



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

Smith and Bybee Wetlands Natural Area BCS number 47-33

Site description author(s)

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Site location (UTM)

Datum: NAD83, Zone: 10, Easting: 521833, Northing: 5050756

General description

Smith and Bybee Wetlands Natural Area is located near the confluence of the Willamette and Columbia Rivers in Portland, Oregon. At 800 ha, it is a large complex of riparian, bottomland hardwood, emergent wetland, scrub/shrub, open water and grassland habitats. More than half of the site is open water in winter, transitioning to emergent wetland, mudflats and limited open water by late summer.

Boundaries and ownership

Boundaries:

Smith and Bybee Lakes occur in Portland, Oregon, between the Expo Center and Kelley Point Park. It is located West of I-5 Hwy., to the southwest of N. Marine Drive and north of Columbia Blvd and N. Portland Rd.

See Figures 1 and 2.

Ownership:

The primary landowners are Metro Regional Parks and Greenspaces and the Port of Portland. Small inholdings are owned by City of Portland and private landowners.

Water levels

The 800-ha Smith and Bybee Wetlands Natural Area historically functioned as a seasonal marsh in the Columbia River floodplain near the mouth of the Willamette River. A new water control structure implemented at Smith-Bybee in 2003 allows the capture and retention of winter floodwaters through the spring growing season.

In the last 130 years, floodplain wetlands along the lower Columbia River have been profoundly altered and degraded by the construction of dams and dikes, deposition of dredge spoils and the introduction of exotic plants and animals. The Columbia and Willamette rivers' hydrographs have been radically altered with the installation of dams

to generate hydropower, to provide water for irrigation and to control flood events. One of the biggest changes has been the loss of the spring freshet, which occurred in most years when melting snowpack combined with spring rains to produce a significant flood event, typically in late May or early June. The freshet flooded broad expanses of floodplain wetlands annually. Present-day water level management on the mainstem Columbia River has reduced flow during the spring-freshet season (May-July) by 43 percent.

Because storm events and water releases from upstream reservoirs are unpredictable, and large releases in late spring are uncertain, management at Smith-Bybee is focused on capturing water from all events through winter and spring and holding as much water as possible until late May or early June. This management approach is typical of managed wetlands along the floodplain.

The conceptual plan for water level management at Smith-Bybee is:

- Capture and retain water during winter and through the spring to provide high water during the spring freshet time of late May and early June.
- Draw down water in the wetlands from late spring through summer, finishing in August.
- Leave the structure open to tidal flow from late summer through fall.
- In late fall (typically November), close the structure to capitalize on high-water events and begin the annual cycle again.

Focal species use and timing

Focal Group/Species	Wintering	Breeding	Migration
Secretive Marsh Bird Group	Present	Present	Present
Colonial Nesting Bird Group	Present	Present	Present
Migrating Shorebird Group	Present	Unknown	Present
Ground-based Waterbird Group	Present	Present	Present
American Bittern	Unknown	Unknown	Unknown
American White Pelican	Unknown	Unknown	Present
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	Unknown	Unknown
California Gull	Present	Absent	Present
Caspian Tern	Unknown	Unknown	Unknown
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	Present	Present
Greater Sandhill Crane	Unknown	Unknown	Unknown
Green Heron	Absent	Present	Absent
Least Bittern	Unknown	Unknown	Unknown
Lesser Sandhill Crane	Unknown	Unknown	Unknown
Long-billed Curlew	Unknown	Unknown	Unknown
Pied-billed Grebe	Present	Present	Present
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	Present	Absent	Absent
Western Snowy Plover	Unknown	Unknown	Unknown
White-faced Ibis	Unknown	Unknown	Unknown
Yellow Rail	Unknown	Unknown	Unknown

Focal Species information adapted from Friends of Smith and Bybee Lakes Wildlife Checklist (Friends of Smith and Bybee 2009).

Location of Type 1 and 2 habitat within the site

Functional Group	Type 1 Habitat	Type 2 Habitat
Ground Based Aquatic Birds	Submerged and Floating riparian aquatic plants	Unknown
Secretive Marsh Birds	Wetland Prairie, Shrub Swamp	Unknown
Colonial Nesters	Emergent Riparian areas, Wetland Forest	Unknown
Migrating Shorebirds	Unknown	Unknown

Type 1 and 2 Habitat information adapted from Friends of Smith and Bybee Lakes description of Wetland Habitats (Friends of Smith and Bybee 2009).

Access to Type 1 and Type 2 habitats

Smith and Bybee Wetlands Natural Area is free and open to the public every day from legal sunrise to legal sunset. Parking, restrooms, paths and the Interlakes Trail are wheelchair accessible (Metro Regional Government 2010). A parking Lot for access by foot is located between the two lakes from North Marine Dr. Boat access exists from either the N. Marine Dr. access point or the Columbia Slough boat launch by the St. Johns landfill.

Audibility/visibility of focal species

Certain birds are only visible from particular vantage points, for example, the American White Pelicans typically use the southern part of Smith Lake, which is not visible from public trails.

Conservation issues

Disturbance: development, noise and light pollution, paddling, trail use
Invasive species: especially plants (i.e. reed canarygrass)

Conservation measures taken, in progress, or proposed

See earlier description of water control structure installation and hydrologic management.

Past and current surveys

A volunteer has conducted bird counts roughly once per week since 1996; these are non-scientific but provide a history of birds present, timing of arrival for migrants, and order-of-magnitude abundance. Staff writes down observations opportunistically. For the past three years, the site has been included in a Christmas Bird Count circle. Finally, many local birders go to Smith-Bybee and post their results to Oregon Birders Online and/or Birdingonthe.net (Siler's).

Potential survey methods

Description: Smith-Bybee can be surveyed from shore or by boat, depending on time of year. A good spotting scope is a must, because the wetlands are large and views can be very distant.

Biases: Bybee and Smith lakes have different hydrology during summer drawdown. Bybee becomes tidal and Smith does not (because of the meandering channel between the two). The wetlands have different summer plant communities depending on elevation and surveys should be stratified to account for that.

Measurement error and bias:

Unknown

Potential pilot studies

Unknown

Literature cited

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<http://www.fws.gov/wetlands/>. Accessed March 16, 2010.

Figure 1: Google Earth (2010) map of Smith and Bybee Wetlands Natural Area with the USFWS National Wetlands Inventory (2010) layer.

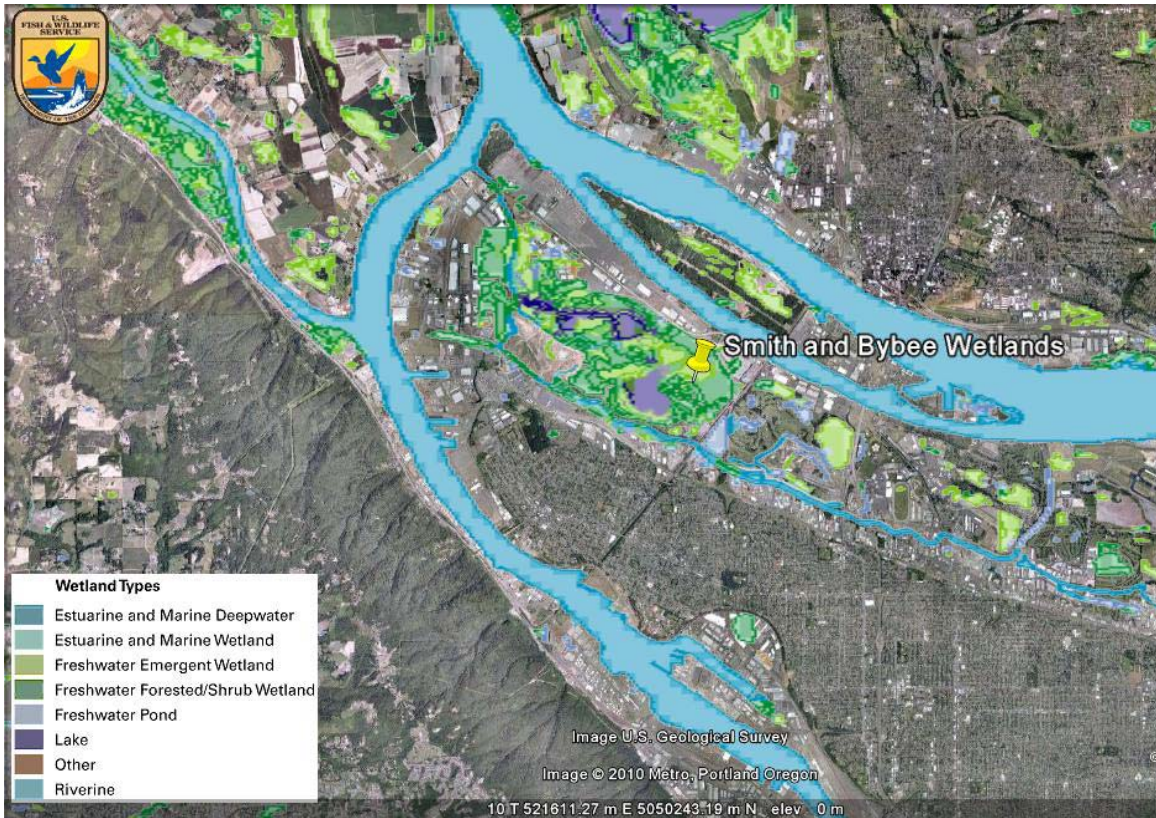


Figure 2: Google Map (2010) road view of Smith and Bybee Wetlands.

