

THE MUSEUM OF LAKE MINNETONKA



May 2022 Update from MLM's Board of Directors

MINNEHAHA PULLED FROM HER BARN

Saturday May 14th *Minnehaha* emerged from her winter barn and basked in sunlight for the first time since October 2019. She was pulled out primarily due to activities connected to the search for a new launch site (see below). However, while she is out, *Minnehaha's* maintenance team is taking advantage of working outside to prep the hull below the waterline for painting and other maintenance tasks.

Thanks to the effort of Steve Albrecht and his painting crew, the boat's new coat of paint sparkles in the bright sunlight. The team has nearly finished a complete repaint from the waterline up and she looks marvelous!

Of course, her reappearance is generating lots of interest. Passersby stop to chat as they walk or bike the trail...giving us the opportunity to share a quick topline on our search efforts and our hope to have a plan ready by late summer.



SCANNING MINNEHAHA

It's no secret that *Minnehaha* has long been a favorite subject of photographers and their cameras. This week, however, *Minnehaha* was photographed like never before. And some of the results promise to be interesting.

As part of our search to find a new launch site, our search team needs answers – lots of them. How much does the boat actually weigh? What are the stress loads placed on the hull during launching? Could the boat be safely (and securely) lifted by crane? What modifications to the existing trailer might be necessary – or does a new trailer need to be part of the solution? To be able to analyze and evaluate all of these and other questions, we need data...precise data. From the archives, the team has studied the blueprints for the original build and the restoration. But rarely is something built exactly as designed.

What the team needs is a digital scan of the boat as constructed – down to the most minute detail. Fortunately, Mike Lins (Engineering Manager at Vic's Crane and Heavy Haul and a steam aficionado) has been working closely with our search team. Mike connected us to Ted Moberg of U.S. CAD, who recognized scanning *Minnehaha* could be a win-win proposition – enabling U.S. CAD to create a case study showcasing their state-of-the-art scanning capabilities and provide MLM with a 3D model of the boat inside and out. Better yet, U.S. CAD agreed to commit a full day of Ted's time on a pro bono basis to scan the boat, thereby assisting our search efforts.

The Scanner

LIDAR (an acronym for Light Detection and Ranging) technology determines the range by targeting an object or surface with a laser and measuring the time for the reflected light to return to the receiver. For this project, Ted used U.S. CAD's Leica Geosystem RTC360 scanner. With this powerful and highly portable unit, Ted completed more than 100 individual scans with remarkable detail. The scanner consists of five cameras all operating simultaneously to collect data across a wide field of view: 360 degree horizontal x 300 degrees vertical. Each scan takes less than two minutes and captures up to 2 million data points per second. Following the completion of a scan, the unit's cameras instantly triangulate its position as the operator moves the scanner for the next image. The operator controls the scanner from an iPad and can instantly assess the quality of the scan and the accuracy of how well the data syncs up with previous scans.



No perspective in scanning *Minnehaha* was overlooked – from on high...



...to the depths of her hull compartments...



...to the very bottom of her keel

Literally, the boat comes to life right in front of your eyes. Anything that is visible to the eye has been caught by the scanner. Want one for your home use? The price-tag on the scanner is a mere \$80,000.

The Output

The data collected is used to create a 'point cloud' which is essentially a huge collection of tiny, individual points plotted in 3D space. The scanner automatically combines the vertical and horizontal angles created by the laser beam to calculate a 3D X, Y, Z coordinate position for each data point. The resulting point cloud will be a digital 3D model that can be easily manipulated to view the boat from every possible angle – including from inside the boat and even to inspecting the ribs in the boat's various compartments. The model will also facilitate measuring the precise distance between any two data points. For example, the maintenance team could quickly and accurately measure the dimensions of a plank that might need replacing.

Currently, Ted Moberg is working through all of the scans, cleaning up the data, and readying the model so it can be posted. Ted estimates the model will be accurate to within three millimeters over the boat's length. Incredibly, most of the scans will be accurate to just a fraction of a single millimeter!



Ted Moberg (U.S. CAD),
Mike Lins & Michael Opitz of Vic's Crane and Heavy Haul

Anticipated Uses

Beyond its primary objective of helping the Board make informed decisions on a new launch solution, the digital model will prove invaluable to...

- *Augmenting Minnehaha's Historical Record* – This data captures a whole new dimension of information on the boat's restoration;
- *New Maintenance Log* - We will have the ability to add informational tags to any data point for the purpose of notating any maintenance work completed including, when by whom, etc.;
- *Training* – Not only will our volunteers have ready access to the boat for familiarity purposes, we'll be able to utilize the model to augment crew training;
- *Fundraising / Marketing* – With the 3D model, we can take the boat to wherever people are and invite them inside by using an Oculus Virtual Reality headset! We could even 3D-print and sell replicas of *Minnehaha* in various sizes if desired.

We are extremely grateful to Ted for his passion in spearheading this project and to U.S. CAD for making it possible. The 3D model will prove to be an invaluable asset!

MINNEHAHA BILL INTRODUCED AT LEGISLATURE

Finding a new launch site and summer berth are only part of the challenge the Board is actively working on. The fact is any solution is going to require funding. While a public capital campaign can't be launched until a formal proposed plan/vision for a new launch site is announced, the Board has already been in contact with Lake Minnetonka are legislators in an effort to (1) generate awareness of our plight in the Legislature, and (2) potentially secure funding from Minnesota's \$9.5 Billion surplus.

Dr. Kelly Morrison, House Representative for District 33B, introduced Bill #4824 in the House seeking funding to assist in predesign work (architectural and engineering plans, etc.). The bill has been referred to the Capital Investment Committee for consideration. While the outcome remains this year, we are pleased with the reception from our legislative team! If nothing else, this will help us set the stage for a follow up request once our formal plan is announced!

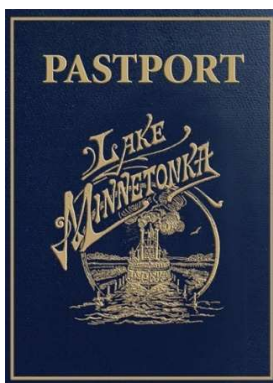
SUMMER PASTPORT EVENT

Last summer, the historical societies serving the Lake Minnetonka area partnered in an event called PastPort to encourage people to come out and visit the lake's museums as they re-opened after being close due to Covid. Museum visitors were given a custom PastPort that they could take to the other lake area museums where the PastPort would be stamped to verify their visit. Completed PastPorts qualified visitors to participate in a drawing for a prize basket of items from all of the lake's museums.

The 2021 PastPort program was so well received, it is being conducted again...now expanded to run from Memorial Day weekend to Labor Day weekend. Although MLM cannot welcome visitors to the barn, we will participate in this year's PastPort effort. People will be invited to virtually visit MLM by watching a *Minnehaha* video. PastPorts with the correctly answered question about the video will earn a stamp to indicate their virtual attendance.

2022 PastPort participating organizations include:

*Excelsior-Lake Minnetonka Historical Society
Minnesota Streetcar Museum / Excelsior Streetcar Line
Minnetonka Historical Society / Historic Burwell House Museum
Museum of Lake Minnetonka / Steamboat Minnehaha
Wayzata Historical Society / Historic Wayzata Depot Museum
Western Hennepin Co. Pioneer Assn / West Hennepin History Center
Westonka Historical Society*



Link to the 2022 PastPort program:
<http://lkmtkahist.weebly.com>

MLM's FISCAL YEAR-END FINANCIAL SNAPSHOT

MLM's Fiscal Year 2021-22 ended March 31st. The Board has now completed its year-end financial reports – a complete overview will be provided at the Annual Meeting (see the Save The Date notice). In the meantime, here's a quick snapshot:


- Cash-on-hand (as of 3/31/2022): \$141,472
- Income generated: \$14,205 (up from \$6,971 in 2020-21 due in part to the new Annual Appeal initiative)
- Expenses incurred: \$23,899 (down from \$27,317 in 2020-21)
- Net Loss: \$9,694

ENHANCEMENTS MADE TO MLM's WEBSITE

With the help of webmaster Sharon Provost, MLM's website is now your destination for information about our organization. The section formerly labeled "MINNEHAHA" has been changed to "ABOUT US". There you can access MLM's Articles of Incorporation, ByLaws, the Roster of Directors and their terms, the Board's Meeting schedule, and minutes from Board meetings dating back to September 2021.

The Board is committed to sharing information with the membership as quickly as it is able. Some aspects of the search for a new launch site need to remain confidential due to the sensitive nature of conversations, however they will be made public at the earliest possible opportunity.

UPCOMING DATES TO NOTE

JUNE BOARD MEETING CHANGED	Tuesday, June 14th 6:00 PM Due to scheduling conflicts, the Board will hold its monthly meeting on the <u>second</u> Tuesday in June – not June 7th. The meeting will be held in the Conference Room of the Mound Centennial Building at 5341 Maywood Rd.
	SAVE THE DATE! Gallery Talk Speaking Event Tuesday, July 26th, 2022 7:00 PM Alexandria, MN
ELMHS TAPPING HISTORY CRUISE <i>aboard Lady Of The Lake</i>	Monday, August 8th 7:00 PM <i>"In The Wake of Lake Minnetonka's Express Boats"</i> Tickets available at elmhs.org
Annual Member Meeting	Advance Notice of MLM's Annual Meeting: Wednesday, Sept. 14th 6:00 – 6:30PM Social Time 6:30PM Start of Business Mtg Mound City Council Chambers Centennial Building 5341 Maywood Rd. (A formal meeting notice will be sent to all Regular Members as the date approaches.)



THE MUSEUM OF LAKE MINNETONKA

Our Navigational Compass

Who We Are... MLM is an all-volunteer membership-based 501(c)(3) nonprofit organization founded in 2003.

Who We Serve... Just as the Express Boats were originally created to serve each of the communities on Lake Minnetonka, today we remain dedicated to serving the entire lake community.

Our Vision... A living future for the past

Our Mission... To inspire an enduring connection to Lake Minnetonka's rich cultural heritage by preserving & operating the historic Steamboat *Minnehaha* as an authentic, living museum & community icon.

Our Strategies...

- ☐ **ENGAGE** with passengers via narrated cruises focused on different aspects of the lake's history.
- ☐ Welcome young & old into a **HANDS-ON** experience & learn about life in the early 1900's.
- ☐ **PARTNER** with local historical societies to host special educational history-themed events.
- ☐ Serve as a year-round interactive museum to **TRAIN & QUALIFY** volunteers on the care, maintenance & operation of a historic, authentic, wooden, steam-powered vessel.

Our Core Values...

- ☐ **SAFETY-FIRST...** We place the safety of our passengers, volunteers, and community above all else.
- ☐ **AUTHENTICITY...** We strive to be authentic in everything we do.
- ☐ **INSPIRATIONAL...** We bring the history of Lake Minnetonka to life through compelling narratives -- providing pleasure and stimulating enthusiasm for learning.
- ☐ **COMMUNITY-ORIENTED...** We unite all the communities of Lake Minnetonka through our shared resources -- the lake and its heritage.
- ☐ **STEWARDSHIP...** We ensure *Minnehaha's* future is as valuable as her past. We honor our founders by passing forward the heritage they passed to us.

MLM BOARD OF DIRECTORS / OFFICERS:

President/Secretary: Tom McCarthy
Vice President/Treasurer: Scott McGinnis
Members-at-Large: Aaron Person, Liz Vandam, Sue Paulson

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