5.3.2 Elliott Bay

The Elliott Bay subarea is an area of no appreciable sediment drift (see Map 2) and is a heavy industrial area with no unarmored sections and extensive overwater structures. Concurrent with this development and its use as a major seaport and downtown area, there is an obvious lack of shallow water habitat and riparian vegetation. Within the area, sediments have been documented as chemically contaminated, as the subarea is adjacent to and within the Lower Duwamish Waterway Superfund Site. Despite its urbanized state, this subarea represents the first marine nearshore area encountered by salmon exiting the Duwamish River en route to sea. There are no natural or un-piped stream mouths entering this subarea.

5.3.2.1 Habitat Needs and Goals

Urgent needs for this area include natural habitats that are typically considered favorable for salmonid feeding, such as low energy, prey-rich rearing areas. Goals include providing access to some form of shallow water habitat along a natural beach gradient with riparian vegetative cover. This could be provided by creating shallow water and protected habitat in order to increase feeding opportunities and growth potential for juvenile salmonids. Recent salmonid bioenergetics research has shown that larger sized juveniles survive at a much higher rate partly because they are able to outsize predator jaws (Sogard 1997; Duffy 2003). Industrial and seaport needs in this area can present constraints to the active pursuit of this goal, but given the proximity to the Duwamish River and the number of juveniles using this subarea, opportunistic chances that may arise to restore feeding habitat should be seized.

5.3.2.2 Priority Recommendations

Habitat recommendations in this subarea include the following (Map 8):

- *Substitute/Rehabilitate* habitat where possible throughout the subarea from the Elliott Bay Marina to the Duwamish Head in order to provide higher functioning habitat. This is a priority identified for the entire project area, described in more detail in Section 5.2.
- *Rehabilitate* Longfellow Creek by shifting its alignment to the north in order to flow into the southwest corner of Elliott Bay. Daylighting the mouth of the

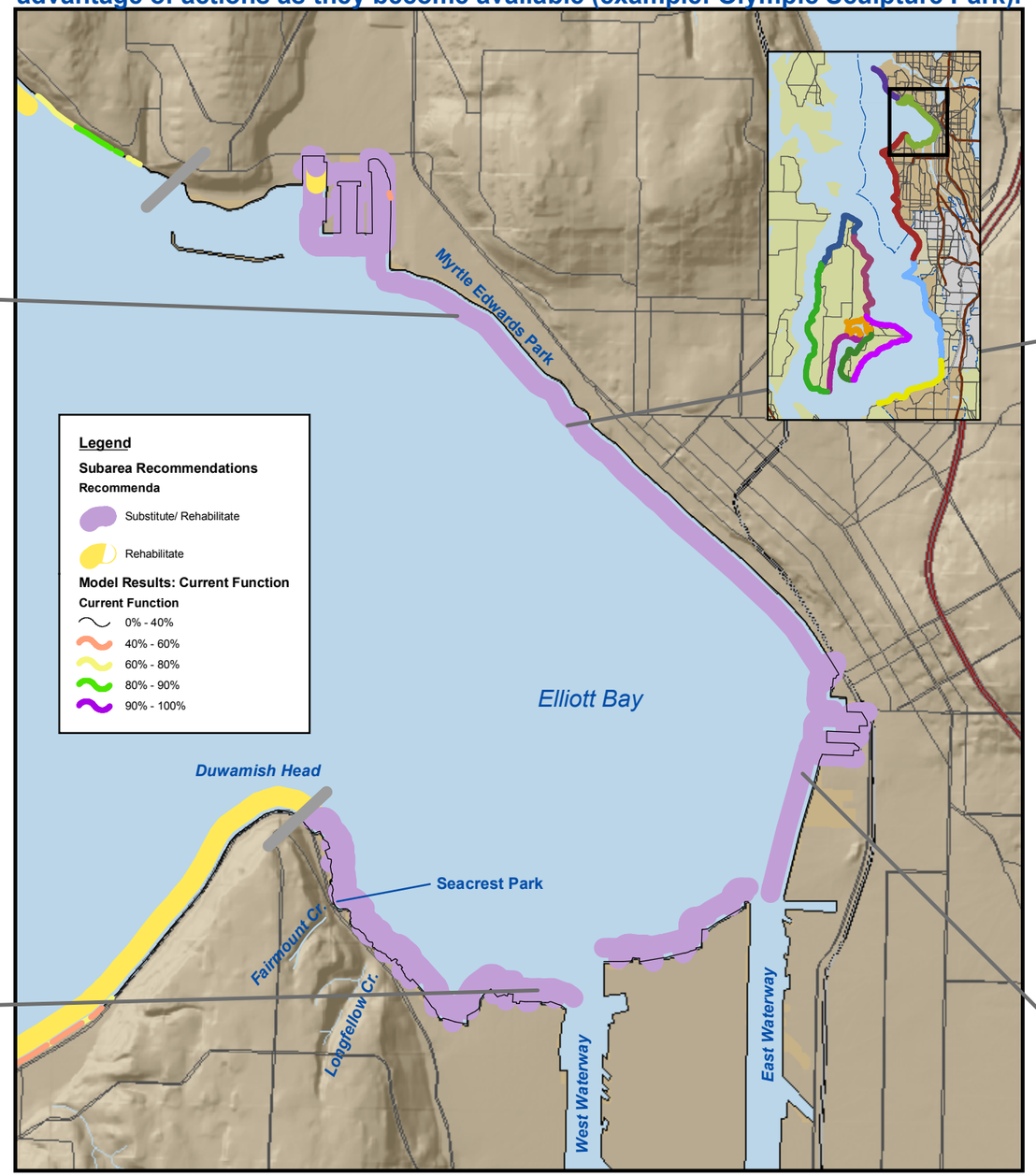
creek to flow across the intertidal zone would provide pocket estuary habitat just west of the mouth of the Duwamish River and along an extended reach with no other unpiped stream mouths.

- *Rehabilitate* the mouth of Fairmount Creek on the west side of Elliott Bay. The lower reaches of the creek pass through a small canyon on the hillside and then under the road (Harbor Avenue SW). Rehabilitation could be accomplished by daylighting the mouth of the creek onto the beach at Seacrest Park.

Elliott Bay

This subarea encompasses the heavily industrialized downtown Seattle waterfront. Habitat improvements in this subarea are important because of its close proximity to two major salmon sources and the importance of rapid growth during the early marine rearing of juvenile salmon. Although the potential to restore processes is very limited, rehabilitation can be accomplished opportunistically by taking advantage of actions as they become available (example: Olympic Sculpture Park).

Rehabilitate shoreline along northeastern Elliott Bay
This stretch provides opportunities to pull the shoreline back to create embayments, add materials to create shallow water habitat, and plant riparian vegetation.



Olympic Sculpture Park (in progress)
At the Olympic Sculpture Park project, construction is underway to substitute and rehabilitate habitat conditions along the shoreline. This substitution includes creating a small intertidal embayment and a low intertidal habitat bench to improve the rearing and migration conditions for juvenile salmon.

Rehabilitate shoreline along western Elliott Bay
This stretch provides opportunities to pull the shoreline back to create embayments, add materials to create shallow water habitat, and plant riparian vegetation.

Opportunistic rehabilitation in industrial and port areas
Rehabilitate habitat along the northern seawall and port terminals where opportunities arise. The replacement of the northern portion of the Alaskan Way seawall that is currently under development may provide a unique opportunity to integrate habitat elements into the new design.

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ANCHOR ENVIRONMENTAL, L.L.C.

Map 8
Elliott Bay Subarea and Priority Recommendations
Identification of Priority Areas
WRIA 9 Nearshore Habitat Assessment