



Dredging and Sediment Management

Nagawicka Lake Restoration
City of Delafield, WI
And
The Lake Welfare Committee



Status

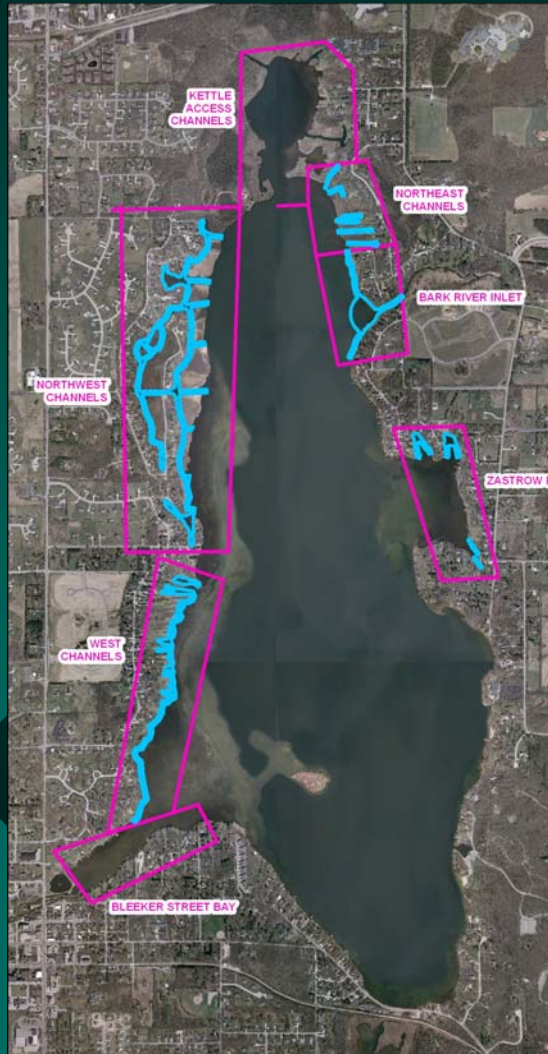
- ❖ Currently responding to DNR questions.
 - ▶ Collecting more data
 - ▶ Preparing more design information



Conditions May Change

- ❖ Influenced by DNR
- ❖ Influenced by owner
- ❖ Influenced by you
- ❖ Influenced by new data

Dredge Locations



Dewatering Site



Key Issues

- ❖ Needs to Add Value;
 - ▶ Navigation
 - ▶ Safety
 - ▶ Property Value
- ❖ Must Provide Protection
 - ▶ For the lake
 - ◆ Chemistry
 - ◆ Biology
 - ▶ For the people (property owners)

Protection to the Lake

- ❖ Protection of the dredge area
 - ▶ Restoration of plant communities
 - ▶ No Dredging in sensitive areas
 - ▶ Time of year
 - ◆ July 1 – October 15 (Except Zastrow's Bay)
- ❖ Protection of the lake water quality
 - ▶ During the dredging process
 - ▶ Discharge back to the lake



Protection of the People

❖ During the dredging

▶ Navigation

- ◆ Inconvenience

▶ Noise

- ◆ Need to minimize
- ◆ May run 24 hours/day
 - Trade off for length of the project and cost

▶ Safety



Protection of the People

- ❖ Handling the Sediments

- ▶ Piping, not trucking

- ❖ Dewatering Site

- ▶ Groundwater protection
- ▶ Odor
- ▶ Access
- ▶ Long Term Care



Protection of the Groundwater

- ❖ Sediment Carriage water infiltrating into the soil must protect the groundwater - drinking water quality
 - ▶ Chemistry is being studied
- ❖ Hydraulic loading can't create a problem
 - ▶ Can the soils handle the water volume.

Odor

- ❖ Subjective nature of Odor issues
 - ▶ Sensitivity depends on individual
- ❖ Will this be odor free?
 - ▶ No
- ❖ Will it be objectionable?
 - ▶ Someone may find it objectionable
 - ▶ Short term issues
- ❖ Has not been an issue for us.

Access

- ❖ Treat this like any other construction site.
 - ▶ Access will be limited.
- ❖ Disturbance to property owners during construction (short term)
 - ▶ Pipe line routes / Dewatering site
 - ◆ Noise
 - ◆ Traffic congestion

Long Term Care

- ❖ Keep on site

- ▶ Incorporate into the soil for the development of a rich top soil.

- ❖ Remove from site

- ▶ Option to sell the material after mixing with native soil.

