



Oregon Coordinated Aquatic Bird Monitoring:
Description of Important Aquatic Bird Site

Sand Lake Estuary

BCS number: 47-27

*****NOTE:** *We were unable to determine most information on focal groups/species for this site description. If you would like to contribute the needed information to this description, please contact the Klamath Bird Observatory at kbo@klamathbird.org.*

Site description author(s)

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Primary contact for this site

N/A

Site location (UTM)

Datum: NAD83, Zone: 10, Easting: 426275, Northing: 5014485

General description

Sand Lake estuary, located in southern Tillamook County, is one of the smaller Oregon estuaries with an estimated surface area of 1,258 acres (Kraeg, 1979).

Boundaries and ownership

Boundaries:

See Figure 1.

Ownership:

State/State Park, Other/Unknown.

Water levels

“The mean tidal range in Sand Lake is 5.7 ft. Most of the estuary is above mean low water (MLW). In fact, over half of the total surface area is tidal marsh above mean high water (MHW), according to the Division of Lands tideland map (DSL 1972) and Akins and Jefferson (1973) [...]The estimated mean annual [freshwater] inflow is 109 cfs” (Kraeg, 1979). Freshwater inflow is highest from November to April and lowest from July to September. Historically, water levels have been altered by diking in the estuary; 15% of tidal marshes (8% of the estuary) have been diked (Kraeg, 1979).

Focal species use and timing

Focal Group/Species	Wintering	Breeding	Migration
Secretive Marsh Bird Group	Unknown	Unknown	Unknown
Colonial Nesting Bird Group	Unknown	Unknown	Present ^{1,2}
Migrating Shorebird Group	Unknown	Unknown	Present ^{1,2}
Ground-based Waterbird Group	Present ¹	Unknown	Present ²
American Bittern	Unknown	Unknown	Unknown
American White Pelican	Unknown	Unknown	Unknown
Barrow's Goldeneye	Unknown	Unknown	Unknown
Black Tern	Unknown	Unknown	Unknown
Black-crowned Night Heron	Unknown	Unknown	Unknown
Black-necked Stilt	Unknown	Unknown	Unknown
Bufflehead	Present ¹	Unknown	Unknown
California Gull	Unknown	Unknown	Present ^{1,2}
Caspian Tern	Unknown	Unknown	Present ²
Clark's Grebe	Unknown	Unknown	Unknown
Common Loon	Unknown	Unknown	Unknown
Dusky Canada Goose	Unknown	Unknown	Unknown
Eared Grebe	Unknown	Unknown	Unknown
Forster's Tern	Unknown	Unknown	Unknown
Franklin's Gull	Unknown	Unknown	Unknown
Great Blue Heron	Present ¹	Unknown	Present ^{1,2}
Greater Sandhill Crane	Unknown	Unknown	Unknown
Green Heron	Unknown	Unknown	Unknown
Least Bittern	Unknown	Unknown	Unknown
Lesser Sandhill Crane	Unknown	Unknown	Unknown
Long-billed Curlew	Unknown	Unknown	Unknown
Pied-billed Grebe	Unknown	Unknown	Unknown
Red-necked Grebe	Unknown	Unknown	Unknown
Snowy Egret	Unknown	Unknown	Unknown
Sora	Unknown	Unknown	Unknown
Upland Sandpiper	Unknown	Unknown	Unknown
Virginia Rail	Unknown	Unknown	Unknown
Western Grebe	Unknown	Unknown	Unknown
Western Snowy Plover	Unknown	Unknown	Unknown
White-faced Ibis	Unknown	Unknown	Unknown
Yellow Rail	Unknown	Unknown	Unknown

1. eBird (2010). Based on data from Clay Meyers State Natural Area/Whalen Island County Park.

2. Birdnotes (2010). Based on data from Whalen Island County Park.

Location of Type 1 and 2 habitat within the site

“Approximately 72% of the bay subsystem is tidal marsh. The majority of marshes are on Whalen Island and north and east of the island. High marshes predominate on the eastern shore and island, while low marshes predominate in the northern interior of the bay subsystem” (Kraeg, 1979). See Figure 2 for distribution of habitat types within the site.

Functional Group	Type 1 Habitat	Type 2 Habitat
Ground Based Aquatic Birds	Tidal Marsh	Open Water
Secretive Marsh Birds	Unknown	Unknown
Colonial Nesters	Tidal Marsh	Open Water
Migrating Shorebirds	Flats	Open Water

Access to Type 1 and Type 2 habitats

- “All submerged and submersible land under the jurisdiction of the Department below Head of Tide [at the upper limit of the lake] within the Sand Lake estuary is closed to any and all use by motor vehicles [not including motorized or non-motorized boats]” (OSOS, 2010).
- Whalen Island provides the only boat access to Sand Lake (Kraeg, 1979).
- See Figure 3 for general road access.

Audibility/visibility of focal species

Describe any issues that would diminish the detectability of birds. e.g Secretive marsh birds are difficult to detect due to hwy noise

Unknown

Conservation issues

The Salt Lake estuary remains relatively unaltered, and development along the shore is low. Vegetation damage has occurred from vehicle use despite restrictions, and potential problems may result from agricultural marsh grazing and diking in the estuary (Kraeg, 1979).

Conservation measures taken, in progress, or proposed

“The Oregon Land Conservation and Development Commission (LCDC 1977a) classified Sand Lake as a natural estuary, which is to be managed to preserve its natural resources and avoid constraint of dynamic processes in the ecosystem” (Kraeg, 1979). Riprap has been used to stop erosion on the Whalen island marsh that resulted from the dike the bridge was built on (Kraeg, 1979).

Past and current surveys

Unknown

Potential survey methods

Description: (describe survey methods that are appropriate for your site and recommend the best means in which to complete them considering the limitations and history above. Include information on suggested standardized or specialized protocols)

Unknown

Selection bias: (Discuss the potential for selection bias when designing a survey in the future, especially when sub-sample of the site will be studied. Point out how bias could be introduced and recommend ways to prevent this)

Unknown

Measurement error and bias:

Unknown

Potential pilot studies

Seasonal survey of bird distribution and abundance (Kraeg, 1979).

Literature cited

- Akins, G. J. and C. A. Jefferson. 1973. Coastal Wetlands of Oregon. *Oreg. Coastal Conser. Dev. Comm.* Florence. 190 pp. Cited by Kraeg, R.A. 1979. Natural Resources of Sand Lake Estuary. Prepared for Oregon Land Conservation and Development Commission. Estuary Inventory Project, Oregon Department of Fish and Wildlife. 2:2. 22 pp.
- Google Map. 2010. Map of Whalen Island. <http://maps.google.com/>. Accessed February 10, 2010.
- Kraeg, R.A. 1979. Natural Resources of Sand Lake Estuary. Prepared for Oregon Land Conservation and Development Commission. Estuary Inventory Project, Oregon Department of Fish and Wildlife. 2:2. 22 pp.
- Oregon Department of Fish and Wildlife (ODFW). 1978. Habitat map of the Sand Lake Estuary. Estuary Inventory Project, Oregon Department of Fish and Wildlife. 2:2. <http://digitalcollections.library.oregonstate.edu/u/?miscmaps,2>. Accessed February 10, 2010.
- Oregon Department of State Lands (DSL). 2010. Division 88: Public Recreational Use of State-Owned Property. Oregon Administrative Rules, Oregon Secretary of State. http://arcweb.sos.state.or.us/rules/OARS_100/OAR_141/141_088.html. Accessed February 10, 2010.
- Oregon Division of State Lands (DSL). 1972. Tideland map of Sand Lake. Salem. Cited by Kraeg, R.A. 1979. Natural Resources of Sand Lake Estuary. Prepared for Oregon Land Conservation and Development Commission. Estuary Inventory Project, Oregon Department of Fish and Wildlife. 2:2. 22 pp.

Figure 1: Boundary map of Sand Lake Estuary (Kreag, 1979); adapted from DSL (1973) base map.

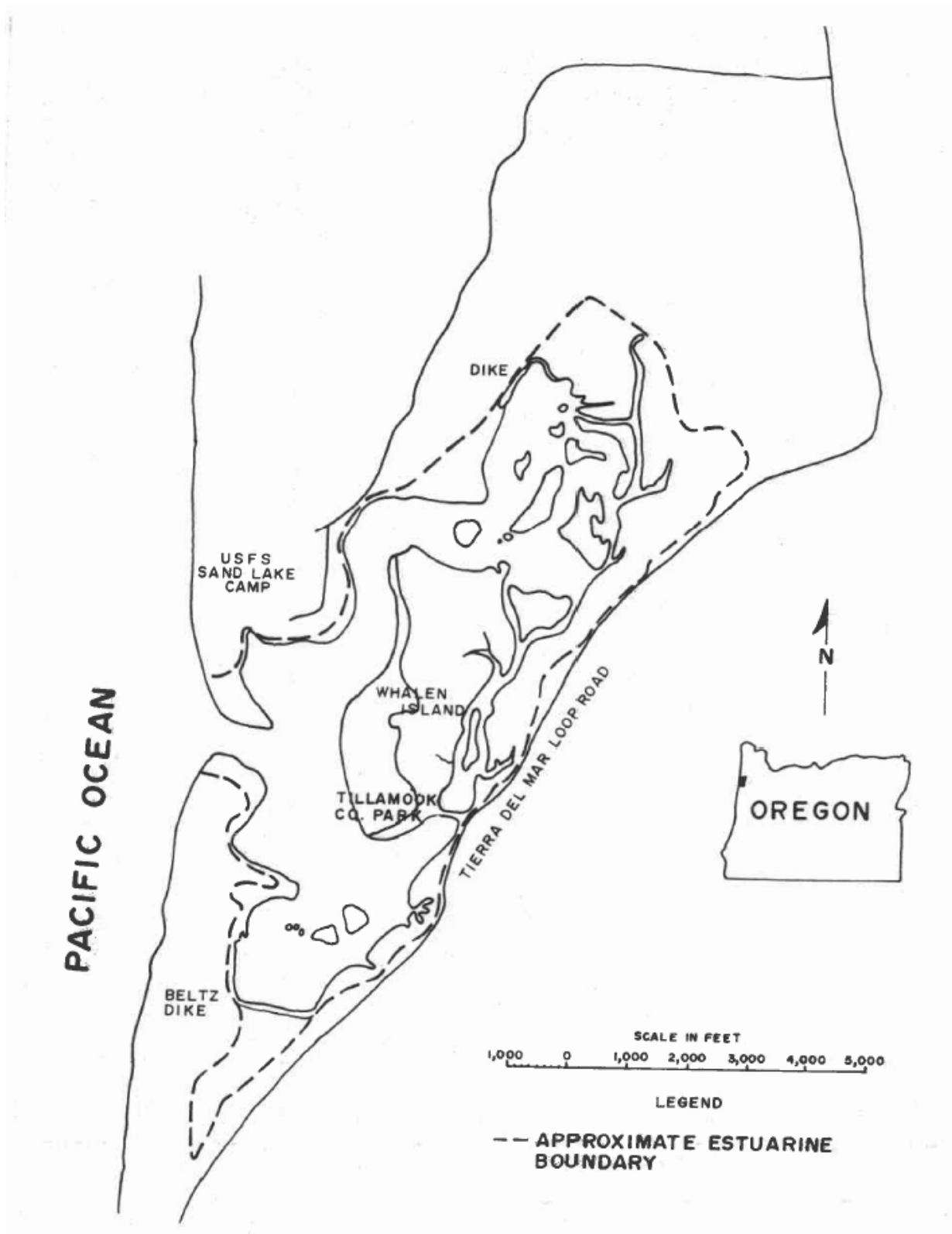


Figure 2: Habitat map of Sand Lake estuary; Edited by D. Swope (2010) - colored to improve readability, simplified habitat types and replaced legend. See ODFW (1978) for original map. Note: Although not indicated on map, Whalen Island is comprised of stabilized dune and tidal marsh (Kraeg, 1979).

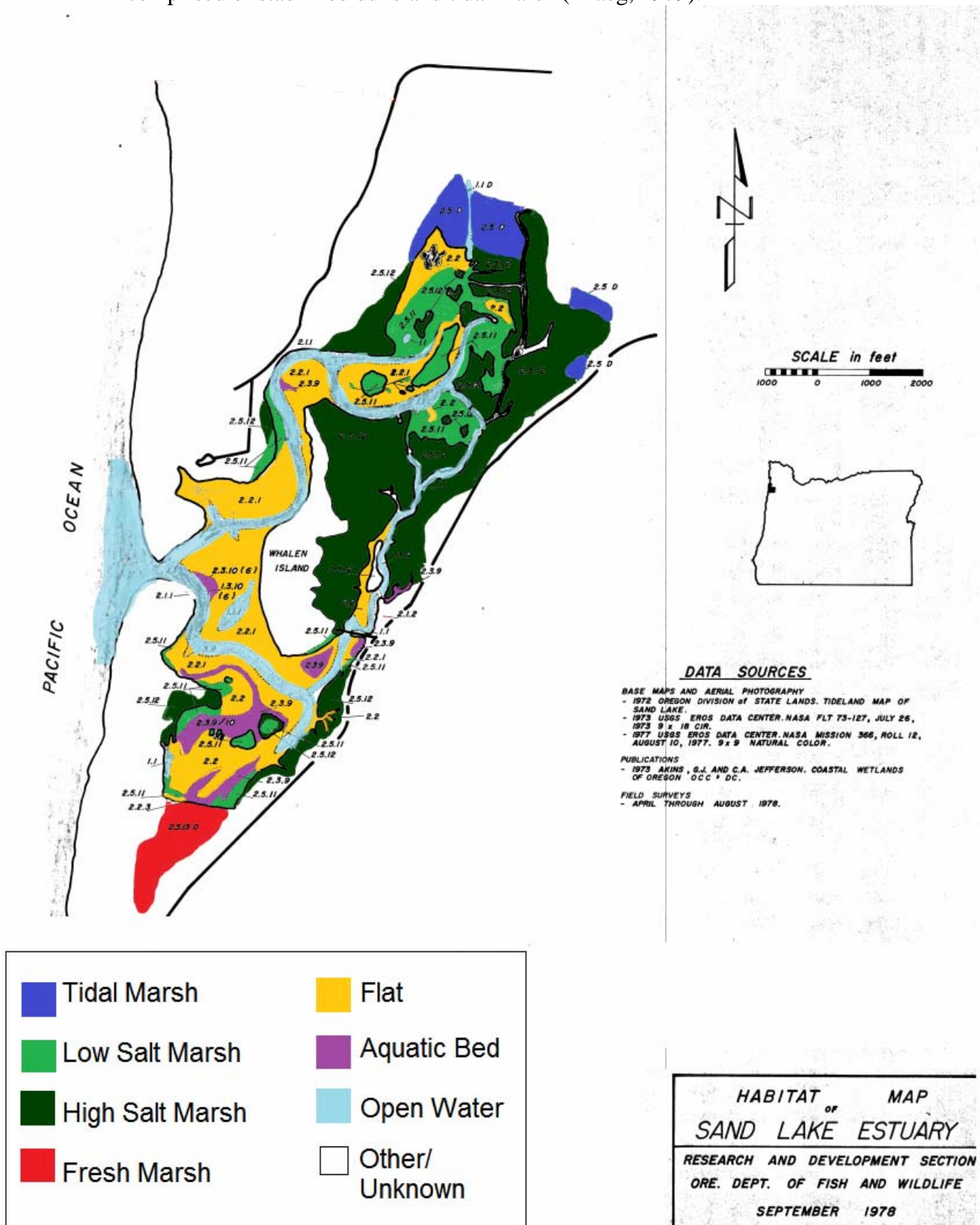


Figure 3: Google Map (2010) road view map of Sand Lake estuary.

