

Lake Shannon Association

P. O. BOX 464 HARTLAND, MI 48353

April 23, 2023

Special Lake Shannon Association Membership Meeting Announcement **Dredging Proposal and Special Assessment Vote**

Date: May 8, 2023
Place: Deerfield Township Hall
Time: Meeting check in time: 6:00 PM
Meeting start time 6:30 PM concluding at 8:30 PM
Subject: LSA Dredging Assessment - Vote

Dear Fellow LSA Members,

Theresa Rago, LSA Vice President and Chairman of the Dredging Committee, along with the LSA Board are requesting a Special Lake Shannon Association Membership Meeting to present the new Dredging Proposal and vote on a Special Assessment.

The following page supplies the project cost, sources of funding and the necessary funding amount to complete the project. Enclosed with this Notice of Special Meeting and Assessment is a detailed outline from Theresa Rago. Please make time to read Theresa's dredging update regarding the project so you are prepared for the meeting on May 8, 2023.

Deerfield Township has asked that the meeting conclude by 8:30 and to accommodate their request the meeting will start at 6:30 PM with an hour and half for discussion, ending at 8:00 PM, at which time voting will occur. The meeting will be conducted in accordance with "Roberts Rules" as specified in our Bylaws to ensure that all members in attendance have a chance to be heard and have their particular questions or concerns addressed. ***This is the only business that can be conducted at this special meeting and the proposed resolution cannot be amended.***

The Special Assessment is subject to the approval of a majority of membership in attendance voting and shall become due and payable as set forth in the resolution establishing the Special Assessment.

The Assessment Resolution will read as follows:

Motion for the creation of a Special Assessment to cover the \$180,000 of additional costs for dredging four coves, Surfwood Cove, Driftwood Cove, Ore Knob Cove, and Turtle Island Cove. The Assessment will be made upon all properties within the Association and will be invoiced in July 2023 to be paid in August of 2023. If the project does not obtain the proper approvals or commence in the current year, there will be no assessment in 2023.

Funding and Project Costs per the Bid/Proposal Dated 3/20/2023.

Dredging Hopper Barge Proposal 3/20/2023			
Dredging Project Funding			
Capital Funds from Original Dredging Project in 2021			\$ 263,612.00
Prior Dredging Special Assessment 2021			\$ 181,000.00
Funds Allocated from Project Inception to Date		[1]	\$ (92,000.00)
Funds Remaining to Support the Project			\$ 352,612.00
Dredging Project Cost			
Estimated Additional Legal Contingency Costs			\$ 20,000.00
Estimated Contingency Cost Overruns			\$ 40,000.00
Estimated Total Project Cost with Contingency			\$ 533,000.00
Funds Necessary to Complete Project - Special Assessment Amount			
		[2]	\$ 180,000.00
Estimated Special Assessment Cost Per Property Based on 484 Properties			
		[2]	\$ 372

[1] Cost associated with legal, surveys, testing, consulting, engineering design and other contractual fees.

[2] Rounding and 484 property owners based on the 2023 budget breakdown.

On the last page of this mailing is a sample copy of the ballot.

Please direct questions or concerns to the lsa.lakeshannon@gmail.com and they will be directed to LSA Board within 24 hours.

Sincerely,
LSA Homeowners Association Board

DREDGING UPDATE – APRIL 2023

By Theresa Rago, Chairperson

**Dredging Committee Members: Phil Bailer, Larry Fox, Peggy McLeod,
LuAnn Pless, David Rago and Mary Sutton, Advisor.**

Background: This project started in 2018. A special HOA assessment was voted on to fund this project (\$263,612 from capital funding and \$181,000 from a special assessment was collected). An HOA membership vote was conducted in the fall of 2020 to approve the dredging project. 156 people attended the meeting, and it was approved by acclaim to support dredging and to begin the project in the fall of 2021. The start date was again moved to 2022 since we did not receive all of the permits in time. We needed to have the SESC permit from the Drain Commissioner (and sign-off), and we had not received the sign-off from EGLE's Materials Management Division due to the additional testing we were required to do, so we could not submit our permit application to the Drain Commissioner. At the beginning of the project, we had determined that an LSA owned property on Dean Road would be a suitable to place the dredging material; however, we simultaneously explored other options such as the farm property located at Driftwood and Dean. In 2022, we encountered opposition from approximately 18 residents and lot owners who opposed the dredging site and wrote and/or went to Deerfield Township expressing their concerns (most of these concerns were a misrepresentation of the facts). Consequently, we were issued with a cease-and-desist order. We had worked with the township to develop an ordinance to allow the non-residential use of residential property through a special land use permit. The individuals opposing the project caused the Deerfield Township Supervisor to remove the approval of the ordinance from the Board's agenda. The Deerfield Planning Commission had approved the ordinance, but it was squashed by the Township Board.

Health of the Lake: It is imperative that we dredge the major coves at this time. The coves are rapidly filling up with sediment. This sediment includes dirt, sand, and gravel runoff from roads, along with grass clippings, leaves, and branches. In Surfwood Cove, the depth is now 18 inches in certain spots and just a few years ago, it was 4 feet. Ore Knob Cove previously was at 5-8 feet and is now at 3-4 feet. Brandon Island (Turtle Island) is also rapidly filling up along with Driftwood Cove. The four coves have accumulated up to 5 ½ feet of sediment with an average sediment depth of 2 ½ feet. We have 14,000 cubic yards of sediment that has built up over the years that needs to be removed from the coves. It has already begun migrating to other areas of the lake. There is evidence of sediment accumulating in other areas of the lake such as near the ski jump. It's just a matter of time before the sediment starts encroaching into all areas of the lake and choking out our wildlife and boating activities.

Benefits of Dredging:

1. The lake is 60 years old, and dredging will reduce or eliminate eutrophication (the natural aging process which removes nutrients, thereby depleting the lake of oxygen).
2. Improve water quality and provide a healthier ecosystem for fish, plants, and animals.
3. Improve navigation in the affected coves and help eliminate the encroaching migration of sediment to the main part of the lake. The silt has already begun to migrate and will continue to do so unless we dredge.
4. Maintain our lake life activities.
5. Perhaps most importantly maintain our PROPERTY VALUES.

Dredging Material Composition and EGLE Standards: The tests and analyses were performed by Lakeshore Environmental and were submitted to various divisions in EGLE depending on what the requirements were. Additional testing was necessary as the initial results were indicating high levels of arsenic and other metals, therefore, we had to do additional sampling then perform the SPLP (Synthetic Precipitation Leaching Procedure).

After an exhaustive amount of testing to ensure Lake Shannon is within the EGLE guidelines, the analysis reflects the following:

According to the report: “Dredged Sediment Characterization Summary Report - Lake Shannon” dated September 20, 2021, “EGLE agreed that the concentrations of total lead, total mercury and total nickel detected in the sediment samples were not of concern and were therefore omitted from all future analyses.”

Brandon Island (Turtle Cove) – Per the report “SPLP tests ... proved that arsenic, selenium, zinc, chromium, and copper would not pose a leachability threat to the groundwater beneath the proposed upland disposal location. These results led to the agreed upon conclusion that all sediments intended to be dredged from Turtle Island Cove would be unrestricted”.

Driftwood Cove – Per the report “SPLP tests ... proved selenium and cadmium would not pose a leachability threat to the ground water beneath the proposed upland disposal location. Likewise, these results led to the agreed upon conclusion that all sediments intended to be dredged from Driftwood Cove would be unrestricted”. Note: Based upon the EGLE permit, 550 cubic yards, or 67% of the original amount of this cove can be dredged due to the existence of selenium in the innermost part of this cove.

Surfwood Cove - Per the report “SPLP tests ... proved that zinc and copper would not pose a leachability threat to the groundwater beneath the proposed upland disposal location”. However, higher levels of arsenic were revealed that did not meet the Act 451 Part 201 Drinking Water and/or GSI (groundwater/surface water interface) criteria. These arsenic “hotspots” have been pinpointed and will be avoided by the dredging process.

Ore Knob Cove - Per the report “SPLP tests ... proved that selenium, zinc and copper would not pose a leachability threat to the groundwater beneath the proposed upland disposal location”. However, higher levels of arsenic were revealed that did not meet the Act 451 Part 201 Drinking Water and/or GSI (groundwater/surface water interface) criteria. These arsenic “hotspots” have been pinpointed and will be avoided by the dredging process.

Note: I have personally spoken with board members of Lake Runyan and Lake Fenton, and they have stated that the materials smell a little “musky” for about a week.

Permits and Requirements: to perform a project of this magnitude several permits must be granted, and requirements met. Among the most important of these are:

Dept/Div.	Contact	Document	Submitted Dt	Approved Dt	Expire Dt	Status
EGLE	Jeff Spencer	Restrictive Covenant.	3/21/2023			Info gathering.
EGLE	Jeff Spencer	Sustainable Materials Mgmt. Sediment Analysis	2/12/2021	10/7/2021		Approved for Deerfield Site. Resubmitted for Tyrone Township site 4/8/23.
EGLE	Kevin Bott	NPDES National Pollutant. Discharge Elimination System. Dewatering water and oxygen demand.	2/12/2021	6/16/2021		We do not need this permit. Contact Kevin for Tyrone Site.
EGLE	Jeff Pierce	EGLE Water Permit WRP028713 V.1	8/1/2020	5/25/2021	5/25/2026	Resubmitted for Tyrone Site to be revised 4/8/23
LIVGOV	Surety Bond	A Surety Bond is required as part of the SESC application.	4/20/2022	4/20/2022		Remains in effect until work is performed.
TYRONE	Ross Nicholson	Land Use Permit LIVGOV Drain & Soil Conservation District.	3/8/2023			Info gathering.
LIVGOV	Brian Varacalle	Drain Commission - SESC Soil Erosion Sediment Control.				To Be Refiled (Engineer Drawings of Basin to be provided).

Possible Methods:

Hydraulic Dredging: Originally, we were going to do Hydraulic Dredging via a pipe to the Lake Shannon Association property on Dean Road. Due to resident opposition based on misinformation and nonsupport from Deerfield Township due to calls and letters from approximately 18 LSA members, the project could not move forward in 2022. As a result, we had to re-evaluate and come up with alternative solutions to accomplish this. Note: Hydraulic Dredging is \$150,000 more costly at the proposed site due to the distance and location, extra booster pumps would be required, and the property owners did not want piping running through their property to the basin.

Mechanical Dredging: Mechanical Dredging is done on the shore with excavators. This is a potential problem as it tears up the property and could damage seawalls.

Proposed Method: Hopper Barge: Given the present circumstances, the Hopper Barge (excavation via barges), combined with trucking the material is the most cost effective and efficient method to obtain immediate results in Lake Shannon coves. Numerous properties were researched and evaluated for placement of the dredging materials. Considering cost increases from 2020 (when we received the first proposal and budgeted the funds from the special assessment with the capital funding money), for equipment and labor costs, we feel that the Hopper Barge method of dredging is the most viable option.

The vendor that we had originally chosen still wants to work with us and we will gain many efficiencies as they have already conducted intense due diligence on the lake. They have worked with us from the start of this project and are completely educated and knowledgeable on Lake Shannon topography, testing results, water quality, silt contents, etc. It has been determined that we will use the Hopper Barge method, which includes excavation of the silt by equipment on a barge; placing the silt on another barge; transport of that barge to the loading site; transfer of the silt from the barge onto trucks which will then carry the material to the disposal site. This method allows for exact pinpointing of “hotspots”. We have two areas which show a higher level of arsenic, which will not be touched by any equipment. This method is ecologically friendly and cost effective.

Scope of Work:

1. Dredging areas will be staked by Lake Shannon and the contractor with float buoys or PVC pipe.
2. 4 feet of water depth is needed to access the project with barges (they can excavate into the cove).
3. Hopper Barge – used to mobilize all other barges, boats, equipment as needed.
4. Construct an onsite unloading area with crane mats along the shoreline.

5. Use of a 39,000 lb. excavator placed on a sectional barge to load the hopper barges.
6. Use of a second 39,000 lb. excavator onshore to load silt material onto tandem dump trucks.
7. Cove sediment will be dug from the coves using the on-barge excavator to the hopper barges and transport to shoreline.
8. One shoreline excavator will be used to unload the silt material from the hopper barges to the tandem dump trucks.
9. Deliver sediment to approved disposal site.
10. Daily quantity sheet verification provided by date, time, truck number will need to be signed off by residents who volunteer to assist on this project.
11. Cleanup of shoreline offload area at end of project, grade and sod if needed.

Site Selection: We have few HOA property owners who have graciously stepped up to offer their properties as disposal sites. Cole/Velliky property (the property) off of Dean Road behind the spillway in Tyrone Township, and Russ Bradley's property (zoned agricultural) off of McGuire and North of Faussett in Deerfield Township. Both properties were researched for ease of access, site preparation (cutting trees and shrubs), avoidance of any residential areas, ease of creating a minimal retention basin and small berm to contain the materials and accessibility to truck the materials.

It has been determined that the property site would be preferable to place the materials.

Project Scale: On a scale of 1 = Easy to 10 = Hard, the above proposal to use the Hopper Barge dredging method with trucking to the property site is rated an overall 6 by the engineers and dredging experts by the preferred provider. The Bradley site was rated a 2 by the experts, but because of Deerfield Township's hostility toward Lake Shannon and promise to "get an injunction to stop the project", the overall rating moves it from a 2 to a 10. A scaled comparison between the two methods (Hydraulic vs. Hopper Barge) and the two sites was conducted, and the following are the advantages to the Hopper Barge method.

1. Dredge Equipment Access to Lake - Simple access for dredging equipment to be placed in the lake with a crane near the dam.
2. Staging area – the location is very suitable for all needed equipment.

3. Unloading Silt from Barges to Dump Trucks – the unload access area is within 100 feet of the road. A gravel access road and crane mats for the excavator to sit on during unloading makes it very simple to complete. Note: The GVW of the trucks and their expected load capacity will be kept under the road commissioner’s guideline for our roads.

4. Time to Complete with Hopper Barge Method – due to the short distance from the lakeside unload area to the silt basin, this project and the central location of the unload site looks very simple.

5. Silt Basin Construction – some widening of the entry road to the disposal site will be required along with building a small berm approximately 3 ½ feet tall to keep soil and water in place. Another silt fence around the perimeter of the berms will be added for a second line of protection.

6. Demobilization of Equipment – due to the easy accessibility to the basin and the lake, the actual dredging should be completed within 2 weeks.

7. Restoration of Basin – Due to the pitch of the land and the exposure to full sunlight, the restoration should be simple after 4-6 months of drying time. This depends on the property owner’s preference.

8. Permit for Silt Basin

9. The material will be de-watered at 3 spots during the process: When excavated from the cove; when removed from the barge and placed on the tandem truck; and when unloaded to the site.

10. Permit for Dredging – the current permit from EGLE is in the process of being amended to accommodate the new basin location and dredging method. This is a routine permit and we have been working with EGLE.

Timing: (Actual timing will be provided well in advance) **Tentative Dates:** Labor Day September 4, 2023 – All boats and docks will need to be out of the water by Wednesday, September 6th for residents on Surfwood Cove, Ore Knob Cove, Brandon Island Cove, and Driftwood Cove. As a cove resident you will need to arrange for the removal and storage of your docks, hoists, and boats. The Dredging Committee can assist with connecting residents with local help to remove your lakeside non-permanent structures. Cove residents may want to coordinate amongst each other, to help lower the costs.

The duration of the entire project will be about 4-6 weeks, with 2 weeks of actual dredging. We will need volunteers to represent Lake Shannon on-site daily to verify all items are completed satisfactorily during this trucking process. The contractor will provide detailed daily dredging reports which show the per load time, cubic yards per hopper and total loads for the day.

We may not have to close the roads for this project. We will work with the road commission and EMS to ensure all safety measures are followed and minimize the inconvenience to our residents.

Costs: As of April 2023:

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Funds Necessary to Complete Project - Special Assessment Amount			[2] \$ 180,000.00
Estimated Special Assessment Cost Per Property Based on 484 Properties			[2] \$ 372

[1] Cost associated with legal, surveys, testing, consulting, engineering design and other contractual fees.

[2] Rounding and 484 property owners based on the 2023 HOA budget.

To complete the project in the Fall 2023, we will need a special assessment approval of the majority of membership voting in attendance and the monies shall become due and payable as set forth in the resolution establishing the Special Assessment.

Future Maintenance: Future maintenance of our lake needs to be explored, evaluated, and implemented for silt removal and maintenance. Some options are consistent dredging cycles, purchasing our own equipment, chemical treatments, timely basin repository cleanouts, etc. Other areas of the lake will need to be dredged soon, but let's focus on this project and get it completed in 2023 for **the HEALTH OF THE LAKE, OUR PROPERTY VALUES AND LIFESTYLE.**

Lake Shannon Special Association Meeting
Special Assessment – Dredging Ballot
May 8, 2023

Dredging Proposal/Special Assessment: This is a YES or NO Vote.
Ballot is invalid if both boxes are checked.

Motion for the creation of a Special Assessment to cover the \$180,000 of additional costs for dredging four coves, Surfwood Cove, Driftwood Cove, Ore Knob Cove, and Turtle Island Cove. The Assessment will be made upon all properties within the Association and will be invoiced in July 2023 to be paid in August of 2023. If the project does not obtain the proper approvals or commence in the current year, there will be no assessment in 2023.

YES

NO