

1. Seattle Central Waterfront Park

“More than any one element or technology, the sustainable ‘heart’ of this project is the transformation of 15-acres (23 city blocks) of once asphalt and concrete surfaces into a public urban waterfront for all, with salmon migration corridors and new aquatic habitat, new social spaces and transportation connections, substantial green planting and restored ecological systems, and state-of-the-art storm-water management.”

(Seattle Design Commission 2014)

Key features: Fish friendly design, native plantings and filtered stormwater in linear pathway

Location: Seattle, WA

Lead entity: Office of the Waterfront, City of Seattle

Status: Various construction deadlines from 2016-2018

Cost: \$1.07 billion (all phases), \$331 million (Elliott Bay Seawall)

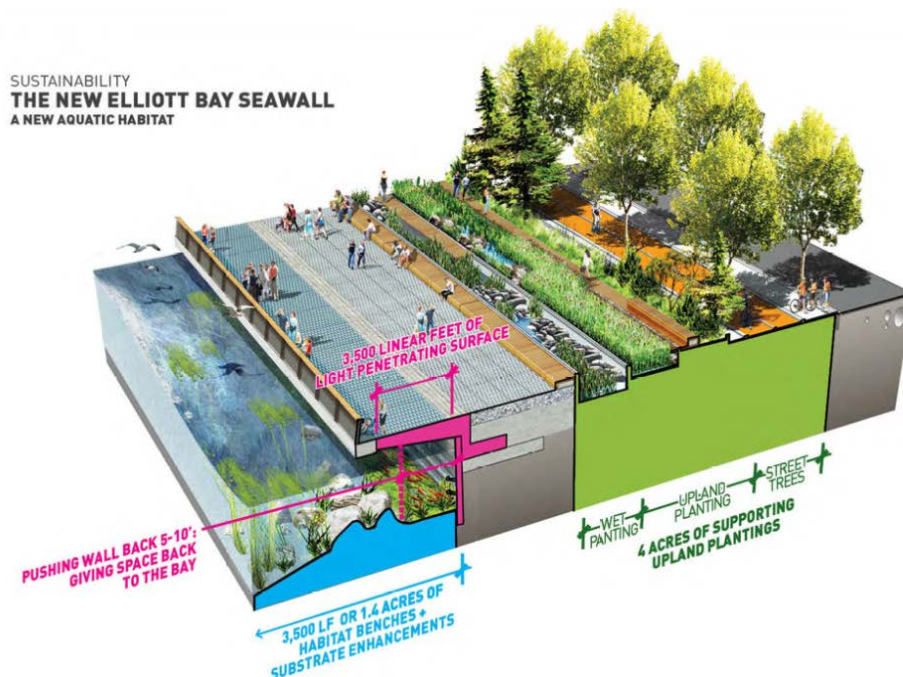


Figure 1, Overview of Elliot bay seawall and boardwalk.

1.1 ELLIOT BAY SEAWALL HABITAT ENHANCEMENT

Re-design of the Elliot Bay Seawall aims to enhance 3,500 feet of shallow aquatic habitat for juvenile Chinook salmon. Habitat benches will be created from gravel fill and riprap material extending out from the seawall to provide foraging habitat for juvenile Chinook salmon and other species, as well as an enhanced migration corridor between the Puget Sound and Duwamish Waterway. Near the Seattle Aquarium, an 8 ft promenade equipped with light penetrating surface will increase available shallow water habitat while still allowing pedestrian access. (Seattle Design Commission 2014)

SUSTAINABILITY
THE NEW ELLIOTT BAY SEAWALL
 HABITAT BENCH AT PIONEER SQUARE

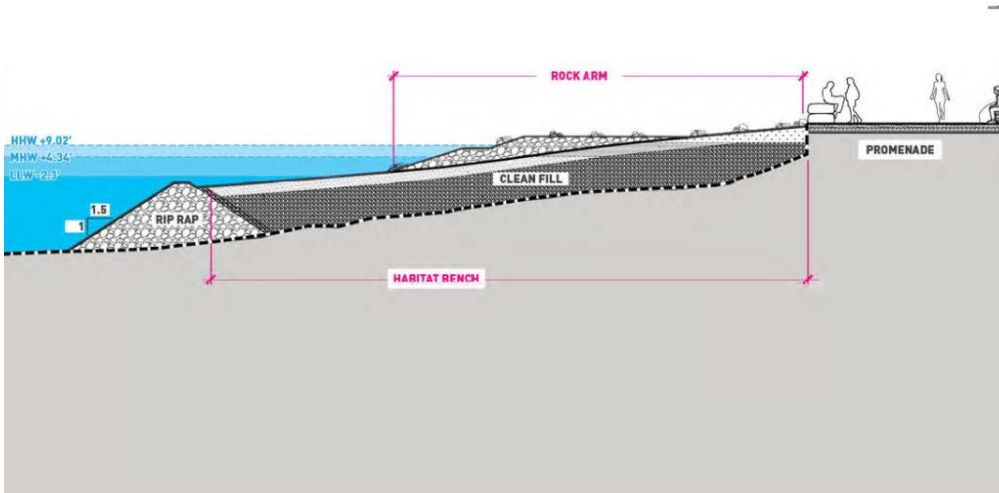


Figure 2, Section view of Elliot Bay seawall habitat benches at Pioneer Square.

1.2 INCREASED TREE CANOPY

Vegetation will be increased by 4 acres along the waterfront to increase habitat for avian species, provide carbon sequestration and pollution absorption, and reduced stormwater runoff. Canopy cover will be increased six times by planting 431 open space trees and 413 street trees. Native vegetation will be planted in rain gardens to capture pollutants before they are discharged into Puget Sound. (Seattle Design Commission 2014)

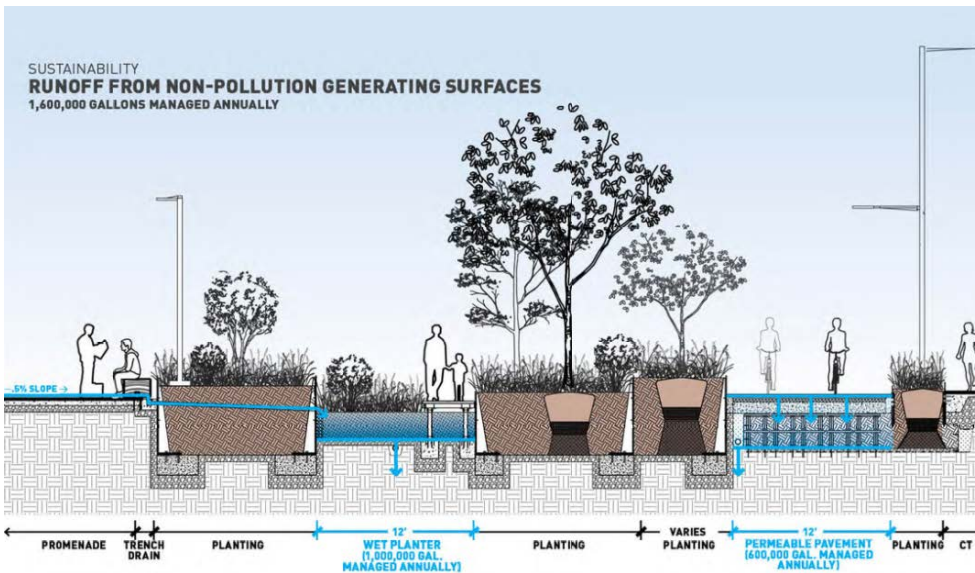


Figure 3, Section view of rain gardens and permeable surfaces for stormwater management.

1.3 GREEN STORMWATER MANAGEMENT

Runoff from non-pollution generating surfaces (walkways) and pollution generating surfaces (parking lots and roads) will be managed independently. Water will be filtered through permeable materials in roadways and walkways, and vegetated rain gardens to reduce runoff and absorb pollutants. 6.6 million gallons of stormwater will be managed annually by combining biofiltration, filtration into the subsoil, and planted areas. (Seattle Design Commission 2014)

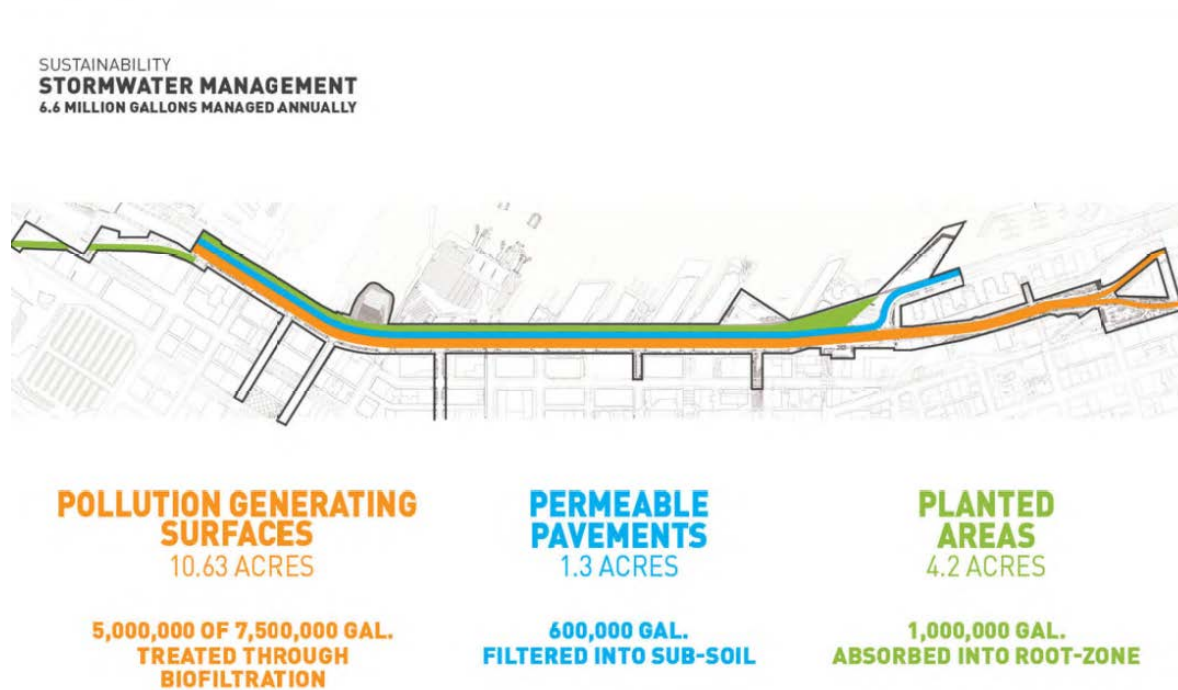


Figure 3, Overview of stormwater managed.

References

Seattle Design Commission. "Sustainability presentation." Seattle. November 6, 2014. Web. September 2, 2015.
<<http://www.seattle.gov/dpd/cityplanning/designcommission/projectreviews/currentprojects/waterfrontbriefings/documents/default.htm>>.

Figure References

Figure 1: Seattle Design Commission. *Elliot Bay Overview*. Digital Image. Seattle. November 6, 2014. Web. September 2, 2015.
<<http://www.seattle.gov/dpd/cityplanning/designcommission/projectreviews/currentprojects/waterfrontbriefings/documents/default.htm>>.

Figure 2: Seattle Design Commission. *Elliot Bay seawall cross section*. Digital Image. Seattle. November 6, 2014. Web. September 2, 2015.
<<http://www.seattle.gov/dpd/cityplanning/designcommission/projectreviews/currentprojects/waterfrontbriefings/documents/default.htm>>.

Figure 3: Seattle Design Commission. *Rain garden cross section*. Digital Image. Seattle. November 6, 2014. Web. September 2, 2015.
<<http://www.seattle.gov/dpd/cityplanning/designcommission/projectreviews/currentprojects/waterfrontbriefings/documents/default.htm>>.

Figure 4: Seattle Design Commission. *Stormwater managed*. Digital Image. Seattle. November 6, 2014. Web. September 2, 2015.
<<http://www.seattle.gov/dpd/cityplanning/designcommission/projectreviews/currentprojects/waterfrontbriefings/documents/default.htm>>.

Image References

Elliot Bay Overview: Seattle Design Commission. *Elliot Bay Overview*. Digital Image. Seattle. November 6, 2014. Web. September 2, 2015.
<<http://www.seattle.gov/dpd/cityplanning/designcommission/projectreviews/currentprojects/waterfrontbriefings/documents/default.htm>>.

Elliot Bay seawall cross section: Seattle Design Commission. *Elliot Bay seawall cross section*. Digital

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Rain garden cross section: Seattle Design Commission. *Rain garden cross section*. Digital Image.

Seattle. November 6, 2014. Web. September 2, 2015.

<<http://www.seattle.gov/dpd/cityplanning/designcommission/projectreviews/currentprojects/waterfrontbriefings/documents/default.htm>>.

Stormwater managed: Seattle Design Commission. *Stormwater managed*. Digital Image. Seattle.

November 6, 2014. Web. September 2, 2015.

<<http://www.seattle.gov/dpd/cityplanning/designcommission/projectreviews/currentprojects/waterfrontbriefings/documents/default.htm>>.

Gravel mattresses: Seattle Design Commission. *Gravel mattresses*. Digital Image. Seattle.

November 6, 2014. Web. September 2, 2015.

<<http://www.seattle.gov/dpd/cityplanning/designcommission/projectreviews/currentprojects/waterfrontbriefings/documents/default.htm>>.

Light penetrating surface: Seattle Design Commission. *Light penetrating surface*. Digital Image.

Seattle. November 6, 2014. Web. September 2, 2015.

<<http://www.seattle.gov/dpd/cityplanning/designcommission/projectreviews/currentprojects/waterfrontbriefings/documents/default.htm>>.

Light penetrating surface mock up: Seattle Design Commission. *Light penetrating surface mock up*.

Digital Image. Seattle. November 6, 2014. Web. September 2, 2015.

<<http://www.seattle.gov/dpd/cityplanning/designcommission/projectreviews/currentprojects/waterfrontbriefings/documents/default.htm>>.