



REACH Lone Lake

Lone Lake

LAKE AREA

91 Acres

SHORELINE LENGTH:

1.63 Miles

REACH AREA:

130 Acres

PSNERP PROCESS UNITS:

5032 & 5033

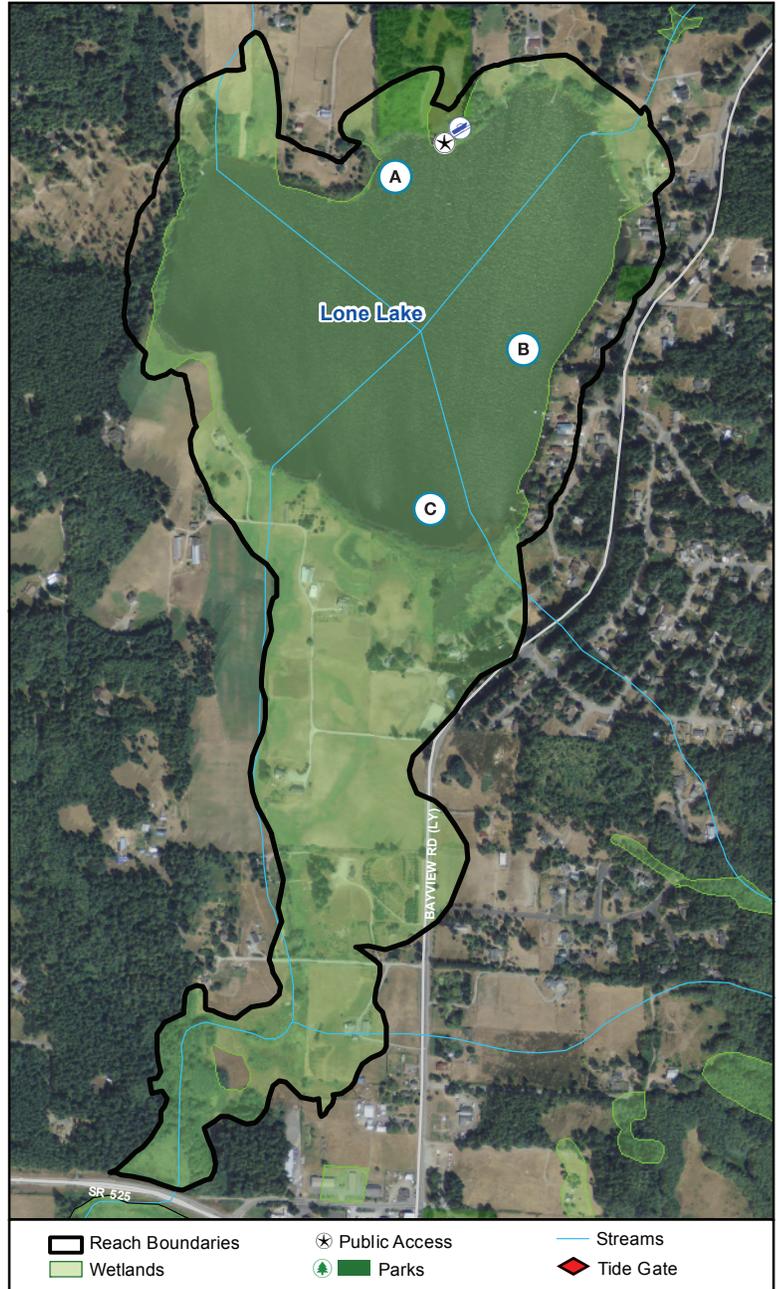
REACH SUMMARY

Lone Lake is located on Whidbey Island, 2.5 miles southwest of Langley and one mile southeast from Goss Lake. It is fed by three small inlets and drains to Useless Bay through Deer Lagoon.

Lone Lake was classified as eutrophic (trophic state) by Ecology during the late 1990s (Ecology, 1996). Eutrophic lake conditions are often a result of water quality pollution from adjacent and / or tributary uses, with elevated phosphorus levels frequently indicated as a primary cause. The lake area is additionally listed for impairments on the 2008 Ecology 303(d) list as a Category 5 water for dioxin (based on a rainbow trout tissue sample collected at the lake). Dioxins include a broad range of environmentally toxic compounds that can come from a variety of sources and products. Dioxins are commonly released when household items and other industrial products are burned (as would occur in a trash / refuse fire). The record of dioxin within the fish tissue sample at Lone Lake does not indicate the potential source

The County wetland inventory includes extensive mapping of wetlands both waterward and landward of the shoreline, primarily 'large ponded wetlands' waterward of ordinary high water mark (OHWM). Wetlands associated with the lake but outside of the OHWM are primarily mapped to the south along the outflow drainage. Salmonid use by coastal cutthroat, Coho and fall chum extends upstream of the lake (both northern tributaries) and along the outflow south to Deer Lagoon. Waterfowl concentrations are also documented by WDFW.

Land use is generally rural shoreline residential development and agriculture, with clearing of riparian vegetation common for both land uses. Denser residential development and associated overwater structures are focused on the eastern shoreline of the lake. Public access to Lone Lake is provided via a five acre property that includes a boat ramp and picnic area.



Shoreline Oblique Photos (© Microsoft Bing Maps, 2010)

PHYSICAL CHARACTERIZATION

Mean Lake Depth 9 ft	Maximum Lake Depth 17 ft	Lake Volume 909 Acre-Feet
Drainage Area 1,792 ft	Altitude Above Sea Level 17 Ft	Steep Slopes None mapped

HABITATS & SPECIES

Wetlands (Map 4) 86%	Wetlands Waterward of OHWM (Map 4) 99%
Shoreland Priority Habitats & Species (Map 5) Waterfowl Concentration	Salmonid Fish Use (Map 5) Coastal cutthroat, coho, fall chum in stream and through lake area; presence/migration for all.

LAND & SHORELINE USE

Shoreline Modifications (Map 13) Modification for lakeside residential development - clearing of riparian vegetation, fill and hardening; agricultural immediately adjacent to south and southwest shorelines; boat ramp along north shoreline; less modification of west shoreline (degree of modification varies from lot to lot).	Zoning (Map 11) Rural (48%); Rural Agriculture (29%); Rural Residential (15%); Rural Center (8%)
Current Land Use (Map 12) Number of Parcels 90 Average Parcel Size 4.24 Acres Land use is generally rural shoreline residential development and agriculture, with clearing of riparian vegetation common for both land uses.	Public Access (Map 16) Public access to Lone Lake is provided via a 5 acre property that includes a boat ramp and picnic area.
	Overwater Structures (Map 14) Approximately 20 relatively short private residential docks (majority focused along east shoreline, none on west shoreline).

Water Quality

Dioxin (Cat. 5) from rainbow trout tissue samples collected in lake

KEY MANAGEMENT ISSUES

- Assessment and improvement / maintenance of water quality in the context of surface water runoff and nutrient inputs from the contributing basin.
- Managing intensity of additional residential development within the contributing basin including shoreline areas, with focus on impacts associated with septic systems, removal of native vegetation and runoff from polluting generating sources (among other use implications).
- Managing for ongoing agricultural uses within the shoreline area and surrounding environment with additional emphasis on improving riparian shoreline habitat, associated wetland areas and the outflow stream through the shoreline area.
- Conservation of intact riparian vegetation and restoration of degraded shoreline areas with emphasis focused on improving habitat and conditions for salmonids using the Lone Lake system.
- Preservation and enhancement of native aquatic vegetation in the nearshore environment, with focus on control and eradication of invasive aquatic species.

RESTORATION OPPORTUNITIES

[Will be completed in next Draft.]