

Dam Beach and Fishing Park Management Plan



Prepared by:

Elk Rapids Parks and Recreation Commission

2017

Introduction

The purpose of the Dam Beach & Fishing Park Management Plan is to balance preservation and recreational use within the park through management objectives. The 5-year Community Recreation Plan has a goal in the Action Plan to “Develop a management plan for preservation of the area for the term of the lease” with objectives to “Bring stakeholders together to state what can and cannot be done in the area,” and “Enlist community support for plans, research and funding.”¹

General Vision and Goals *(These goals are explained in detail on page 6)*

Goals Identified from Dam Beach Management Plan Committee²

- Goal 1– Protect natural resources and water quality values
- Goal 2– Protect, maintain and enhance local ecosystems and natural features
- Goal 3– Retain quality habitat for native plants and animals
- Goal 4– Provide passive recreation opportunities for public enjoyment

Property Description

The Dam Beach & Fishing Park contains 8.3 acres of land and more than 3,900 feet of waterfront on Lake Michigan and Elk River.³ The property is located at an elevation of 590 feet above sea level along East Grand Traverse Bay in Lake Michigan near the outflow of Elk River in the Village of Elk Rapids, Michigan. It is accessed from Dexter Street by turning west onto Dam Beach Road.

Boundaries

The property forms a small peninsula parallel to the Elk Rapids Harbor. It includes 3,489.66 waterfront feet on Lake Michigan, Elk River and the Elk Rapids Harbor.⁴

NORTH Boundary – 1,211.55 feet along East Grand Traverse Bay

EAST Boundary – 599.74 feet (452.71 feet adjacent to the Sands Condominium Complex and 147.03 feet along the Dam Beach Road)

SOUTH Boundary – 1,118.37 feet (230.90 feet along Elk River and 887.47 feet along Grace Memorial Harbor)

WEST Boundary – 560.00 feet along the entrance channel to the Harbor

¹ Village of Elk Rapids 5-year Community Recreation Plan, 2013

² Dam Beach and Fishing Park Management Plan Committee, 2015

³ Legal Description (Antrim County Liber 295 Page 0274) dated April 17, 1985.

⁴ Certificate of Survey (Gosling Czubak Associates dated May 19, 1987)

Ownership

The property is owned by Antrim County. The Village of Elk Rapids leases the property from Antrim County.⁵

Management

The property is managed by the Parks & Recreation Commission which makes recommendations to the Village Council of Elk Rapids.

The Village Council approved a Community Recreation Plan that included recommendations for a Dam Beach & Fishing Park. The Plan was approved by the Michigan Department of Natural Resources dated August 30, 2013.

On October 7, 2013, the Village Council voted to move forward with a management plan for the Dam Beach Area and the first meeting of stakeholders was held on December 5, 2013. The Elk Rapids Village Council approved recommendations for the Dam Beach Area.⁶ The Village Council approved the establishment of the Dam Beach and Fishing Park as a Conservation/Recreation Overlay District.⁷

Historical Background

1800's- The first water-powered saw mill was installed in the early 1850s on the site of the current by-pass spillway adjacent to the hydro-electric dam. By 1871, the Elk Rapids Iron Company had constructed a water-powered, four-story grist mill and wooden powerhouse at the site of the dam. The powerhouse supplied electricity and pumped water for the company's iron works on the east side of Elk River.

1900's- The powerhouse, sawmill and grist mill were razed by 1915. The lower level of the present dam/powerhouse structure was constructed in 1916. In 1929-1930, the brick and wooden superstructure was removed and the current building was built to cover all four bays housing the turbines.

In 1955, Charlie Lark was named chairman of the Elk Rapids Harbor Committee. From 1957-1967, fill material was dumped into East Grand Traverse Bay to form a breakwater. The entire Harbor was armored with concrete retaining walls and riprap to protect against erosion and 70 boat slips were constructed. The new Harbor opened in 1965. In 1967, Antrim County purchased the Power Dam.

From 1982–1990, the Harbor was expanded to include 143 boat slips, finger piers, bulkhead, fuel dock and launch ramp. The \$1.1 M project was funded by local donations and grants from the MDNR Waterways grant program. The area now included in the Dam Beach &

⁵ Lease Agreement (Liber 295 Page 0274) dated April 9, 1985 and amended February 6, 1989.

⁶ Village of Elk Rapids Resolution #10 – 82 dated September 20, 2010.

⁷ Village of Elk Rapids Conservation/Recreation Overlay District Ordinance #456 – dated August 4, 2014.

Fishing Park was constructed during this time period. The break walls and inner bulkhead walls were rebuilt in 1998.

Physical Features

The Dam Beach Park & Fishing Park includes two distinctly different areas: the Staging Area and the Conservation Area. It comprises about 361,548 square feet of land created from construction of the Elk Rapids Harbor.

The Staging Area is a flat, treeless, open area covered with clay, sand, gravel and materials from harbor dredging. It is located in the southwest corner of the property. The Harbor Commission uses the Staging Area as a disposal site to de-water dredge spoils from the mechanical dredging of the bottom of the harbor and harbor entrance. Hydraulic dredging spoils are de-watered on Memorial Beach per MDEQ permits. The Harbor Commission uses the access road for repairs on the jetty and armoring the break-wall around the harbor. The Village of Elk Rapids has historically used the Staging Area for fireworks displays every year during Harbor Days. In addition, authorized vehicles (emergency and fire department) use the access road from the parking lot to reach the Staging Area. The road is kept gated.

The Conservation Area consists of rolling dunes with some trees and shrubs between Lake Michigan and Elk River. This Open Dune Community includes three distinct areas: Dam Beach Road, the Parking Area and the Natural Area.

The Dam Beach Road & the Parking Area provide vehicle access, parking for dozens of vehicles, public restrooms, 3 fishing platforms along Elk River, and a paved sidewalk running the length of the west shore of the property.

The Natural Area includes four natural features characteristic of the Open Dune Community: Beach, Foredunes, Blow-outs and Backdunes.

Beach Features

Life is hard at the water's edge, because everything is in a state of disturbance: weather fluctuations and water level changes. Waves are constantly tearing at plants that try to establish a foothold near shore. Wind blows sand off the beach and forms low dunes above the beach. Moving sand is very abrasive; it scours and polished rocks. Storm waves move debris and aquatic plant remains (dead insects, fish and driftwood) far up the beach. Ice accumulates on the beach and reduces the amount of erosion. But high water levels, waves and storms increase erosion. These conditions create a cycle of colonization and washouts.

Foredune Features

Wind and sun rather than waves and water make life difficult on the Foredunes. Sand is burying and strong winds are eroding plants trying to grow here. Summer temperatures on the

Foredunes range from 120–180 degrees Fahrenheit during the day. This environment is too extreme and prevents most tree species from being established. This area has special native dune plants such as the **protected pitcher's thistle**.

Blow-Out Features

Blow-Outs are U-shaped areas of open, migrating sand, which are caused by storms, or overuse by vehicles or pedestrians. They occur on dunes that were stabilized previously by plants.

Backdune Features

When dunes are lower and closer together, succession often occurs more rapidly. Decaying plants have enriched the sand with organic matter which increase its moisture holding capacity and the amount of nutrients available to nourish succeeding plants. Low shrubs take root. As shrubs become established on ridges farther from shore, conditions improve for tree seedlings to grow. The site gradually becomes shadier and richer and more stable.

Invasive Species

Non-native plant species have been carried on the wind and brought by mammals and birds. They have also been introduced by humans on the bottoms of their shoes and by vehicles in tire treads. Aquatic invasive species such as zebra mussels wash up on the Beach and the sharp shells can cause severe lacerations to barefooted beachgoers, especially children. When fish and diving birds die from botulism, they wash up on the Beach. Other birds and animals, including dogs can die from eating these carcasses. Scientists think that botulism is carried from the sediments up the food web through invasive species such as quagga mussels and round gobies. Many invasive plants are established extensively in the Natural Area, especially areas of the Backdunes adjacent to the parking lot, the access road and the Staging Area. Invasive plants include:

Grasses: Canada bluegrass, quack grass, redtop grass, smooth brome grass, and tall fescue grass.

Herbs: hoary alyssum, baby's breath, bouncing Bet, bladder campion, chickory, red clover, white clover, white sweet clover, yellow sweet clover, ox-eye daisy, dandelion, curly dock, goat's beard, spotted knapweed, common mullein, garlic mustard, winged pigweed, pineappleweed, common plantain, narrow-leaved plantain, mossy stonecrop, crown vetch, hairy vetch, viper's bugloss, biennial wormwood

Trees: Lombardy poplar and white poplar

Public Use

The Conservation/Recreation Overlay District⁸ governs underlying zoning districts when regulations are in conflict.

Permitted Uses

1. Notwithstanding any other provisions of this Zoning Code, and as further provided below, no use shall be permitted to occur within the Conservation/Recreation Overlay District except the following:

- Open space uses, such as natural preserve areas, parks, beach and picnic activities, fishing, or other similar passive recreational uses.
- Existing road, fishing platforms, service drive and sidewalk, and utility uses, when designed to effectively control erosion, or otherwise not be detrimental to the public health, safety, and welfare.
- Site appropriate, low impact, universal access facilities that are minimal and seasonally removable.
- Off-street parking, provided all parking areas conform to the provisions of §530., Off-Street Parking and Loading, of this Code, and further provided that alternative permeable type surfacing be utilized incorporating rain garden or other similar storm water management systems wherever practical.
- A modern restroom facility to be positioned as recommended in an area next to the existing parking area and outside of the designated dune area.
- Temporary structures, (i.e. tents) to accommodate recreational, cultural, and educational uses.
- Special event or other similar temporary activities or uses, determined to benefit the community that are permitted by special approval of the Village Council.

Property Improvement Regulations

1. The following regulations shall apply to all property improvement activity within the Conservation/Recreation Overlay District:

- a. Grading, beach grooming, or other similar activities shall be prohibited unless permits required by all governmental entities having jurisdiction have been

⁸ Village of Elk Rapids Conservation/Recreation Overlay District Ordinance #456 – dated August 4, 2014.

obtained and, a copy of the approved permits have been provided to the Planning and Zoning Administrator.

b. Native shrubbery, trees, or other vegetation shall be preserved as far as practicable, and where removed, shall be replaced with other native vegetation that is equally effective in preventing erosion and preserving the natural beauty of the area. Non-native, noxious and invasive plant materials, such as purple loosestrife, shall not be used within Conservation/Recreation Overlay District;

c. Utilities, including water, sewer, electric, if deemed necessary by the Village Council, shall be constructed underground.

Recreation

The Dam Beach has been used primarily for passive recreation including picnicking, beach walking, nature study, or bird watching. It is also a popular area for swimming in the summer. Two more active areas of recreation have been developed on the beach, including a net for volleyball and a fire ring to contain beach campfires. Local residents, summer residents and visitors, as well as tourists who visit the area frequent the Dam Beach Park year-round. The Village of Elk Rapids designated the Dam Beach area as a Public Recreation Area.

Conservation

Over the past 60 years, dunes have developed on this site. They are reminiscent of the topography that existed in Elk Rapids prior to modern development. The Open Dune Community serves as a natural area for native plant and animal life, including the protected pitcher's thistle. The Park has been designated as a natural overlay district.

Dogs and Pets

As per the Village Code of Ordinances, Sec. 34-36, "In park areas where dogs are permitted, such dogs shall at all times be kept under reasonable control by means of a leash. No person shall permit any other animal, either wild or domestic, owned by him, or under his control or custody, with the exception of dogs, as outlined above, to enter any park except when special permission is granted by the village president. A person having control of any animal shall place all feces dropped by the animal in any public park or playground in a proper receptacle." Bags are provided at the parking lot for owners to pick up animal waste.

Annual Maintenance Schedule

The Village Department of Public Works schedules the following annual maintenance:

Groom beach – sand only – each spring

Trim grass near walkway – once each spring

Treat poison ivy – three times per year

Mow access road edges and staging area – July and just before Harbor Days Festival

Collect trash – daily Monday-Friday; Saturday evening during peak season

Move picnic tables and fire rings seasonally and refinish as needed

Contract for porta-johns

Grade parking lot – three or four times per year and apply dust control as needed

Plow snow in parking lot and clear small area of sidewalk in winter

Specific Management Goals & Objectives⁹

Goal #1– Protect natural resources and water quality values

1. Prohibit vehicle access to the Natural Area to protect the natural resources found in the dunes
 - a. Only emergency and other authorized vehicles may use Access Road to the Staging Area.
 - b. Only emergency and other authorized vehicles may access the Natural Area– dunes and beach.
2. Use Best Management Practices to protect water quality
 - a. Limit use of fertilizers and herbicides
 - b. Remove unwanted plants by hand, wherever possible
 - c. Avoid using hydrocarbons for dust control
 - d. Continue to analyze dredge material to determine the public health risk level in the Staging Area
 - e. Collect materials from fireworks displays in Staging Area
3. Maintenance
 - a. Develop a volunteer corps
 - b. Schedule weekly Beach Clean-Up from May to November
 - c. Schedule weekly Beach Monitoring for botulism from September through November
 - d. Schedule weekly Invasive species removal around Parking Area and along Access Road

Goal #2– Protect, maintain and enhance local ecosystems and natural features

1. Encourage pedestrian access on established trails between the Beach and Backdunes to protect the dunes ecosystem and natural features
2. Evaluate the need for boardwalks to minimize impact of pedestrian traffic on the dunes
3. Develop a Facilities Plan for the Parking Area
4. Limit fires to one location within fire ring

⁹ Dam Beach and Fishing Park Management Plan Committee, 2015

5. Continue to provide weekly trash removal
6. Develop a Signage Plan for directional signs, informational signs and interpretive signs

Goal #3– Retain quality habitat for native plants and animals

1. Develop a Five-Year Habitat Enhancement Plan
 - a. Identify priority Invasive Species for removal
 - b. Evaluate methods of Invasive Species control to determine the appropriate removal method for each priority species
 - c. Determine native species of herbs, shrubs and trees for planting in order to increase species diversity
2. Identify and protect bird nesting habitat
3. Identify and develop monarch butterfly habitat

Goal #4– Provide passive recreation opportunities for public enjoyment

1. Determine priority uses of the Conservation/Recreation Area
2. Develop a Recreation Plan to minimize the negative impacts of human use on the fragile dune community

The following goals are presented here verbatim from the Village Collaborative Master Plan and the 5-year Community Recreation Plan:

Goals from Collaborative Master Plan¹⁰

Natural Resources and Beautification

Goal 1. Natural resources will be protected and preserved.

Objectives

1. Encourage a land use pattern that is oriented to and respects the natural features and water resources of the area.
2. Evaluate the environmental impact of all new development.
3. Protect land resources and water quality related to our lakes, streams and wetlands.
4. Encourage the continued natural use of wetlands as groundwater recharge and storm water holding areas.
5. Identify and protect desirable open space and scenic vistas.
6. Establish regulations and standards necessary to protect shoreline and beach areas.
7. Establish regulations and standards necessary to protect and preserve the quality of the air from degradation due to fumes, odors, smoke, dust and other pollutants.
8. Establish regulations and standards to protect the community against high noise levels and exterior lighting glare.
9. Utilize Best Management Practices (BMP) to regulate and minimize direct storm water discharge into lakes and rivers.

Goal 2. Environmentally sensitive areas, open space and public garden will be maintained for the enjoyment of residents, visitors and future generations.

Objectives

1. Preserve and maintain our public gardens and natural areas.
2. Preserve environmentally sensitive lands for open space and passive recreational purposes.
3. Protect our most prized features, such as the public library grounds, public parks, beaches, gardens, natural areas, tree lined streets and open spaces.
4. Preserve and protect all healthy trees growing on public property and replace or add to the stock when needed.
5. Encourage creative design and planning techniques for all new development so as to produce visual harmony, preserve special features and protect vital natural resources.
6. Evaluate, periodically, the need for public acquisition of environmentally sensitive and available properties located within the Village.
7. Preserve and maintain existing active recreation areas.

Recreation, Parks and the Harbors

Goal 8. Maintain the high quality of both harbors for public use in perpetuity.

Objectives

1. Provide for public boat access, dockage, moorage and parking.
2. Recognize the lower harbor is to be available for refuge.
3. Continue to recognize that the harbor is under the jurisdiction of both State of Michigan and Village of Elk Rapids rules and regulations.
4. Harbor development projects should consider the overall needs of the harbor vicinity, protection of the surrounding natural features and its impact on the Village.

Goal 9. Recreational facilities will be enhanced and the amenity level will be expanded to meet the needs of residents and visitors.

Objectives

1. Continue efforts to provide seasonal outdoor recreational opportunities.
2. Maintain existing public access to lakes and waterways within the Village limits.
3. Support cooperative recreational planning and development with the surrounding townships and the schools.
4. Encourage the consideration of recreational facilities as an integral part of community development plans.
5. Include a community center, serving community needs for indoor recreation in the community development plans, possibly developed cooperatively with surrounding Townships and school (See #3 above).
6. Preserve and maintain existing recreation areas.
7. Construct modern restrooms within park facilities.
8. Add a dog park to the community.

¹⁰ Elk Rapids Village and Elk Rapids Township Collaborative Master Plan, 2013

Goals from 5-year Community Recreation Plan¹¹

2. Preserve the Dam Beach and Fishing Park as a natural conservation area for the term of the Antrim County lease for the benefit of the general public.

Objectives

- Preserve scenic landscape and natural character of the area.
- Preserve the ecological habitat.
- Promote appropriate recreational activity such as swimming, fishing, volleyball, fire pit, and so on.
- Assist the Village in determining bathroom needs in the Dam Beach/Dexter Street area with meaningful public input.
- Make this park universally accessible to all to the fullest extent that is reasonable.
- Install signage and define swim area.
- Maintain road access for harbor maintenance, dredging and harbor operations.
- Promote education of the beach and sand dune environment.

Appendices

Resources

White Pine Associates. (2015). *Dam Beach and Fishing Park Ecological Inventory*.
Bellaire, MI: White Pine Associates

Other potential items to include:

Legal Description, Property Plat, Deed, etc.

Maps

Natural Heritage Reports (SNHA, EO, etc.)

Inventories of species

¹¹ Village of Elk Rapids 5-year Community Recreation Plan, 2013