

5.3.11 Inner Quartermaster Harbor

The subarea at inner Quartermaster Harbor includes several drift cells extending into and out of the harbor (see Map 2). It is the most highly developed area on Vashon Island; this area includes the marina inside the harbor. The harbor has areas of fragmented habitat function overall, depending on individual residential choices for planting or removing riparian vegetation and installing docks. Generally, the entire shore of this subarea is armored.

The Judd Creek watershed is the largest watershed on the islands and flows into Quartermaster Harbor in this subarea. It is a documented salmon stream and is the only stream in the project area other than the Green/Duwamish River with documented Chinook utilization (WDFW 2002). The mouth of Judd Creek is armored and there is little riparian vegetation along the creek delta. Other creeks in the subarea may be periodically utilized by salmon if accessible 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. The subarea contains Raab's Lagoon, which exhibits a small creek and an armored berm that partially disconnects the lagoon from the bay.

5.3.11.1 Habitat Needs and Goals

Habitat needs in this subarea include conserving and restoring the tributary mouths and lagoon, which have been subject to development along the borders. Restoring riparian vegetation where possible in this entire area is important to maintain and sustain the herring spawning here. In addition, low-energy habitats offered by the tributary mouths and lagoon could be greatly improved to offer highly functioning juvenile salmonid feeding habitat.

5.3.11.2 Priority Recommendations

Habitat recommendations in this subarea include the following (Map 17):

- *Conserve* the mouth of Judd Creek, one of the largest salmon producing creeks on the islands. *Rehabilitate* the armoring and riparian vegetation conditions just outside the mouth of the creek.

- *Conserve/Restore* the Tsugwalla Creek adjacent riparian zone. This creek currently has a wood bulkhead and bridge across it. Removing the structure and conserving riparian vegetation will improve habitat function.
- *Conserve/Restore* the mudflat and marsh complex south of the marina. Mudflats are important sites for primary production that forms the base of the aquatic food web. Conservation will help maintain these processes. Restoration of the mudflat at the stream would remove fill to expand the mudflat and marsh. The mudflat habitat at the marina would be improved by reconfiguring the boat lift area to reduce the amount of overwater structure.
- *Restore* creek at Raab's Lagoon by removing armor at the mouth of the lagoon and adding riparian vegetation, particularly at the northwest perimeter.



Conserve and rehabilitate creek mouth

Conserve unarmored shoreline and intact riparian vegetation at the mouth of Judd Creek. This is one of the two largest salmon-producing tributaries on the islands. The creek mouth has extensive riparian vegetation and provides desirable pocket estuary habitat. Removal of armoring and addition of riparian vegetation just outside the mouth of the creek would improve habitat function.



Conserve and restore mudflat and marsh

Mudflats support the primary production forming the base of the aquatic food web. Conservation of the mudflat will help maintain these functions. Conservation of the mudflat will help maintain these functions. Removing fill along the shoreline to expand the marsh to the east of the marina would improve habitat. The mudflat habitat at the marina would be improved by reconfiguring the boat lift area to reduce the amount of overwater structure.

Inner Quartermaster Harbor

This subarea contains several tributary mouths and a lagoon which have been developed along the borders. Restoring riparian vegetation where possible in this entire area is important to maintain and sustain the documented herring spawning here.



Restore creek and conserve riparian zone

Restore creek with wood bulkhead bridge across by removing structure. Conserve existing riparian vegetation.



Restore Raab's Lagoon

Remove armor at mouth of lagoon and improve riparian vegetation, particularly at the northwest perimeter.



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