UNLMD
P.O. Box 180393
Delafield, WI 53018

Upper Nemahbin Lake District Dredging Project
Frequently Asked Questions
Updated as of August 4, 2023

This document has been prepared to address questions that Homeowners around Upper Nemahbin Lake may have concerning the proposed Dredging Project for the Southeast area of the Lake and a portion of the Bark River (See Attached Exhibit A and A-1). UNMLD has been working on this proposed dredging project for several years. In 2017 the district completed a 250-page project manual which was submitted to mechanical dredging contractors in order to bid on the project with the intent to complete the project in the Summer of 2018. However, the district elected to reject all the bids and postpone the project due to the wide discrepancy of proposed costs among the three bids. The board has learned a great deal from the process of putting together the 2017 project manual and bids. Since then, the Board has shifted directions away from the cumbersome and costly mechanical process to a more efficient and economical option of hydraulic dredging. This option still presents many challenges but through the Boards extensive discussions with the DNR, Civil Engineers, the Municipality and Lake Owners we feel we have the best possible path forward to complete the proposed project.

This document provides updated questions and answers to the status of the proposed project. Please feel free to reach out to your lake board representatives for any additional questions.

1. **Why is the dredging project needed?**
   The abandonment of the Roller Mill Dam in 2008, located approximately 2400 feet upstream from the mouth of the Bark River, resulted in significant downstream sediment deposition along the reaches of the Middle Bark River and the confluence of Upper Nemahbin Lake. The sediment increases were measured and reported in "A Lake Protection Plan for Upper Nemahbin Lake, SEWRPC, MR#176, December 2009." Over the past eleven years, additional sediments have migrated from the upstream river to the lake which has resulted in extremely shallow navigation depths. Sediment in the southeastern bay of the lake have reached depths of 13 feet in some areas, causing water depths in the lake to be diminished to less than a foot.

2. **What are the objectives of the dredging project?**
   a. Improve water quality and biodiversity
   b. Reduce boater safety concerns
   c. Reduce damage impacts to boats and watercrafts

d. Improve navigability

3. How much will the project cost?

The board is happy to announce that, despite cost increases over the last few years, the change from mechanical to hydraulic dredging has provided the residents of the district with a more economical solution to the clean-up effort. As of May 18th, 2023 we received back three qualified bids from hydraulic dredging contractors. The three bids were $632,360, $759,000, and $1,312,870. Per Wisconsin state statutes the Board is obligated to take the lowest qualified bid. Through guidance from the Board's engineer, there will be a ten (10) percent contingency factor added to the lowest qualified bid resulting in a total potential project cost of $695,596.

4. How will the project be paid for?

The project would be paid for through an increase in the UNLMD tax levy to all landowners that are a part of the Upper Nemahbin Lake District. The current and previous year's tax levy for Upper Nemahbin Lake District can be found on your tax bill, www.tax.waukeshacounty.gov under line item "Upper Nemahbin." To assist in the payment of this project UNLMD intends to secure a 20 year loan from the State of Wisconsin Board of Commissioners of Public Lands. Current published rate on a 20-year loan is 5%.

5. What would be the increase in the UNLMD tax levy if the project is approved?

Multiple factors will impact the amount of the tax levy increase including:

- Loan amount
- Length of Loan
- Interest Rate
- Increase/Decrease in Assessed Value of Property
- UNLMD Annual Budgets

The 2023 UNLMD Budget of $48,925 was funded thru a tax levy applied to district residents. The tax levy required to support a budget of this amount for the Average assessed value property ($756,693) would be approximately $326. For the Median assessed value property ($521,800) the tax levy would be approximately $225.

If approved by UNLMD residents at our June 7th 2023 Special Meeting the board will submit a loan application to the Board of Commissioners of Public Lands (BCPL). The loan amount will be for $695,596 with a term of 20 years at 5%. The annual principal and interest payment will be $55,348. The UNLMD board would expect to use the $20,000 that has been budgeted for the past 12 years towards the annual principal and interest payments. This would result in the district needing to increase the Budget by approximately $35,348 to cover the annual payment. All things being equal this would result in a tax levy of approximately $565 for the Average assessed value property and $390 for the Median assessed property. An increase of $239 and $165 respectively.

This illustration is meant to provide an estimate of what the increase in tax levy would be upon resident approval for the loan. As indicated multiple factors will impact the increase in the UNLMD tax levy.

It is also important to note that the district currently has approximately $170,000 in our cleanup fund, which monies will be used for current and ongoing soft costs like legal, engineering and permitting fees. The board does not expect these costs to be more than $40,000. The board expects that the monies left over in the clean-up fund after the project is completed will provide an opportunity to pay down a portion of the loan resulting in the district reducing the financing costs of the project.

6. **Will UNLMD residents have an opportunity to comment on the proposed project?**

   Yes. The UNLMD will be holding a Special Meeting, Wednesday, June 7, 2023 at 7:00 PM. The meeting will be held at the Village of Summit Hall 37100 Delafield Road. This meeting will provide district members the opportunity to voice opinion and vote to approve or deny the UNLMD borrowing authority for the proposed project.

7. **How does the sediment affect the lake?**
   SEWRPC's regional natural areas and critical species habitat protection and management plan has identified Upper Nemahbin Lake as a Critical Lake of Southeastern Wisconsin. It has been identified as a lake of county wide or regional significance supporting endangered, threatened, or special concern species as identified by the WDNR.

   In 2007 WDNR identified 26 fish species in the Middle Bark River and confluence with Upper Nemahbin Lake. After the removal of the Roller Mill Dam, there were only 10 species of fish identified. The deposited sediment has had a significant negative impact to the quality and availability of suitable habitat for fish. The sediment created a significant loss of sand and gravel substrates which represents a significant loss of habitat for fish and other aquatic organisms. The loss of sand and gravel substrate is particularly detrimental to fish spawning habitat. Additionally, loss of substrate has a direct and indirect impact on gamefish species through reduction of breeding success as well as numbers of forage fish upon which these species depend. Furthermore, the loss of water volume directly limits the total biomass of fish able to reside in this reach. The quality of deep-water habitat is also impacted due to sediment deposition. Furthermore, navigation on the River and Lake has been impaired by the sediment. This has resulted in restricted boat access to the Lake, damage to boat motors as a result of the cooling systems clogging with muck and sediment, loss of aesthetic value, fear that swimmers, fishers and boaters could become mired in the unconsolidated sediment, and the inability to operate boat lifts as well as pier access.

8. **If the sediment is removed, will it be redeposited in the future by sediment coming from the River?**
   The abandonment of the Roller Mill Dam resulted in accelerated and significant sediment deposits which had a major impact on the quality of the ecosystem and navigation. Sediment

will continue to be deposited from the flow of the Bark River but nothing like the sediment that was deposited from the removal of the Roller Mill Dam.

9. **Will the dredging project affect lake navigability?**
   Navigability of the lake will be temporarily affected in the dredging area. However, it is anticipated that a boating navigation channel will remain usable during the construction activity. The details of this will be set forth in the WDNR permit and construction plans.

10. **How long will the dredging project last?**
    It is anticipated that the project will take approximately 3 months to complete. The DNR permit will require the project work to be completed between July 1st and October 15th.

11. **What permits will be needed to do the project?**
    A permit will be needed from the Wisconsin Department of Natural Resource, the U.S. Army Corp of Engineers and the Village of Summit. In 2017, UNLMD did receive all necessary permits to move forward with the project.

12. **The project does not affect me directly, why should I have to pay for it?**
    The UNLMD is an organization that was created to maintain the biodiversity, recreational opportunities and general health of Upper Nemahbin Lake. As problems and situations have been identified, the UNLMD has provided funds to resolve these issues. The sediment deposited at the southeastern portion of the lake threatens the health, biodiversity, and recreation opportunities to both visitors and residents of the entire Lake.

13. **Why are we not using a Special Assessment Tax Levy Approach**
    The board researched this approach along with legal counsel to determine its viability for this project in late 2017 and 2018. While Chapter 33 of the Wisconsin State statutes allows for Special Assessments the complexities of the process would increase the project cost and open the district to potential legal challenges from property owners. Under advisement from legal counsel the Board determined it was not a viable option. Furthermore, consulting with engineers and contractors made it apparent that the dredging project would provide benefits to the entire Lake and help maintain property values for all residents in the District. As such the tax levy was the logical funding source for this project.

14. **When is the project expected to begin?**
    The project is tentatively scheduled to be started in the Summer/Fall 2023.

15. **What is dredged material?**
    In general, dredged material is sediment that has been removed with an underwater excavating machine called a dredge, which may be conducted either mechanically or hydraulically. The UNL Dredging Project will use a hydraulic dredging operation.

16. **Has the sediment material been tested for hazardous waste materials?**
    Yes, the material has been tested per WDNR protocols and has been determined to contain Arsenic but at levels that allow for disposal through regular methods. No other toxic or hazardous substances have been identified. Additionally, sediment samples were analyzed by the UW Extension from an agricultural perspective. The levels of Arsenic in the tested sediment is at a level that is safe to be mixed into existing agricultural fields for cropping purposes. A copy of the testing data is available from our consultant at toddweik@cbceng.com.

17. **How is polymer being used, and will it affect the lake?**
    The Polymer is used to bind the sediment together in the geo textile bag and to ensure that any contaminates like PAH's, Arsenic, Metals, etc. are not released into the carriage return water that flows back into the lake. Under the DNR rules, once you take lake water out, you are responsible for making sure that lake water is returned to the lake in a clean, clear state and that is meets the WPDES specific water clarity requirements. The Polymer we use has been previously approved for use by the WDNR as safe and not a hazard to the lake water or community. The polymer is a binding agent for the solids and used to keep any contaminates in the tubes and should not affect the carriage return water. The water returning to the lake is tested per the WDNR WPDES permit requirements on a weekly basis for the first 4 weeks and then 1 time per month after that.

18. **Who can we contact to ask questions or obtain additional information?**
    Technical information contact; Todd Weik, tweik@kbjwgroup.com
    District information contact: Jennifer Reek, jjrwood@aol.com

This FAQ document along with additional information on the proposed dredging project can be found at the Upper Nemahbin Lake Management District website.
http://www.uppernemahbinlake.com/

Exhibit A

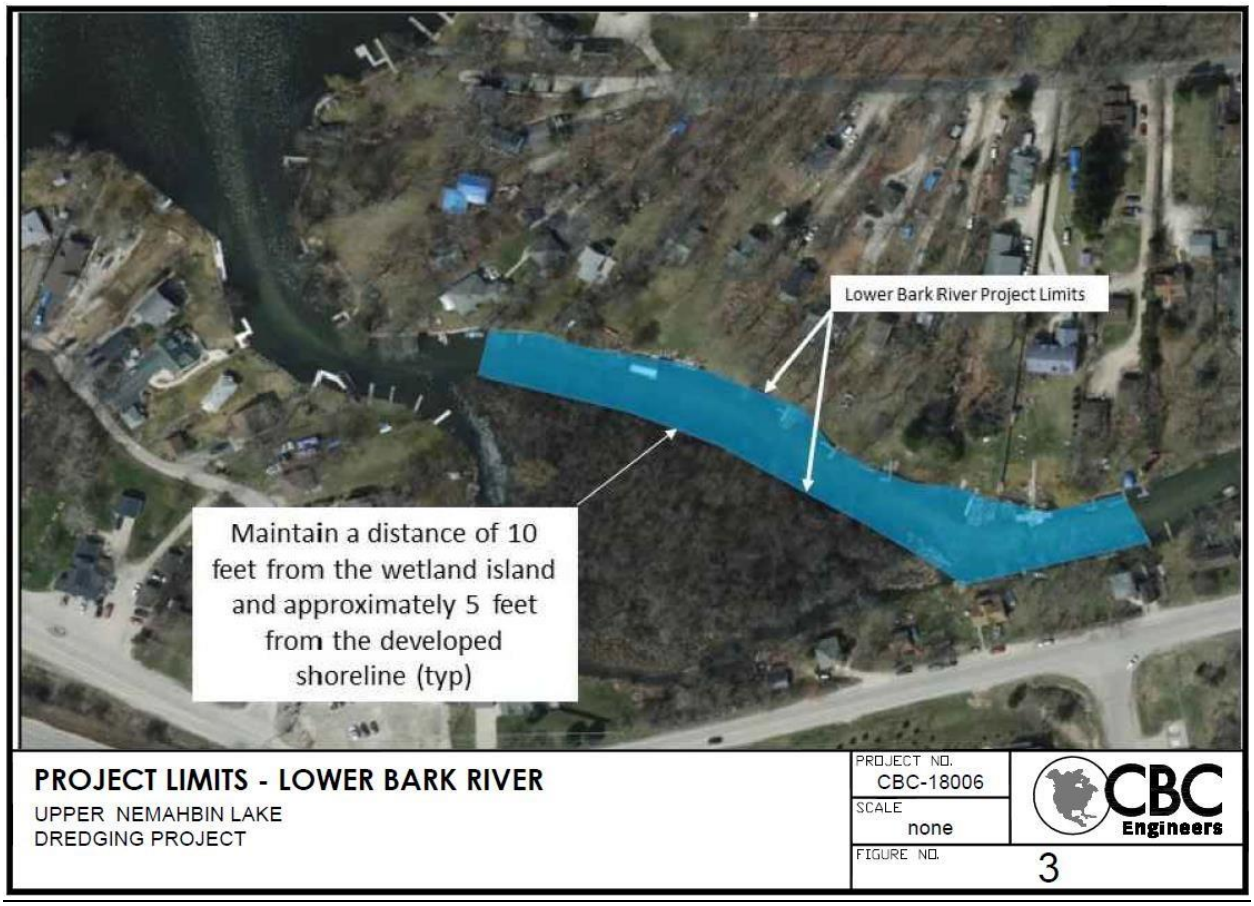
PROJECT LIMITS - UPPER NEMAHBIN LAKE

UPPER NEMAHBIN LAKE
DREDGING PROJECT

PROJECT NO.	CBC-18006
SCALE	none
FIGURE NO.	2

CBC Engineers

Exhibit A-1



PROJECT LIMITS - LOWER BARK RIVER

UPPER NEMAHBIN LAKE
DREDGING PROJECT

PROJECT NO. CBC-18006
SCALE none
FIGURE NO. 3

CBC Engineers