

## PORTAGE COUNTY LAKES GRANT

### Shoreline Vegetation Survey (2002-2003)

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This report provides a summary of the shoreline vegetation survey of 20 of the 29 Portage County lakes. Shoreline characterization follows that used by the Wisconsin DNR-BER in Meyer, Woodfor, and Gillum (1997), specifically the section "Measuring the effect of lakeshore development on Green frog distribution and abundance in northern Wisconsin." This method was used to provide consistency and comparability with previous DNR studies. The vegetation and substrate types were mapped onto aerial photos along the entire shoreline water zone (shoreline to 5 m into lake) and shore zone (10 m inland). Mapping was done by either walking the entire shoreline, canoeing the entire shoreline, or, in the case of smaller lakes, by visual inspection from one to several access points. Characterization of vegetation and substrate used the categories below. Provided with this report is: 1) a table of characterization of vegetation and substrate in raw distance and % of each lake; 2) pie charts show proportion of shoreline types of both the various categories and developed (categories 6-8) and undeveloped (categories 1-5) combined; and 3) an excel file with the raw data and charts. Provided separately are files of aerial maps with shoreline types indicated.

#### **I. WETLAND**

- Cover 1:** All wetland shore zone with a weethorn (*Myrica gale*) or leather leaf (*Chamaedaphne calyculata*) shrub layer associated with tamarack (*Larix laricina*) or black spruce (*Picea mariana*) canopy.
- Cover 2:** All wetland shore zone with an alder (*Alnus* spp.) shrub layer.
- Cover 3:** Narrow wetland shore zone (< 5 m) with an adjacent upland component that was not developed.

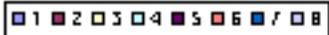
#### **II. UPLAND WITH NO DEVELOPMENT**

- Cover 4:** Upland shore zone with a densely vegetated shoreline component (i.e., tall grasses or dense shrub component adjacent to the water. Also need to have a non-rocky substrate within the water zone area.
- Cover 5:** Upland shore zone that lacked dense shoreline grasses or shrubs, or a water zone area with a rocky substrate.

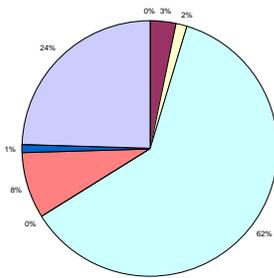
#### **III. UPLAND DEVELOPED**

- Cover 6:** Low level of vegetation disturbance: Unaltered shore zone except for pier access.
- Cover 7:** Moderate level of vegetation disturbance: Shorezone area containing mowed lawn but having intact overstory.
- Cover 8:** High level of vegetation disturbance: Highly disturbed cover including shorelands that were mowed to the water line (e.g., beach, rip rap, or sea wall).

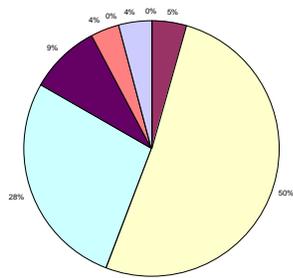
Lake	Shoreline Type ( <i>sensu</i> Meyer et al., 1997)								
	Total Shoreline Distance	1 Tamatack/ Black Spruce	2 Alder shoreline	3 Narrow wetland shore	4 Vegetated shoreline	5 Grass/ shrubs	6 Low disturbance	7 Moderate disturbance	8 High disturbance
Adams	1444 m 100%	0 m 0.0%	47 m 3.3%	23 m 1.6%	883 m 61.2%	0 m 0.0%	120 m 8.3%	19 m 1.3%	352 m 24.4%
Bear	1646 m 100%	0 m 0.0%	75 m 4.6 %	843 51.2%	455 m 27.6%	143 m 8.7%	62 m 3.8%	0 m 0.0%	68 m 4.1%
Collins	2293 m 100%	254 m 11.1%	0 m 0.0%	64 m 2.8%	787 m 34.3%	0 m 0.0%	0 m 0.0%	734 m 32.0%	454 m 19.8%
Ebert	923 m 100%	21 m 2.3%	602 m 65.2%	111 m 12.0%	133 m 14.4%	0 m 0.0%	56 m 6.1%	0 m 0.0%	0 m 0.0%
Fountain	1142 m 100%	0 m 0.0%	0 m 0.0%	412 m 36.1%	706 m 61.8%	0 m 0.0%	0 m 0.0%	0 m 0.0%	24 m 2.1%
Helen	2341 m 100%	0 m 0.0%	37 m 1.6%	0 m 0.0%	129 m 5.5%	0 m 0.0%	0 m 0.0%	369 m 15.8%	1806 m 77.1%
Jacqueline	1940 m 100%	457 m 23.6%	0 m 0.0%	0 m 0.0%	220 m 11.3%	0 m 0.0%	190 m 9.8%	414 m 21.3%	659 m 34.0%
Joanis	1319 m 100%	0 m 0.0%	0 m 0.0%	0 m 0.0%	557 m 42.2%	28 m 2.1%	596 m 45.2%	77 m 5.8%	61 m 4.6%
Lime	1720 m 100%	0 m 0.0%	0 m 0.0%	0 m 0.0%	1451 m 84.4%	0 m 0.0%	230 m 13.4%	0 m 0.0%	39 m 2.3%
Lions	2107 m 100%	0 m 0.0%	0 m 0.0%	0 m 0.0%	1312 m 62.3%	0 m 0.0%	432 m 20.5%	0 m 0.0%	363 m 17.2%
Onland	1671 m 100%	0 m 0.0%	0 m 0.0%	67 m 4.0%	0 m 0.0%	0 m 0.0%	1422 m 85.1%	0 m 0.0%	182 m 10.9%
Pickerel	1915 m 100%	0 m 0.0%	0 m 0.0%	61 m 31.9%	1662 m 86.8%	0 m 0.0%	0 m 0.0%	0 m 0.0%	192 m 10.0%
Rinehart	1877 m 100%	0 m 0.0%	535 m 28.5%	91 m 4.8%	402 m 21.4%	0 m 0.0%	115 m 6.1%	442 m 23.5%	292 m 15.6%
Severson	2321 m 100%	0 m 0.0%	155 m 6.7%	0 m 0.0%	2045 m 88.1%	0 m 0.0%	0 m 0.0%	74 m 3.2%	47 m 2.0%
South Twin	2097 m 100%	926 m 44.2%	0 m 0.0%	601 m 28.7%	352 m 16.8%	0 m 0.0%	124 m 5.9%	0 m 0.0%	94 m 4.5%
Springville	2293 m 100%	0 m 0.0%	0 m 0.0%	0 m 0.0%	116 m 5.1%	0 m 0.0%	133 m 5.8%	601 m 26.2%	1443 m 62.9%
Sunset	2010 m 100%	0 m 0.0%	0 m 0.0%	45 m 2.2%	0 m 0.0%	0 m 0.0%	1165 m 58%	316 m 15.7%	484 m 24.1%
Thomas	1358 m 100%	0 m 0.0%	0 m 0.0%	21 m 1.5%	891 m 65.6%	0 m 0.0%	0 m 0.0%	223 m 16.4%	223 m 16.4%
Tree	2142 m 100%	323 m 15.1%	26 m 1.2%	0 m 0.0%	130 m 6.1%	0 m 0.0%	68 m 3.2%	235 m 11.0%	1360 m 63.5%
Wolf	1493 m 100%	0 m 0.0%	0 m 0.0%	222 m 14.9%	896 m 60.0%	0 m 0.0%	0 m 0.0%	0 m 0.0%	375 m 25.1%
TOTAL	36052 m 100%	1981 m 5.5%	1477 m 4.1%	2561 m 7.1%	13127 m 36.4%	171 m 0.5%	4713 m 13.1%	3504 m 9.7%	8518 m 23.6%



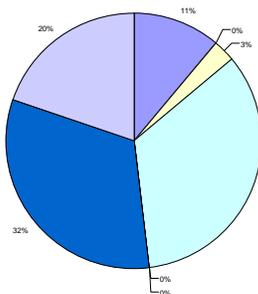
Adams Lake



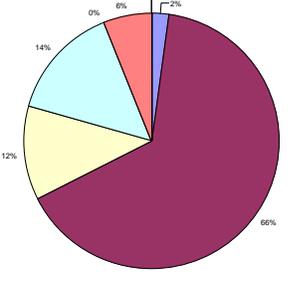
Bear Lake



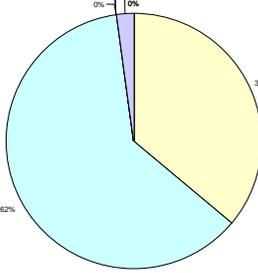
Collins Lake



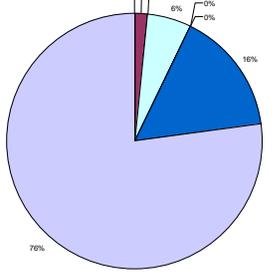
Ebert Lake



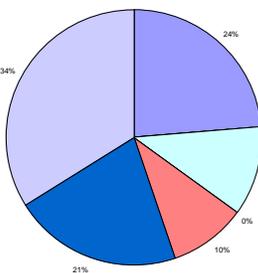
Fountain Lake



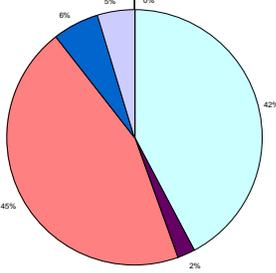
Helen Lake

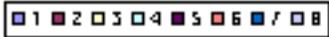


Jacqueline Lake

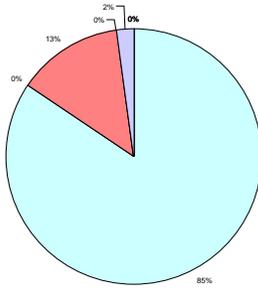


Jonas Lake

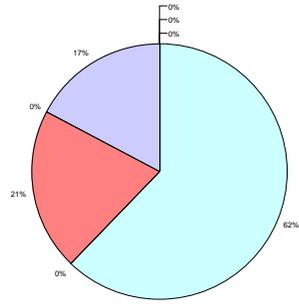




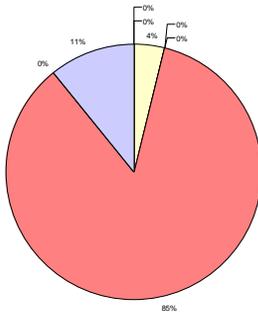
Lime Lake



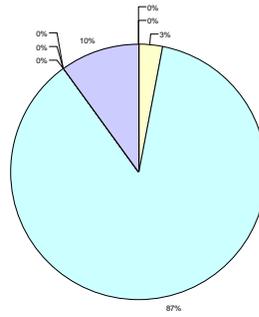
Lions Lake



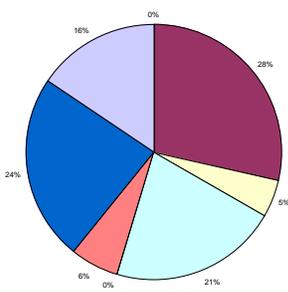
Onland Lake



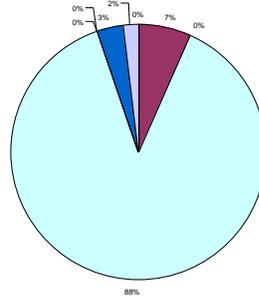
Pickeral Lake



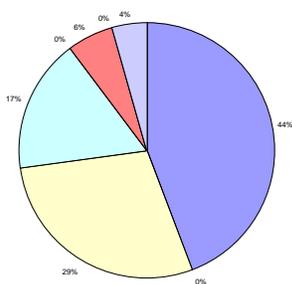
Rinehart Lake



Severson Lake



South Twin Lake



Springville Pond

