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May 31, 2022

NORTH LAKE MANAGEMENT DISTRICT

NEWSLETTER

NORTH LAKE STUDIES

We have had questions from property owners concerning the number of studies done in the past and currently being done on North Lake. This newsletter and the attached chart are being sent to you to briefly explain each study done or currently being done and explain how each study is coordinated and complementary to one another.

NLMD needed to identify where the problems were related to Lake quality. The initial study was done on the Oconomowoc River (from Monches Dam to North Lake (N.L.) by SEWRPC. The gross cost was \$10,000, and NLMD received a grant of \$7,000 so a net cost to NLMD was \$3,000. The Oconomowoc River Study identified a number of problem areas which resulted from the improper removal of Funk's Dam by DNR and the replacement of Monches Dam (minor compared to Funk's Dam) which resulted in silt and nutrients flowing into the river and eventually into the lake.

Most of the problem areas have been removed/resolved due to nature and the removal of one Dam and replacement of another. In addition, NLMD has performed various work on the River to stabilize the River Banks. North Lake still receives silt and nutrients from the Oconomowoc River and will continue to in the future but at a greatly reduced rate.

The next study NLMD had done, again by SEWRPC, was Mason Creek from County Line Road to N.L. The gross cost of this study was \$13,500, and NLMD received a \$10,000 grant from DNR so the net cost was \$3,500 to NLMD. This study uncovered a number of significant problem areas on the Creek which NLMD and its partners, Tall Pines and Oconomowoc Water Protection Program group, have been working on. The NLMD Newsletter summarizing Annual Meeting Presentations identifies the projects completed or in progress on Mason Creek. SEWRPC estimated the total cost to resolve the identified problems at \$1,604,000 (based on 2019 dollars). However, the projects completed thus far cost less than SEWRPC estimates.

The Lake study is primarily concentrating on the effect of various vessels on the lake, giving consideration to wind, water levels and other issues related to nature in order to identify the effect of various vessels on Water Quality and Lake Structures. This is not a study we planned on but was undertaken due to numerous complaints and a Lake survey we sent to all property owners of N.L.

All of the above studies are complementary to one another and coordinated (see attached Exhibit).

The Dredging Project is not a Study but rather an action to clean up prior years, decades of problems. The Dredging Project will remove significant silt and nutrients from N.L. It will stop the significant movement (due to currents) of silt around the entire Lake to improve Lake quality and, hopefully, reduce Aquatic Plant (AP) growth. Now is the time to take this project on. Will dredging be needed in the future? Probably, but most of us will be long gone. In other words, because of the actions taken and planned, future dredging should not occur for a very long time.

The Ammonia/Nitrate Study was not started or financially supported by North Lake Management District. We became involved as an accommodation to several riparian owners who were interested in pursuing and financing such a study. This research effort was not put out to bid as required for projects taken on by a public entity like the NLMD. As such, NLMD could not pay for the project but does support the effort.

If you have any additional questions, please let us know and again thank you for your past and future support.

Commissioners of North Lake and Mark Theisen, Chairman, Water Quality and Environmental Committee

NLMD Water Quality Initiatives

Commissioners Heine, Reinbold, Stippich, Klink, Morris

Wave Study	Water Quality Phosphorus Monitoring	Dredging Sediment from North Bays	Ammonia/Nitrate research	Carp Reduction		
Tim Tyre	Jim Schneider & Mark Theisen	Mark Theisen	Chris Didier	Scott Jankowski		
<u>Resources</u> Carroll University Tera Vigilis SEWRPC WI DNR		<u>Resources</u> SEWRPC OWPP WI DNR UW StevensPoint		<u>Resources</u> SEWRPC OWPP WI DNR		<u>Resources</u> UWM Water Researchers
Multi Year study Focused on wave impacts to physical and chemical characteristics of North Lake	Ongoing since 86. Monitoring water quality in North Lake. Recently added lake turnover testing	First attempt in 2008. Revisited in 2020. NLMD approved project. Working on DNR permit amendments.	Initial spike in Ammonia/Nitrate occurred in 2021. Additional testing to determine if this is ongoing issue and source.	Ongoing effort. Focus on spawning events when removing carp is easier.		

MAY 19, 2022 NLMD SPECIAL MEETING HIGH LIGHTS

For those of you unable to attend the May 19, 2022, NLMD Special Meeting, the high lights follow:

BALLOT 1

Do you authorize the NLMD to enter into a contract (for an amount not to exceed the amount raised and designated for the dredging project) to remove up to 125,000 cubic yards of sediment from Ice House and Schneider Bays on the north end of the lake?

Yes 129

No 8

Motion Passed

BALLOT 2

Do you authorize NLMD to use \$300,000 of cash reserves to pay for part of the dredging project?

Yes 131

No 8

Motion Passed

BALLOT 3

Do you authorize NLMD to purchase the North Lake Development Property for \$340,000?

Yes 93

No 44

Motion Passed

BALLOT 4

Shall the District Board of Commissioners of the North Lake Management District be authorized to borrow the sum of **Three Hundred Forty Thousand Dollars and 00/100 (\$340,000)** for the purpose of **purchasing land for a potential public lake access site**, and levy upon all the taxable property of the district a direct and irrevocable annual tax for the purpose of paying, and sufficient to pay both the interest on the loan as it becomes due and repay the loan principal within 10 years of making of the loan?

Yes 90

No 47

Motion Passed