3.16 STRAIT OF JUAN DE FUCA NEARSHORE MARINE RECOMMENDATIONS

Issue: Nearshore environments provide all lifecycle requirements to resident shellfish. They are critical to juvenile Pacific salmon for feeding, rearing, and migrating. In addition, the nearshore provides essential habitat to adult salmon as they return to their natal streams to spawn. It is an important element of the physical, biological, and hydrologic integrity of WRIA 18 watersheds. Human activities can adversely impact these functions by interrupting or eliminating habitat-forming processes.

Existing Condition and Current Actions

Nearshore marine and estuarine environments in WRIA 18 have been widely altered and degraded and the overall water quality of these waters is poorly understood throughout much of WRIA 18. In the two areas for which significant data exists, Port Angeles Harbor and Dungeness Bay, poor water quality is a serious problem. Shoreline armoring is widespread, severely degrading shoreline currents, sediment processes, vegetative communities, vertebrate and invertebrate communities (salmonid food sources), and the protective habitat provided by natural shorelines. The WRIA 18 Limiting Factors Analysis (Haring, 1999) and the North Olympic Peninsula Lead Entity Group (NOPLEG) Salmon Recovery Strategy (2001) provide general identification of nearshore and estuarine habitat issues and needs. Both documents highlight the significant alteration of nearshore/estuarine environments in WRIA 18. Both describe the impacts these alterations have had to this complex and dynamic environment that links watersheds to marine environments. The LFA and NOPLEG Strategy, together with the Marine Resources Committee (MRC) have developed expanded lists of projects and guidance for the prioritization of projects. Some projects arising from these strategies have been initiated or completed, but many more remain to be done.

The Puget Sound Nearshore Project, a partnership between the US Army Corps of Engineers and numerous state and local agencies and groups, is in the early stages of an assessment expected to extend to 2005, followed by concentrated action on prioritization and design of restoration activities through 2008. It is then expected that the priority restoration and preservation actions would begin in 2008. In the interim, early action restoration and preservation work will likely be done as well.

Desired Conditions and Outcomes

- Estuarine and nearshore marine waters meet all applicable water quality standards.
- Estuarine and nearshore marine waters have sufficient water quality to support healthy populations of all appropriate shellfish.
- Estuarine and nearshore marine waters have sufficient water quality to support healthy populations of the life stages of all native anadromous and coastal marine stocks and species of fish.
- Naturally-functioning estuaries at the mouth of WRIA 18 watersheds are restored to the extent feasible.

- Sufficient naturally-functioning nearshore environments, in addition to estuaries, to support sustainable populations of native anadromous and nearshore species in WRIA 18.
- A long-term baseline monitoring program supports restoration and protection of nearshore and estuarine environments in WRIA 18.

Recommendations

A. Water Quality Recommendations

1. Nearshore marine water quality recommendations were developed for Dungeness Bay-specific water quality issues and are presented in Chapter 3.2.
2. Investigate the possible negative impacts of excess nutrients from point and non-point sources that are delivered to shallow embayments with limited tidal flushing. Excessive nutrient supplies to these areas may be contributing to the formation of ulvoid blooms in these and other water bodies.

B. Habitat Recommendations

1. Local jurisdictions and entities should work together to draw from existing plans to develop joint agreement as to a common list of projects that will be implemented to restore and protect the nearshore environment. These would include, for example:
    a. The estuarine/nearshore project list from the North Olympic Peninsula Lead Entity Salmon Recovery Strategy.
    b. The Marine Resource Committee (MRC) marine nearshore/estuary project lists of nearshore recovery restoration and protection projects based on interests and concerns identified in the MRC public workshop series and covering shellfish, salmon, forage fish, and other wildlife and their habitats.
2. Properly Functioning Conditions
    a. Dungeness River Restoration Work Group should develop Properly Functioning Conditions (PFC) statements for East WRIA 18 nearshore and estuarine environments and analyze existing conditions.
    b. As state, federal, or other assistance (*e.g.*, private grants) are available, review status of WRIA 18 estuaries and marine shorelines for Properly Functioning Conditions.
3. Implement BMPs in Port Angeles Harbor to mitigate the accumulation of wood debris toward a restoration of subtidal substrate conditions that are affecting dissolved oxygen in the waters of the harbor and benthic production in areas affected by accumulations of wood waste.
4. A rescue tug should be stationed year-round at Neah Bay to protect WRIA 18 estuaries and nearshore marine waters from spills and accidents discharging oil and other pollutants.

5. In WRIA 18 West:

    a. Subject to planned economic development in the Port Angeles industrial area, restore functional nearshore and estuary processes as opportunities arise, to the extent feasible.

    b. Restore the littoral drift to the west of Morse Creek.

    c. Evaluate the effects of shoreline armoring on shoreline sediment transport and nearshore sediment composition, and implement corrective actions, while continuing to protect urban areas such as:

        - Port Angeles industrial shoreline
        - Olympic Discovery Trail
        - Port Angeles Harbor facilities
        - Private and public properties

6. Restore unrestricted tidal flow and flushing to the north end of Washington Harbor.

7. Minimize the negative impacts of overwater structures, such as piers and docks, on fish migration and rearing, primary and secondary production, eelgrass survival, and sediment transport using various techniques. Examples of these techniques include:

    a. reducing the number and/or size of these structures
    b. reconfiguring the structures (e.g., height above water, width, distance offshore, orientation)
    c. reducing the number of pilings, and
    d. implementing other innovative techniques that allow maximum light transmission (e.g. grating, glass blocks, reflective paint, day-lighting).

8. Local jurisdictions should work to incorporate and utilize forage fish beach spawning information into their Shoreline Master Plans and when making permitting decisions.

9. Develop and implement a comprehensive volunteer monitoring program for marine shorelines (including estuaries) in WRIA 18 as state, federal, or other assistance (*e.g.*, private grants) become available.

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