

5.3.1 *Magnolia*

The Magnolia subarea is comprised of one single drift cell, characterized by tall feeder bluffs, some in exceptional condition, in the southern portion of the accretion shoreform at West Point (see Map 2). The central third of the subarea is modified by residential bulkheads that prevent delivery of sediment to the nearshore. In places, there are houses built at the base of the bluff. The road atop the bluff (Magnolia Boulevard) is set close to the edge of the bluff in the central/eastern portion of the subarea. A wide sandflat extends along the entire subarea, and the intertidal zone supports patchy eelgrass and other macroalgae. There are a few groins and small overwater structures in the subarea, and the armoring tends to be below OHW. Also, there are occasional boat ramps built on fill that is slumping into the water. Large amounts of resident LWD and transient driftwood are present near West Point, where the point forms the northern boundary of the project area. There are no WDFW documented salmon streams in this subarea (WDFW 2002).

5.3.1.1 *Habitat Needs and Goals*

The habitat needs and goals for this subarea include maintaining and conserving the connectivity of the sediment supply to the shore and removing obstructions to sediment transport, particularly in the areas of fill material that currently protrude into the intertidal zone. The long-term stability of Magnolia Boulevard is clearly in question, as the feeder bluff below the road is active and eroding. The bluff will continue to erode and “feed the beach” by providing sediment to the intertidal zone as long as there is no anthropogenic impediment to sediment delivery, such as a bulkhead or riprap.

5.3.1.2 *Priority Recommendations*

Habitat recommendations in this subarea include the following (Map 7):

- *Conserve* the unarmored bluffs and stands of trees in the riparian zones along the northern and southern Magnolia bluffs. This is a priority identified for the entire project area, described in more detail in Section 5.2.
- *Rehabilitate* sediment transport by removing groins and areas of protruding fill in the residential area south of West Point. This is a priority identified for the entire project area, described in more detail in Section 5.2.

- *Rehabilitate* the riparian vegetation at Magnolia. Plant trees and riparian vegetation along a wide corridor at the top of the bluff, particularly in the area surrounding the armory near West Point. This will provide some stabilization of the top of the bluff, as well as additional terrestrial inputs to the aquatic food web and a long-term source of LWD.
- *Rehabilitate* riparian vegetation at West Point. Plant trees and riparian vegetation along the trails and near the tip of West Point. This will provide terrestrial inputs of organic matter and potential prey resources to the aquatic food web.



Rehabilitate riparian vegetation at West Point
 The planting of trees and other vegetation along the trails and point would contribute terrestrial organic matter and potential prey resources to the aquatic food web.

Magnolia Bluffs

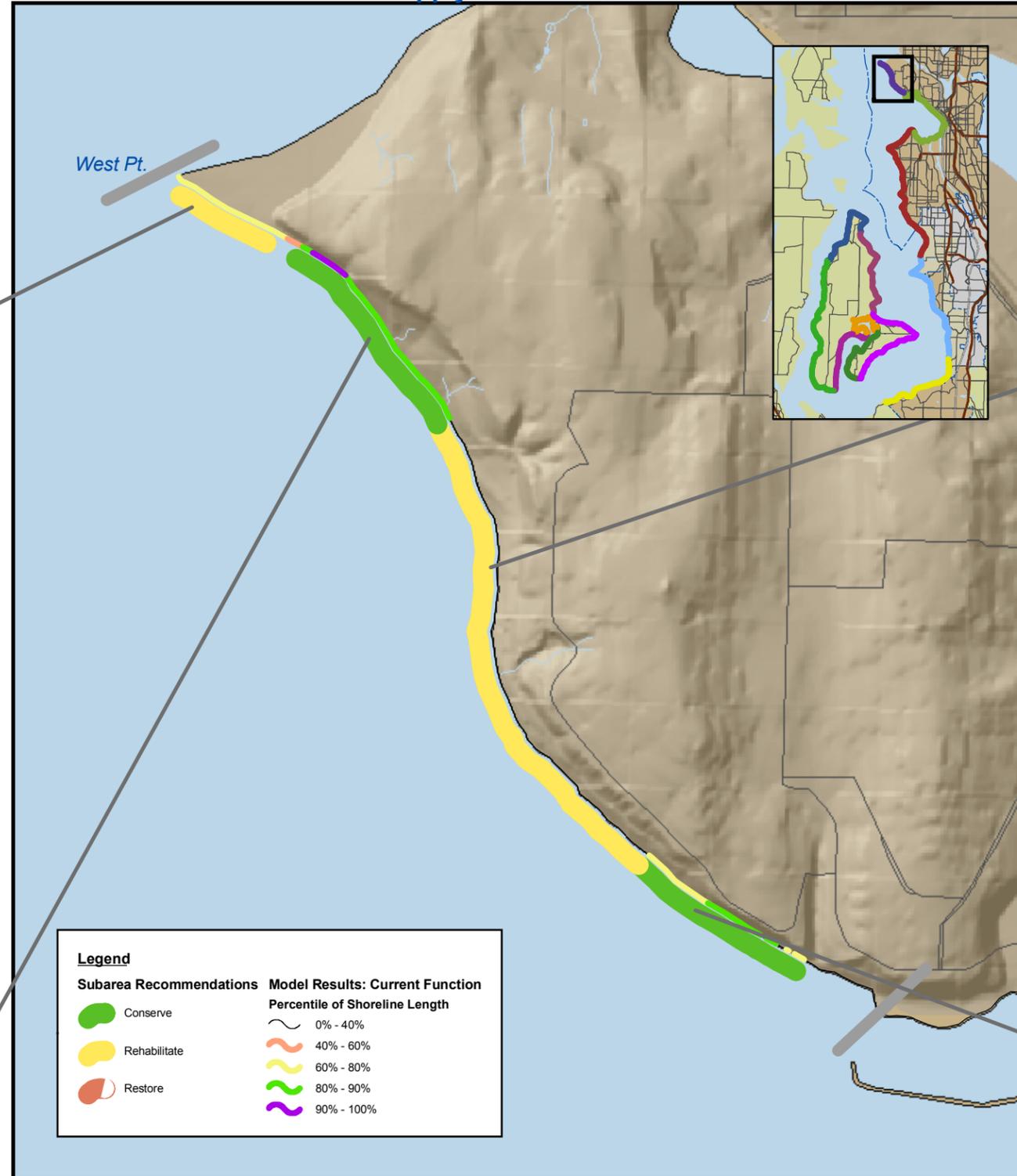
This subarea is positioned between the Green/Duwamish River and the Cedar River/Lake Washington watershed. This subarea is characterized by steep erosive bluffs. Areas that are currently unarmored provide substantial sediment to the wide shallow beaches around West Point. Long term effects of erosion are going to require policy level decisions on whether to maintain sediment supply or roads and infrastructure.



Rehabilitate longshore sediment transport
 Numerous groins interrupt the longshore movement of sediment along the shoreline. Several areas of fill material and bulkheads extend far into the intertidal zone, thereby further restricting longshore sediment movement. Removing groins and areas of protruding fill will improve sediment movement. Any opportunities to restore sediment supply connectivity to the nearshore by removing bulkheads or other means would significantly benefit habitat.



Conserve the unarmored bluffs
 The active feeder bluffs and riparian vegetation in this reach should be conserved. The rehabilitation of riparian vegetation by planting trees along the top of the bluff would increase slope stability, contribute terrestrial insects to the food supply, and provide a long term source of LWD.



Conserve the unarmored bluffs.
 A section of steep unarmored bluffs should be conserved to maintain the supply of sediment to the intertidal zone. The continued long-term erosion of the bluffs may be threatened by the close proximity of Magnolia Boulevard to the top of the bluff. This is a particularly important area because of its close proximity to two major salmon rivers and it is one of the few intact feeder bluffs in Seattle.

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