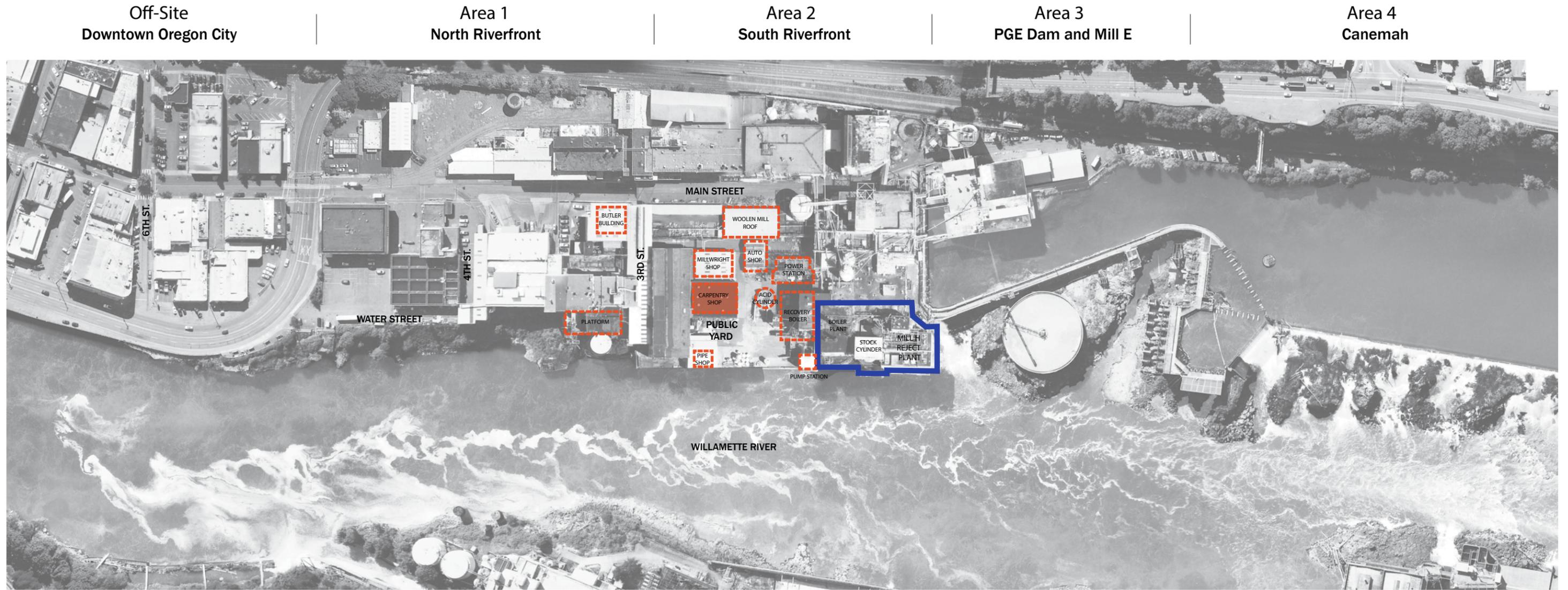
- Public Space
- Development Parcel
- Hybrid Development and Public Access
- Riverwalk and Riverview frontage

**Assumptions**

- Redevelopment areas to be further refined as part of future phases. Refer to illustrated site plans for additional potential redevelopment parcels and supporting information.



**Figure 7: Phase 1 Diagram**



**Legend**

-  Phase 1 Boundary (buildings or structures for re-use)
-  Phase 1 Additional Demolition Boundaries
-  Phase 1 Partial Deconstruction



# **APPENDICES**

**Appendix A: Baseline Habitat Conditions Report**

**Appendix B: Habitat Restoration Concept Design Report**

**Appendix C: Hydraulic Model Development Characterization of Existing Conditions Report**

**Appendix D: Geotechnical Drilling Report**

**Appendix E: Cultural Landscape Report**

**Appendix F: Interpretive Framework Plan**

**Appendix G: Transportation Demand Management Plan**

**Appendix H: Cost Estimate Report**



**Appendix A:**  
**Baseline Habitat Conditions Report**



**Appendix B:**  
**Habitat Restoration Concept Design Report**



**Appendix C:**

**Hydraulic Model Development Characterization of Existing Conditions Report**



**Appendix D:**  
**Geotechnical Drilling Report**



**Appendix E:**  
**Cultural Landscape Report**



**Appendix F:**  
**Interpretive Framework Plan**



**Appendix G:**  
**Transportation Demand Management Plan**



**Appendix H:  
Cost Estimate**