



Information about option 3A  
“Abandon and Remove the Dam,  
Providing a Rock Ramp to Facilitate Fish Passage”

Bringing Neighbors and Neighborhoods together to

**CELEBRATE**  
**Lincoln Park!**

A decorative blue wavy line with five peaks and four valleys, positioned below the text "Lincoln Park!".

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# River Remade to Provide Park Playground for Milwaukee

## Hundreds of Men Toil 17 Months to Change Nature's Course and Build a Beautiful Recreational Area in Lincoln Park to Match Any in the Land

By Paul Ringle  
Of The Journal Staff

ONE day this week the relentless jaws of a grunting steam shovel will bite into a narrow earthen dike in Lincoln park, on the north edge of the city, and the waters of the Milwaukee river will plunge out of their age-old bed into a new channel.

For 17 months, hundreds of men with picks and shovels and wheelbarrows have toiled and sweated to make it possible for that rush of water to leave nature's course and follow a course made by man.

Three-fourths of the job which these men started in June, 1937, is completed. Another six months, possibly another year, and it will be finished.

There is a tremendous project. These men are remaking a river. And they are building for Milwaukeeans of today and of generations to come a recreational area that will be one of the finest of its kind in the land.

If you have known Lincoln park in recent years, you will picture the Milwaukee river twisting in a rude reversed S through a swampy area of willow growth, a shabby bathhouse and muddy beach at the eastern extremity of the S, and the golf course, divided by the river.

Vision the Lincoln park of the future. Out of the great loops in the river have been molded four beautiful islands. On the largest one, linked with the mainland by two bridges, is a boat landing, a bath and boat house and a parking area. Off the island is a beach for swimming. Shaded paths circle the island.

On the second island is a game refuge, stocked with game which hunters and canoeists may glimpse as they float past. The other islands will be picturesque wooded spots where hunters and canoeists may picnic or walk.

To the east of the river will be the golf course, much more difficult than the easy one of today; picnic spots and the archery range. In the southwest section, now occupied by part of the golf course, will be fields for baseball and football.

It is a fascinating story of engineering ingenuity.

AS FAR back as men can remember, the Milwaukee river has almost annually flooded the Lincoln park area and lands farther north. As snow melted in spring, ice laden waters raged down from Cedar lake and from other head waters in Fond du Lac and Chaussee counties, found natural barriers in the Lincoln park loops and a rock ledge in the park, and poured over the lowlands.

For decades no one was inconvenienced by the floods. At times they were actually helpful, for they recovered the lands of truck gardeners with new coatings of rich soil. But for the last 20 years, as Milwaukee has settled in increasing numbers along the upper river, in permanent and summer homes, the floods have been a menace and a nuisance.

Demands that action be taken to halt the floods have grown in recent years. Until five years ago, however, there was no way to finance a flood control program.

Then came the New Deal, federal

ingenue. His idea was tested on models in the hydraulic laboratories at the University of Wisconsin and found feasible. It was put in practice two years ago on a small dam across the Milwaukee river in Klettsch park.

The Estabrook park main dam will be of this type. Although the width of the channel, from the west bank to the island, is only 250 feet, the total length of the serpentine dam will be 342 feet. And it will look more like a natural falls than a dam.

The base of the structure, the backwall, will be concrete, but the downstream side will be laid with stone. The structure will be seven feet high.

AS THE county's planning department was worrying about the dam in Estabrook park and the water levels upstream, the city park board, which then controlled Lincoln park, worried about the loops in that park—the loops that blocked the passage of ice each spring, thus causing the annual floods.

In October, 1935, the board, thinking only of flood prevention, proposed a WPA project for the elimination of the loops. It asked that a 200 foot channel be dug straight



In this 1937 Aerial photo, Lincoln Park is shown when river was a "meandering stream with pools and expansive wetlands", created by a natural rock ledge in Estabrook Park

...with assistance, and Eugene H...  
...chief engineer of the commis-  
...dan's planning department. That  
...area of today.  
...In 1922, the Electric Co. extended  
...streetcar service to Lincoln Park,

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Demands that action be taken to halt the floods have grown in recent years. Until five years ago, however, there was no way to finance a flood control program.

Then came the New Deal, federal spending for relief purposes and the CWA. One of the first CWA projects in Milwaukee county was the taking of the first "plug" from the Milwaukee river. CWA and FERA workers blasted and hacked out a limestone ledge that formed the river bottom from the Hampton av. bridge in Lincoln park into Estabrook park. Thousands of tons of solid rock were removed. In places the ledge was seven feet deep. The rock is being crushed and used in roadmaking throughout the parks. A mountain of it still stands next to Fort Washington rd. and the North Western tracks in Lincoln park.

Removal of the ledge brought a new problem. Owners of upstream land found their water levels falling. Damage suits were threatened. It was decided to build a dam between the high banks in Ketchikan a quarter of a mile below Washington road bridge.

### Dam of New Type Is Half Completed

The minds of engineering and national authorities considered different kind of dam. Consulting under the direction of the park service of the department, now have the completed.

There will be two sections of the dam—the gate section and the main dam. They will be separated by a small island.

The gate section lies in a great cut made in the east bank of the river. It is so well concealed that casual observers will not notice it.

A 200 foot channel be dug straight



The air view above shows Lincoln park today. In the future, with the river one can see faintly the through the narrow section nothing but a waste lands to Milwaukee, still can. The road at the bottom of right hand corner of the and a bit of Port Washi emptying into the loop a creek. The white area marks an area in which I

and. And all the while the sweeps crews will be working islands that are to be.

When the project is there should be a constant level of seven or eight feet in the four islands and far up the river, maintain Estabrook park dam.

"We anticipate," says Dretzka, secretary of the park commission, and the chief engineer of the city's planning department Lincoln park will be one of the best places for swimming and boating in the city.

A far cry from the day William H. Lindwurm, ago, cursed the land that Lincoln park as "useless for a in the world."

Lindwurm knew. For he owned much of the land now Lincoln park.

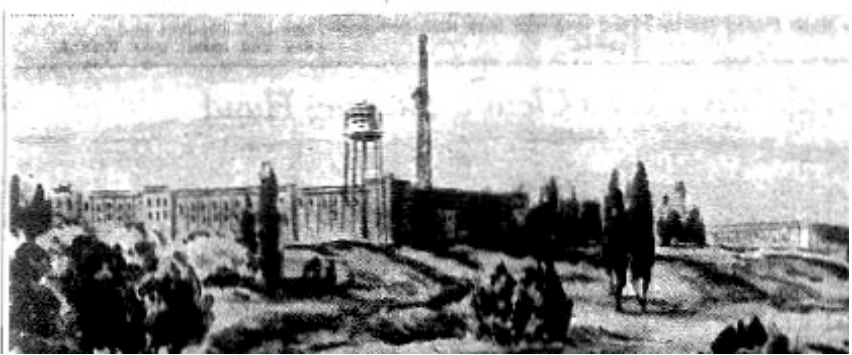
LONG YEARS ago, when a man named U. S. Grant, only business man, India through the S in the river on their way to lead was in his cabin at the river. Indian trails followed the river on either side, carefuling wide where the river through the loops.

On the Indian trails, they laid their first trails and the west river trail, a you ant named U. S. Grant

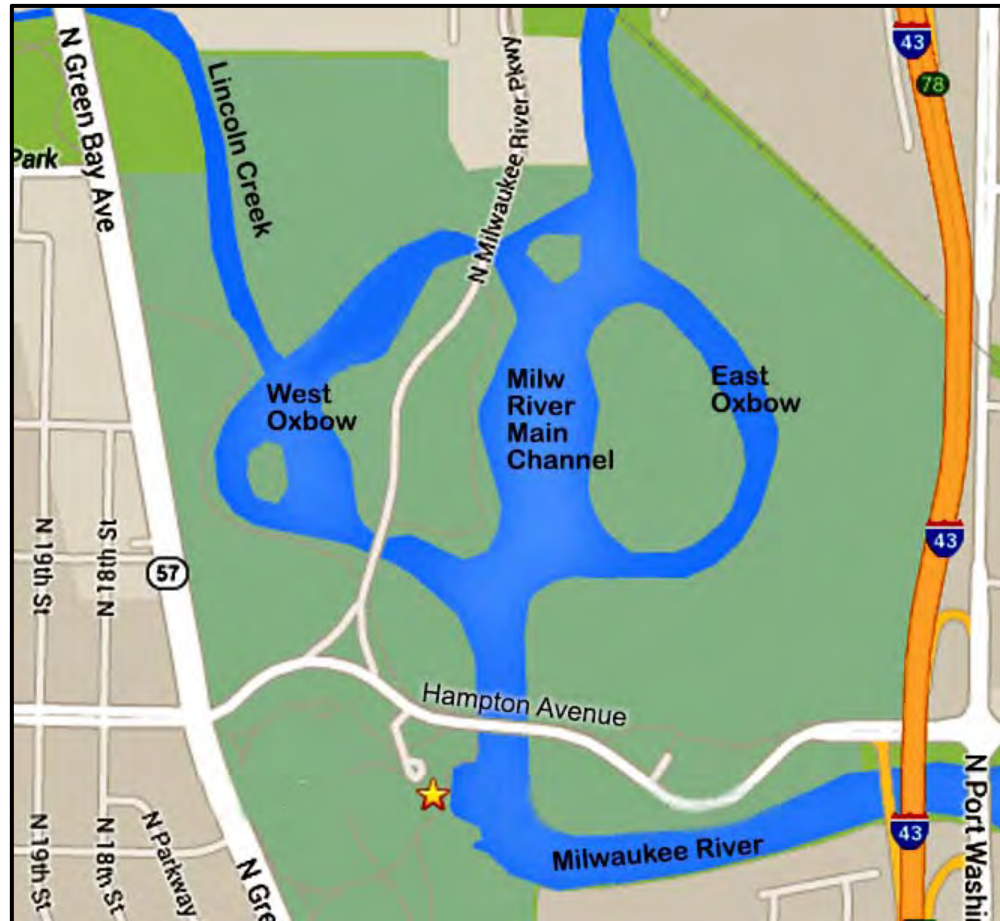
In 1937-38 Lincoln Park was rebuilt to create a 106 acre recreational lake, after the construction of the Dam

ject was ideal addition to give in making for of the finest park they would help." are large. riated \$250,000 project. It is at the city and ave speed 250- park for equip-

ment and materials. A Future Center for City's Recreation THE WPA workers have dug out

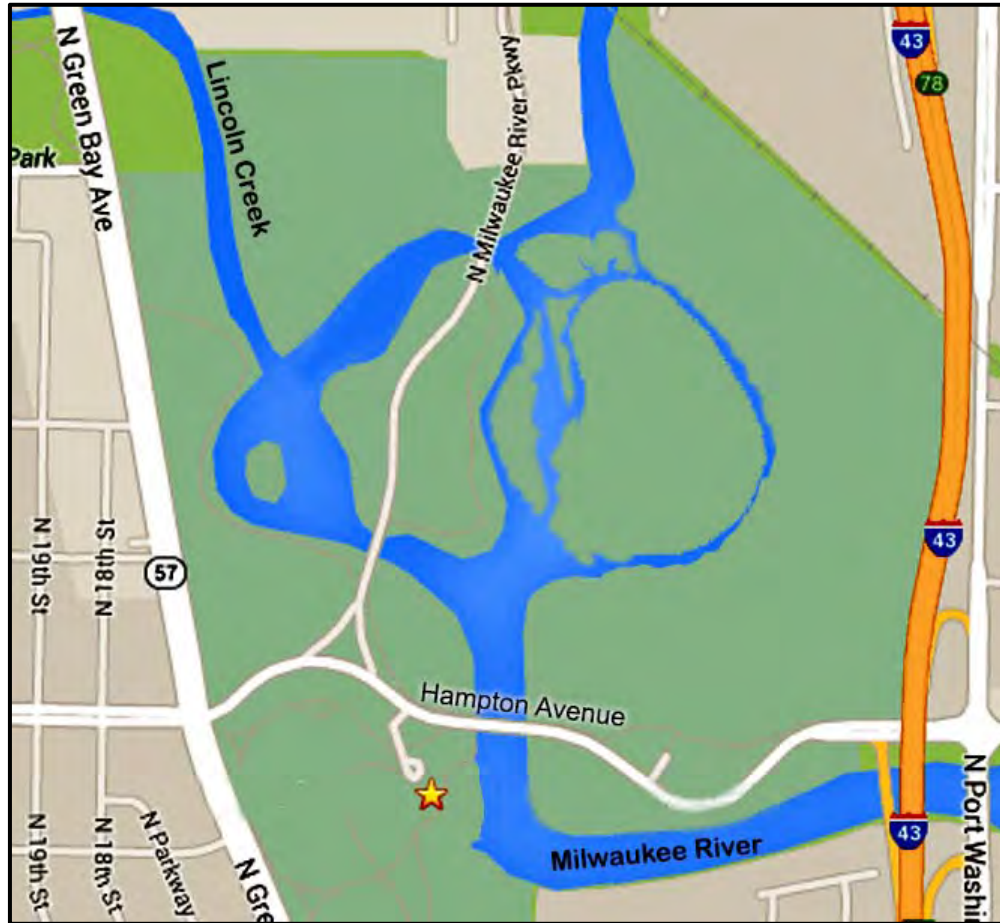


# Map of Lincoln Park, 60 years later



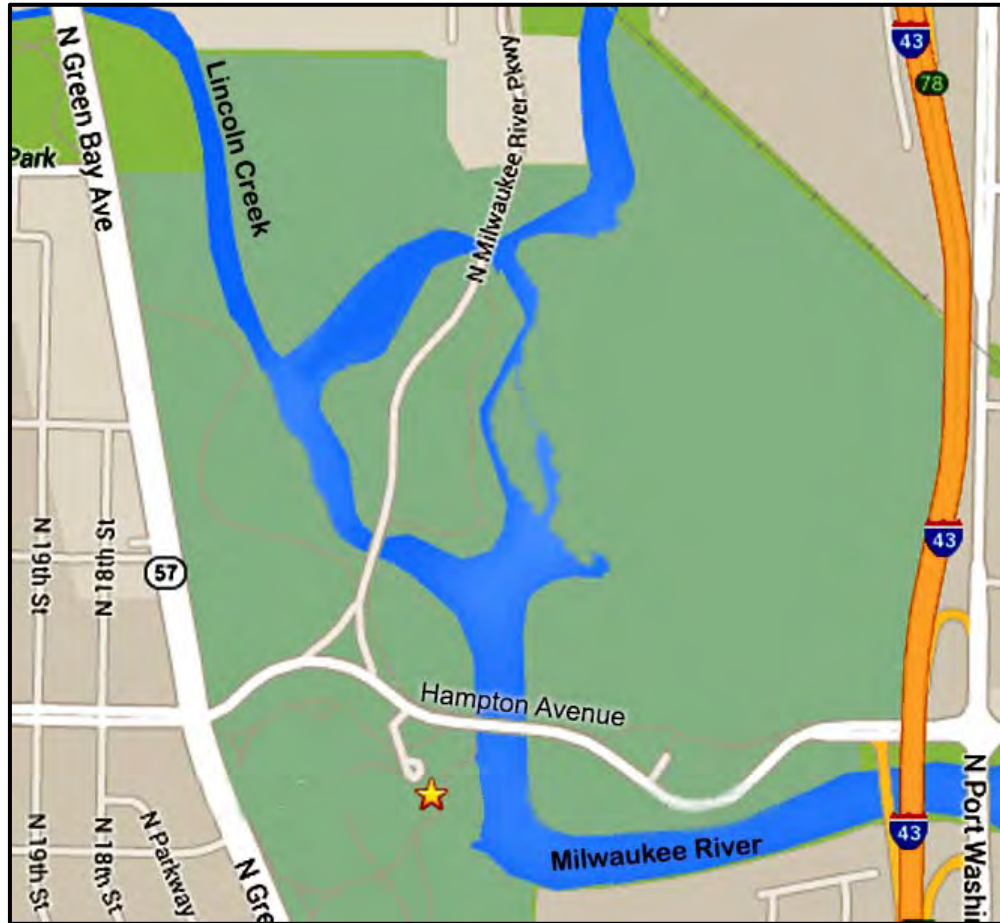
Approximately 4 miles of shoreline with 4 islands.  
Showing impoundment above Dam, circa 2008.  
Shallow main channel dug by hand in 1938

# Map of Lincoln Park, Fall – 2015 (Artists Approximation)



East Oxbow difficult to access  
Narrow channels in Main Channel

What is likely to happen?



Shallow, slow moving areas are likely to fill in.  
East Oxbow may disappear, Main Channel may be difficult to access.



What are the potential impacts for  
“accessibility for safe and quiet water recreation”?\*

\*(from Friends of Lincoln Park Vision Statement)

- No Dam
  - Less water
  - Fast current, 1-way trips, difficult for novice paddlers
  - Possible loss of shoreline and nesting habitat
- Restore Dam
  - Competition with power boats
  - Wake disturbing wildlife habitat
  - Less wetland habitat.

Let's talk about alternatives!

# Discussion of Alternatives

(from Milwaukee County's Environmental Impact Report)



Estabrook Dam – A Discussion of Alternatives

Public Scoping Meeting  
June 5, 2014

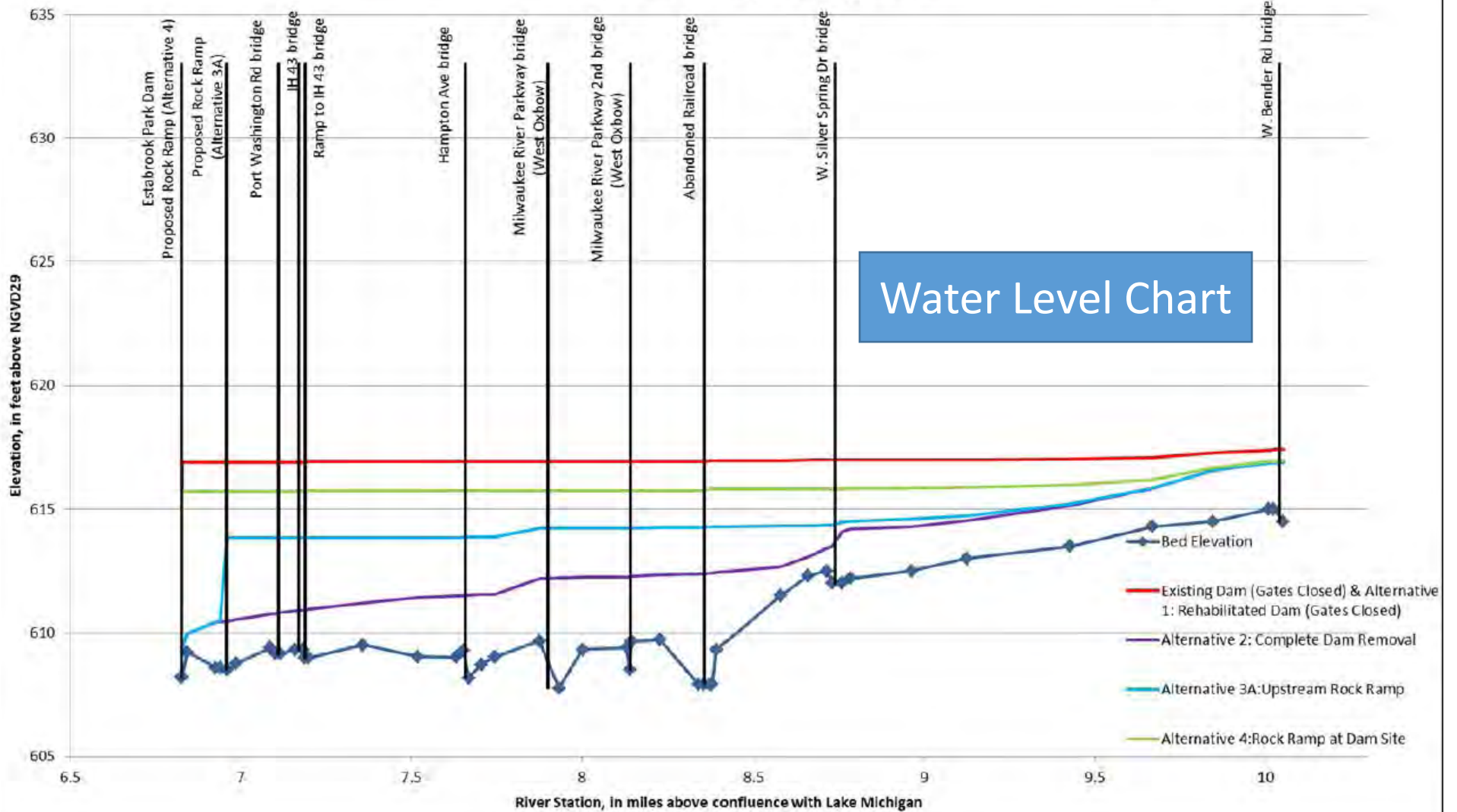
# Identification of Alternatives

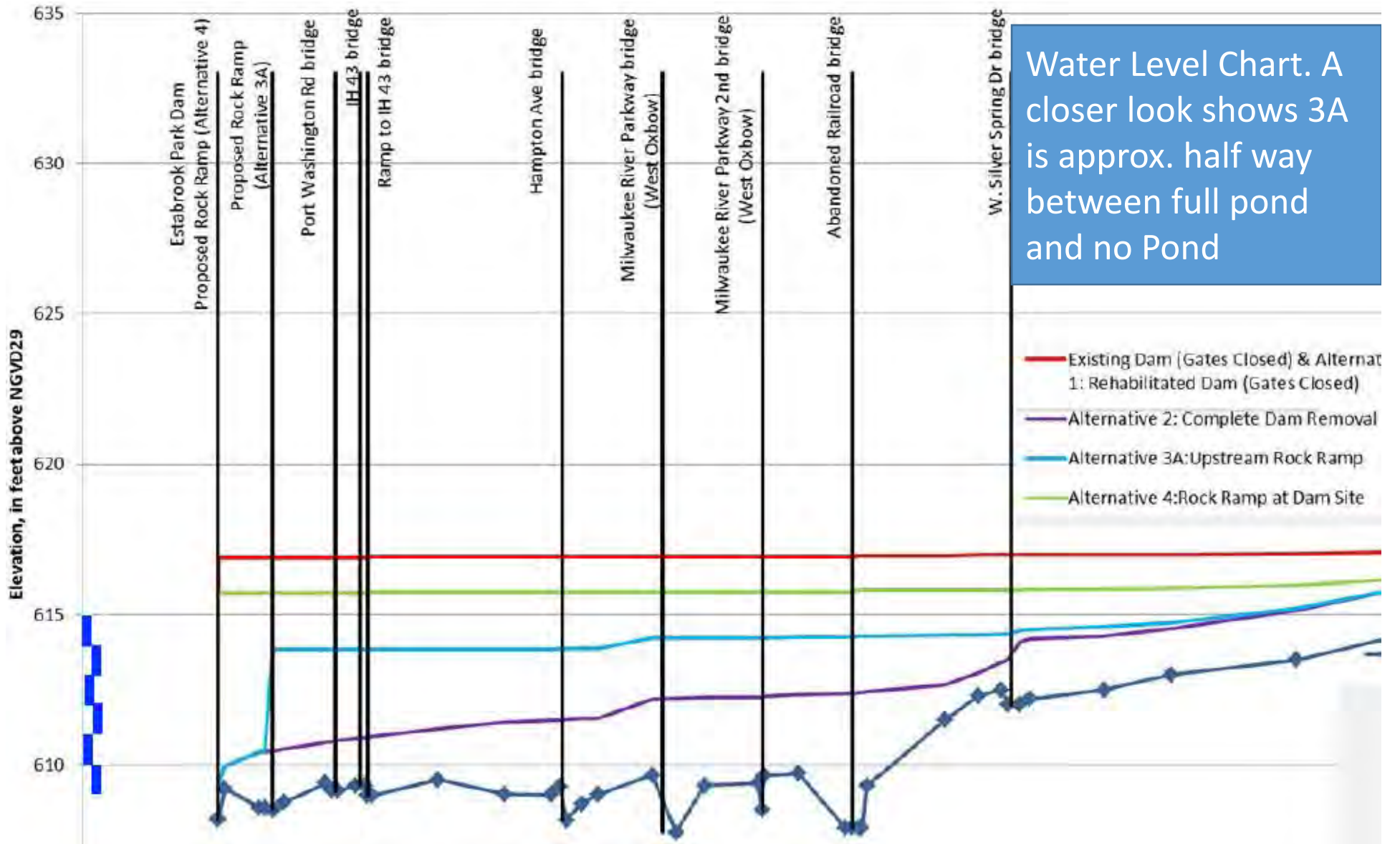
- Alternative 1 – Rehabilitate the Dam
- Alternative 1A – Rehabilitate the Dam and Add Fish Passage
- Alternative 2 – Abandon and Remove the Dam
- Alternatives 3 and 3A – Abandon and Remove the Dam, Providing a Rock Ramp to Facilitate Fish Passage
- Alternative 4 – Gated Spillway Removed, Serpentine Overflow Spillway Lowered, and 6.3-Foot High Rock Ramp Constructed
- Alternative 5 – No Action
- Alternative 6 – New Dam

## Alternatives 3 and 3A – Abandon and Remove Dam, Provide a Rock Ramp to Facilitate Fish Passage, and Establish an Impoundment

- Provides impoundment 1,600 feet upstream of dam
- Fish passage
- Similar to natural river with pools and riffles
- Sediment buildup can occur over time
- Capital costs are mid-range between other alternatives
- Annual O&M costs are substantially less than a dam, need debris removal
- Rock ramp height:
  - ▶ 5-foot high, eliminated from consideration (Alternative 3)
    - Would increase 100-year flood elevation
    - Exceeds code NR 116
  - ▶ 4-foot high, feasible alternative (Alternative 3A)

## Estabrook Dam Environmental Assessment Alternatives, Milwaukee River Water Surface Profiles for Normal (Median) Flow





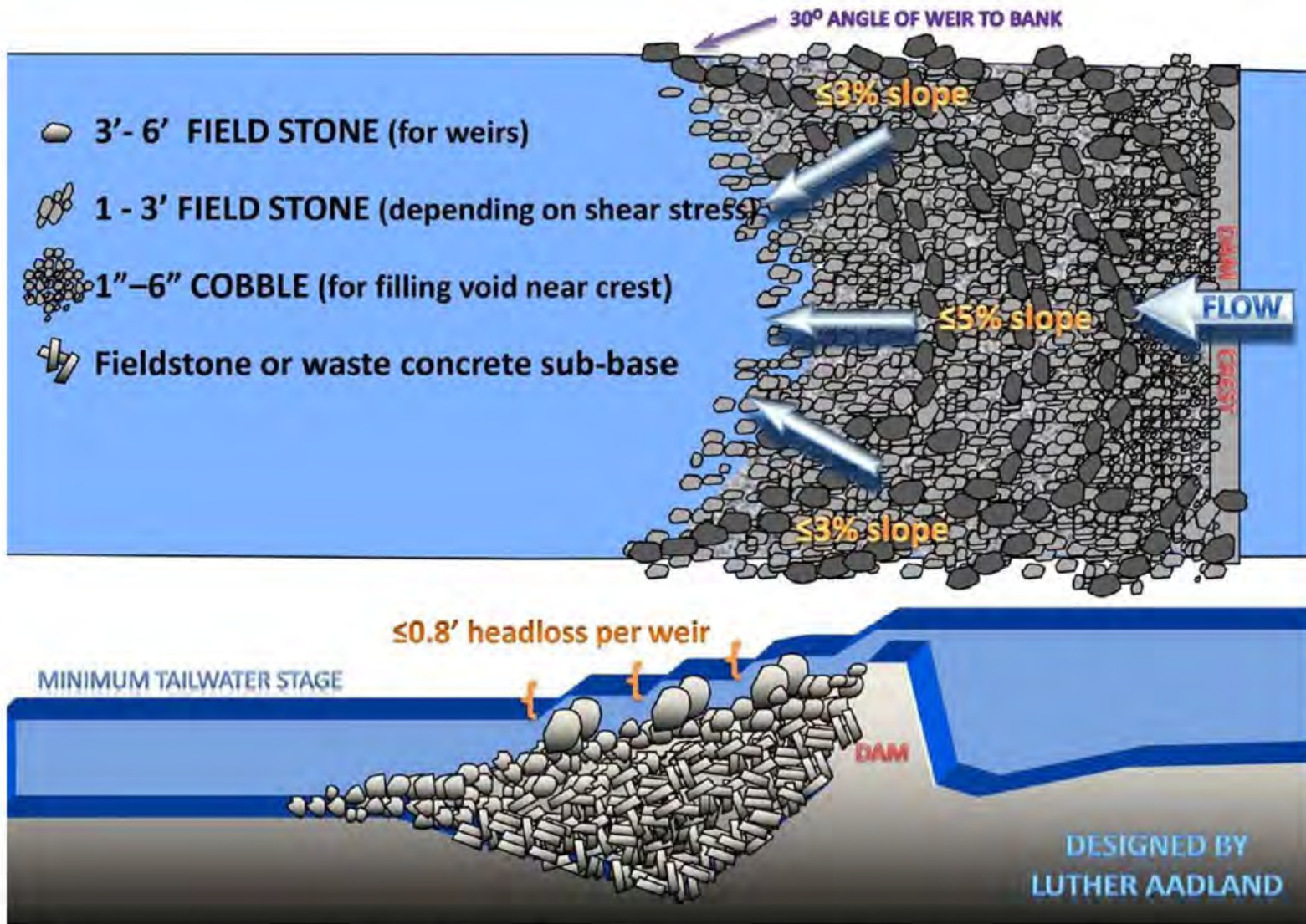


Figure 54. Generalized conceptual design of the Rock Arch Rapids. *Reconnecting Rivers: Natural Channel Design in Dam Removals and Fish Passage*, p. 48. Minnesota Department of Natural Resources Ecological Resources Division, 2010.



Figure 91. Rapids replacing dam to provide grade control and facilitate fish and canoe passage. *Reconnecting Rivers: Natural Channel Design in Dam Removals and Fish Passage*, p. 80. Minnesota Department of Natural Resources Ecological Resources Division, 2010.

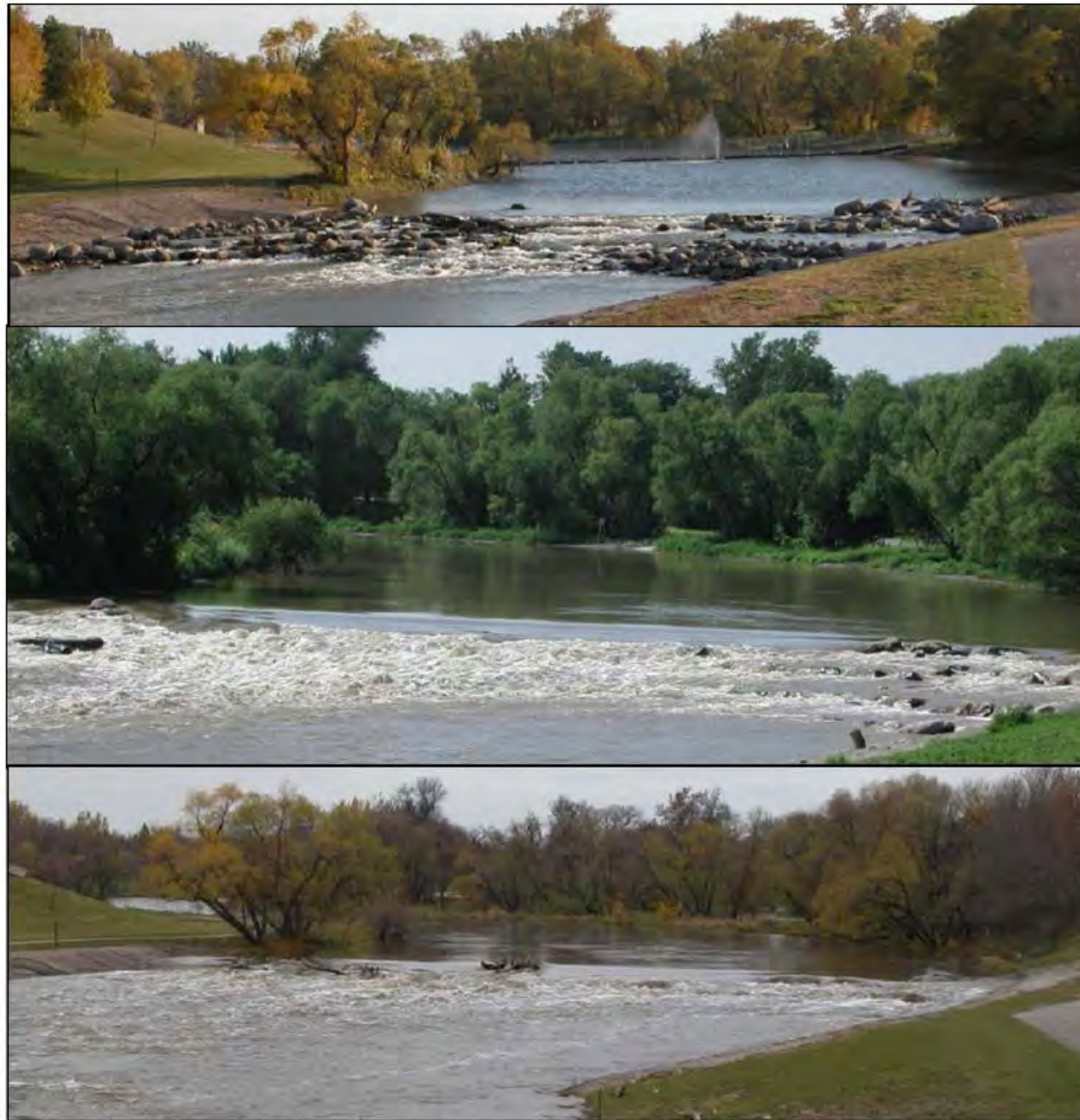


Figure 75. Rapids at flows of 405 cfs (upper photo), 1,640 cfs (middle photo), and 2,560 cfs (bottom photo). *Reconnecting Rivers: Natural Channel Design in Dam Removals and Fish Passage*, p. 68. Minnesota Department of Natural Resources Ecological Resources Division, 2010.


# In Summary



- Years of holding to hardened positions has not presented solutions. Maybe it's time to consider compromises.
- Consider the potential benefits to Lincoln Park and its neighborhoods
- Consider the potential “accessibility for safe and quiet water recreation” in Lincoln Park
- Can't we all get along?



A Tour of the East Oxbow  
And Main Channels  
by Kayak, August 2015

A photograph of a river's entrance to an oxbow. The water is a murky, greenish-brown color. The foreground is a wide, gravelly bank with some sparse green grass. The background is a dense line of trees. The text "Entrance to the East Oxbow" and "August 2015" is overlaid in white on the left side of the image.

Entrance to the East Oxbow  
August 2015

Second Entrance to  
the East Oxbow













Milwaukee River, Main Channel  
August 2015

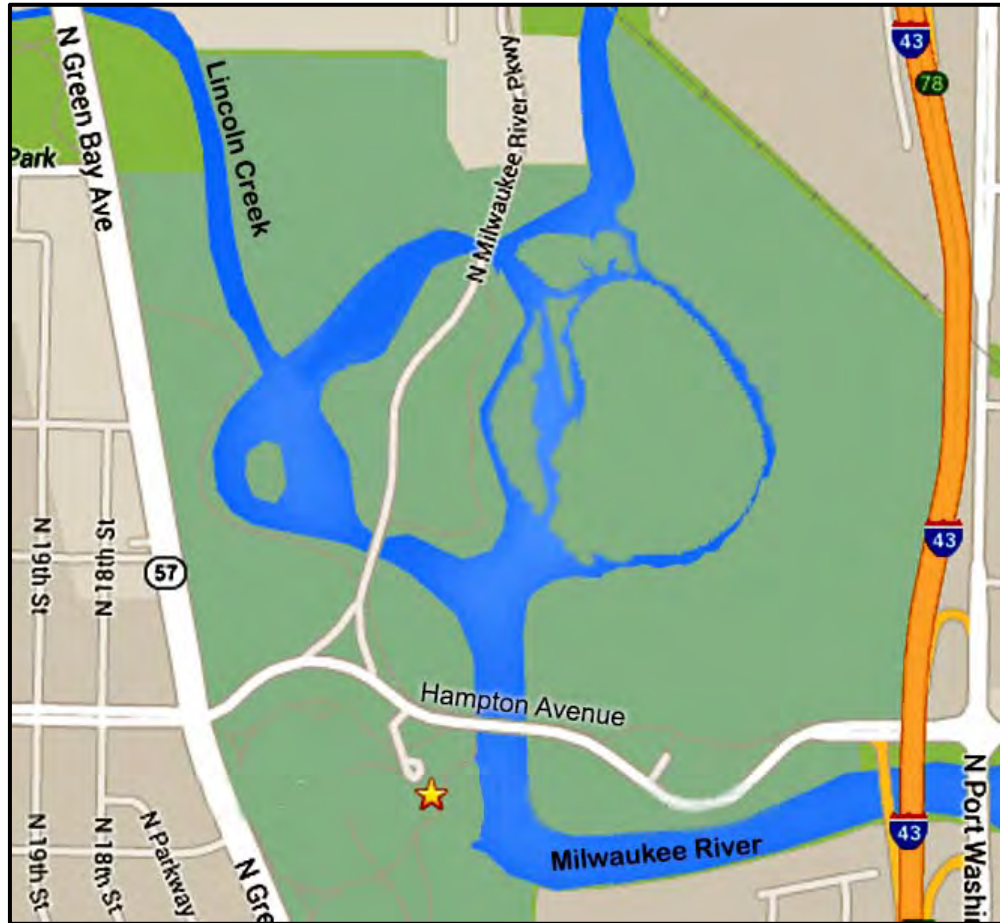


Milwaukee River, Main Channel  
August 2015



Milwaukee River, Main Channel  
August 2015

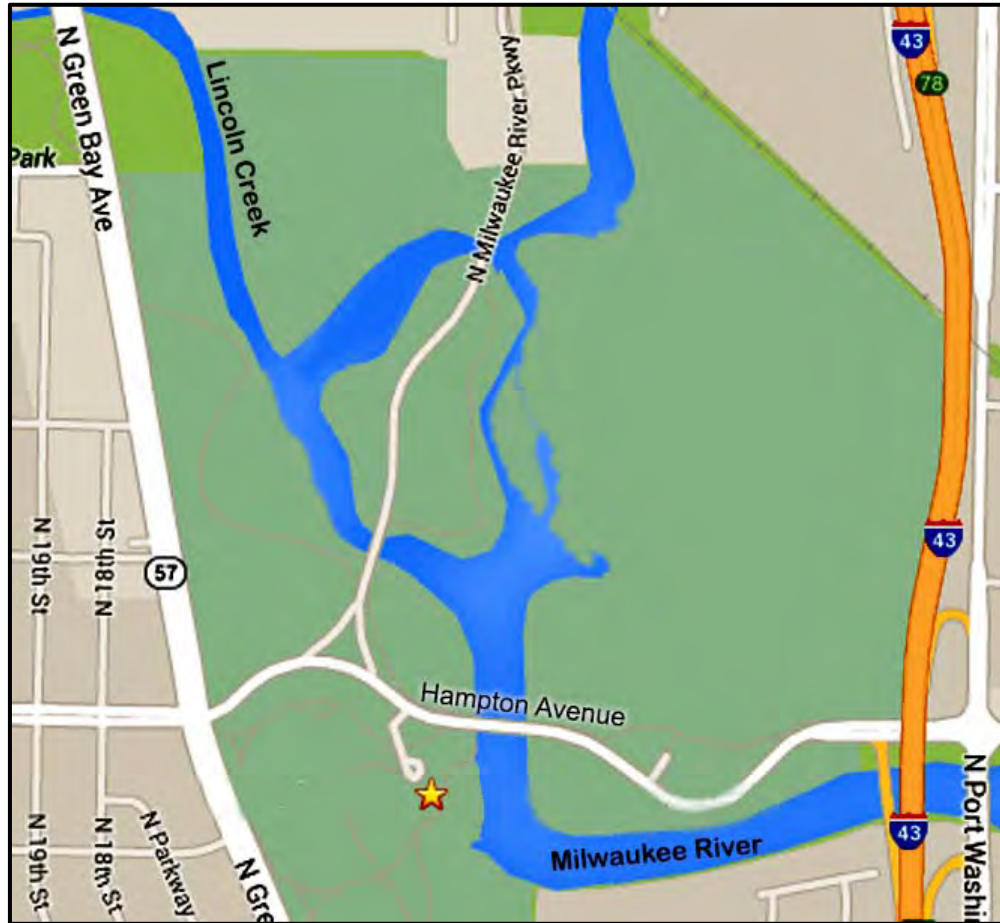
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East Oxbow difficult to access

Narrow and shallow channels in Main Channel

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06/18/2015



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Google earth

⬆️ Tour Guide

🕒 2000

Imagery Date: 6/18/2015 43°06'17.51" N 87°55'10.31" W elev 642 ft eye alt 3523 ft 🔍



# Our Mission and Vision

- Mission: To bring neighbors and neighborhoods together to celebrate Lincoln Park
- Our draft Vision is to
  1. Preserve and enhance our park's natural beauty
  2. Inspire ownership to keep our park vibrant, safe and clean.
  3. Promote activities that foster community involvement
  4. Make our park a premiere destination for health and recreation
  5. Grow partnerships to promote community engagement
  6. Explore the rich history of our park and its neighborhoods to sustain the legacy of our world-class park system
  7. Promote appreciation for our rivers and accessibility for safe and quiet water recreation



Bringing Neighbors and Neighborhoods together to

**CELEBRATE**  
**Lincoln Park!**



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