



# REACH Dugualla Lake

## Dugualla Lake

### LAKE AREA

54 Acres

### SHORELINE LENGTH:

2.14 Miles

### REACH AREA:

49 Acres

### PSNERP PROCESS UNITS:

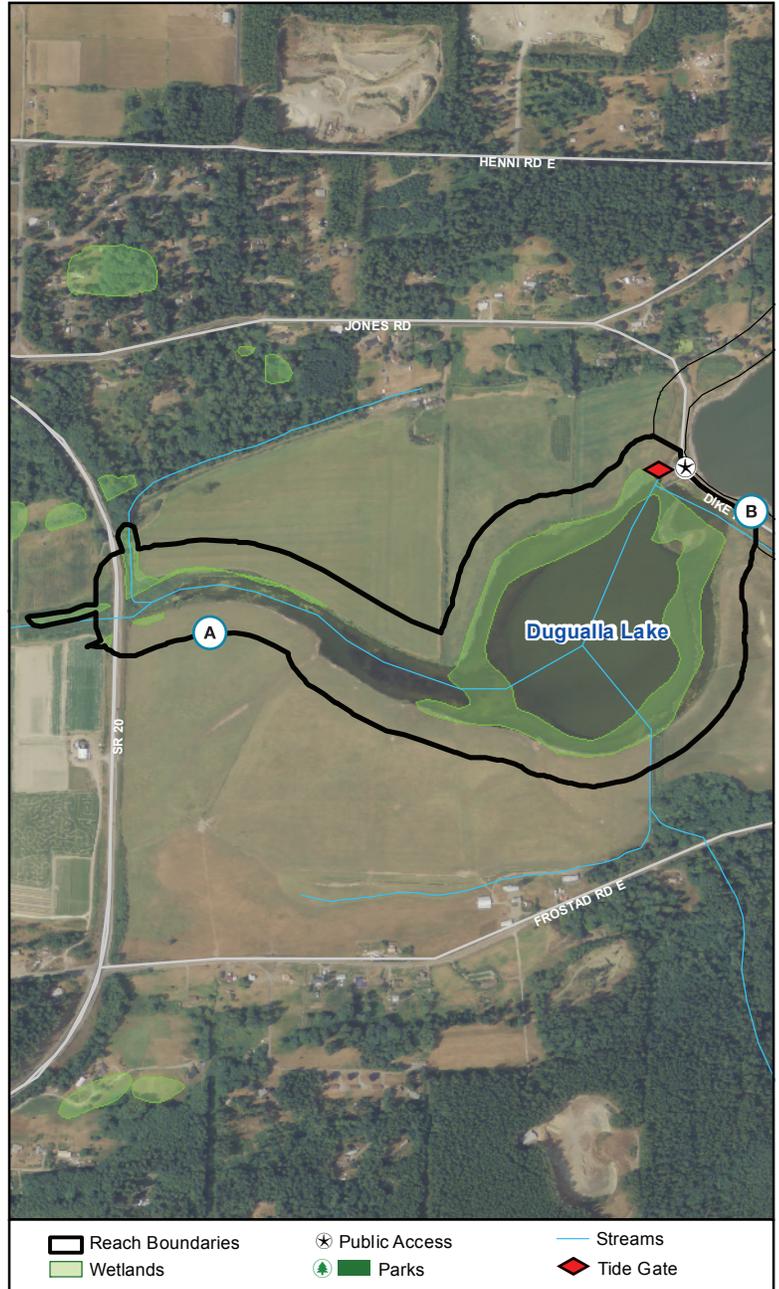
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### REACH SUMMARY

Dugualla Lake is adjacent to the Dugualla Bay area along the east shoreline of northern Whidbey Island (the Dugualla Lake reach adjoins marine reach EW04). The lake area and associated wetlands cover about 120 acres extending west from SR 20 to the controlled outflow under Frostad Road into the bay. Lake water is pumped out of the lake into the bay, with the level artificially maintained by the U.S. Navy.

Dugualla Lake was historically a large coastal lagoon influenced by marine processes. Construction of Frostad Road and the pump station facility has converted the lagoon to a freshwater lake. Dugualla Creek, flowing through the lake and draining the Ault Field (U.S. Naval Air Station) area to the east, supports coastal cutthroat trout and Coho. WDFW maps the lake as a waterfowl concentration area.

Land use includes agricultural uses as well as undeveloped open space areas (primarily wetland) associated with the shoreline. Modification to the shoreline occurs along the eastern and western edges where fill and hardening associated with public roadways occurs. Restoration of Dugualla Lake to return tidal influence has been identified as a priority by state and County planning organizations.



Shoreline Oblique Photos (© Microsoft Bing Maps, 2010)

**PHYSICAL CHARACTERIZATION**

<b>Mean Lake Depth</b> No Data	<b>Maximum Lake Depth</b> No Data	<b>Lake Volume</b> No Data
<b>Drainage Area</b> Approx. 7,000 Ft	<b>Altitude Above Sea Level</b> 9 Ft	<b>Steep Slopes</b> None mapped

**HABITATS & SPECIES**

<b>Wetlands (Map 4)</b> 10%	<b>Wetlands Waterward of OHWM (Map 4)</b> 29%
<b>Shoreland Priority Habitats &amp; Species (Map 5)</b> Waterfowl Concentration (almost entire extent)	<b>Salmonid Fish Use (Map 5)</b> Coastal cutthroat, coho; presence/migration for all.

**LAND & SHORELINE USE**

**Shoreline Modifications (Map 13)**  
Dugualla Dike Rd. fill separates lake from Dugualla Bay (lake formerly tidally influenced coastal lagoon); modification throughout consistent with agricultural use; SR 20 modifies shoreline at west end; tide gate located between Dugualla Bay and Dugualla Lake.

**Zoning (Map 11)**  
Rural Agriculture (63%); Rural (37%)

**Public Access (Map 16)**  
No public access (developed or undeveloped) to shoreline or lake.

**Current Land Use (Map 12)**  
**Number of Parcels** 13    **Average Parcel Size** 22.89 Acres  
Agricultural uses and low density rural uses, with primary active uses within the shoreline area including agriculture. Large areas of undeveloped open space, including associated wetlands and riparian areas. Other uses include roadways along the west and east edges of the shoreline area.

**Overwater Structures (Map 14)**  
Pump (lake level control) facility extends overwater off of Dugualla Dike Rd.

**Water Quality**  
No listed impairments

**KEY MANAGEMENT ISSUES**

- Assessment and improvement of water quality in the context of surface water runoff and nutrient inputs from contributing basin including agricultural uses immediately surrounding the shoreline area and uses / impervious surfaces associated with Ault Field and the Naval Air Station in the upstream basin.
- Assessment of alteration of key habitat characteristics caused by previous shoreline modifications (management of lake level with dike / pump structure and implications on hydrologic connection with marine shoreline).
- Restoration planning for Dugualla Lake, beginning with examination of overall system restoration priorities (including potential return of tidal influence to the historical lagoon system).

**RESTORATION OPPORTUNITIES**

Restoration of Dugualla Lake to re-establish tidal influence.