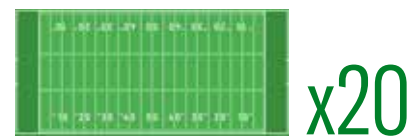


A SUSTAINABLE WATERFRONT PARK



IMAGE BY JAMES CORNER FIELD OPERATIONS COURTESY OF THE CITY OF SEATTLE

Waterfront Park is the heart of Seattle's most transformative public space project since the creation of Seattle Center to host the 1962 World's Fair. Crucial to Seattle's post-pandemic recovery, Waterfront Park will reshape the industrial central waterfront into an urban oasis, creating 20 acres of lush public green space stretching from the stadiums to Belltown. Grounded in sustainability, racial equity, and connectivity, the park will offer a robust array of free year-round programs and cultural events, connecting residents and visitors alike to the water, to nature, and to each other.



HOW BIG IS 20 ACRES?

One acre can be hard to envision. So just how big is 20 acres? For comparison, 20 acres is about 20 football fields (or 50 hockey rinks) laid end to end.

THE VISION FOR A GREENER WATERFRONT



Mussels

In 2005, the nonprofit Forterra launched the Cascade Agenda, a 100-year vision for conservation and economic growth in the Pacific Northwest. The Cascade Agenda focuses on building livable urban communities. Says Forterra President & CEO Michelle Connor, “Forterra envisions a region where people and nature thrive in coexistence. Our future depends on interweaving development, and natural and recreational lands across our landscape and through every neighborhood. Waterfront Park restores natural and human benefits to the very heart of Seattle.”

Seattle’s shoreline was once an area of mudflats, gently sloping beaches, and shallow intertidal waters that were home to diverse species of marine plants, invertebrates, and fish. The Coast Salish people, inhabitants of this land for more than 13,000 years, occupied villages along the water. They relied on salmon and other fish, shellfish, and aquatic and terrestrial plants for both sustenance and ceremonial purposes. Today, the Coast Salish continue to fish and hold traditional gatherings along the city’s waterfront.

European settlers first arrived here in 1792. Maritime activity drove the city’s growth during the next 100 years as settlers flocked to the area. Constructed between 1916 and 1936, the Elliott Bay Seawall created a deep-water port and a corridor for railroads. The Seattle waterfront we recognize today began to take shape.

Construction of the Alaskan Way Viaduct in the 1950s transformed the waterfront once again, effectively separating downtown from the shoreline. Designed to accommodate growing vehicular traffic along Highway 99, this 2.2-mile, double-decker freeway created a significant visual and physical barrier between the city and the water. Closed due to seismic concerns in 2019, the viaduct was removed and replaced with a deep-bore tunnel.¹

WHAT IS GREEN STORMWATER INFRASTRUCTURE?

Rain and melting snow run off surfaces that cannot readily absorb water, such as streets, rooftops, and parking lots. This stormwater flows across the hard surfaces, picking up pollutants such as oil, grease, and metals along the way. Eventually, these pollutants travel through the city's storm drain system and into Puget Sound. Recent scientific studies have determined that polluted stormwater runoff has a significant impact on local water quality.² Green stormwater infrastructure (GSI) uses plants and permeable surfaces to mimic nature and capture rainwater where it falls.

With removal of the viaduct, civic leaders recognized an unprecedented opportunity to achieve lasting impact on our city's livability and sustainability — now and for the benefit of future generations.

The plan for Waterfront Park began with a thorough community visioning process. Through more than 400 public meetings, visioning sessions, and environmental reviews, the plan took shape. Waterfront Park will extend from the Belltown neighborhood to Pioneer Square, connecting Elliott Bay to the downtown core, Pike Place Market, Seattle Aquarium, the stadiums, and surrounding historic neighborhoods. Where concrete and cars once stood between the city and the water, a 20-acre green space will reunite Seattle with its shoreline.

Waterfront Park will serve as an asset to our entire region. The reimagined waterfront will bring communities together and spur economic revitalization in the wake of the COVID-19 pandemic. The park will also play a critical role in Seattle's future as a **livable, sustainable city**, replacing concrete and asphalt with much-needed green space in the downtown core. It will help Seattle **adapt to a warmer climate** by reducing the urban "heat island" effect and help us work toward our **climate change mitigation** goals by encouraging use of alternative transportation. Perhaps most notably, Waterfront Park will filter and reduce stormwater runoff, **improving nearshore habitats**. In fact, Waterfront Park represents the largest green stormwater infrastructure (GSI) project on public land in our region. It will build on the city's \$410 million investment in the restoration of the Elliott Bay Seawall, treating 6.6 million gallons of stormwater each year.³

ENSURING A LIVABLE, SUSTAINABLE CITY



Red Alder

GREEN GENTRIFICATION

Creation of new parks and green space adds jobs and stimulates the economy. These benefits are often not distributed equally, however. Rising property values can contribute to inequities that hurt low-income and BIPOC communities.

Waterfront Park is projected to generate \$317 million in ongoing economic impact and 2,210 permanent FTE jobs. In partnership with the nonprofits Ventures, Business Impact Northwest, and Urban Impact, Friends is working to develop opportunities for under-represented communities and locally-owned small businesses.

Seattle is one of our nation's fastest-growing cities, seeing a net gain of more than 16,000 residents between July 2019 and July 2020.⁴ The 12 neighborhoods that make up the downtown core are among the densest in the Pacific Northwest — and their populations are still growing. Even with the pandemic, downtown saw a 37% increase in its residential population during the past 10 years.⁵

More than one in 10 Seattleites calls a downtown neighborhood home — and these residents represent diverse racial backgrounds and income levels. Of the people living near the south end of Waterfront Park, more than 55% identify as Black, Indigenous, or people of color (BIPOC).⁶ Of those living within a half mile of the park, 42% earn less than \$35,000 per year.⁷

Numerous studies have shown that green space is essential to equitable, livable cities. Time spent in nature is associated with improved cognitive function, emotional well being, and mental health. Experiences in nature foster positive social interaction, a sense of meaning, improved creativity, and decreased mental distress.⁸ As more people move to Seattle, maintaining and improving access to nature will be vital to the quality of life of our city's residents.

Research also shows that urban green spaces provide increased opportunities for physical activity, which in turn reduces the risk of more than 20 chronic health conditions ranging from diabetes, hypertension, and cardiovascular disease to many types of cancer.⁹



IMAGE BY JAMES CORNER FIELD OPERATIONS COURTESY OF THE CITY OF SEATTLE

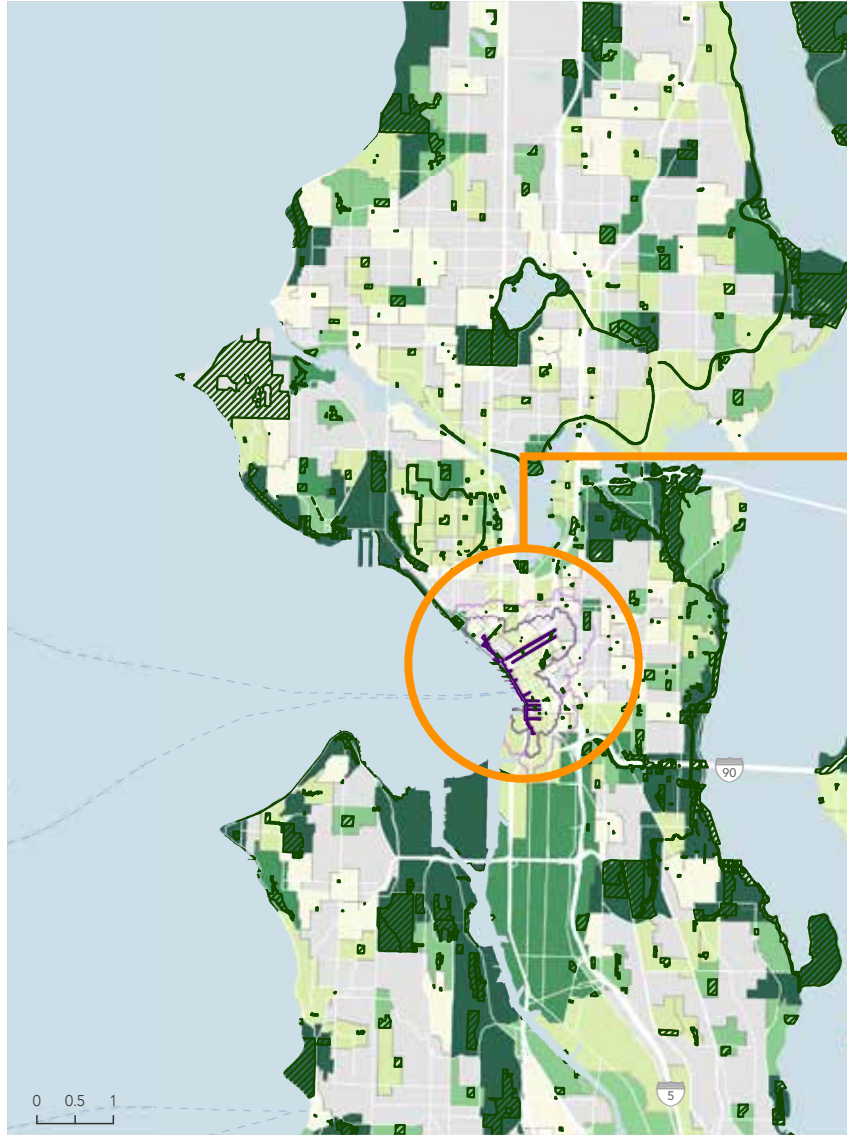
Visitors to Waterfront Park will encounter lush vegetation.

Yet while natural beauty surrounds and permeates Seattle, the downtown area currently has no major park space, and overall park space per downtown resident is very low.¹⁰ Waterfront Park will replace space formerly occupied by the Alaskan Way Viaduct with much-needed nature-based park experiences in the most densely populated area of Seattle. The design of the park draws from the concept of biophilia — the fundamental human need to connect with nature — by adding more than 800 trees as well as shrubs and greenery, offering space for recreation and reflection.



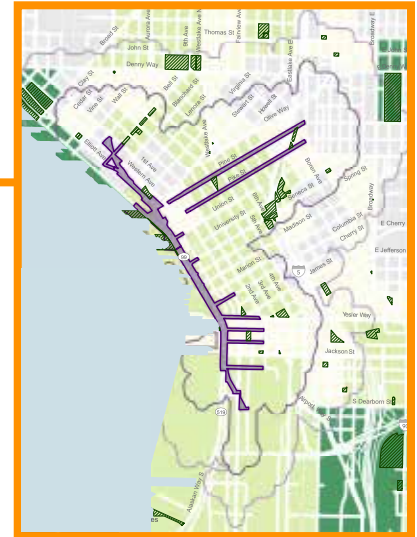
Douglas Fir

PARK SPACE PER SEATTLE RESIDENT BY CENSUS BLOCK.



- Parks (Park area by square feet per resident by block group)
- 0-50
- 51-250
- 251-500
- 501-1,000
- 1,000-1,500
- Waterfront Seattle
- Quarter-mile walk from project limit
- Half-mile walk from project limit

PARKS AND PARK AREA PER RESIDENT IN THE SEATTLE WATERFRONT AREA.



- Parks (Park area by square feet per resident by block group)
- 25
- 50
- 100
- 250
- 500
- Waterfront Seattle
- Quarter-mile walk from project limit
- Half-mile walk from project limit

SOURCE: ECONORTHWEST, WITH DATA FROM KING COUNTY



Waterfront Park's trees and greenery will help buffer noise from nearby vehicle traffic. The sculpture is *Family* by Quallsius-Shaun Peterson.



At a transformed Habitat Beach at the south end of the park, people will be able to touch the Salish Sea at Seattle's central waterfront for the first time in decades.

BOTH IMAGES BY JAMES CORNER FIELD OPERATIONS COURTESY OF THE CITY OF SEATTLE

MITIGATING CLIMATE CHANGE AND ITS IMPACTS

BENEFITS OF URBAN FORESTS

- Year-round canopy for habitat
- Reduced stormwater runoff
- Greater biomass
- Carbon sequestration and pollution absorption
- Energy conservation
- Reduced carbon dioxide emissions and ozone
- Carbon capture and oxygen production
- Improved air quality
- Reduced stormwater runoff
- Enhanced biodiversity
- Restoration of urban riparian corridors and their linkages to surrounding natural areas
- Facilitation of wildlife movement and dispersal of flora

Cities have a critical role to play in addressing climate change. Urban areas consume two-thirds of the world's energy and create more than 70% of global CO₂ emissions. But when efficient infrastructure is in place, concentrating populations in cities can result in better quality of life while lowering a community's overall carbon footprint.¹¹ Waterfront Park will contribute to Seattle's efforts to mitigate climate change and its impacts, while improving urban livability, most notably by adding to our city's urban forest and encouraging people-first transportation.

ADDING TO SEATTLE'S URBAN FOREST

Research has shown that trees provide measurable social, health, visual, and aesthetic benefits. Urban trees also contribute to carbon sequestration, air quality improvement, stormwater filtration, and energy conservation.¹²

Trees can also help make cities more livable. For example, dense concentrations of buildings, pavement, and other surfaces absorb and retain heat, creating urban heat islands. These heat islands contribute to smog formation, lead to greater use of air conditioning, and exacerbate health conditions that disproportionately affect vulnerable populations. Tree canopies help reduce the heat island effect, helping to mitigate the impacts of climate change on the city's population.¹³

Waterfront Park will create 4.2 acres of plantings in an area currently dominated by concrete.¹⁴ Hundreds of new trees along Seattle's shoreline will provide shade and retain moisture. Native plantings such as textural grasses, resilient ferns, and perennial plants will dot the waterfront, bringing greenery and nature to every nook and cranny of the park and providing habitat for insects and birds.



2014 SEATTLE DESIGN COMMISSION

WATERFRONT CANOPY INCREASED 6X
413 NEW STREET TREES
431 NEW OPEN SPACE TREES

Waterfront Park will increase the waterfront's tree canopy sixfold, from 183 trees to 844 trees.



2014 SEATTLE DESIGN COMMISSION

Waterfront Park will feature diverse species of trees, shrubs, and grasses from five upland habitat plant communities.



Greenery along the waterfront will provide habitat for native wildlife. Trees will create songbird cover in the spring, berries will provide a source of food, and flowers will attract pollinators, including butterflies and hummingbirds.



Waterfront Park's built environment will make use of reclaimed and natural materials and mirror the natural world. Wood on the promenade railings and along the Salish Steps will showcase our natural environment and celebrate connections to the waterfront.

2014 SEATTLE DESIGN COMMISSION



IMAGE BY JAMES CORNER FIELD OPERATIONS COURTESY OF THE CITY OF SEATTLE

- Waterfront Seattle
- Partner Projects

Overlook Walk will connect Pike Place Market's expansion, MarketFront, and the Seattle Aquarium to the pedestrian promenade on the waterfront.

ENCOURAGING ENVIRONMENTALLY FRIENDLY TRANSPORTATION

The city government measures Seattle's greenhouse gas emissions to better understand the scope and scale of our local climate footprint. According to this research, transportation accounts for Seattle's single largest source of climate emissions.

The redesign of Seattle's waterfront offers a new opportunity to encourage people-powered transit. While transportation infrastructure along the waterfront previously favored cars, the new central waterfront will support foot traffic and biking in addition to car, freight, ferry, and bus transportation.



IMAGE BY JAMES CORNER FIELD OPERATIONS COURTESY OF THE CITY OF SEATTLE

Priority lanes along the redesigned Alaskan Way will expedite transit. A new dedicated bike path will offer cyclists of all ages and abilities a safe, scenic path through the park that connects to the city's broader network of cycling routes.

Construction of Waterfront Park will involve rebuilding Alaskan Way from South King Street to Pike Street and creating a new surface street, Elliott Way, from Pike to Bell Street. Elliott Way will span 17 blocks from Belltown to Pioneer Square, with two lanes of traffic in either direction for most of its length. To improve accessibility for pedestrians, the design for the park includes new stairways, elevators, and pedestrian bridges.

The park promenade will run the length of the new waterfront, from the steps at Overlook Walk on the north end to a rebuilt Railroad Way on the south end. A new two-way bike path will have raised buffers on both sides to separate cyclists from pedestrians and drivers and will include accessible traffic signals at pedestrian crossings.

This multimodal transit system will make people-powered transportation along the waterfront safer and more pleasant and will encourage people to use alternatives to cars to get to the park.

PEOPLE-FIRST APPROACH TO TRANSPORTATION

PEDESTRIAN ORIENTED ACCESS

Along the promenade, pedestrian crossings will enhance the foot travel experience and improve safety. A new pedestrian bridge will connect the remodeled ferry terminal with an improved transit hub on First Avenue.



2014 SEATTLE DESIGN COMMISSION

**WIDENED PEDESTRIAN PATH ALONG
THE WATERFRONT FROM 15' TO 35' MIN.**

**RAISED PEDESTRIAN CROSSINGS AT ALL
KEY STREET INTERSECTIONS**

**NEW, ACCESSIBLE VERTICAL
CIRCULATION TO OVERCOME THE STEEP
TOPOGRAPHY FROM FIRST AVENUE TO
THE WATERFRONT**



Accessibility features on the new waterfront include new elevators, redesigned intersections, wayfinding elements and more. The new waterfront is designed to help ensure a safe and accessible experience for people of all ages and abilities. We've incorporated unique accessibility features into many parts of the waterfront design, including:

- Intersections that prioritize pedestrians, offer sound and tactile cues at crosswalks, and include ADA-compliant curb ramps
- Three new elevators linking the waterfront to Western Avenue and to the Pike Place Market
- A detectable wayfinding element embedded in the pavement of the park promenade, to allow pedestrians using canes to navigate the space easily
- Designated, on-street ADA parking stalls along the new Alaskan Way, and a major new accessible loading zone at the Colman Dock transit hub

IMPROVING THE NEARSHORE HABITAT



WHY SALMON?

Salmon have long been integral to the lives of people who call the Pacific Northwest home, playing a critical role in the religion, culture, and livelihoods of Indigenous communities. Salmon are a keystone species that is critical to the health of at least 137 other species, from orcas to bears. When salmon return inland to spawn and die, they bring ocean nutrients inland, sometimes for hundreds of miles, depositing nitrogen and phosphorus that forests need. Salmon are also critical to our state's economy, supporting 16,000 jobs and a fishing industry worth \$1.1 billion annually.

When Seattle's existing waterfront was developed, Elliott Bay lost many of its natural features, including sloping beaches, crevices, and vegetated hiding places for fish and invertebrates. The Elliott Bay Seawall, which created a deep-water port and a corridor for railroads, also destroyed vital habitat for salmon, trout, rockfish, and other native species, contributing to their decline.

Over the decades, habitat loss all along the shoreline has led to significant consequences for key species and the Puget Sound ecosystem that depends on them. For example, Chinook salmon, an essential food source for endangered southern resident orcas, have declined to as little as 10% of their historic numbers.¹⁵

Today we have a unique opportunity to boost the health of nearshore ecosystems. The 2001 Nisqually earthquake revealed significant deterioration in the seawall's infrastructure, and it became clear that the structure needed to be replaced. Together with NOAA Fisheries, the U.S. Fish and Wildlife Service, tribes, and the University of Washington School of Aquatic and Fishery Sciences, the City of Seattle redesigned the seawall to meet seismic standards and improve the Elliott Bay ecosystem. Completed in 2017, the new seawall incorporates features designed to promote the growth of a healthy marine landscape, including algae and rockweed, nooks for shellfish and sea stars, and shallower water where salmon can rest. Glass bricks installed in the cantilevered section of the new pedestrian promenade provide light for juvenile salmon on their migration route. In addition, a habitat bench provides a gravelly

surface that serves as feeding habitat for invertebrates, plant life, and fish. Textured walls promote growth of vegetation and support organisms, much as natural rocky shorelines do.



Rockfish

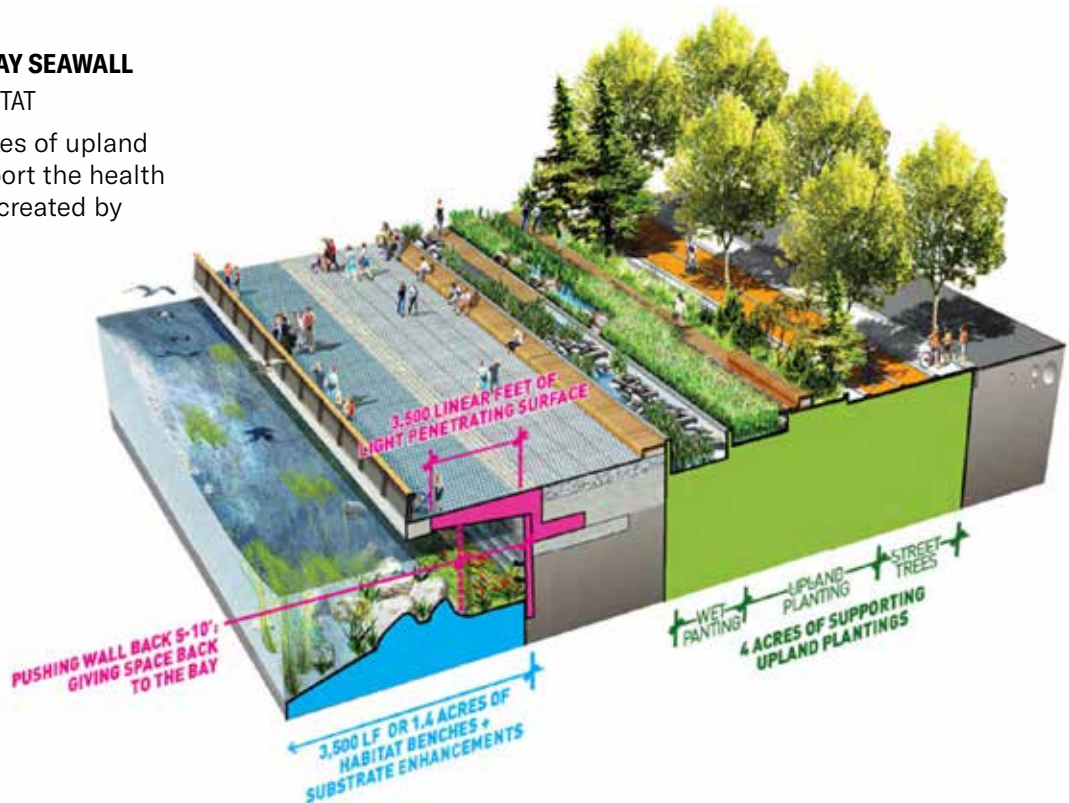
Preliminary research indicates that the newly designed seawall is a success. Since the project was completed, researchers have seen an increase in salmon food sources under the piers and greater numbers of juvenile salmon migrating through the corridor.

While this restored habitat is a step in the right direction, polluted stormwater continues to harm Puget Sound's native species. In dense urban environments such as Seattle, soil and vegetation have been paved over. This forces water to travel a long way, picking up pollutants and particles before flowing into Puget Sound. Pollutants not only affect habitats, but they also travel up the food chain and have implications for human health.

THE NEW ELLIOTT BAY SEAWALL

A NEW AQUATIC HABITAT

More than four acres of upland plantings will support the health of aquatic habitat created by the new seawall.



2014 SEATTLE DESIGN COMMISSION

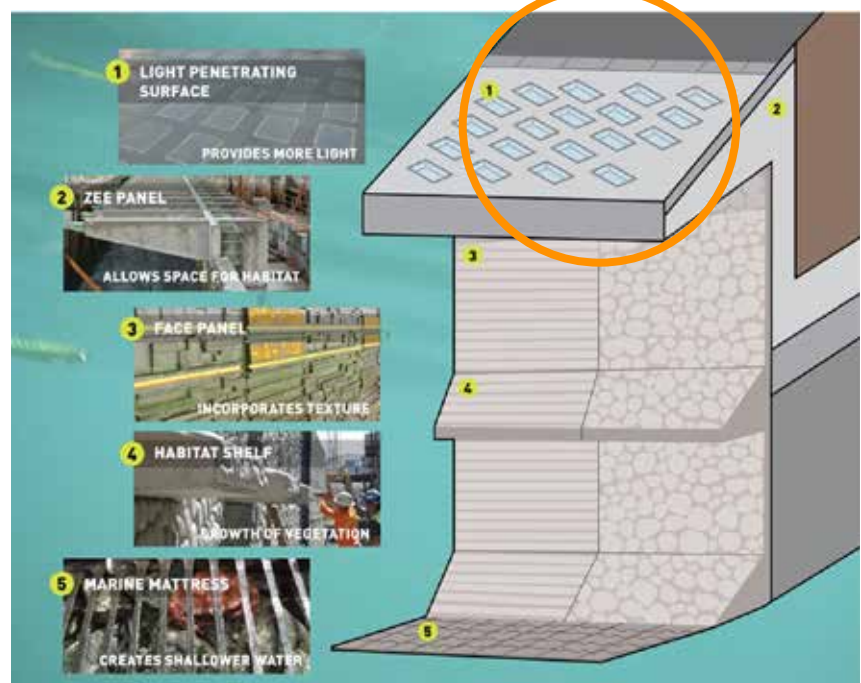
Waterfront Park builds on the benefits of the \$410 million investment in seawall restoration to create new stormwater filtration infrastructure. The project design features multiple methods for catching water, filtering pollutants, and replenishing the groundwater. This will reduce the amount of water needed to irrigate plantings, lessen the risk of floods from heavy rain, and prevent polluted runoff from entering Puget Sound. It will be the largest-scale implementation of Green Stormwater Infrastructure on public land in the Pacific Northwest.

The old sidewalk has been replaced with light-penetrating surfaces that allow sunlight to reach the water and sealife.



NEED CREDIT INFO

The new Elliott Bay Seawall includes habitat shelves and light-penetrating surfaces on walkways to help salmon migrate safely. Preliminary studies show increased salmon populations, use of nooks by shellfish and sea stars, and a healthier marine landscape.



NEED CREDIT INFO

GREEN STORMWATER MANAGEMENT ON THE WATERFRONT

All told, the project's GSI will filter 6.6 million gallons of stormwater each year.



GREEN STORMWATER
MANAGEMENT PRESENTATION -
CITY OF SEATTLE

■ POLLUTION GENERATING SURFACES

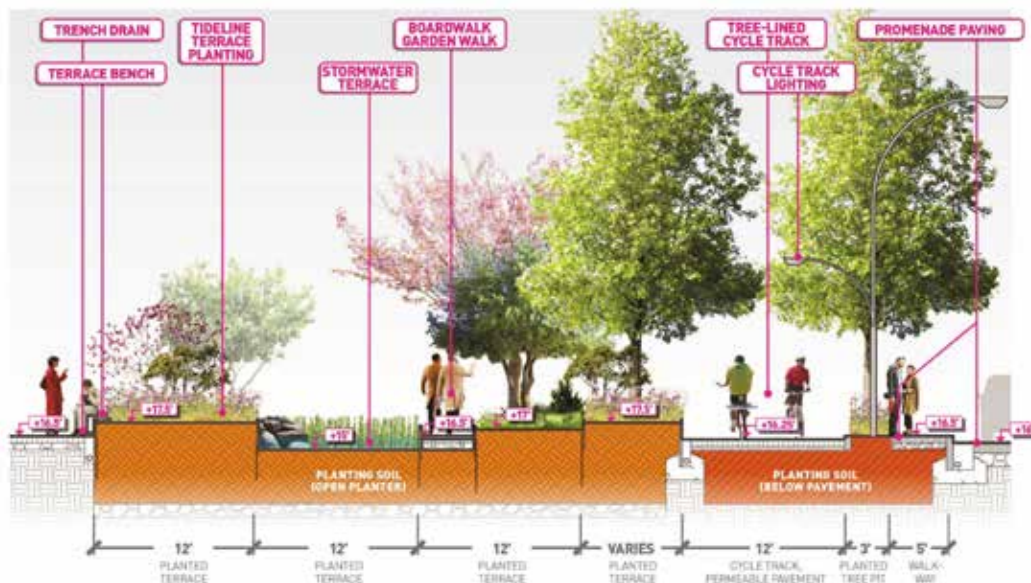
10.63 ACRES

5,000,000 OF 7,500,000 GAL.
TREATED THROUGH BIOFILTRATION

■ PLANTED AREAS

4.2 ACRES

1,000,000 GAL.
ABSORBED INTO ROOT-ZONE



GREEN STORMWATER MANAGEMENT PRESENTATION - CITY OF SEATTLE

WATERFRONT

WEST SIDE BIORETENTION CELLS

Green stormwater infrastructure will include biofiltration swales, bioretention cells, and subsurface wetlands that filter and retain stormwater runoff.

A GREEN FUTURE FOR THE WATERFRONT

As Seattle emerges from the pandemic, Waterfront Park will serve as a beacon of hope for the city and the region. It will improve Seattle's livability, mitigate the impacts of climate change, and foster resilient nearshore habitats. In so doing, it will be true to our city's commitment to sustainability and stewardship of the natural beauty of the Pacific Northwest.

Now is the time to reflect on the values that make Seattle strong and seize this once-in-a-generation opportunity to align community vision and investment. Together we can create a more welcoming, healthy, and inclusive city.



Great Blue Heron



IMAGE BY JAMES CORNER FIELD OPERATIONS COURTESY OF THE CITY OF SEATTLE

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