5.3.4 Three Tree Point to Des Moines

The Three Tree Point to Des Moines subarea is composed of two drift cells that extend northward toward Three Tree Point (see Map 2). The subarea shoreline is largely residential and displays long sections of feeder bluffs with some areas of extensive riparian vegetation along a wide corridor. In the northern portion of the subarea, there are several houses at the base of bluffs. In the middle and southern portion, houses are atop the bluff, some with riprap armoring at the base of the bluff.

The WDFW (2002) SASSI report identifies three streams with documented salmon utilization in the freshwater portion, one stream with presumed salmon utilization, and one stream with potential salmon utilization. However, other creeks in this subarea may be periodically utilized by salmon and the creek mouths of all tributaries, particularly those that are not in pipes, may be utilized by juvenile salmon migrating and rearing in the nearshore. Miller Creek is the largest documented salmon tributary in the subarea and it joins Walker Creek in a wetland complex at the lowermost reaches of the creeks. The creeks located to the north and south of the Des Moines Marina, Des Moine Creek and Massey Creek, are characterized by WDFW (2002) as a documented salmon stream and a presumed salmon stream, respectively. The lower reaches of both of these creeks are channelized, armored, and lacking adjacent riparian vegetation.. McSorley Creek, which flows through Saltwater State Park in the southern portion of the subarea, is described by WDFW (2002) as a potential salmon stream.

5.3.4.1 Habitat Needs and Goals

Habitat needs in this area include maintaining and restoring sediment supply to the shoreline via the feeder bluffs and improving longshore sediment transport by removing groins and areas of protruding fill. In addition, goals include taking advantage of the terrestrial inputs and refuge potential that the tributary mouths could provide. Lastly, existing marine riparian vegetation along many of the bluffs needs to be maintained, given the residential nature of the subarea and the tendency for bluff-side homeowners to remove it.

5.3.4.2 Priority Recommendations

Habitat recommendations in this subarea include the following (Map 10):

- *Restore* the mouths of Miller/Walker Creeks and the creek at Saltwater State Park (McSorley Creek) to create high functioning pocket estuaries. This is a priority action for the entire project area, described in Section 5.2.
- *Restore* tributary mouths to the north and south of the Des Moines Marina (Des Moines Creek and Massey Creek, respectively) by removing armoring and re-establishing some sinuosity and a pocket estuary with a marsh in the lower portion of the creeks. Des Moines Creek, to the north of the marina, could be restored by altering the creek through the park. Restoration of the lower portions of Massey Creek to the south of the marina may require acquisition or a conservation easement for adjacent properties.
- *Conserve/Restore* sediment supply along the extended reach south of Miller/Walker Creeks that currently has a mix of armored and unarmored feeder bluffs with mature riparian vegetation. This is a priority action for the entire project area, described in Section 5.2.
- *Rehabilitate* longshore sediment transport in the approximately 0.5 mile reach south of Miller and Walker Creeks. This reach has numerous groins that interrupt longshore sediment transport.
- *Conserve* unarmored feeder bluffs along a centrally located reach in the drift cell. *Restoration* of sediment supply connectivity to the north and south of the reach would improve habitat conditions. These conservation and restoration areas are near the updrift end (start) of the drift cell and would therefore provide benefits throughout the extended downdrift areas.
- *Restore* the connectivity of a large marsh to the intertidal zone in the central portion of Normandy Park, approximately one mile north of the Des Moines Marina. This will require removing a driveway that crosses the backshore.
- *Restore* the shore of Saltwater State Park to reconnect the hillside sediment source and riparian vegetation to the intertidal zone. This restoration, coupled with the stream mouth restoration in the park that is described above, could greatly improve habitat function. Restoration techniques such as those implemented at the southern section of Seahurst Park in Burien, including allowing slide material to reach the intertidal zone, could be applied in this park.

Three Tree Point to Des Moines

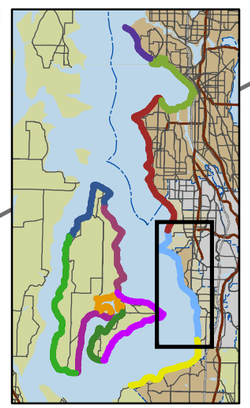
This subarea is composed of two drift cells that converge to form Three Tree Point. These drift cells have extensive feeder bluffs with some areas of intact riparian vegetation. Several mid-size tributary mouths occur in this subarea.

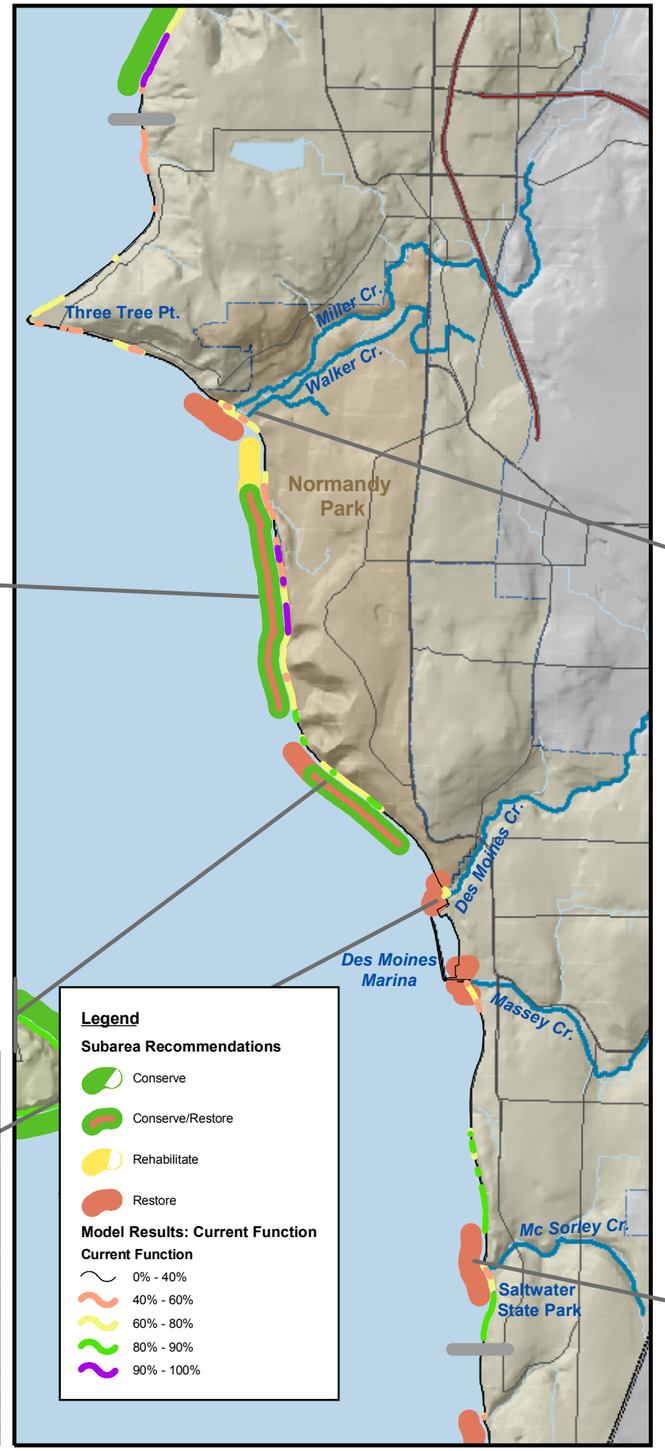
Conserve and restore sediment supply connectivity
This is a rather extended reach of vegetated feeder bluffs with some unarmored areas and some armored areas. Restoring and conserving sediment supply connectivity in this reach would benefit habitat conditions at all downdrift reaches, including Three Tree Point. This restoration and conservation could also reduce the perceived need for groins just south of Miller and Walker Creeks.

Restore mouth and lower reaches of Miller and Walker Creeks
These creeks have the potential to provide an expanded high functioning pocket estuary. The lower portion of both creeks could be reconfigured to provide more natural (less channelized) rearing habitat, riparian trees, and marsh vegetation.

Restore the connectivity of a large marsh to the intertidal zone by removing a driveway.

Restore mouth of Des Moines Creek
This creek mouth provides a good opportunity to remove armoring and re-establish some sinuousity in the lower stretch of the creek. This restoration would provide important pocket estuary habitat.





Restore habitat at Salt Water State Park
Restoration of McSorley Creek by removing armor and fill would provide a high functioning pocket estuary. Restoration of the northern portions of the park to reconnect potential sediment supplies and riparian vegetation would also greatly benefit habitat, especially since this is at the updrift end (start) of a drift cell.

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0 1,500 3,000 6,000
Scale in Feet

Map 10
Three Tree Point to Des Moines Subarea and Priority Recommendations
Identification of Priority Habitats
WRIA9 Nearshore Habitat Assessment