

Proposed Lakeside Blvd Bluff Management Plan

Prepared in partnership by Woodland Dunes, Lakeshore Invasive Species Management, the City of Manitowoc, and Citizens for a Scenic Lakeside.

Woodland Dunes Nature Center- Proposed Lakeside Blvd. Management Plan

Goal- to improve the site in terms of quality of habitat, stabilization of soils, and aesthetic value.

Project site description:

The site is composed of brushy habitat and beach between Lakeside Blvd. and Lake Michigan, some of it steeply sloped. The Manitowoc Co. Soil survey indicates sandy, well-drained soils on the site, but there is evidence based on vegetation of imperfect drainage, probably caused by laminated finer textured soils at various depths resulting in seeps and springs on the sideslope. Steeper parts of the slope do not appear stable, and there is evidence of slumping and blowdown of large trees. The slope aspect is generally east toward the Lake. The site extends nearly one-half mile between Red Arrow Park to the north, to the University of Wisconsin- Manitowoc on the south.

Vegetation:

The upper part of the site is predominantly early successional deciduous trees and shrubs. Important tree species include boxelder, American elm, black or crack willow, eastern cottonwood, balsam poplar, green ash, along with less abundant species including paper birch. Shrubs include Eurasian honeysuckle species, red-osier dogwood, and several species of willow. On the beach, maram grass is present, some reed-canary grasses, and Artemesia sp. although vegetation was not systematically surveyed. A dune vegetation restoration project by the City of Manitowoc and Bay-Lake Planning Commission is being undertaken at Red Arrow Park to the north.

Historical Management:

The site has historically been largely unmanaged. Local residents have been concerned with loss of view of the Lake as trees have grown on the site, and erosion of the bank. As a result they have obtained permission from the City to cut trees and brush and plant domestic flowers at the top of the bluff, including Asian daylilies and non-native forms of columbine. Stumps of cut shrubs have not been treated with herbicide, and they are expected to re-grow quickly.

Proposed Management:

We view this site as one having great potential for ecological and aesthetic restoration. Due to the size of the site, selecting specific areas for initial restoration and expanding to additional areas in the future is recommended

Rationale: The shoreline of Lake Michigan is a significant corridor for the seasonal movements of migratory birds. Songbirds need adequate areas in which to rest and feed during migration- if not they may arrive at nesting or wintering areas in a weakened condition, which can contribute to an overall decline in populations of long-distance migrants. Even relatively small sites, such as the one in question can be of significant benefit to birds and other wildlife. Birds are indicators of environmental quality, and are enjoyed by many. Encouraging high quality natural areas along the Lakeshore can improve the quality of life for both wildlife and people in a neighborhood.

Management Steps:

Consult with the City of Manitowoc regarding erosion on the site. Terracing the site, if feasible, along with planting appropriate vegetation may help to stabilize the bank.

1. Prioritize goals for the site, and identify work areas within the site to be targeted for restoration.
2. Organize work plans and provide volunteer training
3. Organize work parties and remove honeysuckle and other non-native invasive plant species. Use best management practices, including appropriate use of herbicide (cut stem treatment) to prevent re-growth after removal.
4. Plant appropriate native species selected according to the following criteria.
 - a. native to this region
 - b. appropriate to physical conditions on site- soil, sunlight, slope and aspect, and hydrology.
 - c. aesthetic desirability
 - d. value to migratory birds and other wildlife (producing seeds or fruit or cover or a combination of the three)

Example of species-

Trees: Crataegus sp. (hawthorn), Prunus sp. (chokecherry, pin cherry, black cherry),

Shrubs: Amelanchier sp. (Juneberry), Aronia (chokeberry), Viburnum sp. (arrowood, Am. highbush cranberry, nannyberry), Am. mtn. ash, raspberry, red mulberry, currant, red-osier, gray, pagoda dogwoods.

Forbs: native Rudebeckia (yellow coneflower, black and brown-eyed Susan, Silphium (cupplant), liatris, Joe-Pye weed, little bluestem grass, goldenrod and aster species, common and swamp milkweed, others as appropriate.

Note: planting a variety of deep-rooted native species will both add diversity to the site and also help to reduce erosion and stabilize the bank.

5. Care for planted materials for the first year at least, protect from browsing. Thinking in the long term is critical. If not managed, in the short term newly planted native species won't succeed, and in the long term invasive species will again dominate the site. An active partnership between interested parties will be needed to manage the property. Woodland Dunes can contribute technical assistance and oversight as requested, and assist in obtaining other resources to support the project.

Prepared by:

Jim Knickelbine
Executive Director
Woodland Dunes Nature Center and Preserve

Scope of Work for Beautification and Sustainability of Lakeside Bluff/Blvd

Agreement between City of Manitowoc and Citizens for a Scenic Lakeside

Objective: To utilize the volunteers from Citizens for a Scenic Lakeside to beautify the wooded area between Lakeside Boulevard and Lake Michigan as authorized by City of Manitowoc Resolution 12-359. The work performed by these volunteers will include pruning or removal of invasive shrubs, non-native trees, tree limbs and dead trees and planting of new native species. All work will conform with the guidelines set forth in the management plan provided by Woodland Dunes. The goal of this project is to create scenic views, foster a native bird habitat, and minimize further erosion of the bluff.

Conditions: Volunteers with the Citizens for a Scenic Lakeside must abide by the following terms in order to participate in the City of Manitowoc volunteer program:

1. Volunteers will sign a waiver from the City of Manitowoc, as approved by the City Attorney.
2. A citizen's leadership group of five members shall coordinate all work on the property with the City of Manitowoc. The group shall include a member from Woodland Dunes Nature Center and a member of the City Tree Commission. The leadership group shall seek approval from Chad Scheinoha prior to engaging in any work.
3. Trained volunteers approved by the City may use power tools on the slope of the bluff within the scope of this agreement. Other volunteers may maintain the bluff by pulling weeds or engaging in other work that falls within the scope of this agreement.
4. Live trees or limbs larger than 2 inches in diameter will only be removed at the discretion of the City of Manitowoc. Only trained volunteers approved by the City may use power tools for this purpose.
5. The City and volunteers will coordinate work on the bluff. Volunteers may conduct activities at any time once they have signed a waiver with the City and received training. All work must be approved by Chad Scheinoha, the designated City employee for this project, prior to volunteers beginning work.

Guidelines:

1. Any tree removed shall be replaced with the appropriate tree or plant from the Recommended Tree List or Native Plant List to comply with the management plan.
2. Invasive plants, such as honeysuckle, may be removed as needed in accordance with the management plan.
3. Trees will be removed at the sole discretion of the City of Manitowoc. No tree may be removed without City approval.

Recommended trees for Lakeside Blvd

Choke Cherry - (*Prunus virginiana*)

- a. Native to the region
- b. Will grow in sandy soils, open areas or brushy areas
- c. Tree is considered small – 4 to 8 inches in diameter and 20 to 25 ft high
- d. Popular tree for birds for a food source in fall and provides cover also

Pin Cherry - (*Prunus pennsylvanica*)

- a. Native to the region
- b. Will grow in sandy soils, open areas or brushy areas
- c. Tree is considered small – 4 to 8 inches in diameter and 20 to 30 ft high
- d. Popular tree for birds for a food source in fall and provides cover also

Red Pine - (*Pinus resinosa*)

- a. Native to Wisconsin
- b. Grows best in well drained sandy soils with full sunlight
- c. Can grow to 2 or 3 ft diameter with heights of 80 to 90 ft. no low lying branches
- d. Nesting site for larger birds (Bald Eagle)

Hawthorn - (*Crataegus*)

- a. Found throughout the county
- b. Hawthorn will grow in most soils, including alkaline, in sun or partial shade.
- c. Tree is considered small: 5 to 40 ft in height, flowers in spring.
- d. Hawthorns provide food and shelter for many species of birds and mammals, and the flowers are important for many nectar-feeding insects

Silver Maple - (*Acer Saccharinum*)

- a. Native to Wisconsin
- b. Silver Maples require full sun, but will live in partial shade. They will survive in a variety of soil conditions, but will grow best in moist, well-drained areas. Well suited for the south end of the Blvd where soil moisture is greater .
- c. It is a medium to large tree, 3 feet diameter and 100 feet tall, one of the fastest growing maple trees. It is ideal for wet lowland sites, and will easily recover from periods of extended flooding. Silver maple trees are some of the best for poor soil and can be transplanted easily.

- d. Would make a good nesting habitat tree for birds

Northern White Cedar (*Thuja occidentalis*)

- a. Native to the region.
- b. They will survive in a variety of soil conditions, but will grow best in moist, well-drained areas. Well suited for the south end of the Blvd where soil moisture is greater.
- c. Grows up to 24 in diameter with a height of 50 to 60 feet.
- d. Will provide excellent cover and habitat for birds throughout the entire year.

Hackberry (*Celtis occidentalis*)

- a. Common throughout the US
- b. A hardy and useful tree in many ways, it has persevered to be found not only in nature, but also in backyards, parks and botanical gardens.
- c. Size is 1 to 2 feet in diameter with a height of 50 to 75 feet
- d. The tree produces a drupe-type fruit that resembles a cherry. The fruit is a favorite of wildlife, drawing a variety of birds, including towhees, woodpeckers, and cedar waxwings.

- **Poplar or Aspen (*Populus grandidentata*)**

The numerous Poplar that is growing along Lakeside Blvd, may be undesirable for this location but they serve a valuable purpose which is keeping erosion in check. Poplars can grow 60 to 80 feet tall, they can send out roots two to three times their height, meaning a root system stretching as far as 160 to 240 feet from the base of the tree, thus helping hold the embankment in place.

Current Vegetation growing on Lakeside Blvd

Deciduous

Boxelder
Poplar Sp.
Green Ash
Silver Maple
Eastern Cottonwood

Beech

White Birch

Ironwood

Basswood

American Elm

Willow Sp.

Invasive Plants

Phragmites

Reed Canary grass

Al Rehme

2 / 7 / 2014

Conifers

White Spruce

White Cedar

Shrubs

Speckled Alder

Honey suckle

Lilac

Red Osier Dogwood

Grey Dogwood

Willow Sp.

Native Plant List

(Approved for bluff planting)

Hyacinths

Tulips

Crocus

Tiger Lily

Coneflowers

Golden Rod

Black-eyed Susans

Primrose

Lambs ear

Star of Bethlehem

Hostas

Lupine

Wild phlox

Columbine

Yucca

- 1) Lakeside Blvd Bluff and greenspace east of the roadway (2100 to 2500 Lakeside Blvd)
 - a. Management plan work sections
 - i. 2100 Block
 - ii. 2200 Block
 - iii. 2300 Block
 - iv. 2400 Block
 - v. 2500 Block

- 2) 5 Member leadership group
 - a. Woodland Dunes
 - b. City of Manitowoc Tree Commission
 - c. Dennis Hardy
 - d. Jeff Tech
 - e. Gene Olsen