



# REACH WW07

## Useless Bay, Deer Lagoon

### SHORELINE LENGTH:

6.97 Miles

### REACH AREA:

729 Acres

### PSNERP PROCESS UNITS:

5031 - 5033

### REACH SUMMARY

Useless Bay, Deer Lagoon (Reach WW07) includes the Useless Bay shoreline as well as associated coastal lagoon and wetland areas to the north of the bay shoreline (Oblique Photos B and C). The reach includes Deer Lagoon, which is substantially modified by historic diking and development and associated wetlands stretching north toward Lone Lake (which drains to Deer Lagoon). Geomorphic shoreline processes are characterized by a convergence of two drift cells along the bay shoreline, supporting the accretion area (barrier beach) separating the bay from the lagoon immediately north. The northwest and southeast portions of the shoreline are mapped with feeder bluffs.

Deer Lagoon and adjoining associated wetlands provide significant habitat (WDFW-mapped habitats include Lagoon, Wetland and Shorebird and Waterfowl Concentrations). Six streams drain to the shoreline, with the majority draining to the lagoon area. The stream draining from Lone Lake is mapped for salmonid use. Other shoreland habitats include Bald Eagle territory and coastal cliffs. Mapped aquatic habitats include geoduck habitat and hardshell clam throughout Useless Bay; patchy eelgrass is mapped intermittently throughout the reach.

Reach land use is characterized by public open space (the majority of the Deer Lagoon area) as well as small-lot residential development along the shoreline. There is minimal modification of the shoreline, outside of dikes and tide gates separating east and west portions of lagoon from tidal connection. Restoration planning to restore tidal connectivity is underway. Public access is provided at Double Bluff Park (west end) and to Sunlight Beach.

### GEOMORPHIC KEY INFORMATION

#### Geomorphic Shoretype (Map 9)

Feeder Bluff Exceptional (12%) shorelines flanking Accretion Shoreform (61%) fronting Deer Lagoon along Useless Bay (tidal areas of lagoon area are mapped with No Appreciable Drift (25%))

#### Net Shore Drift (Map 8)

Northeastward drift originating east of Double Bluff converges in Useless Bay with the terminus of another cell with northward drift originating at Scatchet Head.

#### Shoreform Current (Map 10)

Barrier Beach (46%); Bluff-backed Beach (14%); Artificial (25%); Barrier Estuary (15%)

#### Overall Rating of Degradation

Least (46%); Less (54%)

#### Coastal Floodplain:

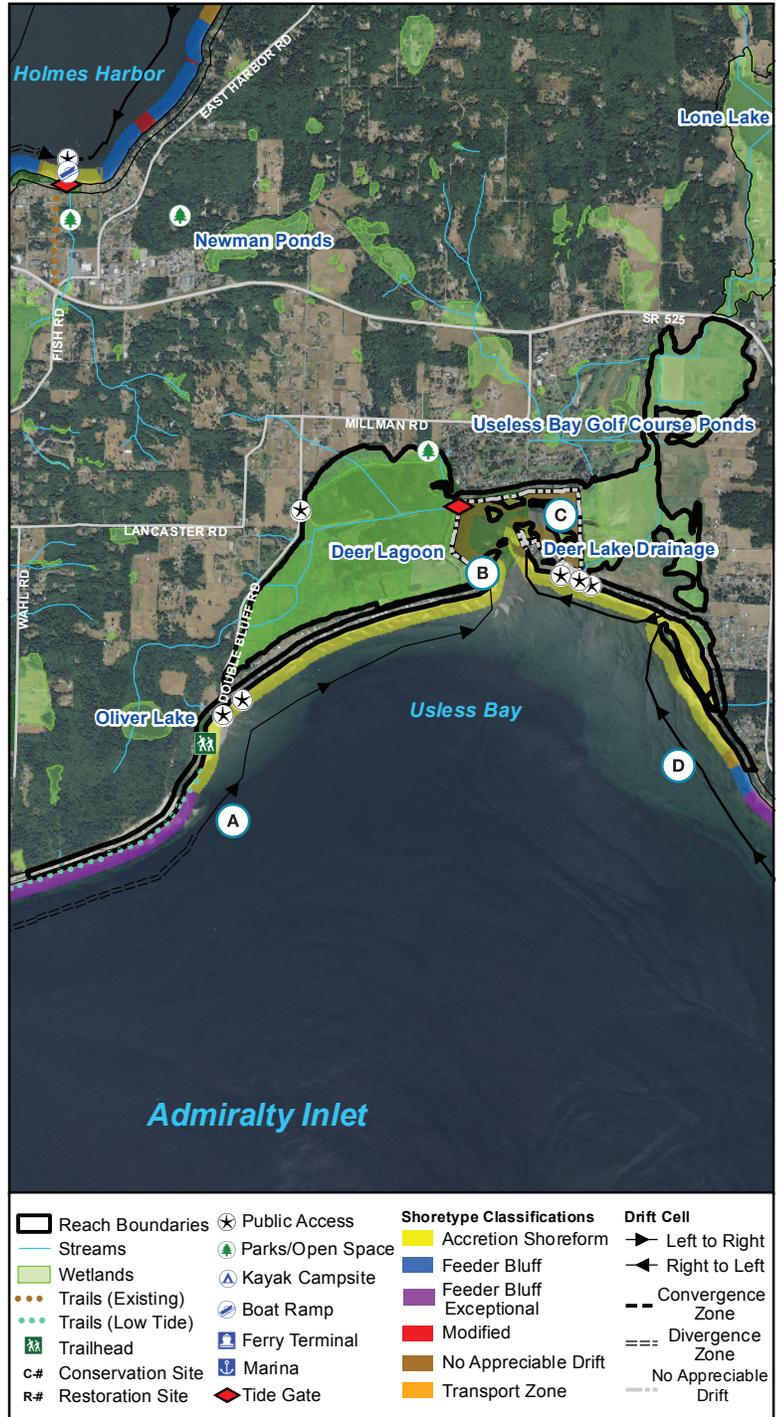
52%

#### Coastal Landslides & Toe Erosion:

Landslides and toe erosion mapped along both ends of reach shoreline.

#### Steep Slopes

4%



Shoreline Oblique Photos (2006)

**HABITATS & SPECIES**

**Significant & Unique Features (Maps 5-7)**

Geoduck habitat; Dungeness crab throughout Useless Bay; extensive hardshell clam habitat; patchy eelgrass; limited areas of patchy kelp mapped intermittently; Deer Lagoon (136 acres); designated as Audubon Important Bird Area and as a County Habitat of Local Importance; Useless Bay is additionally designated as a Habitat of Local Importance.

<b>Coastal Lagoons</b> 332 acres (45%)	<b>Coastal Stream Mouths</b> 6	<b>Wetlands (Map 4)</b> 82%
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**Forage Fish**

<b>Sandlance</b> 3%	<b>Smelt</b> 3%
<b>Herring</b> None mapped	

**LAND & SHORELINE USE**

**Shoreline Modifications (Map 13)**

Limited modification outside of Deer Lagoon system (substantial alteration of lagoon, including dikes/tide gates separating western and eastern portions from tidal influence); bulkheads and hardening front residential development along east end of Useless Bay (most lots to the west along barrier beach have no bulkhead); tide gate at northern edge of Deer Lagoon.

**Armoring (% of shoreline) (Map 13)** 6%

**Zoning (Map 11)**

Rural (59%); Rural Agriculture (29%); Rural Residential (10%); Commercial Agriculture (2%)

**Current Land Use (Map 12)**

**Number of Parcels** 427      **Average Parcel Size** 2.48 Acres  
County owned open space area (Deer Lagoon); small lot shoreline residential development.

**Shoreland Priority Habitats & Species (Map 5)**

Bald Eagle buffer; Cliffs; Wetlands

**Marine Priority Habitats & Species (Map 5)**

Lagoon; Slough; Waterfowl Concentration; Shorebird Concentration (all focused at Lake Hancock lagoon)

**Salmonid Fish Use (Map 5)**

Coastal cutthroat, coho, fall chum in stream draining from Lone Lake to Deer Lagoon; presence/migration for all. Nearshore areas are designated ESA critical habitat for Chinook (Puget Sound ESU).

**Public Access (Map 16)**

County owned Sunlight Beach access near end of Sunlight Beach Rd.; 20 acres of Deer Lagoon is County open space; Double Bluff Park to the southwest of Deer Lagoon (>1 acre; significant access to Double Bluff Beach extending east).

**Overwater Structures (Map 14)**

No overwater structures

**Shellfish & Aquaculture (Map 15)**

Area fronting Useless Bay is a prohibited shellfish growing area, other aquatic areas within reach are Approved; Double Bluff Beach is an Approved shellfish beach.

**KEY MANAGEMENT ISSUES**

- Water quality issues associated with additional development (subdivision / intensified use) — including implications of septic systems and road runoff.
- Potential use conflicts associated with public access to beaches and private residential property rights.
- Potential implications of sea level rise (SLR) on Deer Lagoon, barrier beaches and associated wetlands (loss of habitat).
- Potential implications of SLR and coastal flooding on development within or near coastal floodplain areas (shoreline residential development).

**RESTORATION OPPORTUNITIES**

Restoration of Deer Lagoon is identified in the Island County Estuarine Restoration Program report (2001); goals include restoration and reconnection of areas behind the dike and restored salmon access to all lagoon areas as well as Lone Creek. A restoration feasibility assessment is being completed for the lagoon, lead by the Wild Fish Conservancy (Luerkens, 2011).