

# ESTUARIES & COASTAL WETLANDS OF LAKE SUPERIOR

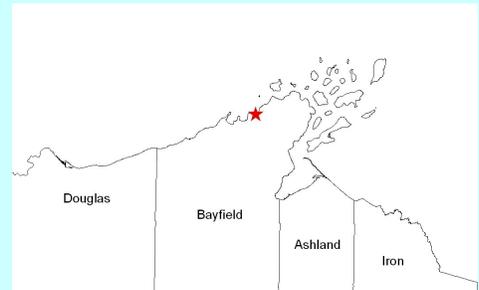
## Saxine Creek

Approximate Size: 5 acres\*

Ownership: National Park Service/Private

Year Last Surveyed by WDNR/NHI: 2012

GLCWC Classification: Barred, Drowned River Mouth



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### *Site Description*

Saxine Creek is a small spring-fed stream that empties into Mawikwe Bay at the southern end of the Apostle Islands National Lakeshore in northern Bayfield county. Just northeast of Saxine Creek, a number of smaller streams dissect the relatively undeveloped uplands and support Emergent and Submergent Marsh as well as Northern Sedge Meadow near their mouths. Saxine Creek is ranked as a Class I rainbow and brook trout fishery and is an important migratory grounds for other Lake Superior fishes. Wetland natural communities found at this site include Great Lakes Dune, Submergent and Emergent Marsh, Northern Sedge Meadow and Alder Thicket. One rare aquatic invertebrate occurs here.

The mouth of Saxine Creek is restricted by a long narrow sand barrier, leaving only a narrow outlet to Mawikwe Bay. The channel of cool, medium-clarity water quickly widens and begins to meander, forming a small (approximately 1-acre) vegetated peninsula, which grades from Submergent to Emergent Marsh along its edges. Further from the creek Emergent Marsh transitions to a fair-quality Northern Sedge Meadow dominated by lake sedge (*Carex lacustris*), common yellow lake sedge (*Carex utriculata*), nodding sedge (*Carex gynandra*), and sweet gale (*Myrica gale*). Alder Thicket covers the north side of the creek and grades into a mostly low-quality upland dry forest with balsam fir up to 10 inches in DBH (diameter at breast height). Small sections of Boreal Forest are found closer to Mawikwe Bay.

The uplands adjacent to this wetland complex are fairly low in quality, perhaps a result of changes in local hydrology after logging in the early 20th century, and are dominated by large (up to 15 inches in DBH) quaking aspen (*Populus tremuloides*) and balsam fir (*Abies balsamea*). Black ash (*Fraxinus nigra*), and balsam poplar (*Populus balsamifera*) are important in moist ravines. Characteristic shrubs include alder (*Alnus incana*) and red-osier dogwood (*Cornus stolonifera*) while dominant ground layer species include big leaved aster (*Aster macrophyllus*), bunch-

\*Area includes river mouth, the lower 0.25 miles of river and adjacent wetlands.

berry (*Cornus canadensis*), low bush honeysuckle (*Diervilla Lonicera*), and baneberry (*Actaea rubra*).

### *Threats*

Invasive species, including reed canary grass (*Phalaris arundinacea*) and meadowsweet (*Filipendula ulmaria*) were noted as rare at this site in 2012. Invasive plants can out-compete native plants by monopolizing light, water, and nutrients, and can have negative impacts on soils, nutrient cycling, etc. A blue-green algae bloom, which poses a threat to wildlife and human health, was noted in a creek approximately 0.4 miles north of Saxine Creek in 2012 and may indicate problems with runoff from surrounding uplands. A 1.5-acre parking lot located less than 200 meters north of Saxine Creek may negatively impact water quality by increasing run-off into the creek. Across the Lake Superior clay plain, water quality and wetland function are known to be adversely affected by open lands (e.g., developed land, agriculture, young forest) and positively affected by older forests and conifers. Land use analysis of the watershed and associated water quality monitoring could facilitate better understanding of this site's aquatic and wetland resources.

### *Additional Comments*

Saxine Creek is considered an Exceptional Resource Water (ERW), a designation that confers higher protection standards for pollution control. Water quality, particularly in the most northern creek should be monitored.

### *Abbreviations and Helpful References*

GLCWC - Great Lakes Coastal Wetland Classification. [glc.org/wetlands/pdf/wetlands-class\\_rev1.pdf](http://glc.org/wetlands/pdf/wetlands-class_rev1.pdf)

WDNR Coastal Wetlands webpages - <http://dnr.wi.gov>, Keyword: "coastal wetlands"

WDNR/NHI - Wisconsin Department of Natural Resources, Natural Heritage Inventory Program. <http://dnr.wi.gov>, Keyword: "natural heritage"



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A narrow creek just north of Saxine Creek (left). An unnamed creek with a barred river mouth and cold, clear water (right).

### *Suggested Citation*

K. Doyle, K., R. O'Connor, and A. Staffen. 2012. Site Description for Saxine Creek. Wisconsin Department of Natural Resources. Madison, WI. <http://dnr.wi.gov>, Keyword: "coastal wetland saxine creek"



## WISCONSIN COASTAL MANAGEMENT PROGRAM

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