

Chelan County's Fish Lake Bog: a unique and important resource to protect

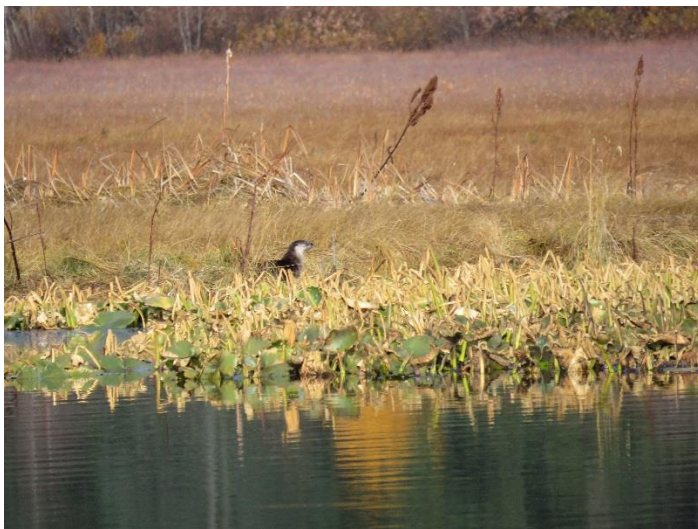


View of the northside USFS shoreline at Fish Lake, immediately east of the Cascade Hideaway privately owned shoreline. The riparian buffer is a mix of native deciduous shrubs like vine maple, red osier dogwood, and willow. Long-distance migratory songbirds nest and rear young in this habitat.



USFS Shoreline at Fish Lake on the north side. The value of a healthy shoreline riparian plant community is especially important on steep slopes. The rooted shrubs effectively stops eroding upslope sediments from entering the water. Leaf fall provides the basis of the food chain that support aquatic organisms that provide food for many fish species.

It is common to see river otter along the shoreline of Fish Lake Bog. It is a USFS Research Natural Area,



protected to maintain biodiversity and to allow research and education. The bog occupies the western side of the lake. A section of privately owned shoreline adjoins it on the NW side of the lake. WDFW Priority Cavity-nesting ducks including wood duck and hooded merganser rear young here. Traditionally, p'squosa/wenatchi bands would camp at Fish Lake and harvest the roots of pond lily (*Nuphar lutea*), an important food.

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This is a photo of Bog cranberry (*Vaccinium oxycoccos*) at Fish Lake Bog. This is the only location in Washington east of the Cascades for this species. It is an important berry crop food for the p'squosa/wenatchi peoples.

The Washington Natural Heritage Program provides information and works with others to help protect a state sensitive (rare) plant that has been documented in Fish Lake Bog, water hemlock (*Cicuta bulbifera*).



The West end of Fish Lake is filled with a floating sphagnum bog. It is one of the most outstanding examples of this type of ecosystem in Eastern Washington and does have a few plant communities that are rare. Changes to access or shoreline management of the wetland could certainly impact the local hydrology or have other deleterious impacts to Fish Lake.

Migratory sandhill cranes, Wilson's snipe, common yellowthroat arrive in spring to nest and rear young in the bog. In recent decades, the intensity of algae blooms in Fish Lake have increased, which depleted

dissolved oxygen in the water. This is likely the result of increased non-point source nutrient enrichment (likely from septic systems). Without oxygen, the small aquatic insects die, reducing food available for fish.

Until 2018, Chelan County's Shoreline Management Plan provided a higher level of protection on the privately held shoreline at Fish Lake. NOTE: about 70% of Fish Lake's shoreline is federally owned. In 2018, Chelan County reduced the protection of privately owned shoreline in two ways:

1. The shoreline designation was "upgraded" to urban, which allows higher intensity of future development on private lands.
2. The riparian buffer widths were significantly reduced, which will negatively impact future water quality and habitat functions of both the lake and the adjoining lands.

The Washington state legislature mandates in RCW 173-26-201 that county shoreline designations make sure there is no net loss of ecological functions. Counties are directed to be use Best Available Science to inform the Shoreland Management Plans.

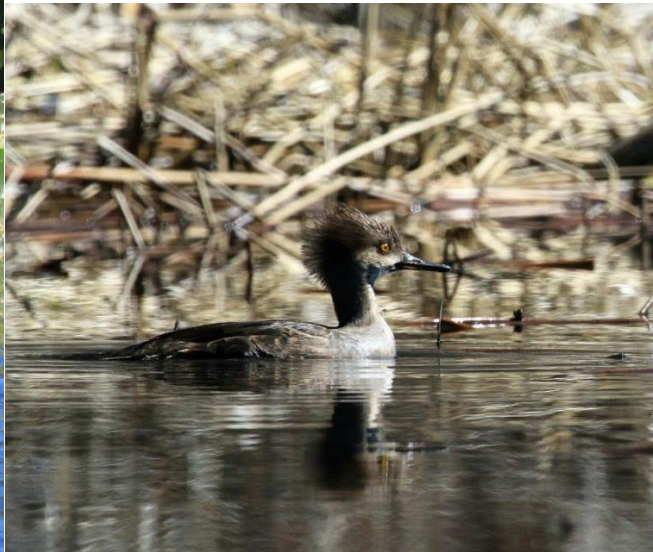
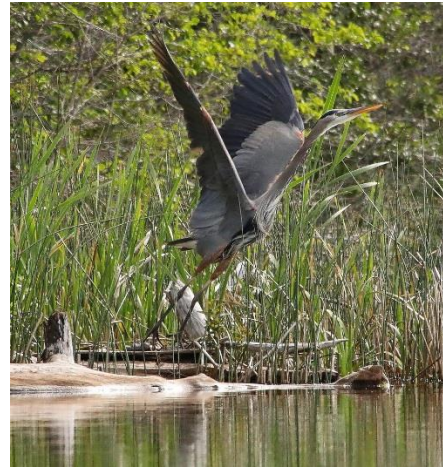


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Cavity-nesting Common Goldeneye female with young



Great Blue Heron



Female Wood Duck (young not pictured)

Female Hooded Merganser (young not pictured)

Fish Lake is home to Washington Dept. of Fish and Wildlife Priority Habitats: Freshwater Wetlands and Biodiversity Areas and Corridors. WDFW designated Priority Habitats for Cavity-nesting Ducks including Wood Duck, Hooded Merganser, and Common Goldeneye that nest and rear young on Fish Lake. Fish Lake is home to WDFW Priority Species including Great Blue Heron, Vaux Swift, Western Grebe, Common Loon, and Trumpeter Swan. Documentation of these species is a key element of Best Available Science that is required to be used to guide the County's SMP.