WINNETKA WATERFRONT 2030

LAKEFRONT MASTER PLAN

ACKNOWLEDGMENTS

This plan was developed with the input and advice from dozens of smart, thoughtful, and committed people. A special thanks to all those who helped this plan become a reality.

Lakefront Advisory Committee
Blake Hannafan
Cheryl Christian
Jim Petersen
Ken Alt
Newton Marshall
Charles Dowding
Chris MacRitchie
Joe Dooley
Mike Doornweerd
Warren James

Winnetka Park District
Ian Larkin, Board Liaison
Teresa Claybrook, Board Liaison
Bob Smith, Staff Liaison
Costa Kutulas, Staff Liaison
John Muno, Staff Liaison
John Shea, Staff Liaison
Mary Cherveny, Staff Liaison

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INTRODUCTION

Project Background

To support the goal of leveraging strengths like the lakefront, Winnetka Park District (Park District) officials identified a lakefront master plan update as a priority initiative in its 2011 – 2015 Strategic Master Plan. In November 2013, the Park District released an RFP for lakefront master planning services, and selected the Lakota Group team to guide the master planning process. Once engaged, the Lakota Group team assisted Park District staff in preparing an application for an Illinois Department of Natural Resources (IDNR) Coastal Management Grant. The IDNR's Coastal Management Program supports a range of projects that seek to protect, restore, and manage the Illinois Lake Michigan coast for future generations.

In April 2014, the Park District was awarded $119,000 in funding through the Coastal Management Grant program, and work on the Lakefront Master Plan began. As a first step, the Park District interviewed interested parties for positions on a ten-member advisory committee. The Lakefront Advisory Committee (Advisory Committee) hosted its first meeting in December 2014.

Since December 2014, the Project Team has engaged hundreds of stakeholders - Village of Winnetka residents, Village and Park District staff and elected officials, representatives from program partners and affiliates, representatives from neighboring lakefront communities, permitting agencies, and funding partners – all of whom were enthusiastic when speaking of Winnetka's lakefront. The Project Team heard a lot of ideas for how to improve the lakefront, as well as some concern about changing things too much. All of this input was taken to heart by the Project Team and advisory committee in developing the final recommendations outlined in this plan. The result: a community-supported vision - comprised of large-scale projects and more modest projects - that will both improve the quality of lakefront amenities available to park and beach users as well as improve the overall quality of the Illinois Lake Michigan coast for future generations.

Planning Process

Project work was organized into four phases: Engage, Analyze, Envision, and Implement. The first phase, Engage, focused on data collection and facilitating community conversations with a wide range of lakefront stakeholders. These conversations served two critical functions: first, they provided the Project Team with an understanding of lakefront history, context, and ideas for next steps. The conversations also helped the Project Team to convey information about the project to stakeholders and the community. The second phase, Analyze, involved a comprehensive analysis of the data collected, giving way to alternative strategies for implementation and criteria by which to evaluate each strategy. The third phase of the project, Envision, focused on the creation of a shared vision for the lakefront. Strategies for achieving this vision were drafted during the final project phase, Implement.

ENGAGE

JUNE - OCTOBER 2014

Meetings

- Consultant Team Kick-Off

Tasks

- Establish Lakefront Advisory Committee (LAC)
- Establish Project Website

FALL 2014

Meetings

- LAC Member Reception
- LAC Meeting #1
- IDNR Update Meeting #1

Tasks

- Prepare stakeholder list and contacts, begin stakeholder outreach
- Stakeholder interviews
- Website posted

ENVISION

SUMMER - FALL 2015

Meetings

- LAC Meeting #7 - LAC Meeting #10
- Community Open House #3 - *Draft Lakefront Master Plan*
- Village of Winnetka Total Fitness Challenge Presentation Booth
- Village of Winnetka Fourth of July Celebration Presentation Booth
- Community Open House #4 - *Draft Lakefront Master Plan*
- Community Open House #5 - *Draft Lakefront Master Plan*
- WPD Park Board Presentation #1
- Lakefront tour

Tasks

- Refine detailed alternative concepts for lakefront site planning and programming
- Prepare draft project budgets
- Prepare for Community Open Houses #3, 4, and 5

ANALYZE

WINTER - SPRING 2015

Meetings

- LAC Meeting #2 - LAC Meeting #6
- Community Open House #1 - *State of the Lakefront*
- Community Open House #2 - *Lakefront Alternative Concepts*

Tasks

- Continue stakeholder interviews
- Review State of the Lakefront summary report with LAC
- Finalize **State of the Lakefront Summary** report
- Prepare alternative concepts for lakefront site planning and programming
- Prepare for Community Open Houses #1 and 2
- Refine alternative concepts for lakefront site planning and programming

IMPLEMENT

WINTER 2015 - 2016

Meetings

- LAC Meeting #11 - LAC Meeting #14
- WPD Park Board Presentation #2
- IDNR Update Meeting #2
- IDNR Update Meeting #3
- WPD Park Board Presentation #2

Tasks

- Review draft **Winnetka Lakefront Master Plan** report with LAC
-
- Prepare final draft **Winnetka Lakefront Master Plan** report

Outcomes

The outcome of this process will result in a number of priority capital development initiatives, programming initiatives, and maintenance and operations initiatives that will be integrated with the Park District's strategic plan and capital (which is updated every five years).

Capital Development Initiatives

Capital Development Initiatives are construction projects that, to the highest degree possible:

- Address community, staff, and board priorities
- Support master-planning goals
- Support the Winnetka Park District's mission, vision and values

New construction, existing facility enhancements, and brand enhancement

Programming Initiatives

Programming Initiatives represent:

- Investment in educational and recreational programs that advance the Park District's mission.
- Investment or policy regarding uses, such as concessions, at Park District properties.

Maintenance and Operations Initiatives

The **Maintenance and Operations Initiatives** represents projected spending for:

- Investment in administration and technology
- Routine capital repair and replacement
- and the purchase of Maintenance equipment

On-going upkeep, repair, compliance, and enhancements to existing facilities

LAKEFRONT FAQ: WHY DID THE WINNETKA PARK DISTRICT UNDERTAKE THIS PROCESS NOW?

The last Winnetka Lakefront Plan was completed in 1983, when erosion issues were threatening some of Winnetka's public beaches, particularly Lloyd Beach. To support the goal of "upgrading assets to leverage strengths" improving the lakefront – a valuable community asset - was identified as an objective of the 2011 Winnetka Park District strategic plan.

In October 2013 Winnetka park district issued an RFP for Lakefront Master Planning services, and in April 2014 Winnetka park district was awarded an Illinois department of natural resources Coastal Management Grant to help fund the Lakefront Master Plan. The purpose of the lakefront plan is to create a strategic and unified community vision for the future of Winnetka's shoreline.

Project Mission

At the beginning of the project, the Project Team and the Advisory Committee developed a project mission statement, defining the purpose of this Lakefront Master Plan based on themes revealed through stakeholder engagement and input from the Advisory Committee:

To provide a long-term, sustainable strategy for the preservation, protection, restoration, and enhancement of Winnetka's lakefront for both Winnetka residents and a broad range of Lake Michigan user groups.

Project Goals

To support this mission, the planning team also established seven plan goals:

1. Enhance recreation and open space facilities and programming for Winnetka residents.
2. Develop facilities with intergenerational appeal.
3. Facilitate safe and convenient access.
4. Support and enhance Lake Michigan ecosystems.
5. Adopt a sustainable operations model.
6. Expose and inform Winnetka residents to the value of the public lakefront.
7. Encourage and seek partnerships (public and private).


LAKE MICHIGAN
PRIVATE BEACH
LAKEFRONT FAQ: HOW COULD
BUILDING A NEW SHORELINE
STRUCTURE LEND EFFICIENCY TO
PUBLIC BEACH MAINTENANCE?
WINNETKA 2030
WATERFRONT

ENGAGE

Community engagement was a critical component of the planning process, from beginning to end. Community engagement was approached in a number of ways throughout the process, including:

- The establishment of a citizen's advisory committee – the Lakefront Advisory Committee
- Stakeholder interviews and focus group discussions
- Web-based surveys
- Public open house meetings

A full summary of engagement may be found in the Appendix of this document.

Lakefront Advisory Committee

An Advisory Committee, comprised of Winnetka resident volunteers, was vetted and selected at the beginning of the planning process. The ten advisory committee members possess expertise in a range of lakefront topics, and have helped to guide the planning process by participating in monthly meetings, providing feedback on draft project deliverables, and attending public meetings. Two Winnetka Park District Board members participated on the Advisory Committee as well as liaisons to the board. Advisory committee meetings were hosted on the second Monday of each month. The Advisory Committee met 14 times during the planning process. Advisory committee meetings were open to the public, and were attended by members of the public on numerous occasions.

Lakefront Advisory Committee
Blake Hannafan
Cheryl Christian
Jim Petersen
Ken Alt
Newton Marshall
Charles Dowding
Chris MacRitchie
Joe Dooley, Co-Chair
Mike Doornweerd
Warren James, Co-Chair

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Stakeholder Interviews and Focus Groups

Over 200 individuals were identified by Advisory Committee members and Park District staff as candidates for stakeholder interviews and focus group discussions. The Project Team interviewed over 85 stakeholders at the beginning of the planning process, representing a variety of interests, including: the Village of Winnetka Board of Trustees, the Village of Winnetka Environmental and Forestry Commission, Village of Winnetka staff, the Winnetka Parks Foundation, park district staff from neighboring communities, local institutions, community organizations, lakefront property owners, boat beach users, dog beach users, and other beach users. Conversations with stakeholders were based on eight questions about issues and opportunities related to park maintenance, operations, programming, and facilities and responses were recorded using a survey tool.
Five public open house meetings were hosted as part of the engagement strategy, and are described below.

Web-Based Surveys

A total of three web-based surveys were a used to collect feedback relative to the lakefront planning process, one administered by the Project Team, one by the Park District, and one by the Winnetka Caucus Council. The surveys administered by the Project Team and the Park District were not intended to be statistically significant, but rather was intended as a simple tool to gauge interest in a number of initiatives represented in preliminary design concepts available to the greater Winnetka community. The survey prepared by the Winnetka Caucus Council was conducted independent of the lakefront master planning process, but provided some valuable insight into a broad spectrum of resident's opinion on lakefront development.

Lakefront Master Plan Survey – July 2015
The web-based survey tool used to collect feedback during the lakefront master planning process. 177 people participated in the survey. The survey asked participants for feedback on key concepts presented in preliminary lakefront plans.

Winnetka Caucus Council Survey – August 2015
A survey administered by the Winnetka Caucus Council providing further insight to Winnetka resident's preferences related to the future of the lakefront (among a number of other Village-related topics).

Dog Beach Survey – September 2015
A survey administered by the Winnetka Park District, sent to all current dog beach pass holders. This survey received 117 respondents, and asked about how users currently interact with the Centennial Beach dog park.

Public Open House Meetings

Five public open house meetings were hosted (two events each) as part of the engagement strategy, and are described below.

Open House #1a: Existing Conditions Assessment – February 19, 2015
Open House #1b: Existing Conditions Assessment – February 28, 2015
Key public feedback: There is enthusiasm in the community about planning for the future of the lakefront.

Open House #2a: Design Concept Alternative Review - May 21, 2015
Open House #2b: Design Concept Alternative Review - May 30, 2015
Key public feedback: There was support expressed for reconsidering the existing use of beaches, including the reuse of Maple Street Beach as a dog beach. The only exception was the proposal of transforming Lloyd to a swimming beach, which was not preferred by most participants.

Open House #3: Draft Concept Review #1 – July 25, 2015
Key public feedback: There was strong opposition expressed at this meeting in regards to converting Maple Street Beach to a dog beach.

Open House #4a Draft Concept Review #2 – September 12, 2015
Open House #4b Draft Concept Review #2 – September 16, 2015
Key public feedback: Concepts were updated, removing the recommendation for a dog beach at Maple Street Beach, and participants were supportive of this change. Concern was expressed over the size and scale of proposed breakwater structures.

Open House #5a: Implementation Priorities – October 15, 2015
Open House #5b: Implementation Priorities – October 17, 2015
Key public feedback: While most people support improving the quality of beaches, there is concern among some residents about the appearance and effectiveness of shoreline structures such as rubble-mound breakwaters. Shoreline and beach erosion remains an issue that is not well-understood by the community.

A series of five public open house meetings were hosted as part of the community engagement process.

Planning Process Participants

This list represents interviewees, focus group participants, and those who signed in at public open house events.

Cameron Adams
Caryn Adelman
Ken Alt
Arthur Armchambault
Rob Bahan
Chris Ball
Matt Barton
Brad Beanblossom
Lara Beanblossom
Ian Berkowsky
Kathy Bingham
Andre' Blom
Amy Bluhm
Andy Bluhm
David Bornhoeft
Jetta Boschen
Arthur Braun
Patrice Bugelas Brandt
Colleen Burke
Amy Burnham
Andy Burnham
Nancy Byurek
Monica Carroll
Richard Cassis
Rick Chesley
DeeDee Chesley
Rob Chesney
Cheryl Christian
Emily Ciaglo
Bob Claybrook
Marcia Cleveland
Katie Comstock
Ania Cranmer
Colin Cross
Teri Cross
Elise Dada
Terry Dason
Mike Donofrio
Charles Dowding
Jane Dowding
Fritz Duda
Elise Duda
Eliza Earle
Nancy Fehrenbach
Carol Fessler
Dave Figgins
Elsa Fisher
Don Fotsch
Kate Fotsch
Sue Galler
Andrew Goodrich
Harry Grace
Annemarie Gramm
E. Gene Greable
Rory Hackbart
Blake Hannafan
Lauren Harper
Black Harper
Betsy Harrootyan
Tracy Havre
Charlie Havre
Tom Heineman
John Henderson
Patrick Heraty
Susan Hering
Christine Holland
Elizabeth Holmes
Matt Hulsizer
Scott Hunken
Bill Hurley
Melinda Hurley
Joanne Hyan
Jack Ivers
Elaine Jahans
David Jarmust
Molly Jarmust
Tristan Jenista
Kristin Kalter
Tom Kehoe
Brian Keys
Daniel Kielson
Doug Kiersey
Karen Kiersey
Colin Knight
Jeff Knupp
Colleen Knupp
Trisha Kocanda
Kyle Kohn
Steve Kosanovich
Nancy Kosanovich
Patrick Kreis
William Krucks
Yann Kulp
Mark Kurensky
Richard Laible
Tom Law
Kristen Leahy
Jeffrey Liss
Jason Lokefeer
Chris MacRitchie
Lisa Madlener
Rose Marchuk
Josh Mark
Kim Marsh
Susan Marshall
Laura McCorvie
Stuart McCrary
Pam McEnroe
Frank McGuinn
Lisa McGuinn
David McHugh
Krysia Miller
Mike Miller
Madeline Miller
Kate Miller O'Brien
Patti Mitchell
Christine Murdoch
Mike Murphy
Brian Norkus
Randy Oberembt
Otto Odendahl
John Oelerich
Keith Olson
Bridget O'Shea
Thomas Parkinson
Rosann Park-Jones
Jim Petersen
Lisa Peterson
Suzanne Pierce
Kathryn Popoff
Marily Prodromos
Graham Reid
John Ruff
Zosia Scharf
David Scharf
Zosia Schewrfields
Mary Beth Schmidt
Rick Schram
Susie Schreiber
Stuart Schuldt
Chris Shama
Lisa Sheppard
Barbara Silverman
Rick Silverman
KC Simon
Susan Small
Don Smith
Heather Smith
Susan Snyder
Tor Solberg
Bob Stevens
Liza Sullivan
Patti Sutton
Diane Tecic
Ellen Thomas
John Thomas
Jennifer Tower
Mary Tritely
Matt Tritely
Peter Tyor
Patti Van Cleave
Bob Vorwald
Gris Ware
Richard Wehman
David Wendel
Jill Wendel
Matt Wendt
Kari Wendt
Mark Wetzel
Steve Wilson
Louis Wilson
Lynn Wolff
Bob Zabors
Keith Zaransky

Key Themes of Public Input

Across all platforms of engagement, a number of key themes emerged and are described below.

Water Quality

Improving water quality of beaches is an important priority for residents, and there is still concern about the quality of the water at Elder Lane Beach and Centennial Beach.

Natural Areas

Stakeholders supported the idea of clearing views from the tableland to the lake. Clearing scrub trees and invasive species from the bluffs to help clear views was supported by stakeholders. Residents support sustaining and enhancing the natural environment, and see restoration of the natural landscape as a priority.

Restore the Bluffs and Shoreline

Stakeholders supported the idea of clearing views from the tableland to the lake. Clearing scrub trees and invasive species from the bluffs to help clear views was supported by stakeholders.

Water quality at Elder Lane Park and Beach remains a major concern for many stakeholders.

Restored bluff landscape in a neighboring north-shore community.

Overgrown and invasive bluff plantings inhibit the propagation of native under-story vegetation.

Beach Use

There is no clear consensus about what uses should be located at each beach in the future, but there is general support for monitoring community needs and considering a change of use at beaches based on the changing needs of the community. There is widespread support for separate beaches for motorized and non-motorized boating uses.

Dog Beach

There is no clear consensus on whether or not Centennial should be converted from a dog beach to a swimming beach at this time, but there is general support for monitoring community needs and considering a change of use at beaches based on the changing needs of the community.

Improve Lakefront Safety

There is general concern about jet-ski traffic being controlled more effectively. There are some management issues that need to be reviewed to avoid the potential of an accident due to congestion and a variety of user-types.

Recreation space for dogs and dog-owners is accommodated at the beach at Centennial Park, some stakeholders wonder if that land would be better used as a people beach.

Lakefront uses collide (sometimes literally) at Lloyd Beach creating safety issues when paddle-boarders, surfers, and swimmers use the beach at the same time as power-boaters, sailors, and jet-skiers.

Property Acquisition and Connecting Beaches

Although support was expressed regarding the proposed acquisition of the residential property between Elder and Centennial beaches, participants pointed out that this effort was undertaken in the past unsuccessfully. Connecting key beaches is a priority for many stakeholders, and the rules and regulations related to traversing the beaches is confusing to most people. Improving access also aligns with one of the Winnetka Environmental and Forestry Commission's key priority projects, to "maintain and expand the number of public access points to beaches and the forest preserve." Finally, the potential to increase lakefront accessibility through the strategic transfer of riparian rights is also of interest to people.

Improve Access from Tableland to Beach

Because of the physical constraints of the Lake Michigan shoreline and some aging infrastructure, access at each individual park – down the bluff to Winnetka beaches - is a challenge for many stakeholders.

View south from Elder Lane Beach looking across **private beach that sits between Elder and Centennial**.

Private property dividing Tower Road Park and Beach and Lloyd Park and Beach.

Existing cow path crossing private property between Tower Road Park and Beach and Lloyd Park and Beach.

Switchback concrete stairs leading down the bluff to the beach area at Tower Road Park and Beach.

Improve Visual Quality and Maintenance

A number of stakeholders want to see the aesthetic quality of Winnetka's beaches and lakefront facilities brought up to the same high-level of quality as neighboring communities. Glencoe Beach, in particular, was mentioned as a good model for Winnetka beaches.

Facilities

There is support for improving the existing beach houses at all lakefront parks. More storage for non-motorized watercraft is especially important – including storage for sculls, something not currently accommodated at the lakefront.

Improve Concessions

There is strong interest in new types of concessions at the lakefront including food and beverage service and equipment rentals. There is interest in opportunities for food and evening activity to extend beyond daylight hours.

Existing concessions at Tower Road Park and Beach

Existing beach house and concrete patio at Tower Road Park and Beach.

A Makeshift "launch office" at Lloyd Park and Beach is staffed from Memorial Day through Labor day.

Improve Access for Boats

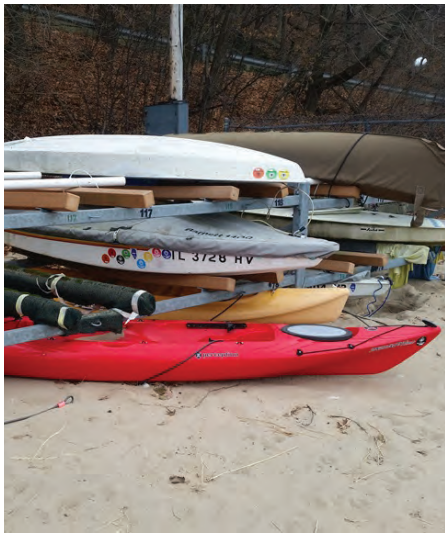
Stakeholders also supported the idea of increasing access for boat users at the Lloyd Beach boat launch, and increasing access to boat storage at Lloyd. There is a need to increase the boat storage to allow for year-long storage and boat rentals.

Increase Boat storage

Participants discussed the fear that the cost associated with professional boat storage, launching and valet staff would be higher than the revenue from increased boat storage.

A **chain-link fenced area** at Lloyd Park and Beach protects about 14 boats and provides storage for staff.

One way vehicle circulation at Lloyd Park and Beach can be difficult for visitors to navigate.



Additional **non-motorized boat and scull storage** to the south of the beach house.

Breakwaters, Groins, and Shoreline Structures

There was concern expressed over the proposed breakwaters: fears that they will diminish the beaches natural beauty and ecology.

Erosion

While most people support improving the quality of beaches, there is concern among some residents about the appearance and effectiveness of shoreline structures such as rubble-mound breakwaters. Shoreline and beach erosion remains an issue that is not well-understood by the community.

Inorganic shoreline structures diminish the lakefront's natural aesthetic.

Erosion and sand migration is often misunderstood.

Existing shoreline structures are outdated and in need of improvement.

Improve Educational Opportunities

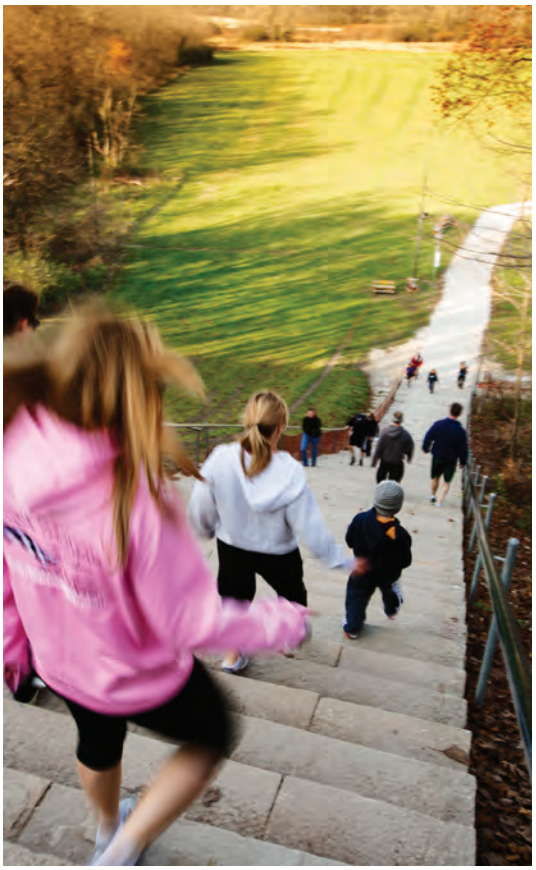
Educational opportunities related to environmental and local history should be integrated into park programming and design. Many stakeholders would like to see local schools using lakefront parks more often.

Consider Intergenerational Appeal for all Improvements

There is strong interest in the implementation of lakefront amenities with intergenerational appeal, helping to further activate the lakefront. Improvements should represent and appeal to the demographic of the community – including seniors.

Expand Fitness Offerings

Winnetka is an active community. It is necessary to consider activities that the serious athlete might like to experience such as approved long-course swimming, running courses, and fitness areas.



Fitness offerings such as vertical trails provide a resource for Winnetka's active community.

Intergenerational improvements provide opportunities for people of all ages.

Winnetka's lakefront provides unique opportunities for **education and exploration**.

ANALYZE

The Analyze project phase involved a comprehensive inventory and review of the existing condition of the Winnetka lakefront and individual lakefront parks. The analysis, coupled with input from project stakeholders, gave way to alternative strategies for lakefront improvements. The analysis considered universal topics like lakefront history, landscape, water quality, coastal dynamics, and regulatory requirements. The analysis also considered challenges and opportunities specific to the existing conditions at each lakefront park.

Lakefront History

To ensure future public beach access, Winnetka Park Commissioners began acquiring lakefront property in the early 1900s. For $120 per front foot they were able to purchase Winnetka's first lakefront park, Maple Street Park and Beach, in 1910. By 1913, a beach house was built and public swimming was officially opened, with shuttles carrying overheated bathers to the cool waters of Lake Michigan.

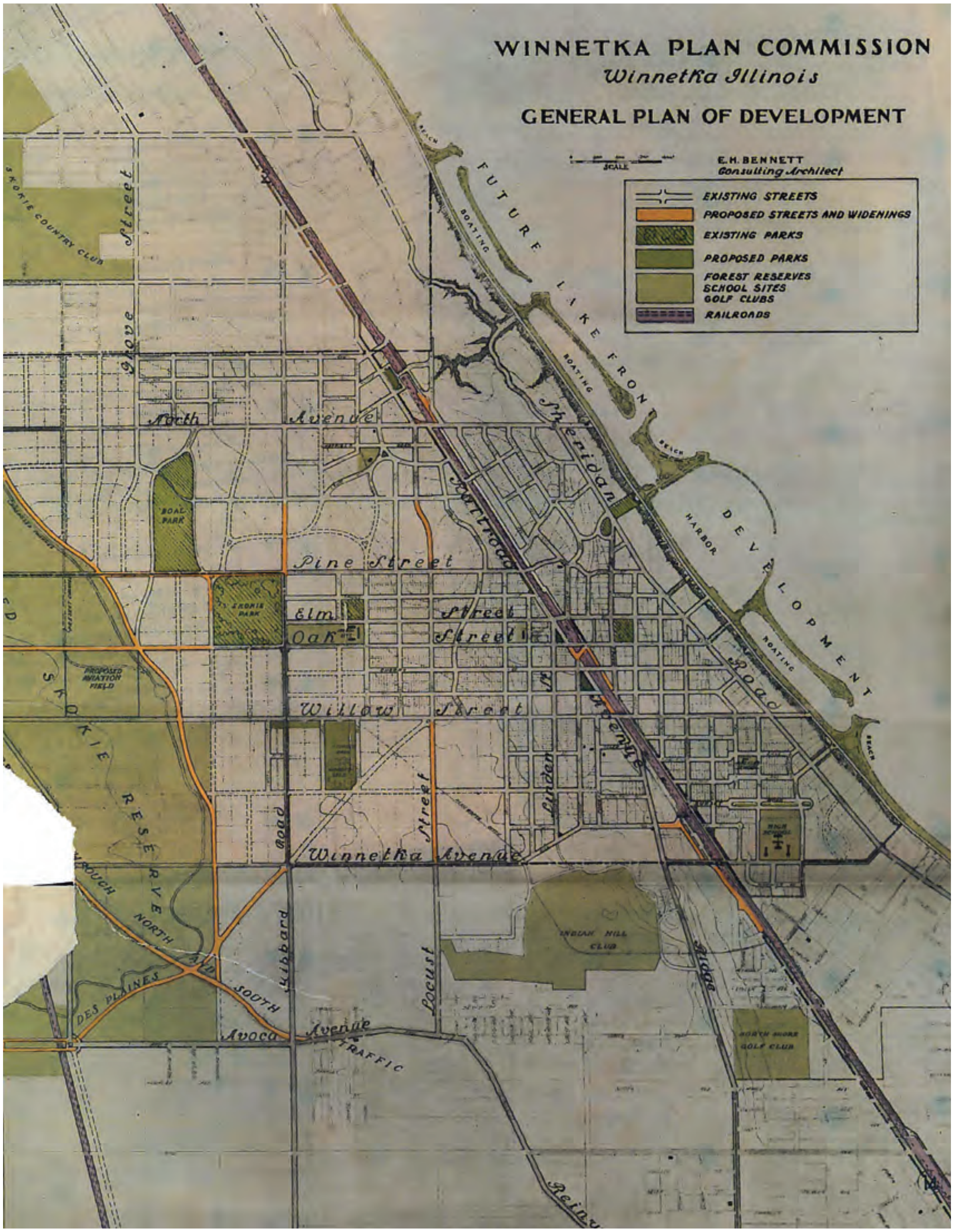
The 1921 Plan for Winnetka

Following the successful public opening of Maple Park, acquisition of lakefront parkland continued to be a priority for Village leadership. Lakefront parks were addressed by architect Mr. Edward H. Bennett – a contemporary and former partner of Daniel Burnham - in his 1921 Plan for Winnetka. Providing safe access for recreational lake-users including boaters and swimmers and connecting the existing lakefront parks were priorities for Bennett. The plan proposed using fill – a byproduct of a trench planned to be constructed to relocate rail road tracks below grade through downtown Winnetka – to construct a series of islands in the lake:

> *At some future time [the] isolated parks and street ends should be connected either by a parkway reclaimed along the shore, or by creating a strip of land in the lake at some distance from and parallel to the shore, thus leaving the present shore line and riparian rights undisturbed.*
>
> *The latter scheme is indicated on the plans and has many advantages. It would provide a lagoon of quiet water for small craft and for bathing and skating. Its execution could be carried out by progressive steps: First, by extending the public street ends into the lake on solid piers or jetties and then by connecting these piers with strips of land paralleling the shore. In this way a harbor could be created, giving to all citizens the opportunities for canoeing, rowing and sailing which those who are able to go away in summer seek.* [1]

His grand vision was similar to the lakefront treatment envisioned in Daniel Burnham's famed Plan for Chicago. This vision was never implemented, and many of the same issues Bennett sought to address with his plan still exist today.

[1] Plan of Winnetka: The Report of the Winnetka Plan Commission, 1921


WINNETKA PLAN COMMISSION
Winnetka Illinois
GENERAL PLAN OF DEVELOPMENT
E. H. BENNETT
Consulting Architect
EXISTING STREETS
PROPOSED STREETS AND WIDENINGS
EXISTING PARKS
PROPOSED PARKS
FOREST RESERVES
SCHOOL SITES
GOLF CLUBS
RAILROADS
FUTURE LAKE FRONT DEVELOPMENT
HARBOR
Sheridan Road
North Avenue
Pine Street
Elm Street
Oak Street
Willow Street
Winnetka Avenue
Avoca Avenue
Hibbard Road
Locust Street
Linden Avenue
Grove Street
Ridge
SKOKIE RESERVE
SKOKIE COUNTRY CLUB
INDIAN HILL CLUB
NORTH SHORE GOLF CLUB
DES PLAINES
NORTH AND SOUTH TRAFFIC

20th Century Expansion

It was not until well into the 20th Century that Winnetka made its most significant investment in lakefront property. Tower Road Park and Beach was developed in 1946. Elder Beach, a small swimming beach, officially opened in 1958. Lloyd Park and Beach was acquired in 1962, and a boat launch, bathhouse and boat storage racks were constructed at Lloyd shortly thereafter. And, Centennial Park and Beach was opened in 1968.

In the late 20th century, Winnetka's lakefront properties faced the threat of severe erosion:

> *The amount of littoral transport received by the Winnetka lakefront in the late 20th century was greatly reduced. Littoral material was reduced by the construction of the Naval Training Center littoral barriers on the updrift coast at Waukegan and Great Lakes Harbors, and by [other updrift] shore protection works, such as steel sheet piling, riprap, and sea walls designed to reduce beach and bluff erosion.*[2]

View from the Winnetka Power Plant, looking south. C. 1897

[2] Reconnaissance Report: Lloyd Park and Beach, Winnetka Illinois. US Army Corps of Engineers Chicago District.
August 1982

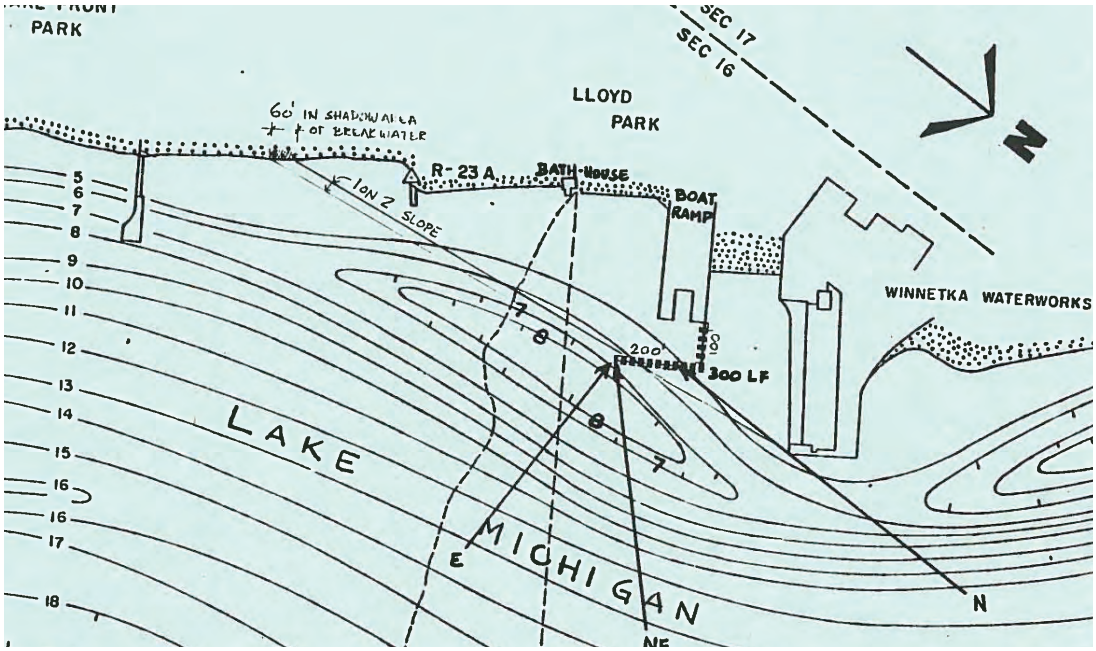
Lakefront Planning in the 1980s

These erosion issues led to a renewed interest in lakefront planning for the Winnetka Park District, particularly related to conditions at Lloyd Park and Beach, which at the time provided the only public boat launch between Evanston and Highland Park. In 1981 the Park Board commissioned a study to inform the construction of a new breakwater at Lloyd Park and Beach:

> *The Winnetka boat ramp, which is located at Lloyd Park, has no protection from sudden lake storms and the resulting rough water. This lack of protection prevents the ramp from providing better service for Winnetka boaters. Some of them have been discouraged and opted to use other better protected ramps in communities which are many miles from Winnetka.* [3]

By the 1980s, Winnetka's lakefront was suffering from extreme problems with erosion, particularly at Lloyd Park and Beach where the power plant lagoons prevented most littoral drift from reaching the beach. To identify solutions to the problem, in 1983 the WPD completed a Lakefront Long Range Plan.

Plan for Lloyd breakwater structure, 1981



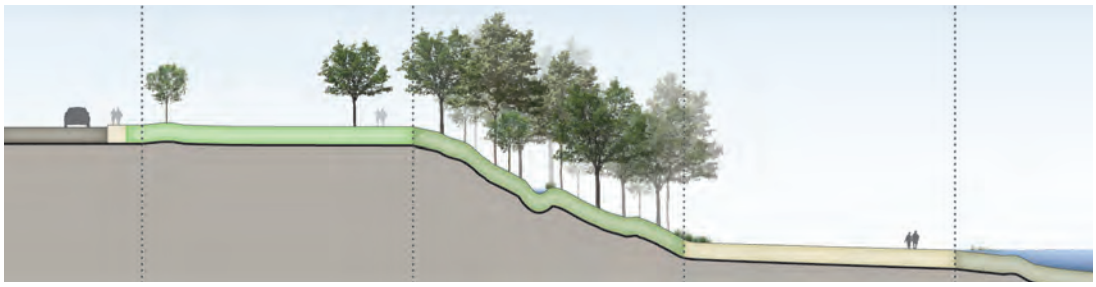
[3] Lloyd park boat Ramp Breakwater Study, Winnetka, Illinois. Ralph H. Burke, Inc. February 1981

The Bluff and Ravine Landscape

In general, the southwestern shores of Lake Michigan are characterized by bluffs fronted by narrow beaches:

> *The Lake Michigan bluff ravine system is also a significant habitat area. Plant communities in the ravines are of particular concern, as many are locally rare, with as many as 16 state-threatened or endangered species potentially present in the ravines. Seeps flowing out of ravine slopes create an unusual wetland habitat supporting plant species that are uncommon in other areas. Because temperatures tend to be somewhat cooler due to the close proximity to the lake, vegetation found along the lakeshore and in ravines include relict species no longer found elsewhere in Illinois and whose current natural range are much farther north. These species include paper birch, white pine, arbor vitae, Canadian buffalo-berry, and star-flower. These plants were probably more common in the area following the retreat of the glaciers 12,000 years ago when the climate was significantly cooler. The ravines now provide some of the only remaining habitat for such species in Illinois. The only known colonies of beech in northern Illinois are also found on the cool, moist, north-facing slopes of Lake Michigan ravines.* [1]

Bluff erosion along Lake Michigan is a major concern related to stormwater runoff. Bluff erosion occurs due to waves as well as runoff from rainfall, and measures can be undertaken to reduce the risk of erosion. The implementation of good drainage systems that prevent flow from running over the face of the bluff can reduce the impact of bluff-weakening surface erosion. The maintenance of adequate vegetation on the face of the bluff can also help reduce erosion. Bluff vegetation has the added benefit of preventing the saturation of soil, which can cause instability of the bluff. Similarly, the installation of dewatering drainage systems within the bluff can prevent erosion by mitigating seepage of water through the bluff face. Lastly, the use of storm sewers and the lining of channels in ravines can also prevent erosion and maintain the integrity of bluffs. Bluff erosion has been a natural process along Lake Michigan, but these strategies can help minimize the impact of stormwater runoff.



[1] Illinois Coastal Management Program Issue Paper, Habitat, Ecosystem and Natural Area Restoration

Invasive species are also an issue:

> *Invasive aquatic species such as Asian carp garner most of the press attention, but flora such as buckthorn, honeysuckle, grapevine, purple loosestrife, curly-leaf pondweed, Eurasian watermilfoil, flowering rush, and garlic mustard have gained a foothold… These non-native species often overrun their competitors and do not allow native species to grow. Local groups make an effort to remove these invasive species before they spread further, but they require constant attention and manpower, and can be quite costly to control. Other invasive species have infiltrated Lake Michigan. Mollusks such as the zebra mussel, crustaceans such as the spiny water flea and the rusty crayfish, fish such as the common carp, round goby, Eurasian ruffe, sea lamprey, and white perch are exotic species that are taking over the Great Lakes. These invasive aquatic species impact our native species through competition, predation, and habitat alteration. They also can impact our economy by clogging our water intake pipes, disrupting fishing, and impeding navigation."* [1]

Overgrown and invasive bluff plantings inhibit the propogation of native understory vegetation.

[1] Illinois Coastal Management Program Issue Paper, Habitat, Ecosystem and Natural Area Restoration

Water Quality

Like many communities along Lake Michigan, Winnetka occasionally must close its swimming beaches due to an excess of fecal coliform bacteria in the water. The contributing sources of water pollution are typically outdated and broken sanitary sewers (or overflowing combined stormwater and sanitary sewers), stormwater runoff, and wildlife. A major factor contributing to the pollution in stormwater runoff is the amount of regional impervious cover such as roads, driveways, buildings and parking lots.

Water quality is monitored daily at all beaches for bacteria levels, such as coliform and E.coli, to ensure the safety of all patrons. On occasion, beaches may be closed due to higher than acceptable bacteria levels. In the recent past, bacteria levels have exceeded State standards and caused numerous closures at Elder Lane Park and Beach. A much-discussed 2011 report by the National Resources Defense Council indicated that Elder Lane Park and Beach was the most frequently closed beach in Illinois, based on bacteria-related beach closure data from 2010. In 2011, the Village worked closely with the Park District to investigate the cause of the closings. vThe Village determined 15 instances where broken residential sanitary sewer pipes (privately maintained) and two public sewer locations were leaking into the Village's stormwater system. The Village is a "separate sewer" community—meaning it has separate underground systems to convey wastewater and stormwater. The illicit connections were causing release into Lake Michigan at Elder Lane Park and Beach.

The identified issues were repaired, and in 2012 and 2013 water quality at Elder Lane began to improve substantially. The chart below reflects the closings, by beach, related to high bacteria levels, over the past several years.

Total Days Closed

	2011		2012		2013		2014		2015	
	HIGH BACTERIA	RIP CURRENTS	HIGH BACTERIA	RIP CURRENTS	HIGH BACTERIA	RIP CURRENTS	HIGH BACTERIA	RIP CURRENTS	HIGH BACTERIA	RIP CURRENTS
Tower	7	0	4	7	3	7	9	3	9	3
Maple	7	0	3	7	3	6	7	3	7	3
Elder	32	0	7	7	9	4	11	3	17	3
Total	46	0	14	21	15	17	27	9	33	9

Source: Winnetka Park District, 2016

Coastal Dynamics

As various lakefront improvements are being considered for each site, it will be important to have an understanding of the site conditions, environmental design conditions and coastal dynamics. In particular, proposed beaches, breakwaters, marinas, dockage systems, shore protection, habitats and other waterfront improvements will be subject to various environmental factors, including wind, waves, water levels, ice, nearshore hydrodynamics and sediment transport. These factors can create significant challenges and limit the improvements that are technically and/or economically feasible, and can withstand the test of time. A brief overview of the challenges associated with site conditions, environmental design conditions and coastal dynamics is presented below.

Recent storm damage at Lloyd Park and Beach exemplifies the need for improved shoreline protection.

The southwestern shores of Lake Michigan are characterized by bluffs fronted by narrow beaches, with the nearshore area characterized by intermittent and variable sand cover over glacial till; however, silt, clay or bedrock may also be encountered. The presence, depth/thickness and extent of these sediments all present unique design challenges and have cost implications.

Along much of the western and southern shores of Lake Michigan including the Winnetka area, the lake bottom consists of glacial clay till, which is a cohesive mix of materials (sand and stone 15%) bound together by clay (85%). In shallow nearshore locations, wave energy can cause erosion of the glacial clay till if it is not protected by layer of sand cover thick enough to prevent wave energy from impacting the lakebed. Once the clay particles erode, the cohesive mixture has no means of staying together and can move freely in the littoral stream. The loss of lakebed material is called lakebed down-cutting and is an irreversible process causing permanent deepening of the lakebed. The small quantity of sand and stone which remains in the littoral stream moves along shore and eventually settles in protected areas of the coast. This process results in larger storm waves due to deeper water nearshore, a steeper lakebed profile and progressively narrower beaches as the nearshore lakebed continues to erode. The result is the requirement for larger, more robust structures for shoreline protection and other waterfront improvements. This process is an important consideration in the design of any waterfront improvements along the southwest shore of Lake Michigan.

Sediment transport is the natural movement of sediment in the nearshore zone. Proposed shoreline improvements cannot interrupt this natural movement. Correctly designed improvements will allow for the natural movement of sand, assist with providing shore and bluff protection, and enhance habitats while not creating negative erosion or accretion impacts up or downdrift of the project.

Sediment Transport

Sediment transport refers to the movement of sediment in the nearshore zone as a result of waves and currents. Over time, waves can move significant volumes of sediment along a shoreline. Coastal structures, such as groins and jetties, can significantly impact this natural process by trapping sediment on the updrift side of a structure, thereby creating erosion on the down drift side. The direction and rate of longshore sediment transport is a function of the wave conditions (height, period, direction, and duration), the source and size of sediment particles, and ice conditions. In Winnetka, the longshore sediment transport is primarily from north to south. Due to various factors, the sediment transport rate is in this region is relatively low. As a result, most projects will have a limited impact, if any, on adjacent shorelines. In many cases, the projects can be designed to allow natural "bypassing" of sediment past the project.

Cross shore sediment transport, also initiated by wave action, refers to the movement of sediment in the offshore-onshore direction. Offshore transport generally occurs during storm conditions, and may result in the loss of beach sediments to deeper water. Onshore transport may occur during milder wave conditions.

Although sediment transport rates are relatively low at Winnetka, both longshore and cross shore sediment transport processes can be impacted by the construction of shoreline improvements, with potential impacts to the adjacent (updrift and down drift) shorelines and property owners. In areas where sediment accretes, dredging may be a maintenance expense, while in areas where sediment is eroded, additional shore protection or beach nourishment may be required. The planning and design of any waterfront improvements, including the creation, restoration or enhancement of beaches, and possible aquatic and terrestrial habitat improvements, requires a thorough understanding of these sediment transport processes.

Erosion

Historically, erosion occurred nearly continuously along the 19 miles of Illinois Bluff coast from North Chicago south to Winnetka. Most commonly this erosion occurred by wave action cutting into the toe of the bluff and undermining the bluff slope. However, the bluffs also erode due to surface and groundwater runoff. This is well documented in historical photographs, sketches and personal accounts collected over a 115 year period. This research depicts active slumping on the bluff faces which were often devoid of vegetation resulting in a shoreline littered with fallen trees and other debris. Considering erosional trends it was determined that the Illinois coast erodes, on average, between 1 foot and 2.5 feet per year. Although, much of this erosion is likely to have taken place prior to existing shoreline protection, which was largely implemented during the 1980's and 1990's. In the period of time since these installations, coastal erosion has been severely reduced. Nevertheless, this success is dependent on the implementation and maintenance of new and existing shoreline protection. Furthermore, the bluff coast from North Chicago to Winnetka and further south to Evanston is still considered to have the potential for more severe erosion. [1]

LAKEFRONT FAQ: HOW COULD BUILDING A NEW SHORELINE STRUCTURE LEND EFFICIENCY TO PUBLIC BEACH MAINTENANCE?

Currently the Winnetka lakefront is experiencing the effects of storms, changing lake levels and a lack of native sand in the beach system. Installing stone breakwaters (where necessary) will help with the stability of the beach, help to minimize any potential rip currents around existing structures, reduce the amount of maintenance dredging, and are considered a best management practice for coastal habitat restoration (in place of the existing steel sheet-pile and concrete structures).

[1] Coastal Erosion and Erosion Mitigation Planning Report: Alliance for the Great Lakes, 2007.

Partially due to the recent success of shoreline protection, residents along the Illinois coast often believe erosion has been arrested or merely occurs during high lake levels. Yet, erosion is constantly occurring along the Illinois coast. Changing lake levels and introduced shoreline protection have merely shifted where this erosion takes place. For instance, during times of high lake level, the erosion and subsequent impacts can be easily seen as it directly impacts beaches, bluffs and shoreline structures. Conversely, at low lake levels, erosion is almost invisible and has no immediate impact on coastal amenities. Still, erosion is constantly occurring across the nearshore lakebed because of a reduced volume of littoral sand along the coast. This reduced volume of sand is suspected to be a result of interrupted littoral sediment transport caused by longstanding shoreline structures. Although unseen, this type of erosion results in the permanent loss of cohesive lakebed material in the form of glacial till. As a result, deeper water is seen closer to shore as the lakebed profile becomes steeper. This is especially troublesome because deeper water closer to shore causes larger waves which in turn cause increased erosion during high lake levels and causes shoreline protection to become increasingly vulnerable. Damage and irregular maintenance to revetments, riprap, groins, bulkheads and breakwaters can de-stabilize the existing land/water interface. The loss of these structures can be equally as detrimental as any erosional loss of beach or shoreline area due to their importance in reversing historic erosional trends along the beach and bluff. [1]

The understanding that improperly constructed shoreline protection is responsible for nearshore lakebed erosion and the fact that these very same shoreline protections have almost completely reduced bluff erosion can be confusing and contradicting. There is significant contention amongst the public surrounding the use of shoreline protection structures because of their un-natural appearance. In general, structures that are placed perpendicular and directly parallel to the shoreline cause the disruption to littoral transportation and altering the sediment budget. Therefore, it's important to understand that any new shoreline structures undergo an extensive permitting process primarily by two authorities; Illinois Department of Natural Resources (DNR), Lake Michigan Management Section and US Army Corps of Engineers (USACE), Chicago District Regulatory Branch. In general, these two agencies will permit no projects that disrupt or arrest the movement of littoral transport along the beachfront or nearshore. However, these agencies also understand the importance of shoreline protection structures for reducing beach and bluff erosion. Therefore, it becomes essential to monitor, maintain, upgrade if possible and ultimately replace outdated structures in favor of new structures that are engineered to prevent the arrestment of littoral sand while still providing protection to the beachfront and bluff and balancing the shoreline sediment budget. [2]

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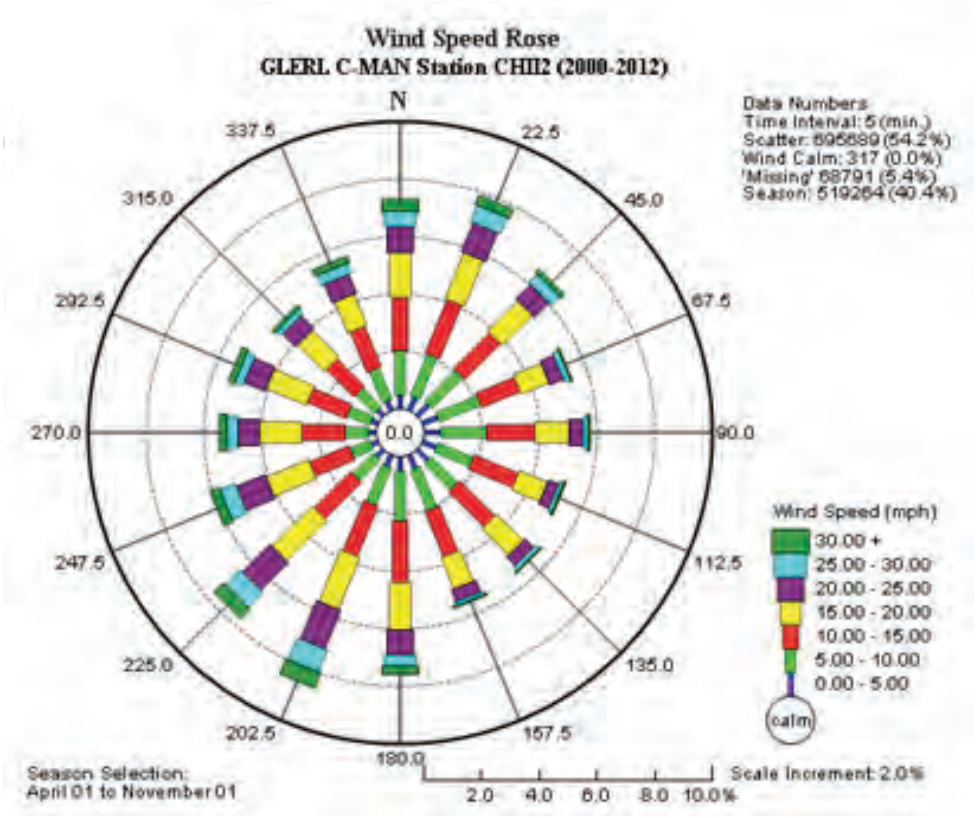
[1] Coastal Erosion and Erosion Mitigation Planning Report: Alliance for the Great Lakes, 2007.
[2] Great Lakes Coastal Resilience Planning Guide, 2013

Wind

Wind is the primary factor responsible for wave generation. Wind speed, direction, duration and fetch (distance over water) determines the wave characteristics that can impact a project site. Sustained strong winds from the north and northeast sectors can produce very large waves in the southern portion of Lake Michigan. Understanding these wave forces is essential to the proper design of any improvements anticipated along Winnetka's lakefront. Winds are broadly distributed around the compass, with a slight predominance from the SSW and NNE sectors. The average wind speed during the year is approximately 15 mph, with winds exceeding 25 mph approximately 10% of the time.

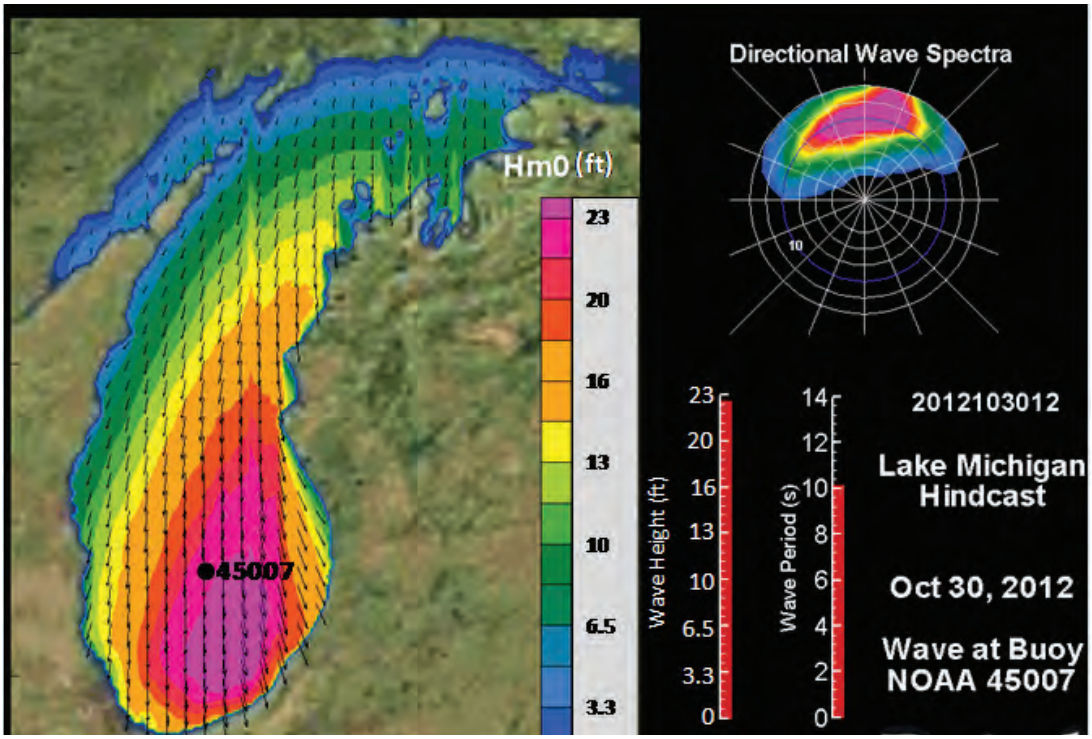


Historical wind data are utilized to assist in establishing the wave climate at each site (wave height, period, duration, and direction). A comprehensive understanding of the wind and wave climate provides efficiencies and confidence in any design solution. Once wave conditions at a site are properly understood, the design solution can be less conservative and more cost-effective.

Waves

As mentioned above, wind is responsible for wave generation, with the most severe wave conditions at Winnetka associated with N-NE winds. Numerical model estimates of wave heights on Lake Michigan during a recent storm are shown to the right; during this event, significant wave heights in excess of 20 feet occurred at the south end of the lake. NOAA buoy 45007 provides a long term data base of wave conditions in deep water; the largest recorded wave height at the buoy was 22.9 ft., and occurred on Sep. 30, 2011. Peak wave heights of 21.5 to 21.8 ft. were recorded during storms on Oct. 31, 2011 (Hurricane Sandy) and Oct. 31, 2014.

As waves approach the shoreline in the vicinity of the proposed improvements, they will be affected by the presence of the lake bottom. Specifically, shallow water effects (refraction, shoaling and breaking) result in changes in both wave direction and height. A site-specific understanding of these processes is required for proper design. In general, the nearshore wave conditions during severe storms will be "depth-limited", which means that the size of the waves is limited by the water depth.

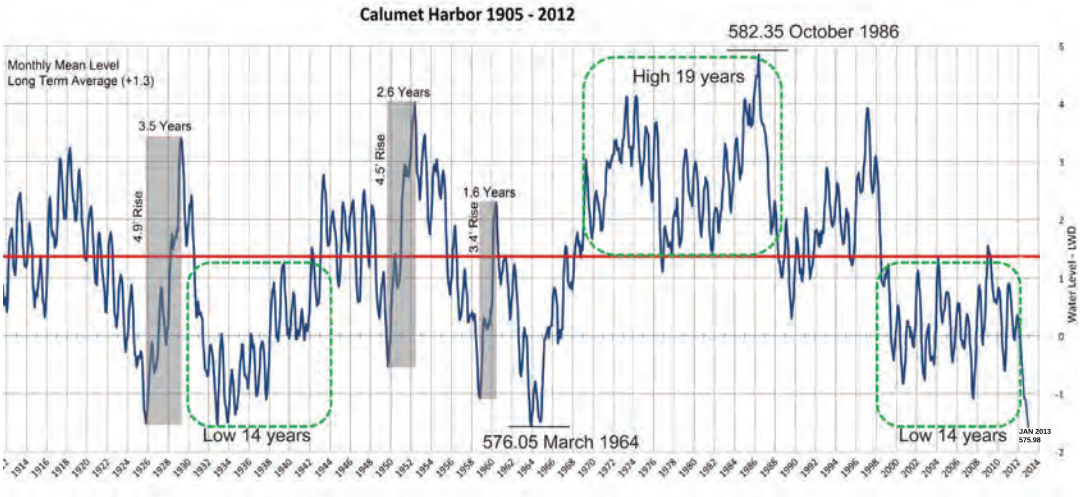


All **shoreline improvements** on Lake Michigan are subject to significant wave induced forces. Quantifying these forces is a key element in the design process of any coastal structure and determining cost, benefit, and risk factors.

Water Levels

The design wave conditions in shallow water will be depth-limited. Hence, the prevailing water level, and the resulting water depth at the location of interest, will limit the maximum wave height and define the design wave forces at each location. In general, deeper water results in larger waves and greater wave forces. The greater the force of the wave, the more robust and expensive a proposed improvement will need to be to withstand the force. As such, improvements in shallower water depths are typically less expensive than improvements in greater water depths. In either case, the potential variation in water level is a critical design consideration.

Water levels on Lake Michigan vary on several different time scales in response to climatic factors. Currently (in 2015), we are experiencing a period of historically low lake levels. Over the long-term, water levels vary based on changing precipitation and evaporation patterns over the Great Lakes drainage basin. The maximum monthly mean lake level on record during this period occurred in October 1986 (+4.9 ft. LWD), while the minimum occurred in March 1964 (-1.5 ft. LWD). In addition to the long-term variations in lake level, seasonal fluctuations take place due to precipitation patterns and spring runoff. The average seasonal variation on Lake Michigan is approximately one foot, with the maximum lake level generally occurring in the summer and the minimum in the winter.



Lake Michigan water levels can vary significantly over time. Extreme high and low water levels have been recorded in the order of 5-6 feet. Water levels have a direct correlation to wave heights in shallow water; the deeper the water, the larger the wave and the more impact it has on the shoreline. All coastal improvements, user requirements, and habitats must be considered throughout this range of water levels. Various opportunities can be enhanced at various water levels.

Finally, "storm surge" associated with meteorological effects (atmospheric pressure and wind) associated with passing weather systems can cause short-term, localized changes in water level. Storm surge can result in either a set-up (increase) or set-down (decrease) of the water surface, and may reach +/-3 ft. on Lake Michigan. A thorough understanding of both long-term and short-term water level variations on Lake Michigan is critical to the successful planning and design of any proposed waterfront improvements at Winnetka. In particular, the potential range in water levels (extreme low to extreme high) will be an important consideration with respect to both structural design and functional performance over the anticipated life of a project.

Storm surges can cause water to reach the beach house at Lloyd Park and Beach due to its shallow beach profile.

Ice

Ice conditions, and ice-structure interactions, are highly variable, unpredictable, complex and difficult to assess. Horizontal ice forces due to thermal expansion, waves and wind can be substantial, and may dictate the use of large stone for breakwater and shoreline structures to prevent displacement and provide the desired protection. These forces can also damage vertical and piled structures, such as steel, concrete, and timber breakwaters and piers. In addition, vertical ice movement can extract ("jack") piles from the lakebed. If necessary, structures can be designed to reduce or eliminate ice movement; de-icing systems can also be utilized to reduce damage. Given the complexity of ice processes, and the potential for severe damage to structures, a review and assessment of ice climatology, ice-structure interactions and associated ice loads is an important part of the design process.

Ice conditions can exert tremendous lateral and uplift forces on coastal structures and must be assessed during the design process. Stable ice conditions in the near-shore zone can protect shoreline improvements from wave actions and temporarily suspend the sediment transport process during the winter months.

Nearshore Hydrodynamics

Nearshore hydrodynamics (i.e. water circulation and currents) may be generated by surface water run-off, river discharges, wind and wave action. Understanding nearshore hydrodynamics can assist with maintaining healthy water circulation/ quality adjacent to proposed waterfront developments, such as marinas and beaches, and may also provide opportunities to manage sediment transport.

Utilities and Infrastructure

Winnetka Electric Plant

In 1900 the Village of Winnetka built a publicly owned 50 kilowatt electric plant in conjunction with a water pumping plant at the lakefront. Electricity was generated by small reciprocating engines; service was limited to a few homes, commercial uses and street lighting. The electric plant has experienced a gradual but steady evolution over the years until it has become a modern steam and diesel installation

Electricity generated by the electric plant is transmitted by underground cables from the plant to various load centers. The entire electrical distribution system is owned and maintained by the Village of Winnetka.

As a member of the Illinois Municipal Electric Agency (IMEA), the Village purchases its electric power from this not-for-profit consortium of municipal governments. IMEA's primary purpose is to provide municipally operated electric utilities with their wholesale power needs. Contractually, IMEA is required to supply 100% of the Village's electric needs, but the Village receives substantial credits for keeping its power plant operable to supplement the IMEA power supply at times of peak demand. If necessary, the Village can generate enough power to meet Village demand on all but the very hottest days of the year.

LAKEFRONT FAQ: WHAT ARE THE LAGOONS USED FOR OUTSIDE OF THE POWER PLANT?

The lagoons are used as a cooling pond and water intake for the power plant. The cooling pond is supplied by a 1,500 foot long intake pipe that extends into Lake Michigan. It may be possible to build on top of the lagoons, but further assessment is required to determine how this would be achieved and how it may impact the function and maintenance of the lagoons .

WHERE IS THE INTAKE FOR THE WATER PLANT?

The water is supplied by a 3,000 foot long intake pipe that extends into lake Michigan, as well as a tap into the intake pipe that serves the electric plant cooling pond. The plant can purify up to 15 million gallons of water per day.

Winnetka Water Plant

The Village of Winnetka built a modern water plant in 1893 complete with pumping stations, water tower and distribution system. In 1922, a three million gallon per day water treatment plant to purify the lake water was built. Filtered water storage and low lift pumping facilities were also constructed at the foot of the bluff on Lake Michigan at Tower Road. Various modifications and additions have been made to the plant piping and process units, so that by 1991, the net capacity of the plant was 15 million gallons per day.

Lake Michigan is the raw water source for the treatment plant. Water is supplied by a 3000 foot long 20 inch intake and a 30 inch tap into the 1500 foot long 60 inch cooling water intake for the Winnetka Electric Plant. The 30 inch tap is used to supplement the capacity of the smaller intake which is insufficient to meet Winnetka's needs. [1]

The power and water plant's large **intake and cooling ponds** reach out into Lake Michigan between Lloyd Park and Beach and Tower Road Park and Beach.

[1] Winnetka 2020, Comprehensive Plan for the Village of Winnetka. Winnetka Plan Commission, 1999

Hydrology and Stormwater

In Winnetka, the system for collection and treatment of sanitary sewage is separate from the collection system for storm water. Sanitary sewage is discharged from the Village system into the large intercepting sewers of the Metropolitan Water Reclamation District of Greater Chicago (MWRD) and carried to the Northside Sewage Treatment Plant outside Winnetka's corporate limits. Stormwater is discharged either east into Lake Michigan or west into the Skokie River. However, an area west of the railroad tracks along the Green Bay corridor discharges stormwater into an MWRDGC interceptor sewer.

The natural divide for drainage in Winnetka roughly parallels the shore of Lake Michigan, west of the Union Pacific Railroad. The area east of the divide drains to the lake; the area west drains to the Skokie River. [1]

LAKEFRONT FAQS:

HOW MUCH BEACH DO LAKEFRONT PROPERTY OWNERS OWN?

The Village of Winnetka defines lakefront parcel's rear property line as the water's edge on the date of the most recent land survey.

CAN I WALK ALONG THE BEACH BETWEEN LAKEFRONT PARKS?

There is no state law regulating passage on the beach. The Winnetka Park District lifeguards police the public beach borders to prevent beach goers and beach walkers from entering the beach at private properties.

CAN I PARK MY KAYAK/CANOE/PADDLEBOARD AND DISEMBARK AT ANY PUBLIC BEACH?

No. Park rules currently prohibit this at designated swimming beaches (Tower, Maple, Elder).

[1] Winnetka 2020, Comprehensive Plan for the Village of Winnetka. Winnetka Plan Commission, 1999

Regulating Agencies

Use and development of the lakefront is regulated by a number of different local, state, and federal agencies.

Winnetka Park District

Winnetka Park District regulates use of its lakefront parks through its own set of policy regulations. Park rules regulate the hours that park properties are open to the public and the types of uses that are allowed at lakefront parks.

Village of Winnetka

The Village of Winnetka regulates use and development of lakefront property through its zoning code. All lakefront and ravine properties are zoned R-2. R-2 zoning preserves the area's small estate character and generally requires buildings on properties to be subordinate to the landscape.

The Village of Winnetka also owns a number of right-of-ways that terminate at the lake, including Fisher Lane; Spruce, Elm, Oak, Cherry and Willow Streets; and Elder Lane. These street ends afford public access to the lake, however, any proposed improvement or change to these properties or proposed use of these properties for lakefront access or recreational purposes is subject to the approval of the Village of Winnetka.

County and State Agencies

County and state level agencies that may regulate land use and development of the Winnetka lakefront include:

- North Cook Soil and Water Conservation District
- Illinois Department of Natural Resources (IDNR)
- Illinois Environmental Protection Agency (IEPA)
- Illinois Historic Preservation Association

Federal Agencies

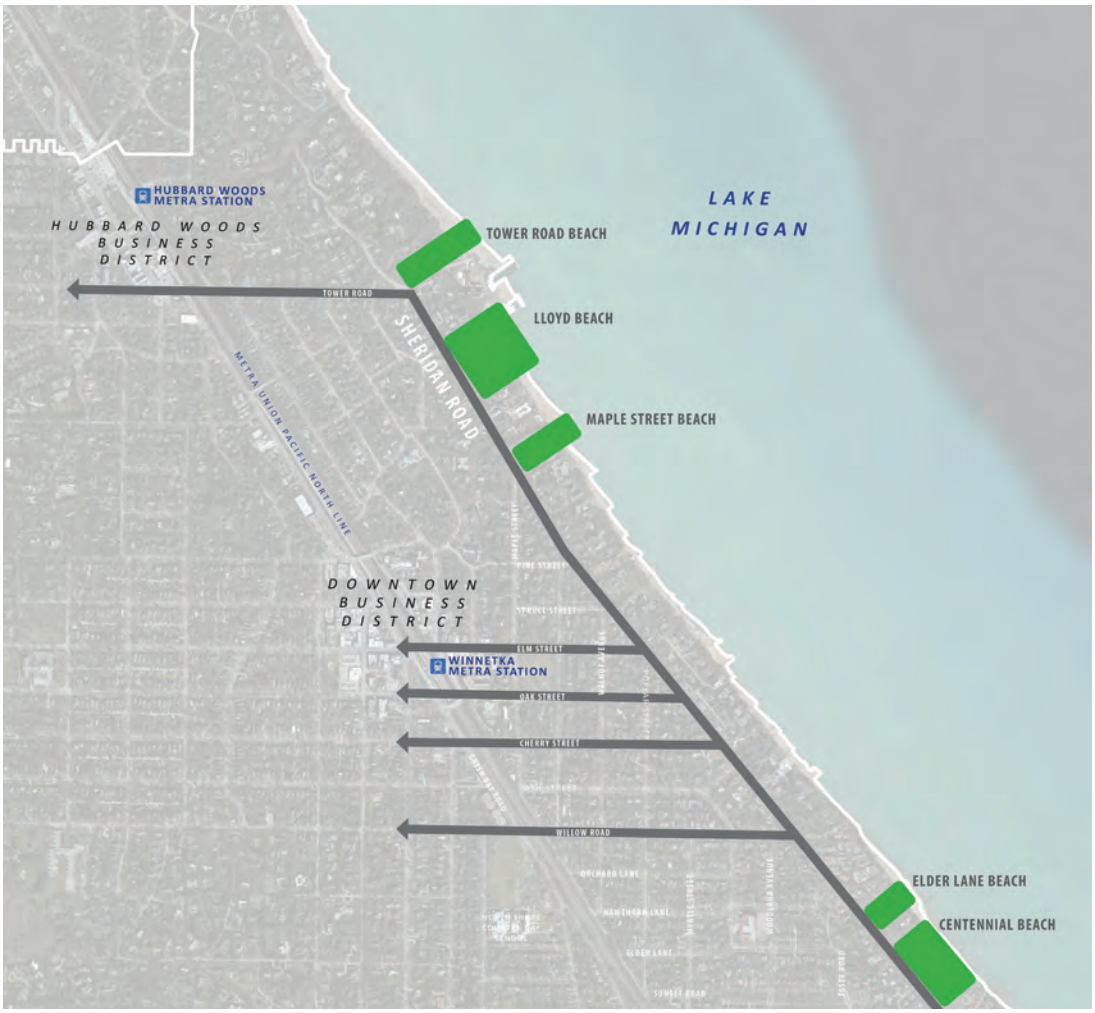
Federal agencies that may regulate land use and development of the Winnetka lakefront include:

- US Army Corps of Engineers (USACE)
- US Fish and Wildlife Service (USFWS)

Lakefront Parks & Beaches

The Winnetka Park District (WPD) owns and maintains five parks along the Lake Michigan shoreline. These parks are Tower Road Park, Lloyd Park and Beach, Maple Street Park, Elder Lane Park, and Centennial Park and Beach. Each park consists of parking areas, open space, beaches, and other amenities for use by the public.

The Winnetka Park District collects and maintains data related to beach usage. In 2014, 58% of total beach users were Winnetka residents, and 42% were non-residents, and 94% of season pass holders were Winnetka residents and 6% were non-residents.



Total Days Open for Swimming

	2011	2012	2013	2014	2015
Tower	72	68	73	64	66
Maple	65	55	63	55	62
Elder	32	51	52	47	52
Total	169	174	188	166	180

Source: Winnetka Park District, 2015

Total Visits

	2011	2012	2013	2014	2015
Daily Visits	4,724	5,713	5,470	4,301	5,324
Season Pass	8,900	10,376	7,808	5,877	6,703
Total	13,624	16,089	13,278	10,178	12,027

Source: Winnetka Park District, 2015

Visits by Beach

	2011	2012	2013	2014	2015
Tower	10,846	11,927	9,829	7,761	8,544
Maple	2,070	2,461	1,865	1,116	1,432
Elder	1,065	2,089	1,584	1,301	2,071
Total	13,624	16,478	13,278	10,178	12,047

Source: Winnetka Park District, 2015

Visits by Month

	2011	2012	2013	2014	2015
June	2679	5542	2991	2257	2,557
July	6676	7566	6464	4903	5,945
August	4269	2981	3519	2935	3,525
September	227	389	304	83	0
Total	13624	16089	13278	10178	12,027

Source: Winnetka Park District, 2015

Tower Road Park & Beach

899 Sheridan Rd

Classification:
Neighborhood Park

Size:
3.75 ac

PIN:
05-17-203-006-0000

Owner:
Winnetka Park District

Zoning:
R-2

Parking:
52 spaces

Tower Road Park and Beach is located immediately north of the Winnetka Water and Electric Plant. Total area for the park is about 3.75 acres including about 530 feet of Lake Michigan shoreline. Tower Road Park and Beach was acquired May 23, 1946, purchased from Mr. and Mrs. Nicholas J. Conrad.

Soils, slopes, and drainage

The elevation change between the bluff, table land, and the beach below at Tower Road Park and Beach is approximately 50-60 feet. In addition, slope of the bluff at Tower Road Park and Beach is very steep. Land cover includes mostly trees with a small amount of open space. The bluff is overgrown and lacks native vegetation on the bluff slope.

Amenities

Swim beach, playground, and picnic area.

Structures

The park includes two primary structures; a picnic shelter located at the top of the bluff and a small beach house at the base of the bluff.

View of **Tower Road Park and Beach** looking West.

Utilities

Survey information for this park includes limited information regarding underground utilities; however water, sanitary, and electrical utilities are available at the building at the base of the bluff. Large electric and gas utilities are buried immediately north of the service drive which would need to be relocated if road widening is considered. Any potential modifications to the infrastructure at the Water and Electric Plant will need to be closely coordinated with the Winnetka Water and Electric Department.

Access and circulation

Tower Road Park and Beach is accessible from Sheridan Road or the Water and Electric Plant service drive. The service drive leading down to beach level is approximately 18 feet wide with slopes in excess of 15 percent in some locations. This road geometry is likely to result in safety issues for cars traveling in opposite directions or when access is required for emergency vehicles. Beach access is available from a pedestrian path leading down the bluff. The concrete staircase is cracked and uneven, likely due to natural slope movement over many years.There are two areas available for parking at this site: approximately 50 spaces are available at the main parking area adjacent to Sheridan Road and approximately 20 spaces are available at beach level adjacent to the Water and Electric plant intake pond. Accessible parking spaces available at bottom of bluff on the service drive.

Programs

Tower Road Park and Beach provides a venue for a number of the Park District's special programs. Special events hosted at Tower include: the Beach Clean-Up and BBQ (spring), Father's Day Brunch (spring), Winnetka Total Fitness Challenge (summer), Water Carnival (summer), Family Camp out (summer), Farewell to Summer Luau (summer), Pumpkins on the Beach (fall).

Tower Road Park and Beach hosting one of it's many **annual community events**.

Structures

Picnic Shelter	C. 1992. A 900 SF open-air, accessible hexagonal structure. Standing seam metal roofing covers a steel frame, which sits atop a concrete slab and pier footings. The piers are clad in split-face concrete block. A barbecue grill and drinking fountain are located near the shelter.
Beach House	C. 1992. A 1,900 SF accessible structure composed of load bearing concrete block walls over a concrete slab and footings. Standing seam metal roofing covers wood rafters. The beach house has interior and exterior lighting, and includes a lobby, snack bar, office, storage, and restrooms with dressing areas. There are two outdoor showers and one spray nozzle.

Amenities

	Qty	Notes
Benches	5	
Picnic Tables	5	Four located within picnic shelter, one permanent table at the beach
Grills	1	
Bike Racks	2	One at top of bluff, one adjacent to accessible parking spaces at beach
Drinking Fountains	1	
Showers	2	
Playground	1	2-5 age group structure and 5 - 12 age group structure
Lifeguard Chairs	2	
Beach Notes:	530 feet of shoreline. The beach is reserved for swimming	
Bluff Notes:		
Road & Pathway Notes:	A brick paver path leads from a pedestrian entrance on Sheridan Road to the shelter at the east edge of the bluff; A concrete path connects the stairs to the accessible parking area on the service drive; A recycled plastic boardwalk runs from the central concrete beach patio to two additional patios closer to the water; The boardwalk connects the central patio to the lower-level accessible parking and service drive.	
Stair Notes:	Concrete steps switchback down about 70-feet to the beach area.	
Special Amenities:	A small memorial pool is located on the northeast corner of the bluff; A wet sand play area with a sand and water play table, a spraypole with push pad bollard, and an additional sand play structure is located at the beach; Two sand volleyball courts are located at the beach; Two beach showers are located on site.	

- A Parking lot
- B Accessible parking spaces
- C Brick paver path
- D Service drive
- E Recycled plastic boardwalk
- F Memorial pool
- G Concrete switchback stairs
- H Spray pole / wet sand play area
- I Beach showers
- J Picnic shelter
- K Beach house
- L Concrete beach patio
- M Playground
- N Sand volleyball courts

Key Challenges: Tower Road Park & Beach

Property lines, easements, and setbacks

Setback from water plant may be required per federal regulations. The water and electric plants are Village-owned property. There is also private property between Tower and Lloyd beaches. Portions of the beach, boardwalk and playground are on land owned by the Village of Winnetka.

Infrastructure

Buried utility lines on the north of driveway.

Facilities

Beach house in poor condition.

Access and circulation

Road access down to the beach was built primarily for access to the water plant and is not appropriately sized to allow for cars and pedestrians (used aggressively for stroller access to the beach). The natural drop off location near the boardwalk is a bit of a choke point for cars. Existing controlled access points require staff at multiple entry points. The stretch of beach north of Tower, extending to the ravine public right of way access point is unobstructed by any shoreline infrastructure, making it a good walking path.

Beach and shoreline

Tower Beach has a comparatively steep beach profile and heightened wave activity. Tower Beach collects less wind-blown sand, and the beach sand has a coarse texture. Rip currents often form at the shore, perpendicular to the wall structure. Frequent flooding has been reported at the base of the concrete staircase.

Parking can be difficult in the summer.

Park amenities could be updated to accommodate additional recreation opportunities.

Concrete switchback stairs provide the only **dedicated pedestrian access** to the beach.

Tower Beach is popular with swimmers despite heightened wave activity and a steep beach profile.

Portions of the beach and playground are on **Village of Winnetka property**.

The **beach house and boardwalk** are in poor condition.

Lloyd Park & Beach

799 Sheridan Rd

Classification:
Neighborhood Park

Size:
9.53 acres

PIN:
005-16-106-066-0000

Owner:
Winnetka Park District

Zoning:
R-2

Parking:
68 spaces

Lloyd Park and Beach is located immediately south of the Winnetka Water and Electric Plant. Total area for the park is about 9.53 acres including about 720 feet of Lake Michigan shoreline. Lloyd Park and Beach was acquired on February 23, 1962 from Mrs. Madge Bird Lloyd & Northern Trust Company.

Soils, slopes, and drainage

The bluff is overgrown and lacks native vegetation on the bluff slope. Land cover includes mostly trees with a small amount of open space. Lloyd Park and Beach is the most challenging of the Winnetka lakefront parks when it comes to the effects of changing Lake Michigan water levels. In the past two years the park has experienced the effects of record low water levels along with record storms (accretion and erosion).

Amenities

There have been multiple engineering assessments of the infrastructure and exposure of the Lloyd boat ramp. Lloyd Park and Beach needs a traffic pattern and basic amenities for the launch staff (currently bring down office chairs and buckets and store personal items in their cars). The Winnetka Park District also collects and maintains data related to boat launch usage. In 2014, 71% of season launch pass holders were Winnetka residents and 29% were non-residents.

Structures

A small building and two small storage sheds are located at the base of the bluff.

Lloyd Park and Beach, c. 1997

Lloyd Park and Beach, c. 2013

Access and circulation

The park includes approximately 65 parking spaces at the top of the bluff. Beach access is available from a concrete drive that begins at the top of the bluff and ends at a concrete boat ramp on the north side of the beach. Concrete stairs provide pedestrian access from the top of the bluff to beach level. The concrete staircase is slightly uneven, likely due to natural slope movement over many years. The service drive leading down to beach level is approximately 18 feet wide with slopes of approximately 10 percent. This road geometry is likely to result in safety issues for cars traveling in opposite directions or when access is required for emergency vehicles. Pavement is in relatively good condition, this pavement was replaced within the last 2-3 years.

Closed access road from tableland to the beach.

Concrete stairs could be updated to improve safety.

One way vehicle circulation at Lloyd Park and Beach can be difficult for visitors to navigate.

Utilities

A water main easement is located along the top of the bluff south of the concrete drive and continues along the concrete drive to the north property line. This easement will need to be considered if development is proposed in these areas. A storm sewer is located along the south end of the property that discharges at lake level near the concrete breakwater identified on the survey. This discharge should be inspected further to determine alternatives for the discharge point that would be more aesthetic, improve water quality, and minimize required maintenance. Survey information for this park includes limited information regarding underground utilities; however water, sanitary, and electrical utilities are available at the building at the base of the bluff.

Programs

Special events hosted at Lloyd include: the Leprechaun Leap (spring), the Chili Cook Off and Dessert Bake Off (spring), Beach Clean-Up and BBQ (spring), the Winnetka Total Fitness Challenge (summer), and the Haunted Trail of Terror (fall)

Lagoons and private property separate Lloyd Park and Beach from Tower Road Park and Beach.

Boat Launch

The Winnetka Park District collects and maintains data related to launch use and boat rack storage. In 2015, 72% of season launch pass holders were Winnetka residents, and 28% were non-residents. Peak times for boat launch use are mid-summer weekend days, with highest traffic occurring in the morning and evening. The gates to the launch facility are open from 6am-10pm on weekdays and weekends in the summer, and the launch is staffed from 8am-dusk on weekdays and weekends. Visitors may launch boats at their own risk during non-staffed times.

The existing protected boat launch was constructed following the 1981 Boat Ramp and Breakwater Study. It includes a single 42-feet wide ramp that accommodates in/out traffic of boats up to 24-feet. Due to the geometry of the boat launch structure, along with the baythymetry and wave direction, the boat launch basin requires frequent dredging. Access to the launch can also be challenging given the narrow road, tight turns, and steep grade.

A small fenced-in storage area accommodates a handful of sailboats and boats on trailers, while boat racks provide 252 spaces for other watercraft such as canoes, kayaks, paddleboards, sailboats, and mast-up sailboats.

The **Lloyd Park and Beach boat launch** is heavily used on summer weekends.

Launch design and coastal dynamics cause the launch to fill with sediment, requiring frequent dredging.

Total Launch Visits

	2011	2012	2013	2014	2015
Daily Visits	473	481	439	358	443
Season Pass Visits	549	602	595	698	609
Total	1022	1083	1034	1056	1052

Source: Winnetka Park District, 2015

Total Number of Launch Passes

	2011	2012	2013	2014	2015
Total Passes	159	151	104	116	102

Source: Winnetka Park District, 2015

Boat Rack Tenants by Storage-Type (rack passes)

	2011	2012	2013	2014	2015
Mast Up	23	20	16	13	11
Rack	75	90	87	120	134
Total	98	110	103	133	145

Source: Winnetka Park District, 2015

Structures

Beach House	Renovation C. 1997. A 1997 addition increased the size of the accessible beach house to 2,000 SF. Constructed of brick and block walls over a concrete slab with foundations and pier footings, and sheltered by a standing-seam metal roof over wood trusses. About half of the interior space is dedicated to storage; the remainder consists of a meeting room and two small restrooms. There is one indoor and one outdoor drinking fountain, and indoor/outdoor lighting.
Office / Sail Storage	Two precast concrete buildings provide storage for sails, as well as office and storage space for staff. The buildings sit within a chainlink fenced area that protects about 14 boats.

Amenities

	Qty	Notes
Picnic Tables	1	
Bike Racks	2	Located at the top of the bluff. Bikes are not allowed at beach level.
Drinking Fountains	1	
Site Lighting	Y	

Beach Notes:	650 feet of shoreline. Swimming is not allowed
Bluff Notes:	A concrete cribbing wall retains the bluff where the road comes down to the launching area
Road & Pathway Notes:	An asphalt road leads from a limestone and iron entry gate on Sheridan Road to the center of the park, where it divides, with one road leading south to an asphalt parking lot and angled road parking (68 total spaces); A concrete pedestrian pathway runs along the entrance road and leads to the stairs; Another concrete road leads north and east down the bluff to the launching area; A secondary gravel access road is provided from the top of the bluff to the southern end of the beach.
Stair Notes:	A set of concrete stairs provides access down the wooded bluff to the beach
Special Amenities:	A stone campfire ring is located on a grassy area just north of the upper bluff parking area. A wooden boardwalk and boat racks (252 spaces) hug the west edge of the beach, running north and south from the pier to the beach house; A concrete pier provides a protected area for launching boats.

- A Boat racks
- B Beach house
- C Motorized boat launch
- D Parking for cars and boat trailers
- E Accessible parking
- F Gravel access road
- G Concrete road
- H Concrete stairs
- I Stone campfire ring
- J Wooden boardwalk
- K Concrete pier
- L Precast concrete sail storage building and staff office

Key Challenges: Lloyd Park & Beach

Water Levels and Erosion

Lloyd Park and Beach is the most challenging of the Winnetka lakefront parks when it comes to the effects of changing Lake Michigan water levels. In the past two years the park has experienced the effects of record low water levels along with record storms (accretion and erosion).

Property lines, easements, and setbacks

Utility easements

Infrastructure

No phone lines

Facilities

Launch basin fills with sand and requires frequent dredging, boat house in poor condition

Access and circulation

Roadway is narrow for two-way traffic, pedestrians use the road to access the beach from the upper level parking lot, no formal pedestrian access route to south end of beach

Beach and shoreline

Lloyd Park and Beach has a comparatively shallow sand profile. Lloyd Park and Beach collects more wind-blown sand, therefore the beach sand has a finer texture. Lloyd beach loses a large amount of beach during periods of high lake levels.

Program

Conflict of uses occurs at Lloyd, especially between personal watercraft and non-motorized watercraft. Demand exceeds the supply of both motorized and non-motorized boat storage at Lloyd.

Boat launch attendants at Lloyd Park and Beach do not have an established area to sit or store items.

Racks for **non-motorized boat storage**.

Concrete stairs provide access between the top of the bluff and the beach

Fenced area provides **protected storage space** for fourteen boats.

Although swimming is not permitted, the beach is a popular spot for **surfers and paddle-boarders**.

Steel sheetpile walls for the boat launch show their age.

Maple Street Park & Beach

725 Sheridan Rd

Classification:
Neighborhood Park

Size:
3.00 ac

PIN:
05-16-106-022-0000

Owner:
Winnetka Park District

Zoning:
R-2

Parking:
13 spaces

Maple Street Park is located approximately 500 feet south of Lloyd Park and Beach. Total area for the park is about 3.00 acres including about 240 feet of Lake Michigan shoreline. Maple Street Park and Beach was acquired on June 21, 1905 from Mr. and Mrs. William C. Boyden.

Soils, slopes, and drainage

Land cover includes mostly open space with a small number of trees.

Structures

A small concrete pier is located at the north end of the beach. A small building is located at the base of the bluff.

Access and circulation

The park includes approximately 13 parking spaces at the top of the bluff. Beach access is available from a concrete drive that begins at the top of the bluff and ends on the south side of the beach. The service drive leading down to beach level is approximately 10 feet wide with slopes of approximately 13 percent. Concrete stairs provide pedestrian access from the top of the bluff to beach level. Pedestrian access has been renovated in the last 4-5 years and is in relatively good condition.

Utilities

Survey information for this park includes limited information regarding underground utilities; however water, sanitary, and electrical utilities are available at the building at the base of the bluff.

Programs

Renting Maple Street Park and Beach is easy given the small size of the park and easy monitoring of beach activities. Special events hosted at Maple include the Beach Clean-Up and BBQ (spring) and the Winnetka Total Fitness Challenge (summer)

Maple Street Park, c. 1997

Maple Street Park, c. 2013

Structures

Beach House	C. 1910. 2,950 SF on two floors, located on the west edge of the beach. The lower level houses two restrooms, an office, a storage room, and a mechanical room. The second story is accessible from the upper west walkway and includes a meeting room, two restrooms, and storage.

Amenities

	Qty	Notes
Benches	3	
Picnic Tables	6	Located on both the east and west ends of the upper bluff
Drinking Fountains	1	A drinking fountain and flower bed fronts the park along Sheridan Rd
Site Lighting	Y	

Beach Notes:	250 feet of shoreline. The beach is reserved for swimming
Bluff Notes:	Gabion baskets protect the base of the bluff just west of the boardwalk
Road & Pathway Notes:	A patterned concrete walkway borders the south edge of the park; A wooden boardwalk runs in front of the beach house and connects to the beach service drive.
Stair Notes:	Concrete stairs lead northeast down the bluff, intersecting the service drive halfway down, then run along the west and north edges of the beach house
Special Amenities:	N/A

- A Beach house
- B Parking lot
- C Picnic area
- D Patterned concrete walkway
- E Concrete stairs
- F Service drive
- G Wooden boardwalk
- H Concrete pier
- I Lawn

Key Challenges: Maple Street Park & Beach

Shoreline Structures

The existing steel sheetpile and concrete pier, while industrial and stable in nature, does provide a nice albeit hard seating area for lake viewing.

Bluff condition

The bluff at Maple has become overgrown which limits the view and increases soil creep

Beach Access

The road geometry is likely to result in safety issues for cars traveling in opposite directions or when access is required for emergency vehicles.

The **beach house and boardwalk** are in disrepair.

The **bluff landscape** is overgrown with invasive species and could use restoration.

Maple is a **popular swimming beach**. Especially with younger children.

The concrete pier is deteriorating and its uneven surfaces pose a safety concern.

Parking can be difficult during the summer months.

Elder Lane Park & Beach

299 Sheridan Rd

Classification:
Neighborhood Park

Size:
4.52 ac

PIN:
05-21-403-013-0000
05-21-412-014-0000

Owner:
Winnetka Park District

Zoning:
R-2

Parking:
65 spaces

Elder Lane Park is located immediately northeast of New Trier High School. Total area for the park is about 4.56 acres including about 410 feet of Lake Michigan shoreline. Elder Lane Park and Beach was assembled of land acquired from private owners and the Village of Winnetka in April 1920 - December 1921 and February 1946.

Soils, Slopes, and Drainage

Land cover includes mostly open space with a small number of trees.

Amenities

Swim beach, a playground is located at the top of the bluff near the parking area. Elder Lane Park and Beach is a great child swimming beach given the shallow water depth almost to the end of the modular concrete pier.

Structures

Two steel groins and one concrete pier project from the beach into the lake. A beach house is located at the foot of the bluff.

Access and Circulation

The park includes approximately 65 parking spaces at the top of the bluff. At times when New Trier High School is in session, parking is available to students from 8:00AM - 5:00PM for all spaces except the 3 standard spaces and 2 handicap spaces on the east side of the lot. Beach access is available from an asphalt drive that begins at the top of the bluff and ends at a small building in the middle of the beach. The service drive leading down to beach level is approximately 10 feet wide with slopes of approximately 15 percent. This road geometry is likely to result in safety issues for cars traveling in opposite directions or when access is required for emergency vehicles. Concrete stairs provide pedestrian access from the top of the bluff to beach level.

Utilities

Survey information for this park includes limited information regarding underground utilities; however water, sanitary, and electrical utilities are available at the building at the base of the bluff.

Programs and Events

Special events hosted at Elder include Beach Clean-Up and BBQ (spring) and the Winnetka Total Fitness Challenge (summer).

Elder Lane Park, c. 1997

Elder Lane Park, c. 2013

Structures

Beach House	C. 2002. The 900 SF stone-clad beach house is located just above the beach, and includes a multi-purpose room, two restrooms, a guardroom, a mechanical room, and a hallway with vending machines and a drinking fountain. There is indoor/outdoor lighting and an exterior shower. The beach house is constructed of concrete block load bearing walls over a slab with foundation walls and footings. The roof is standing seam metal over wood rafters.

Amenities

	Qty	Notes
Benches	9	Benches surround the playground and line a path overlooking the lake
Picnic Tables	6	Three picnic tables are located on the bluff, and three are adjacent to the beach house
Bike Racks	1	
Drinking Fountains	2	
Showers	2	One adjacent to the beach house, another on the beach in front of the beach house
Trash Receptacles		
Playground	1	A swing set and two play structures, located on the bluff
Lifeguard Chairs		
Fishing Pier	1	A concrete pier with removable railings projects out from the beach house stairs
Sand Volleyball	1	
Site Lighting	Y	

Beach Notes:	400 feet of shoreline. The beach is used for swimming and sand volleyball
Bluff Notes:	Gabion baskets, sheet piling, and a wrought iron fence protect the wildflower-planted bluff
Road & Pathway Notes:	A brick path runs from the parking lot entrance to the top of the bluff; The beach area and accessible parking space can be accessed by a service drive.
Stair Notes:	A series of concrete stairs leads down to the beach house from the paver path; Another set of stairs and a pedestrian ramp lead down to the beach from the beach house.
Special Amenities:	Elder Lane Park won an award for 2003 Outstanding Facility and Park Renovation (Division III) from the Illinois Park and Recreation Association.

- A Beach house
- B Playground
- C Fishing pier
- D Parking lot
- E Accessible parking spaces
- F Service drive
- G Brick paver path
- H Concrete stairs
- I Picnic area

Key Challenges: Elder Lane Park & Beach

Water Quality

Elder Lane Park and Beach has experienced water quality issues in the past due to illegal sewer connections that drained into the lake via the existing stormwater outfall. Although these issues have been largely resolved by the Village of Winnetka, Elder still suffers from a reputation as a "dirty beach."

Bluff condition

Erosion is a problem that is going to need a solution or the bluff will continue to break away each year. The entire side of the bluff is overgrown with scrub trees and weeds and is very unsightly. Plantings and ground cover is needed to stop or reduce the run off of soil due to rain and snow. The bottom of the bluff will need a more substantial sea-wall of some type to reduce the damage caused by the lake.

Shoreline structures

The existing steel groins that help hold the beach are deteriorating and tipping, as is the modular concrete pier over the stormwater outfall.

Beach House

Stormwater regularly enters the building under the south door. This is likely due to the orientation of the access drive as stormwater runoff is directed at the south side of the building.

The **steel groins and concrete pier** are deteriorating.

Playground on top of the bluff

The bluff landscape is overgrown with invasive species.

Beach house

Stormwater runoff is directed towards the beach house causing flooding.

Swimming beach, volleyball area, and concrete fishing pier

Centennial Park & Beach

225 Sheridan Rd

Classification:
Neighborhood Park

Size:
5.22 acres

PIN:
05-21-403-013-0000
05-21-412-014-0000

Owner:
Winnetka Park District

Zoning:
R-2

Parking:
11 spaces

Centennial Beach

Centennial Beach is located immediately northeast of New Trier High School and immediately south of Elder Lane Park. Total area for the park is about 5.22 acres including about 550 feet of Lake Michigan shoreline.

Soils, slopes, and drainage

Land cover includes mostly open space with a small number of trees. A buried foundation covers much of the parks open space footprint. This foundation will need to be considered if development is proposed in affected areas.

Amenities

Centennial Beach is home to Winnetka's only off-leash dog area.

Structures

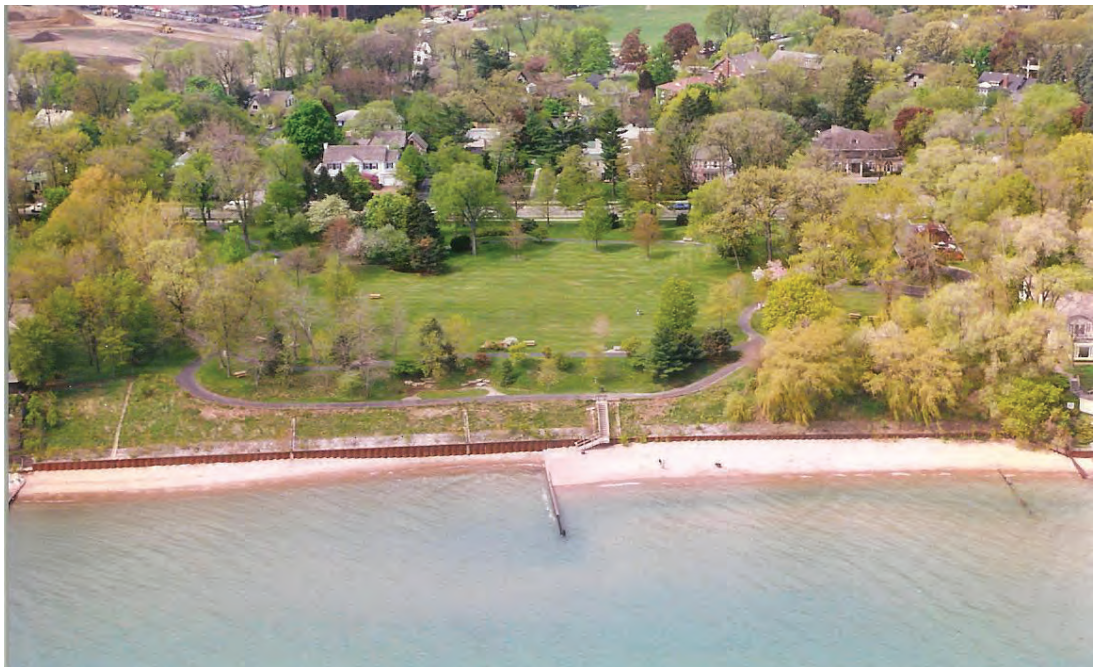
Two steel groins project from the beach into the lake.

Access and Circulation

The park does not include beach access for vehicles. The park includes approximately 11 parking spaces at the top of the bluff. Concrete stairs provide pedestrian access from the top of the bluff to beach level. This park has great potential for local bike riders as it is in line with access to the Green Bay Trail.

Utilities

Survey information for this park includes limited information regarding underground utilities; however water, sanitary, and electrical utilities are available from Sheridan Road. It is also suspected that utilities were installed for a washroom near the east end of the existing parking lot.



Centennial Park and Beach, c. 1997

Centennial Park and Beach, c. 2013

Structures

N/A

Amenities

	Qty	Notes
Benches	6	
Picnic Tables		
Grills		
Bike Racks	1	
Drinking Fountains	2	Located at the southwest and north ends of the upper bluff walkway.
Showers	1	For dog-washing
Trash Receptacles		
Playground		
Lifeguard Chairs		
Fishing Pier		
Sand Volleyball		
Site Lighting		

Beach Notes:	525 feet of shoreline. Used as Winnetka's dog beach
Bluff Notes:	Sheet piling protects the bluff, which is planted with wildflowers.
Road & Pathway Notes:	A curbed asphalt parking lot with spaces for 11 vehicles and a turnaround circle is located on the northwest corner of the site; A winding concrete pathway encircles the upper bluff; Another concrete path connects upper bluff walkways to a lower bluff section.
Stair Notes:	A steel and wooden stairway provides access from the bluff down to the beach.
Special Amenities:	A card-swipe at the gate limits access to the beach for patrons who purchase a pass; A wash area for the dogs is located just west of the gate; A cluster of stepped outcropping stone and pavers known as the Babize Memorial occupies the lower bluff area.

- A Parking lot
- B Access gate
- C Dog-washing station
- D Concrete path
- E Vehicular gate
- F Memorial paver pathway "Babize Memorial"

Key Challenges: Centennial Park & Beach

Access and circulation

Centennial Park & Beach has an interior loop trail and memorial walk which are popular with walkers and joggers. Access to the beach itself is exclusive to dog beach pass holders through a secure entry point and wooden staircase. Access to nearby Elder Beach, although visually connected is physically interrupted by dog fencing and a small section of private property.

Facilities

No restroom facility.

Program

Centennial Beach is the lakefront's largest and highest quality beach with a shallow lake bed profile and easy access from the tableland to the beach. However, it is only accessible to dog beach pass holders.

Shoreline structures

The existing steel groins that help hold the beach are deteriorating and in need of replacement.

Dog Beach Pass-Holders

	2011	2012	2013	2014	2015
Resident	310	321	272	278	252
Non-Resident	73	91	70	66	62
Additional Non-Resident	18	19	11	15	12
Additional Resident	41	43	39	51	37
Total	442	474	392	410	363

Source: Winnetka Park District, 2015

Centennial Park is **Winnetka's dog beach** providing 550-feet of shoreline to pass holders.

The beach at Centennial Park provides the largest **lakefront recreation space** of any of the beaches.

The **upper bluff** features an interior walkway and a large landscaped lawn.

Existing steel groins are in need of repair.

Fencing **separates the beach** from adjacent private property and Elder Beach.

ENVISION

Through the master planning process, a range of ideas, concepts, policies and initiatives were developed and vetted internally with staff, the project Advisory Committee, and master plan team. Ideas were also vetted externally with the community at numerous public open houses, lakefront tours and focus group sessions. This dialogue was critical to the Project Team's decision making, and will support moving a successful long-term lakefront master plan forward. This input has identified community-supported character and acceptable change to lakefront resources, opened up new opportunities for policy, programming and operational change, and shaped the vision of each of the lakefront parks.

The Advisory Committee has done an exceptional job of listening, evaluating and recommending a plan for lakefront resources that meets and balances the needs of the current community, while looking to the future and maintaining a regional perspective. This plan represents a long term master plan vision. It is a living plan that sets out a range of improvements over a 15-year plus time horizon. As a living plan, it must be regularly re-visited and re-evaluated by the Park District staff and Board for consistency with goals and objectives, community sentiment, fiscal conditions, and environmental conditions. This will help to ensure that recommendations remain logically ordered and are implemented in a realistically achievable fashion. It other words, this plan is designed to be flexible and easily modified to meet the changing needs of the community.

A number of different categories of recommendations are included in the following pages of this plan. First are planning and operational initiatives. While the most evident elements of a master plan are often the suggested physical improvements, some of the most important steps that should be taken by the Park District fall into the following categories:

- Planning and Policy Initiatives
- Maintenance and Operations Initiatives
- Programming Initiatives

Second are Winnetka Waterfront 2030 initiatives. These initiatives represent primarily capital projects – for each individual lakefront park as well as the lakefront as a whole - that are supported by the community that will improve lakefront amenities and protect lakefront natural resources for generations to come. Each of these categories of improvements include key opportunities or directions that should be considered by the current or future boards. The lists are not exhaustive, however they suggest priority action items achievable over a 15-year time horizon.

Planning and Policy Initiatives

The following policy and planning initiatives should be implemented to provide a policy framework for master plan implementation. Many of these initiates may be undertaken internally by staff or board members. Some may require outside professional consultation. Priority planning and policy initiatives include:

- Work with the Village to develop a consistent character, quality and accessibility standard for the public beachfront access points at the ends of Village street right-of-ways.
- Regularly meet with state and regulating agencies to understand current policies and standards which may affect future implementation of lakefront bluff land initiatives (these agencies may include but are not limited to: IDNR, IEPA, Army Corps of Engineers, MWRD).
- Formalize a policy on lakefront land use dedicating Lloyd Park and Beach as Winnetka Park District's beach for power boats
- Formalize a policy directive regarding land acquisition on the lakefront, specifically addressing:
  - Acquisition of the property between Elder and Centennial
  - The potential to increase lakefront accessibility through the strategic transfer of riparian rights
  - Periodic assessment of the potential for adaptive re-use of the power plant
  - Periodic assessment the potential for connectivity between Tower Road Park and Beach and Lloyd Park and Beach
- Continue to monitor community recreational needs and alternative uses for lakefront parks through surveys and conversations with the community.
- Carry out an updated accessibility audit of lakefront parks, and implement the plan for recommended improvements
- Carry out a parking study and consider operational changes
- Develop and enact a marketing campaign to promote lakefront parks and amenities
- Formalize a policy regarding concessions, food service, and beverage service, encouraging the participation of local vendors.
- Board action to formalize a policy regarding sustainable design and best management practices.

Maintenance and Operational Initiatives

Many of these initiatives focus on the need for the Park District to develop or enhance its land management standards as they relate to the lakefront parks. In addition to applying best management practices to land management and stewardship of the natural resources, the Park District needs to develop a consistent "brand "package to its lakefront signage and wayfinding, site amenities standards and operational approach. Additionally, these initiatives should fold a level of business management into the mix to identify revenue streams, cost efficiencies, level of service expectations and staffing needs to meet community expectations of the lakefront resources available. Maintenance and operations initiatives include:

- Enact and implement sustainability and best management strategies
- Create and implement standards for site furnishings at lakefront parks
- Create and implement a water trail signage program
- Create and implement a trail signage program
- Create a volunteer stewardship program, advancing the relationship with environmental organizations and garden clubs, to help manage sensitive bluff and shoreline ecosystems.
- Develop and implement a shoreline protection and sand management plan.
- Develop an operations plan including revenue goals, development of itemized cost estimates, sources of funding, and permitting requirements
- Abide by best management practices and sustainable design guidelines for all maintenance, management, and operations of the Park District.

Programming Initiatives

The Park District does a great job of continually upgrading and adding to the lakefront programs and opportunities made available to the community. With this new master plan direction, the Park District should regularly meet to identify the changing character of the community and recreation needs and trends. The master plan identifies and compartmentalizes opportunities at each of the Lakefront Parks and suggests not only a range of active and passive recreation and programming opportunities. As programing develops and evolves around this plan, the District should pay special attention to programs that:

- Meet the changing demographic character of the community
- Balance opportunities for all ages and abilities
- Consider the lakefront appeal both physically and visually
- Develop partnerships and programs with other local civic partners, agencies or organizations
- Strive for fiscal neutrality or positive revenue on program operational costs
- Are well attended and used and eliminate or change those that are in decline

System-Wide Improvements

The improvements outlined below are common approaches or linked facilities that speak to a district lakefront standard framework for general maintenance, policy and procedures and new programs or facilities. A sampling of items which may be included in this improvement bucket list include:

- Development of a Lakefront adventure and fitness trail course
- Bikeway improvements per the Park District's bike plan
- Development of a lakefront Water trail
- Lakefront signage and wayfinding program
- Lakefront Water trail signage
- Collaboration with Village of Winnetka to cleanup and properly sign access at street Rights of Way ends to beaches
- Selective tree clearing and view-shed openings at upper tableland locations
- Improved accessibility and visual opportunities at beachfront tableland
- Identification of current or future beachfront linkages
- Further investigation into riparian right acquisition strategies
- Implementation of a phased shoreline Sand Management program.
- Implementation of natural landscape for wildlife habitat - including butterflies and birds.

System-Wide: Initiatives Matrix

0 - $250,000 $$$$$$
$250,000 - $500,000 $$$$$$
$500,000 - $1,000,000 $$$$$$
$1,000,000 - $3,000,000 $$$$$$
$3,000,000 - $5,000,000 $$$$$$

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
System-Wide: Land Management			
3	√	Periodically explore the potential for future adaptive re-use of the power plant	$$$$$$
1	√	Periodically assess the potential for connectivity between Lloyd and Tower beach	$$$$$$
1	√	Periodically assess the potential for strategic property acquisition / access easements	$$$$$$
System-Wide: Lakefront Land Use Planning			
1	√	Formalize a policy regarding the use of beaches	$$$$$$
1	√	Continue to monitor community recreational needs and consider alternative uses for lakefront parks	$$$$$$
System-Wide: Operational Planning			
1	√	Develop a business plan for Lloyd beach boating operations and event space	$$$$$$
1	√	Develop a buisiness plan for Centennial Beach event space	$$$$$$
1	√	Develop an overall operations plan for the lakefront	$$$$$$
1	√	Formalize a policy regarding lakefront concessions	$$$$$$
System-Wide: Infrastructure Planning			
1	√	Create a system wide adventure fitness trail program utilizing new trail and recreational facilities	$$$$$$
1	√	Carry out an accessibility audit of lakefront parks, and implement a plan for recommended improvements	$$$$$$
2	√	Carry out a parking study and consider operational changes	$$$$$$
1	√	Create and implement standards for site furnishings	$$$$$$
1	√	Create and implement a water and land trail signage program	$$$$$$
System-Wide: Environmental Stewardship Planning			
1	√	Develop a lakefront volunteer stewardship program	$$$$$$
1	√	Enact a selective clearing and tree removal program to help open views to the lake	$$$$$$
1	√	Develop sustainability and best management standards	$$$$$$
1	√	Develop and implement a shoreline protection and sand management plan	$$$$$$

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
	√		low		
	√		low		
	√		low		
	√		low		
	√		low		
	√		medium		
	√		medium		
	√		medium		
	√		low		
	√		medium		
√	√		medium		
	√		medium		
	√		medium		
√	√		medium		
	√		medium		
	√		medium		
√			medium		
√			medium		

Tower Road Park & Beach

Tower Road Park and Beach anchors the Park District's lakefront on the north. It will continue to serve as the primary swimming beach and be the northern hub for the Park District's adventure/fitness trail course. While numerous physical improvements have been identified for the long-term such as new parking and drop off areas, new staircase form upper parkland, new bath/concession house, and improved playground and seating areas, priority should be placed in the near term on improving signage and site amenities, bluff land stabilization, and beachfront stabilization.

There is a significant desire to improve the difficult beach water access conditions, which today are rocky and create an awkward steep drop off area near the water line. The plan suggests a small stone breakwater structure should be implemented at the southern end of the beach to allow improved sand management and water access in this area. This stone break water should be designed in such a manner to limit its visual impact on the beach and also provide an access opportunity to allow for fishing on its lakefront eastern side. Beachfront improvements also suggest the development of smaller dune landscape areas in strategic locations not impacted by wave water level fluctuations.

Illustration of proposed improvements at Tower Road Park and Beach

- A Pier improvements
- B Rubble-mound breakwater structure
- C Dune landscape restoration
- D Lifeguard stations
- E Boardwalk improvements
- F Beach-level parking expansion
- G Beach terrace (w/fire pit)
- H Beach playground
- I New beach house
- J Improve staircase, construct exercise stairs/ vertical trail
- K Fitness area terrace
- L New tableland picnic shelter
- M Bluff restoration

Tower Road Park & Beach: Program & Site Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Tower Road Program and Operations Improvements			
1	√	Provide food concessions via partnerships with local restaurants / food trucks	$$$$$**$**
Tower Road General Site Improvements			
1	√	Sign program implementation	$$$$$**$**
1	√	Site furnishing and lighting program implementation	$$$$$**$**

The beach at Centennial Park provides lakefront recreation space for dogs and dog-owners

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
	√	√	low		Partnership with private operator, local preference
√			low		May be eligible for ICMP Sustainable Coastal Planning Grant, Illinois Transportation Enhancement Program (ITEP) funding*
			low		[WPD Operational budget item]

*Grant source funded by State of Illinois

Tower Road Park & Beach: Shoreline Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Tower Road Shoreline Improvements			
1	√	Pier improvements (electric plant lagoon north wall)	$$$$$**$**
1	√	Rubble-mound breakwater structure • Back-shore rubble-mound revetment • Concrete "breakwater promenade" (8' width) • Breakwater overlook • Beach sand backfill (3.5' depth over proposed beach area)	$$**$$$$**

Pier improvements.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
	√		high		Requires permission of / partnership with Village of Winnetka
√			high		Includes minimum amount of shoreline structure required to improve quality and profile of swimming beach and reduce rip currents; may be eligible for Great Lakes Fishery and Ecosystem Restoration (GLFER) Program funding (US Army Corps of Engineers); requires sensitivity to aesthetics of structure; requires federal, state, and local permitting

Rubble-mound breakwater structure at south end of beach.

Tower Road Park & Beach: Beach Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Tower Road Beach Improvements			
1	√	Dune landscape restoration	$$$$$**$**
1	√	Beach terrace (w/ fire pit)	$$$$$**$**
1	√	Lifeguard stations	$$$$$**$**
2	√	Beach-level parking expansion (Pavement, curb, Lighting, storm sewer)	$$$$$**$**
2	√	Beach playground	$$$$$**$**
3	√	Boardwalk improvements (10' width)	$$$$$**$**

Dune landscape restoration.

Beach playground improvements

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√	√		low		Restoration projects may be eligible for Great Lakes Restoration Initiative grants (USEPA), National Fish and Wildlife Foundation grants, US Fish and Wildlife grants, Great Lakes Fishery and Ecosystem Restoration (GLFER) Program; Garden club / volunteer steward partnership opportunity
√			med		Gas fire pit required per Village ordinance, may be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*
√			low		Standard for lifeguard stations to be defined as part of site furnishing standards
√			med		Construction may require coordination with Village, May be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*
√			low		May be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*
√			low		May be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*

*Grant source funded by State of Illinois

Lifeguard stations.

Beach terrace and boardwalk.

Tower Road Park & Beach: Park Land & Facility Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Tower Road Park Land Improvements (Tableland and Bluff)			
1	√	Bluff restoration (selective clearing, planting, and erosion control)	$$$$$**$**
2	√	Improve staircase, construct exercise stairs / vertical trail	$$$$**$$**
3	√	Fitness area terrace (w/ outdoor fitness equipment)	$$$$$**$**
3	√	New tableland picnic shelter	$$$$$**$**
Tower Road Park Facility Improvements (Buildings)			
2	√	New beach house (Concessions, bathrooms, showers, storage, office)	$$$**$$$**

Bluff restoration.

Fitness area and vertical trail.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√	√		low		Restoration projects may be eligible for Great Lakes Restoration Initiative grants (USEPA), National Fish and Wildlife Foundation grants, US Fish and Wildlife grants, Great Lakes Fishery and Ecosystem Restoration (GLFER) Program; Garden club / volunteer steward partnership opportunity
√			med		May be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*
√			low		May be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*
√			low		May be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*
√			med		May be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*

*Grant source funded by State of Illinois

Improved concessions.

New beach house.

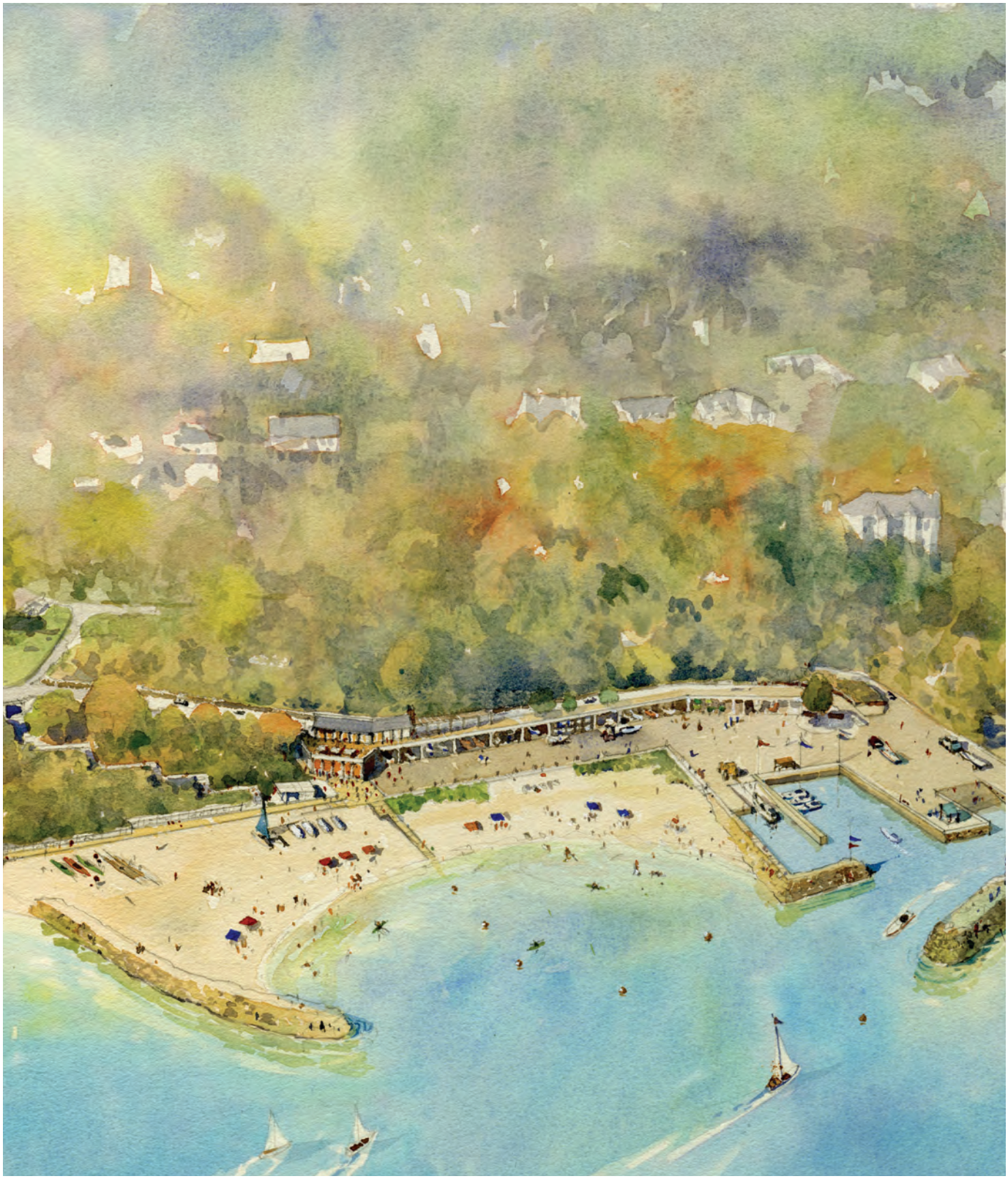


Illustration of proposed improvements at Lloyd and Tower Road Park and Beach

Lloyd Park & Beach

Lloyd Park and Beach is the Park District's boating beach and main hub of water sports activity, future improvements should carefully build on this lakefront park character to enhance both its active and passive recreational opportunities. The parks infrastructure, boat launch, and parking facilities provide significant opportunities to increase water front activities and as well as improve programming. A range of long-term options, such as enclosed powerboat storage, boating rental facilities, new road access, boathouse overlook facility and launch/harbor will expand full season programming, and offer the District new revenue opportunities to offset cost of construction and on-going management.

Additionally, the beach facility lends itself to promoting the idea of tying into a greater Lake Michigan water trail system. Discussions with regional paddling organizations identified an existing gap in this waterfront trail system between Chicago and Waukegan. A water trail node - providing signage, wayfinding and connection to other regional trail linkages – is proposed for Lloyd Park and Beach which could help solve the problem of the gap. In addition, the water trail node aligns with IDNR's Coastal Management Program interests, providing a possible opportunity to leverage grant funding opportunities through state and federal programs in the future.

Illustration of proposed improvements at Lloyd Park and Beach

- A Rubble-mound breakwater structure
- B Seasonal shelter for launch office
- C Boat basin
- D Expand boat launch (boat drop)
- E Boardwalk improvements
- F Dune landscape restoration
- G Covered power boat storage
- H Vehicular circulation improvements and retaining walls
- I New beach house
- J Beach terrace (w/ fire pit)
- K South beach access stairs and overlook
- L Secure non-motorized water craft storage area
- M Improve perimeter fencing
- N Parking expansion - vehicle and trailer
- O Bluff restoration
- P Picnic area improvements

Lloyd Park & Beach: Program & Site Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Lloyd Program and Operations Improvements			
1	√	Expand program offerings and partnerships with local rowing / sailing clubs	$$$$$**$**
1	√	Provide a rental program for non-motorized boats and paddle boards	$$$$$**$**
1	√	Provide food concessions via partnerships with local restaurants / food trucks	$$$$$**$**
2	√	Provide a boat-sharing program	$$$$$**$**
2	√	Provide a boat-valet service	$$$$$**$**
Lloyd General Site Improvements			
1	√	Sign program implementation (allowance)	$$$$$**$**
1	√	Site furnishing and lighting program implementation (allowance)	$$$$$**$**

Partnerships with local rowing and sailing clubs.

Rental program for non-motorized boats and paddle boards.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
	√	√	low		
	√	√	med		Partnership with private operator, local preference
	√	√	low		Partnership with private operator, local preference
	√	√	med		Partnership with private operator, local preference
	√	√	med		Partnership with private operator, local preference
√			low		May be eligible for ICMP Sustainable Coastal Planning Grant, Illinois Transportation Enhancement Program (ITEP) funding*
			low		[WPD Operational budget item]

*Grant source funded by State of Illinois

Boat share program.

Food concessions.

Lloyd Park & Beach: Shoreline Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Lloyd Shoreline Improvements			
1	√	Rubble-mound breakwater structure - PH 1 improvement Remove existing groin at south end of beach Rebuild groin (10' width) Rubble-mound breakwater structure Back-shore rubble-mound revetment Beach sand backfill (3-4' depth over proposed beach area)	$**$$$$$**
2	√	Expand boat launch (boat drop)	$$$**$$$**
3	√	Boat basin	$$$**$$$**

Breakwater structure.

Expanded boat launch with breakwater structure.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√			high		Includes minimum amount of shoreline structure required to improve beach and protect constructed improvements; requires sensitivity to aesthetics of structure; may be eligible for Great Lakes Fishery and Ecosystem Restoration (GLFER) Program funding (US Army Corps of Engineers); requires federal, state, and local permitting
√		√	high		PH 2 improvement; may be eligible for Great Lakes Fishery and Ecosystem Restoration (GLFER) Program funding (US Army Corps of Engineers); requires sensitivity to aesthetics of structure; requires federal, state, and local permitting
√			high		PH 3 improvement; may be eligible for Great Lakes Fishery and Ecosystem Restoration (GLFER) Program funding (US Army Corps of Engineers); requires sensitivity to aesthetics of structure; requires federal, state, and local permitting

*Grant source funded by State of Illinois

Expanded launch with boat basin.

Lloyd Park & Beach: Beach Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Lloyd Beach Improvements			
1	√	Dune landscape restoration	$$$$$**$**
1	√	Water trail stop	$$$$$**$**
1	√	Beach terrace (w/ fire pit) Remove existing flatwork at beach	$$$$$**$**
1	√	Secure non-motorized water craft storage area (includes paving, racks) Remove existing boat storage area / racks	$$$$$**$**
1	√	Secure power boat / personal water craft storage area (includes fencing, paving, racks)	$$$$$**$**
2	√	Boardwalk improvements (10' width)	$$$$$**$**

Dune landscape restoration.

Water trail stop.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√	√		low		Restoration projects may be eligible for Great Lakes Restoration Initiative grants (USEPA), National Fish and Wildlife Foundation grants, US Fish and Wildlife grants, Great Lakes Fishery and Ecosystem Restoration (GLFER) Program; Garden club / volunteer steward partnership opportunity
√	√		low		
√			med	√	Gas fire pit required per Village ordinance, may be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*
		√	low		[WPD Operational budget item]
√		√	low		Interim plan: before covered boat storage can be constructed, expand secured surface-grade storage for power boats
√			low		May be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*

*Grant source funded by State of Illinois

Beach terrace.

Improved motorized and non-motorized boat storage.

Lloyd Park & Beach: Park Land Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Lloyd Park Land Improvements (Tableland and Bluff)			
1	√	Bluff restoration (selective clearing, planting, and erosion control)	$$$$$**$**
1	√	Nature-based play area	$$$$$**$**
1	√	Vehicular circulation improvements, retaining walls	$$**$$$$**
1	√	Parking expansion - vehicle and trailer (Pavement, curb, Lighting, storm sewer) Remove existing parking	$$$$**$$**
1	√	South beach access stairs and overlook	$$$$**$$**
1	√	Improve perimeter fencing	$$$$$**$**
2	√	Picnic area improvements (north and central areas, specialty site furnishings)	$$$$$**$**

Bluff restoration.

Nature-based play area.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√	√		low		Restoration projects may be eligible for Great Lakes Restoration Initiative grants (USEPA), National Fish and Wildlife Foundation grants, US Fish and Wildlife grants, Great Lakes Fishery and Ecosystem Restoration (GLFER) Program; Garden club / volunteer steward partnership opportunity
√			low		Partnership opportunity with Backyard Nature Center; may be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*
			high		
			med		[WPD Operational budget item]
			low		[WPD Operational budget item]
			low		[WPD Operational budget item]

*Grant source funded by State of Illinois

Access and circulation improvements.

Lloyd Park & Beach: Facility Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Lloyd Park Facility Improvements (Buildings)			
1	√	Seasonal shelter for launch office	$$$$$**$**
1	√	New beach house Event space Kitchen Roof terrace Restrooms Office Storage	$$$**$$$**
1	√	Covered power boat storage (lower level of beach house building)	$$$**$$$**

New beach house.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√			low		
√		√	high	√	May be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*
√	√	√	high	√	May be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*; opportunity for partnership with private operator (boat share, sailing club, rowing club, etc.)

*Grant source funded by State of Illinois

Event space.

Covered power boat storage.

Illustration of proposed improvements at Lloyd Beach House

Maple Street Park & Beach

Maple Beach and Park is the simple passive beach and park that serves at the centerpiece to Winnetka's string of beaches. Similar to Elder and Centennial Park, Maple has an expansive open lawn open space that provides ample passive recreation users such as walking, pickup ball games, picnicking and sunbathing. This upper table land provides limited surface parking and contains a simple yet accessible walkway leading to the beachfront and a simple overlook. While there are a number of minor improvements or enhancements noted below, the only major initiatives identified are focused on the beachfront facilities. The Master Plan suggests both a short-term and long tern renovation of the existing break wall pier located on the north end of the beach. The pier is heavily used and this swimming beach safety and security would be greatly improved with renovation of this facility.

Likewise, but longer term in the implementation horizon is the construction of expanded and improved groin structure at the south end of the beach. The existing facility is in need of upgrade and repair. This Master plan suggests a simple new design integrating structural stability and compatibility in design character with other shoreline break wall improvements needed to support sand management strategies opportunity to allow for fishing on its lakefront eastern side. Beachfront improvements also suggest the development of smaller dune landscape areas in strategic locations not impacted by wave water level fluctuations.

- A Re-surface and improve existing pier
- B Re-build south breakwater
- C Dune landscape restoration
- D Lifeguard stations
- E Boardwalk improvements
- F Bluff restoration
- G Improve existing beach house event space

Maple Street Park & Beach: Program & Site Improvements Matrix

0 - $250,000 $$$$$$
$250,000 - $500,000 $$$$$$
$500,000 - $1,000,000 $$$$$$
$1,000,000 - $3,000,000 $$$$$$
$3,000,000 - $5,000,000 $$$$$$

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Maple Street Program and Operations Improvements			
3	√	Expand concessions at Maple Street beach house	$$$$$$
Maple Street General Site Improvements			
1	√	Sign program implementation	$$$$$$
1	√	Site furnishing and lighting program implementation	$$$$$$

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√	√	√	low		
√			low		May be eligible for ICMP Sustainable Coastal Planning Grant, Illinois Transportation Enhancement Program (ITEP) funding*
			low		[WPD Operational budget item]

*Grant source funded by State of Illinois

Expand concessions.

Maple Street Park & Beach: Program & Site Improvements Matrix

0 - $250,000 $$$$$$
$250,000 - $500,000 $$$$$$
$500,000 - $1,000,000 $$$$$$
$1,000,000 - $3,000,000 $$$$$$
$3,000,000 - $5,000,000 $$$$$$

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Maple Street Shoreline Improvements			
1	√	Re-surface and improve existing pier	$$$$$$
3	√	Re-build south breakwater Sheet-pile groin Back-shore rubble-mound revetment Beach sand backfill	$$$$$$

Pier improvements.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
			low		[WPD Operational budget item]
√			high		Includes minimum amount of shoreline structure required to replace existing structure and maintain beach; requires sensitivity to aesthetics of structure; may be eligible for Great Lakes Fishery and Ecosystem Restoration (GLFER) Program funding (US Army Corps of Engineers); requires federal, state, and local permitting

*Grant source funded by State of Illinois

South breakwater improvements.

Maple Street Park & Beach: Beach Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Maple Street Beach Improvements			
1	√	Dune landscape restoration	$$$$$**$**
1	√	Lifeguard stations	$$$$$**$**
1	√	Boardwalk improvements (10' width)	$$$$$**$**

Dune landscape restoration.

Standardize lifeguard stations.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√	√		low		Restoration projects may be eligible for Great Lakes Restoration Initiative grants (USEPA), National Fish and Wildlife Foundation grants, US Fish and Wildlife grants, Great Lakes Fishery and Ecosystem Restoration (GLFER) Program; Garden club / volunteer steward partnership opportunity
√			low		Standard for lifeguard stations to be defined as part of site furnishing standards
			low		[WPD Operational budget item]

*Grant source funded by State of Illinois

Boardwalk.

Maple Street Park & Beach: Park Land Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Maple Street Park Land Improvements (Tableland and Bluff)			
1	√	Bluff restoration (selective clearing, planting, and erosion control)	$$$$$**$**

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√	√		low		Restoration projects may be eligible for Great Lakes Restoration Initiative grants (USEPA), National Fish and Wildlife Foundation grants, US Fish and Wildlife grants, Great Lakes Fishery and Ecosystem Restoration (GLFER) Program; Garden club / volunteer steward partnership opportunity

*Grant source funded by State of Illinois

Bluff restoration.

Maple Street Park & Beach: Facility Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Maple Street Park Facility Improvements (Buildings)			
3	√	Improve existing beach house event space	$$$$$**$**

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√		√	low		

*Grant source funded by State of Illinois

Beach house renovation.

Elder Lane Park & Beach and Centennial Park & Beach

Elder Lane and Centennial Park and Beach and Park anchor the southern end of the Winnetka lakefront system. While each of these lakefront parks is an individual park, they are discussed in this Master Plan as a symbolic whole. The Master Plan seeks to explore ways to combine these two special open space and lakefront areas to maximize both community open space value and passive and active recreation opportunities and programming. While this discussion describes initiatives and projects that may be undertaken at each of these two parks, the District should strive to a long-term goal of bridging the gap between the two parks by purchasing the single-family home and property between the two. While understanding the cost implications of such a land purchases is difficult for the District to prioritize in the short term, the value-added by acquiring some or all of this property would unlock tremendous potential to create a southern hub to Winnetka's lakefront. This strategic purchase would create new continuity of programing for both active and passive users, provide better circulation and parking, and add a new seasonal facility for rental, programs and potential dining that would be revenue generating.

Illustration of proposed improvements at Elder Lane Park and Beach

Coupled with this long-term vision is an improved shoreline/beachfront developed around new breakwater groin facilities. These facilities illustrated in the plan and renderings seek to stabilize and enlarge beachfront sand areas and support enhanced programming and a more clear separation of beachfront uses or zones. The Master Plan seeks to enhance Elder Lane Park and Beach into the "Southern hub" of the waterfront trail system and a second non-motorized watercraft beach. This long term goal also should explore reuse of Centennial Park and Beach or a portion thereof to a dedicated southern hub swimming beach.

Both of these long-term goals can be implemented individually and over time without acquisition of the single family property. Similarly the Master Plan envisions that no changes will be made to the current Dog Beach use at Centennial Park and Beach within the short term horizon. A noted earlier in this plan, the District should monitor community pet owner needs and trends and determine if future pet recreation needs are best met with a dedicated dog beach or through another large open space opportunity elsewhere in the village. More specifically a number of smaller initiatives and projects are identified for each of these two parks which improve the quality of the spaces, enhance environmentally systems and activate recreation opportunities.

Illustration of proposed improvements at Centennial Park and Beach

- A Rubble-mound breakwater structure
- B Stormwater management improvements
- C Secure non-motorized water craft storage
- D Existing boat house improvements
- E Boardwalk improvements
- F Vehicular circulation improvements and retaining walls
- G New sheet-pile groin
- H Bluff restoration
- I Nature based play area
- J Construct a new upper-level restroom building

- A Rubble-mound breakwater structure
- B Stormwater management improvements
- C Secure non-motorized water craft storage
- D Existing boat house improvements
- E Boardwalk improvements
- F Dune landscape restoration
- G Bluff restoration
- H Expand surface parking
- I Nature based play area
- J Construct a new upper-level restroom building
- K Vehicular circulation improvements and retaining walls
- L Lifeguard stations
- M New sheet-pile groin
- N Renovate single-family home into new beachfront event space
- O New beach house

Elder Lane Park & Beach: Program & Site Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Elder Program and Operations Improvements			
1	√	Dedicate north half of beach as non-motorized boating beach	$$$$$**$**
1	√	Establish partnerships for environmental educational programming	$$$$$**$**
2	√	Dedicate full beach as non-motorized boating beach	$$$$$**$**
2	√	Expand program offerings and partnerships with local rowing / sailing clubs	$$$$$**$**
2	√	Provide a rental program for non-motorized boats and paddle boards	$$$$$**$**
Elder General Site Improvements			
1	√	Sign program implementation (allowance)	$$$$$**$**
1	√	Site furnishing and lighting program implementation (allowance)	$$$$$**$**
1	√	Stormwater management improvements Constructed wetland Storm sewer improvements	$$$**$$$**

Non-motorized boating beach.

Nature education.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√	√		low		Interim plan
√	√		low		
√	√		low	√	
	√	√	low		
	√	√	medium		Partnership with private operator, local preference
√			low		May be eligible for ICMP Sustainable Coastal Planning Grant, Illinois Transportation Enhancement Program (ITEP) funding*
√			low medium		[WPD Operational budget item] Requires partnership with Village.

*Grant source funded by State of Illinois

Partner with local rowing / sailing clubs.

Stormwater management improvements.

Centennial Park & Beach: Program & Site Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Centennial Program and Operations Improvements			
1	√	Property acquisition	**$$$$$$**
1	√	Dedicate beach as swimming beach	$$$$$**$**
Centennial General Site Improvements			
1	√	Sign program implementation (allowance)	$$$$$**$**
1	√	Site furnishing and lighting program implementation (allowance)	$$$$$**$**

Property acquisition.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√	√		high		
√	√		medium		Requires relocation of dog run to alternate open space within the Village
√			low		May be eligible for ICMP Sustainable Coastal Planning Grant, Illinois Transportation Enhancement Program (ITEP) funding*
			low		[WPD Operational budget item]

*Grant source funded by State of Illinois

Dedicate as swimming beach.

Elder Lane Park & Beach: Shoreline Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Elder Shoreline Improvements			
1	√	Rubble-mound breakwater structure Remove existing stormwater outfall and pier Remove sheet pile groins Back-shore rubble-mound revetment Beach sand backfill	$$$**$$$**

Breakwater structure.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√			high		PH 1 (north property line); includes minimum amount of shoreline structure required to replace existing structures, maintain beach and protect constructed improvements; requires sensitivity to aesthetics of structure; may be eligible for Great Lakes Fishery and Ecosystem Restoration (GLFER) Program funding (US Army Corps of Engineers); requires federal, state, and local permitting

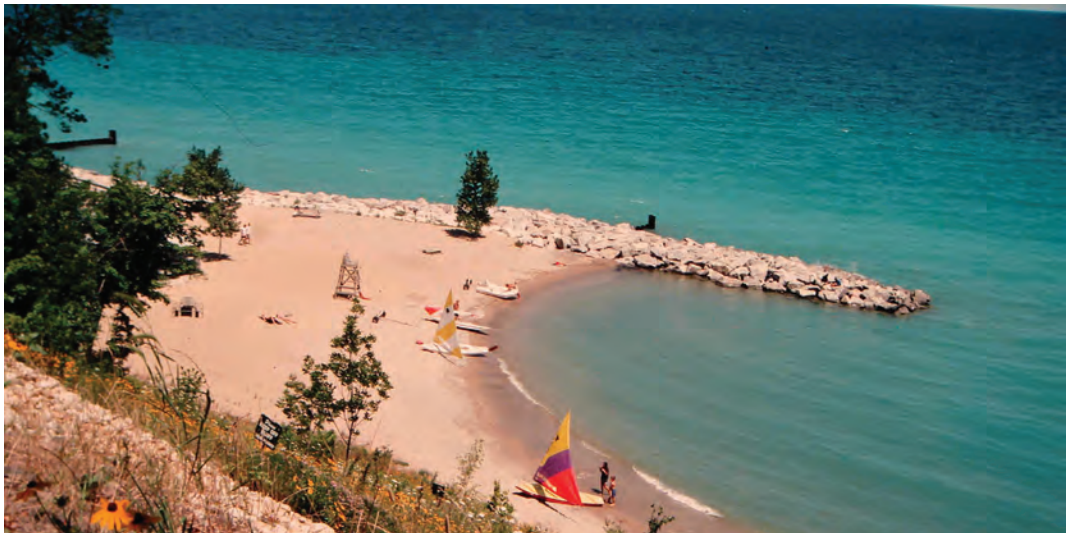
*Grant source funded by State of Illinois

Breakwater structure.

Centennial Park & Beach: Shoreline Improvements Matrix

0 - $250,000 $$$$$$
$250,000 - $500,000 $$$$$$
$500,000 - $1,000,000 $$$$$$
$1,000,000 - $3,000,000 $$$$$$
$3,000,000 - $5,000,000 $$$$$$

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Centennial Shoreline Improvements			
1	√	Rubble-mound breakwater structure - PH 1 improvement Remove sheet pile groins Back-shore rubble-mound revetment Beach sand backfille	$$$$$$
1	√	New sheet-pile groin	$$$$$$
2	√	Rubble-mound breakwater structure Remove sheet pile groins Back-shore rubble-mound revetment Beach sand backfill	$$$$$$



Breakwater structure.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√			high		PH 1 (south property line); includes minimum amount of shoreline structure required to replace existing structures, improve beach and protect constructed improvements; requires sensitivity to aesthetics of structure; may be eligible for Great Lakes Fishery and Ecosystem Restoration (GLFER) Program funding (US Army Corps of Engineers); requires federal, state, and local permitting
√			high		PH 1 (north property line); includes minimum amount of shoreline structure required to replace existing structures, improve beach and protect constructed improvements; requires sensitivity to aesthetics of structure; may be eligible for Great Lakes Fishery and Ecosystem Restoration (GLFER) Program funding (US Army Corps of Engineers); requires federal, state, and local permitting
√			high		PH 2 (north property line); dependent on property acquisition; includes minimum amount of shoreline structure required to improve beach and protect constructed improvements; requires sensitivity to aesthetics of structure; may be eligible for Great Lakes Fishery and Ecosystem Restoration (GLFER) Program funding (US Army Corps of Engineers); requires federal, state, and local permitting

Breakwater structure.

Elder Lane Park & Beach: Beach Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Elder Beach Improvements			
1	√	Dune landscape restoration	$$$$$**$**
1	√	Secure non-motorized water craft storage area (includes paving, racks)	$$$$$**$**
1	√	Water trail stop	$$$$$**$**
1	√	Boardwalk improvements (10' width)	$$$$$**$**

Dune landscape restoration.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√	√		low		Restoration projects may be eligible for Great Lakes Restoration Initiative grants (USEPA), National Fish and Wildlife Foundation grants, US Fish and Wildlife grants, Great Lakes Fishery and Ecosystem Restoration (GLFER) Program; Garden club / volunteer steward partnership opportunity
		√	low		[WPD Operational budget item]
√	√		low		
			low		[WPD Operational budget item]

*Grant source funded by State of Illinois

Water trail stop.

Non-motorized boat storage.

Centennial Park & Beach: Beach Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Centennial Beach Improvements			
1	√	Dune landscape restoration	$$$$$**$**
1	√	Lifeguard stations	$$$$$$
3	√	Boardwalk improvements (10' width)	$$$$$$

Dune landsacpe restoration.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√	√		low		Restoration projects may be eligible for Great Lakes Restoration Initiative grants (USEPA), National Fish and Wildlife Foundation grants, US Fish and Wildlife grants, Great Lakes Fishery and Ecosystem Restoration (GLFER) Program; Garden club / volunteer steward partnership opportunity
√			low		Standard for lifeguard stations to be defined as part of site furnishing standards
√			low		[WPD Operational budget item]

*Grant source funded by State of Illinois

Boardwalk improvements.

Elder Lane Park & Beach: Park Land Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Elder Park Land Improvements (Tableland and Bluff)			
1	√	Bluff restoration (selective clearing, planting, and erosion control)	$$$$$**$**
2	√	Expand surface parking	$$$$$**$**

Bluff restoration.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√	√		low		Restoration projects may be eligible for Great Lakes Restoration Initiative grants (USEPA), National Fish and Wildlife Foundation grants, US Fish and Wildlife grants, Great Lakes Fishery and Ecosystem Restoration (GLFER) Program; Garden club / volunteer steward partnership opportunity
	√	√	low		Potential partnership opportunity with New Trier; revenue generation via New Trier parking permits

*Grant source funded by State of Illinois

Expand surface parking.

Centennial Park & Beach: Park Land Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Centennial Park Land Improvements (Tableland and Bluff)			
1	√	Bluff restoration (selective clearing, planting, and erosion control)	$$$$$$
3	√	Vehicular circulation improvements, retaining walls	$$$$$$

Bluff restoration.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√	√		low		Restoration projects may be eligible for Great Lakes Restoration Initiative grants (USEPA), National Fish and Wildlife Foundation grants, US Fish and Wildlife grants, Great Lakes Fishery and Ecosystem Restoration (GLFER) Program; Garden club / volunteer steward partnership opportunity
			medium	√	May be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*

*Grant source funded by State of Illinois

Elder Lane Park & Beach: Facility Improvements Matrix

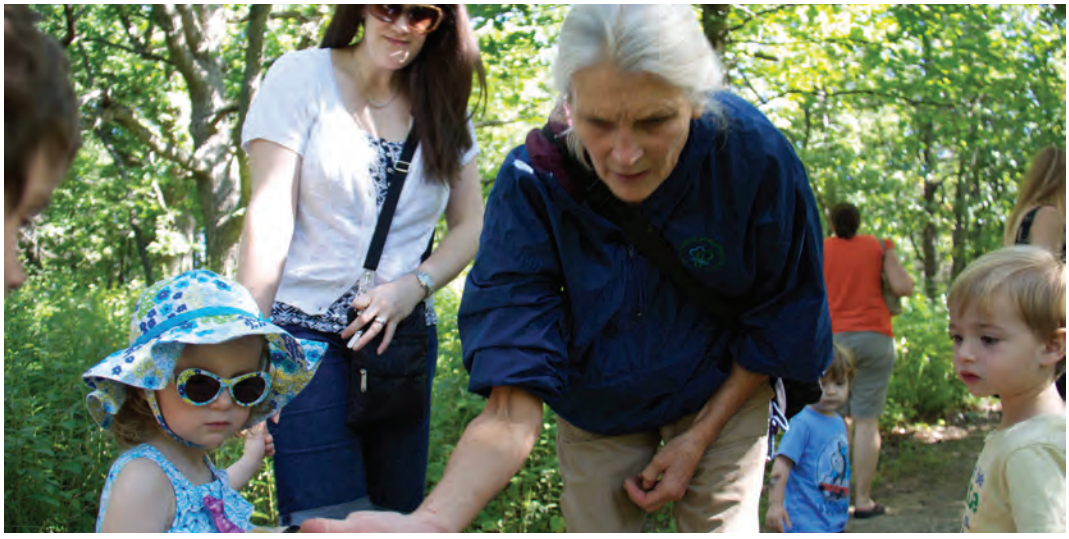
0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Elder Park Facility Improvements (Buildings)			
3	√	Existing beach house improvements Lakefront lab / classroom space Restrooms Event space Rental window / office	$$$$$**$**

Existing beach house improvements.

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
√		√	low		

*Grant source funded by State of Illinois



Lakefront lab / classroom space.

Centennial Park & Beach: Facility Improvements Matrix

0 - $250,000 $$$$$**$**
$250,000 - $500,000 $$$$**$$**
$500,000 - $1,000,000 $$$**$$$**
$1,000,000 - $3,000,000 $**$$$$$**
$3,000,000 - $5,000,000 **$$$$$$**

"LAC Priority? (1 = highest priority)	Supports plan goals?		Cost (construction, soft costs)
Centennial Park Facility Improvements (Buildings)			
2	√	Construct a new upper-level restroom building	$$$$$**$**
2	√	Renovate single-family home into new beachfront event space	$$**$$$$**
3	√	New beach house (concessions, bathrooms, showers, lifeguard office, storage)	$$$**$$$**

Grant opportunity?	Partnership opportunity?	Revenue generator?	"Level of effort"	Dependent on shoreline improvements?	Notes
	√	√	high		Partnership with private operator, local preference
	√	√	high	√	Partnership with private operator, local preference
√		√	low	√	May be eligible for Open Space Land Acquisition and Development Grants (OSLAD)*

*Grant source funded by State of Illinois

New beach house.

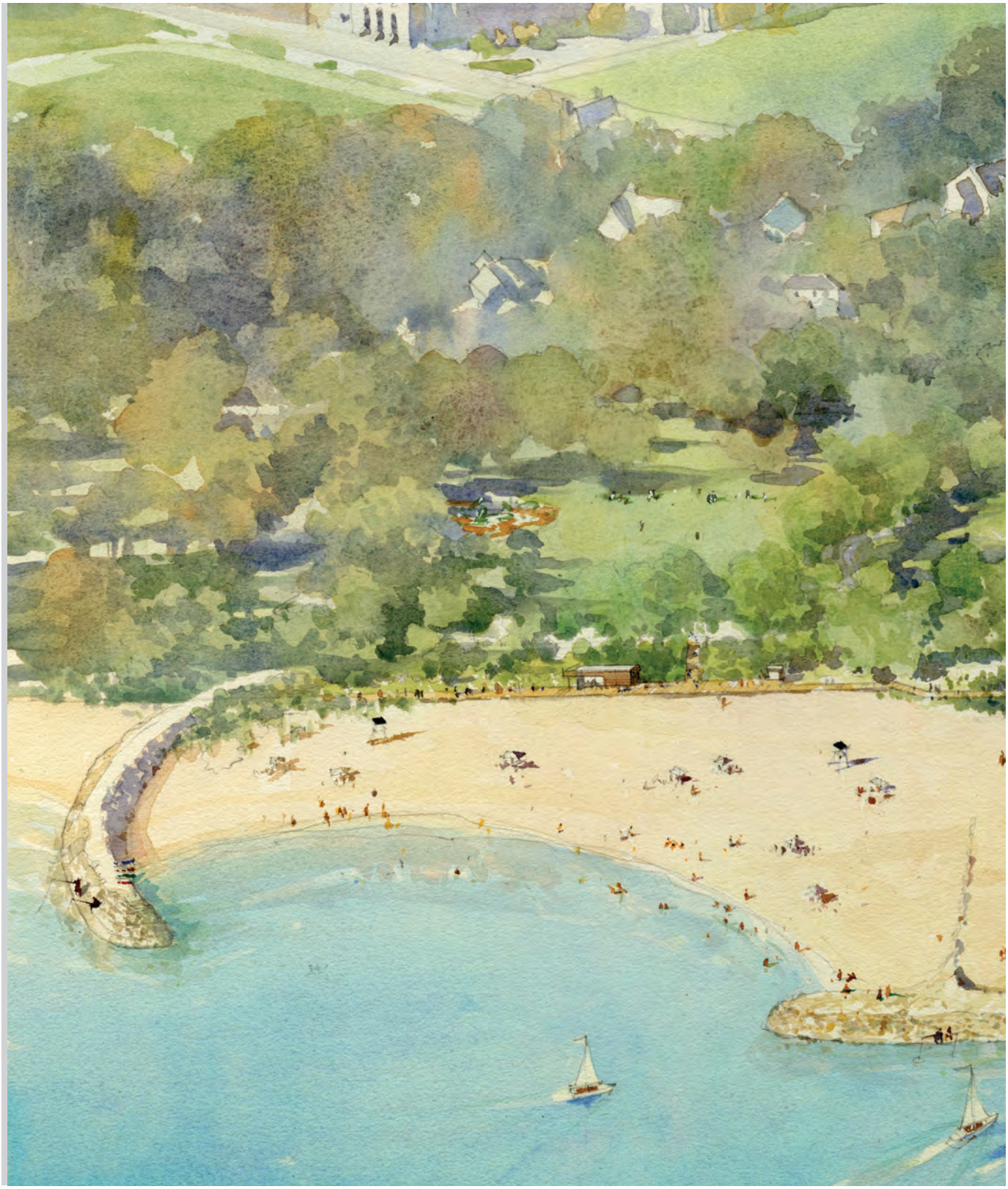


Illustration of proposed improvements at Centennial and Elder Lane Park and Beach

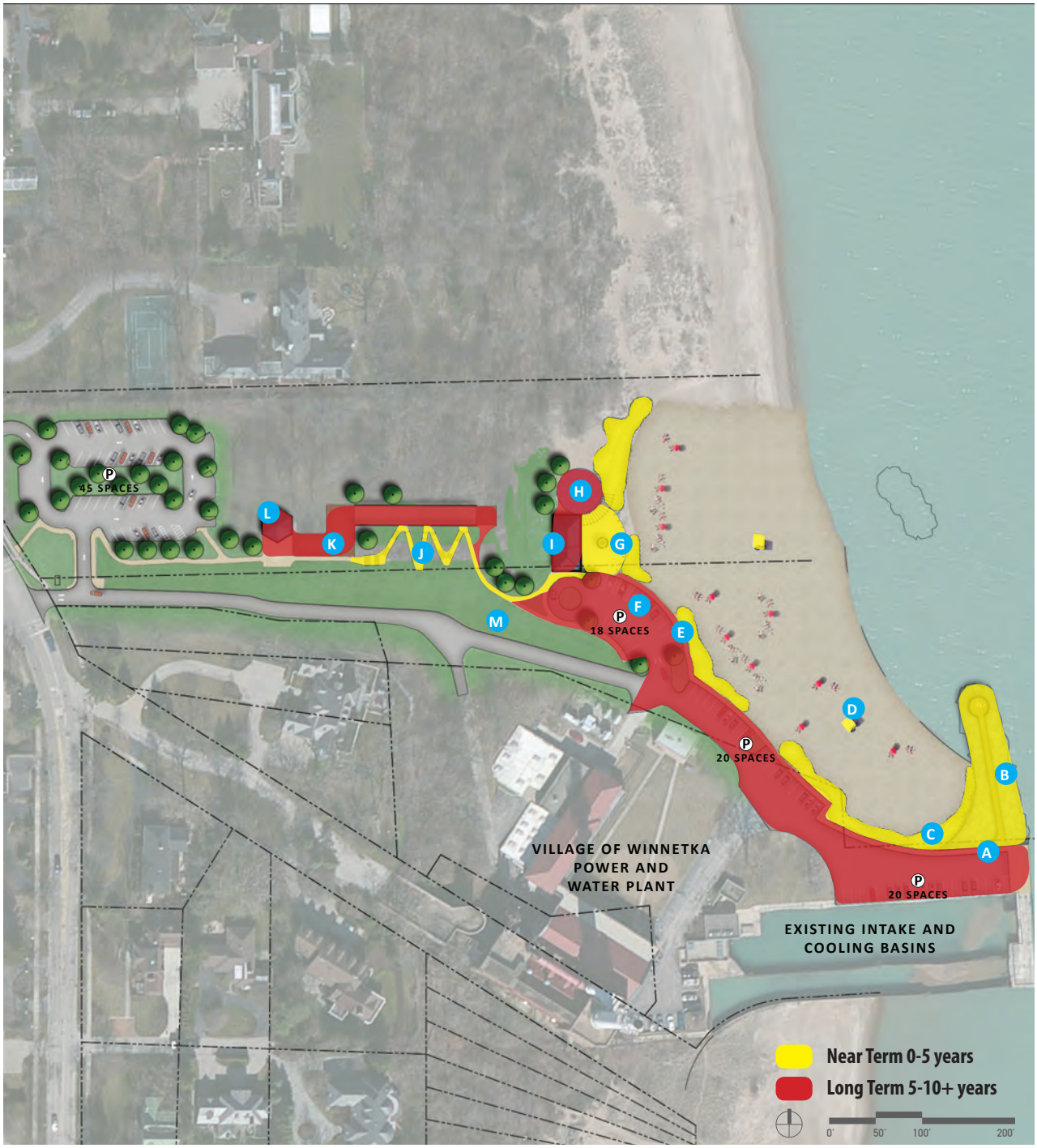
IMPLEMENT

The Project Team developed an action strategy for each of the five lakefront parks in addition to an overall lakefront open space system. The action strategy describes specific projects, policies or programs, provides a sense of order of magnitude cost and prioritizes sequencing of improvements within realistically achievable time horizons. The strategy also anticipates the level of effort needed to implement each initiative considering next steps like business planning, engineering, detailed design, and entitlement/permitting.

System-Wide: Program & Site Improvements Matrix

Tower Road Park and Beach

Year 1 - 3	Year 3 - 5	Year 5 - 10	Year 10+
Provide food concessions			
Sign program implementation			
Site furnishing program			
Dune landscape restoration			
Bluff restoration			
	Pier improvements		
	Rubblemound breakwater		
	Beach terrace (w/ fire pit)		
	Lifeguard stations		
	Improve staircase		
		Beach-level parking expansion	
		Beach playground	
		New beach house	
			Fitness area terrace
			New picnic shelter
			Boardwalk improvements



- A Pier improvements
- B Rubble-mound breakwater structure
- C Dune landscape restoration
- D Lifeguard stations
- E Boardwalk improvements
- F Beach-level parking expansion
- G Beach terrace (w/fire pit)
- H Beach playground
- I New beach house
- J Improve staircase, construct exercise stairs/ vertical trail
- K Fitness area terrace
- L New tableland picnic shelter
- M Bluff restoration

System-Wide: Program & Site Improvements Matrix

Lloyd Park and Beach

Year 1 - 3	Year 3 - 5	Year 5 - 10	Year 10+
Partner w/ rowing clubs			
Provide a rental program			
Provide food concessions			
Sign program			
Site furnishing program			
Dune landscape restoration			
Water trail stop			
Beach terrace (w/ fire pit)			
Secure non-motorized storage			
Secure power boat storage			
Bluff restoration			
Nature-based play area			
Improve perimeter fencing			
Shelter for launch office			
	Expand boat launch		
	Vehicular circulation improvements		
	Parking expansion - vehicle and trailer		
	South beach access stairs and overlook		
	Picnic area improvements		
	New beach house		
	Covered power boat storage		
		Boat-sharing program	
		Provide a boat-valet service	
		Boardwalk improvements	
			Boat basin

- A Rubble-mound breakwater structure
- B Seasonal shelter for launch office
- C Boat basin
- D Expand boat launch (boat drop)
- E Boardwalk improvements
- F Dune landscape restoration
- G Covered power boat storage
- H Vehicular circulation improvements and retaining walls
- I New beach house
- J Beach terrace (w/ fire pit)
- K South beach access stairs and overlook
- L Secure non-motorized water craft storage area
- M Improve perimeter fencing
- N Parking expansion - vehicle and trailer
- O Bluff restoration
- P Picnic area improvements

System-Wide: Program & Site Improvements Matrix

Maple Street Park and Beach

Year 1 - 3	Year 3 - 5	Year 5 - 10	Year 10+
Sign program implementation			
Site furnishing and lighting program implementation			
Dune landscape restoration			
Lifeguard stations			
Bluff restoration			
	Boardwalk improvements		
	Re-surface and improve existing pier		
		Improve existing beach house event space	
		Expand concessions at beach house	
		Re-build south groin	

- A Re-surface and improve existing pier
- B Re-build south breakwater
- C Dune landscape restoration
- D Lifeguard stations
- E Boardwalk improvements
- F Bluff restoration
- G Improve existing beach house event space

System-Wide: Program & Site Improvements Matrix

Elder Lane Park and Beach

Year 1 - 3	Year 3 - 5	Year 5 - 10	Year 10+
Dedicate north half of beach as non-motorized boating beach			
Establish partnerships for environmental educational programming			
Dedicate north half of beach as non-motorized boating beach			
Partnerships with local rowing / sailing clubs			
Sign program implementation			
Site furnishing and lighting program implementation			
Bluff restoration			
Dune landscape restoration			
Secure non-motorized water craft storage area			
	Water trail stop		
	Boardwalk improvements		
	Rubblemound breakwater structure		
		Provide a rental program for non-motorized boats and paddle boards	
		Partnerships for environmental programming	
		Expand surface parking	
			Existing boat house improvements
			Dedicate full beach as non-motorized boating beach

- A Rubble-mound breakwater structure
- B Stormwater management improvements
- C Secure non-motorized water craft storage
- D Existing boat house improvements
- E Boardwalk improvements
- F Dune landscape restoration
- G Bluff restoration
- H Expand surface parking
- I Nature based play area
- J Construct a new upper-level restroom building
- K Vehicular circulation improvements and retaining walls
- L Lifeguard stations
- M New sheet-pile groin
- N Renovate single-family home into new beachfront event space
- O New beach house

System-Wide: Program & Site Improvements Matrix

Centennial Park and Beach

Year 1 - 3	Year 3 - 5	Year 5 - 10	Year 10+
Bluff restoration			
Property acquisition			
Sign program implementation			
Site furnishing and lighting program implementation			
Dune landscape restoration			
	Dedicate beach as swimming beach		
	Lifeguard stations		
	Rubblemound breakwater structure		
	New sheet pile groin		
	Boardwalk improvements		
		Construct a new upper-level restroom building	
		Vehicular circulation improvements, retaining walls	
			Rubblemound breakwater structure
			Vehicular circulation improvements, retaining walls
			Renovate single-family home into new beachfront event space
			New beach house

- A Rubble-mound breakwater structure
- B Stormwater management improvements
- C Secure non-motorized water craft storage
- D Existing boat house improvements
- E Boardwalk improvements
- F Dune landscape restoration
- G Bluff restoration
- H Expand surface parking
- I Nature based play area
- J Construct a new upper-level restroom building
- K Vehicular circulation improvements and retaining walls
- L Lifeguard stations
- M New sheet-pile groin
- N Renovate single-family home into new beachfront event space
- O New beach house

Next Steps

While initiatives have been prioritized as part of this master plan, outside community or environmental issues, opportunities, partnerships and funding may alter any implementation course.

Priority initiatives have been developed for each lakefront park and the overall lakefront open space system, however no one park has priority over another. Implementation of plan initiatives should follow a strategic approach, where improvements happen concurrently at each of the lakefront parks based on community and Park District priorities. Each lakefront park has a range of simple projects that can be implemented with little effort in the near term.

The Park District has already been looking forward to implementation in conjunction with their regular capital planning, and have already began to allocate funding for some of these smaller initiatives to be completed in the near term. The Park District is also actively seeking opportunities for private partnerships, and opportunities to leverage state and federal grants specifically targeted for continued Lakefront planning, programming and environmental and water quality based green infrastructure improvements.

This continued approach to long- term investment in the lakefront, through sound capital planning and financial strategies, will solidify the Winnetka lakefront and its place within the greater Lake Michigan region as a model of sustainable lakefront planning and stewardship.

Project Cost

Please note that for this master planning level of study, all numbers used for budgeting purposes are preliminary "order of magnitude" numbers only. They do not represent actual quantities, detailed design takeoffs or site engineering factors or conditions.

Rather these budget ranges, as they have been presented in this plan, are to be used to inform prioritization, level of effort required to move an initiative forward, general long-term capital planning and identification of potential funding sources. For each of the projects and initiatives defined in the plan, additional detailed design, engineering and business modeling or programming must be provided. An estimate of soft costs for programming and detailed design have been factored into the order of magnitude budget ranges depicted.

Specifically related to waterfront and bluff land improvements, more detailed comprehensive documentation and understanding of the localized site conditions will be a critical first step in more detailed planning and design. These living systems will require careful study of topographic, shoreline and nearshore lakebed characteristics, bathymetry, subsurface conditions, soil character and structure and existing structures. For instance, the cost of coastal structures is extremely sensitive to water depth and wave conditions with deeper water resulting in increased exposure (i.e. more severe wave conditions), more robust design requirements and increased material quantities to achieve a particular level of performance. Hence, the cost of coastal structures increases significantly as the water depth increases. As such, it is important to have reliable bathymetric data to allow the development of improvements concepts that are technically and economically feasible.

Also of importance, is the need to understand the time horizon for master plan budgeting. Assuming a fifteen (15) year time horizon on many of the components to this plan, the District should consider factoring in a 3-5% yearly escalation value to each of the projects as they become part of more focused capital planning or budgeting. This cost will support changes in the local and national economy for factors such as cost escalation in materials, labor and transportation.