

**Appendix 8.1
Shoreline Erosion Assessment**

(Adapted from *Understanding, Living With & Controlling Shoreline Erosion*, 2007, Tip of the Mitt Watershed Council)

Date of assessment (mm/dd/yy): _____

Property owner: Name _____
Address _____
Phone _____
E-mail _____

Assessor: Name _____
Address _____
Phone _____
E-mail _____

Lake name: _____ **County:** _____ **State:** _____

Lake property address: _____

Location: Latitude _____ Longitude _____

Type of lake or water body: Impoundment Natural w/o level control Natural w/level control (_____ inches)

Shoreline type: Cliff Bluff Plain/beach Wetland Dune

Shoreline geometry: Cove Irregular shoreline Straight shoreline Point Island

Water depth: _____ At the water's edge _____ 20 feet from shore _____ 100 feet from shore

Observed location of lake level: Below the OHWM At OHWM Above OHWM

Sun: Full Partial Shade

Bank soils: Muck (organic) Silt Sand Clay Gravel Rock Boulders

Lake bottom type: Muck (organic) Sand Gravel Rock Boulders

Maximum lake fetch from property: _____ miles

Orientation of maximum fetch: N NE NW S SE SW

Average depth across maximum fetch line: _____ feet

Waypoint(s) (if using GPS): _____

Compass bearing perpendicular to shoreline: _____ degrees

Site conditions:

Upland zones eroded? Yes No

Length of erosion _____ Height of erosion _____ Slope of the eroded area _____ Rate of recession _____

Comments: _____

Bank shoulder eroded? Yes No
Length of erosion _____ Height of erosion _____ Slope of the eroded area _____ Rate of recession _____
Comments: _____

Bank toe eroded? Yes No
Length of erosion _____ Height of erosion _____ Slope of the eroded area _____ Rate of recession _____
Comments: _____

Height of eroding bank: _____ feet

Vegetation (percent cover):

Upland zones: 0 1-10% 10-25% 25-50% 50-75% 75-100%

Vegetation (check all that apply): Trees Shrubs Grasses Herbaceous perennials

List prominent species: _____

Bank shoulder: 0 1-10% 10-25% 25-50% 50-75% 75-100%

Vegetation (check all that apply): Trees Shrubs Grasses Herbaceous perennials

List prominent species: _____

Bank toe: 0 1-10% 10-25% 25-50% 50-75% 75-100%

Vegetation (check all that apply): Trees Shrubs Grasses Herbaceous perennials

List prominent species: _____

*Aquatic zone: Rocky substrate unable to support vegetation Scattered/patchy Dense/abundant

Substrate is not rocky, but vegetation is lacking

Vegetation (check all that apply): Shrubs Emergent Floating-leaf

List prominent species: _____

Method used to estimate wave energy:

Wisconsin erosion calculator **Results:** Low Moderate High

Wisconsin Erosion Intensity Score Sheet **Results:** Low Moderate High

Score sheet attached

Cause of erosion (Check all that apply):

Upland zone:

Runoff Groundwater seepage Foot traffic Boat/dock storage

Other _____

Bank shoulder:

Runoff Groundwater seepage Unstable/undercut toe Ice push Lake level fluctuations

Wind-generated waves Boat waves

Other _____

Bank toe:

Runoff Groundwater seepage Unstable/undercut toe Ice push Lake level fluctuations

Wind-generated waves Boat waves Obstruction of longshore drift and currents

Other _____

Current trend of the condition:

Stable Increasing Decreasing

Comments: _____

Existing hard structure: Seawall Rock None

Condition or influence of adjacent properties: _____

Summary comments: _____

PROPERTY OWNER INTERVIEW: (date: _____)

How long has erosion been occurring at your site? _____

Have there been noticeable differences in erosion between upland and shoreline areas? _____

How much area has been lost in each zone? Over what period of time?

Upland zone: _____

Shoreline zone: _____

What physical changes have taken place on your property—e.g., changing water levels, dredging, filling, construction? _____

On adjacent properties? _____

In the lake? _____

Has ice been a problem? Yes No If yes, is it every year? _____

Have ice ridges formed? Yes No

Proximity to boating lanes: Less than 100 yards More than 100 yards

Traffic intensity: High Medium Low

Do you think that the erosion is from natural or human caused factors? _____

What, if anything, have you tried to control erosion at your site? _____

How do you use your shoreline? _____

Boat and dock storage? _____

How do you use your shoreline? _____

Summary comments: _____

PHOTOGRAPHS of property:

IN WATER: From property edges and center

FROM LAND: From property edges and center

Upland slopes, vegetation and structures

Adjacent properties' shoreline and upland

From house to water

*Aquatic vegetation: Dense or abundant means that on average 50 to 100 percent of the bottom is visually obstructed by plants during the growing season (June 1 to Sept. 14). Scattered or patchy means that on average 1 to 49 percent of the bottom is visually obstructed by plants during the growing season. Absent means that on average less than 1 percent of the bottom is visually obstructed by plants during the growing season (WINR 328 page 53).

