

Marine Nearshore Restoration Recommendations

Whatcom County Shoreline Management Project

Site Specific Recommendations

★ Restoration Site

Shoreline Reach Breaks

Shoreline Modifications

— Retaining Walls

— Groins and Jetties

— Miscellaneous Structures

— Piers

— Platforms

— Bulkheads

▲ Outfall Pipes

• Building (Shorelines Only)

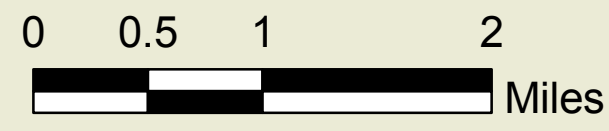
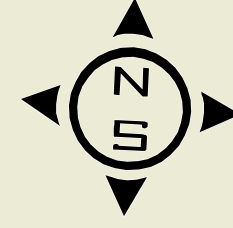
Administrative Boundries

— Lummi Nation

— Whatcom County

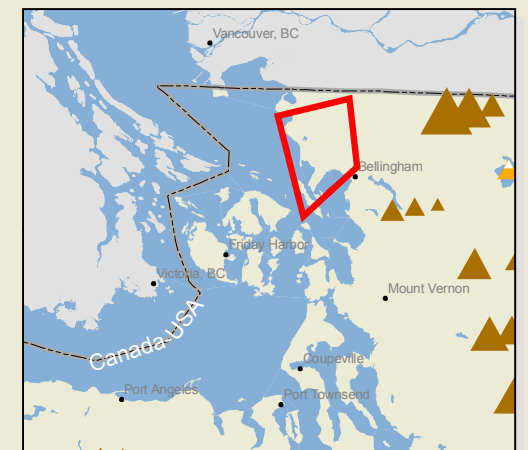
For more information on restoration sites, including non site-specific recommendations, see the Whatcom County Shoreline Management Project Inventory & Characterization Report (Background document Vol. 1) and the Marine Resources Committee Document, Restoration Recommendations by Shoreline Reach by Coastal Geologic Services and Adolfsen and Associates (2006).

DATA SOURCES: Restoration Sites - Coastal Geologic Services, Inc., Modifications - WC 2005 (Pictometry 2004), Outfall Pipes - REsources, DNR, Pictometry, Contour lines 10 meter intervals, USGS Elevation labels in feet.



Scale 1: 53,000 July 25, 2006 P. Gill

Area Map



Remove bulkheads along these bluffs, which are the sole sediment source for accretionary shoreforms and valuable habitat in Birch Bay and State Park reaches

The large platform and foundation could be removed to restore the beach and fringing marsh

Removal of bulkheads that protrude into the intertidal

Remove dilapidated dock

Remove groins and bulkheads along Birch Bay Drive to restore upper beach and backshore habitats

Remove dumped debris from bluff and beach

Sediment would be excavated from landward of the berm and bypassed to the south side of the pier fill area in stages. This would free up impounded sediment to southern shores and create a saltmarsh or estuary in the backshore.

Reduce intertidal slope, reduce impervious surfaces and create riparian buffer/dune habitat to aid with flood control issues in the basin. Portions of the undeveloped (filled) uplands could be restored to marsh

Restoration opportunities include removing extensive dikes and tide gates across the Red River Delta to restore tidal inundation and greatly increase fish habitat

Remove sediment impoundments and alongshore drift impediments such as this failed concrete and rock bulkhead

Bulkheads could be scaled back or moved landward where possible and picnic structures over what would be active beach should be removed

Broken concrete bulkhead sections could be removed from the foreshore, primarily around Gooseberry Point

Remove derelict drift nets, debris, and other foreign material from the Lummi Shore Road beaches

Conduct beach monitoring to ensure the beach nourishment is continued, as begun under the USACE-constructed revetment

Remove relic structures in backshore/marsh environments with marsh restoration

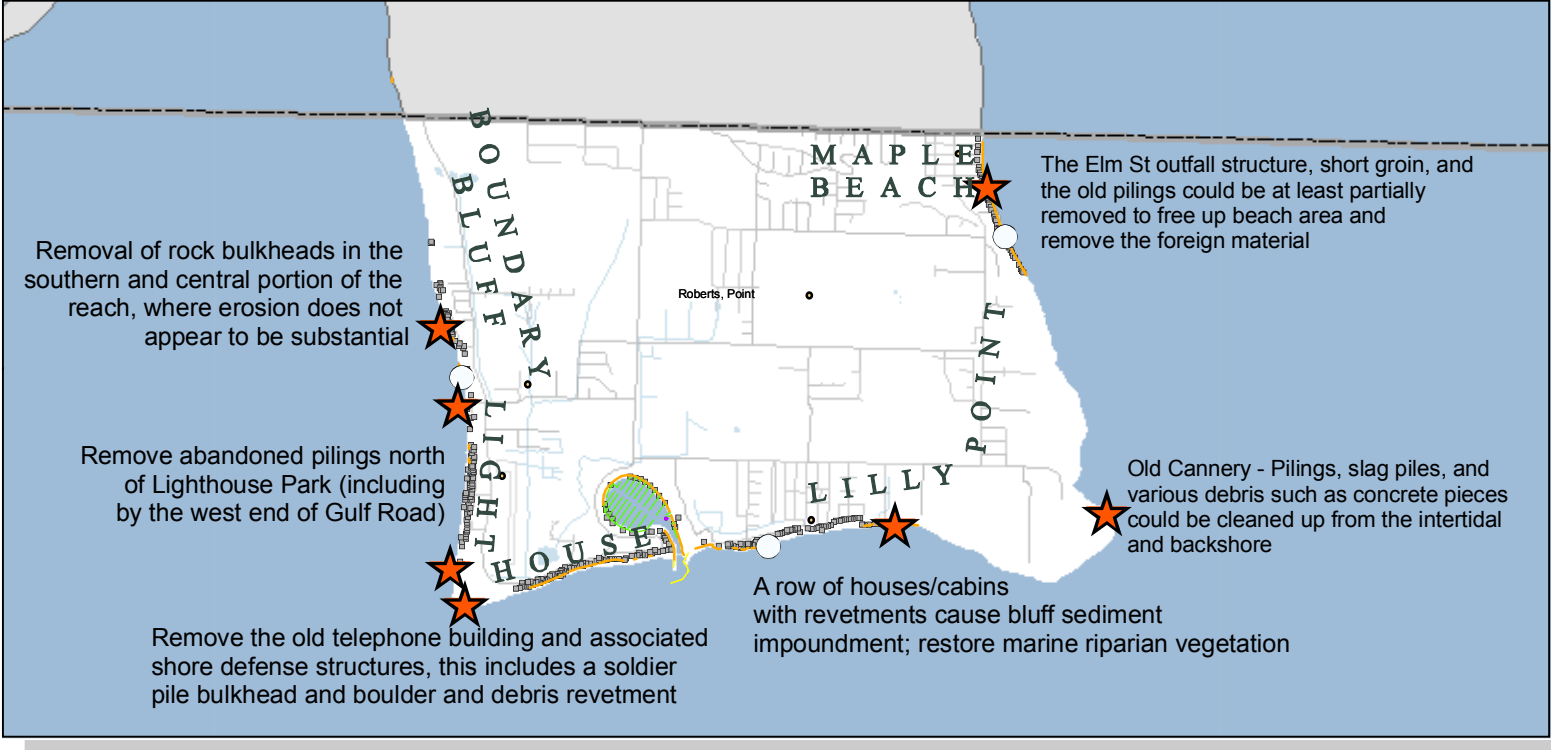
Removal of a failed solid fill pier, large rock groin, concrete debris and derelict piles in the western portion of Lege Bay would benefit the nearshore

Remove derelict piles (likely creosoted)

The shore that is not in use could be restored through removal of fill and riparian restoration to resemble the rocky shore prior to mining operations

Artificial beach nourishment along some portion of the sediment-starved beaches should occur until the Burlington Northern revetment can be removed

Point Roberts Insert



Removal of rock bulkheads in the southern and central portion of the reach, where erosion does not appear to be substantial

Remove abandoned pilings north of Lighthouse Park (including by the west end of Gulf Road)

Remove the old telephone building and associated shore defense structures, this includes a soldier pile bulkhead and boulder and debris revetment

The Elm St outfall structure, short groin, and the old pilings could be at least partially removed to free up beach area and remove the foreign material

Old Cannery - Pilings, slag piles, and various debris such as concrete pieces could be cleaned up from the intertidal and backshore

A row of houses/cabins with revetments cause bluff sediment impoundment; restore marine riparian vegetation

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