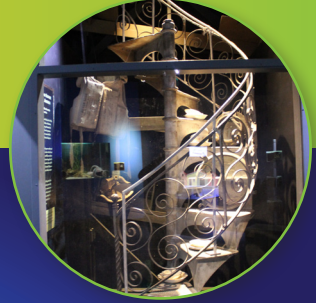




January 15, 2015

**Final Report to the Governor and the Legislature**

As per M.S. 3.303, SUBD. 10 AND M.S. 129D.17, SUBD.2 (D)





On behalf of the Lake Superior Center Authority,

*Pursuant to 2013 Minnesota Session Laws, Chapter 137, Article 4, Section 2, Subdivision 6, clause (e), the Minnesota Legislature provided \$200,000 to Lake Superior Center Authority in the first year (fiscal year 2014) of the FY 14/15 biennium for development of an exhibit to examine the effect that aquatic environments have on shipwrecks and to preserve Minnesota's history and cultural heritage.*

On behalf of the Lake Superior Center Authority, we are pleased to provide this final report on the project for which we received Arts and Cultural Heritage Fund funding, a project we are calling **SHIPWRECKS** *Alive!*

In entering into the grant agreement, the state entity, Lake Superior Center Authority has designated its non-profit, Lake Superior Center dba Great Lakes Aquarium (GLA) to serve as its managing agent for the project. Great Lakes Aquarium is uniquely positioned on the shores of Lake Superior, one of the shipwreck diving meccas of the world, to tell the fascinating story waiting under the waves. It is a story which fascinates all ages.

Completed and opened to the public on July 2, 2014, **SHIPWRECKS** *Alive!* provides an insight into the role ships play as underwater habitat once they have sunk. The story is told with a focus on three unique examples of shipwrecks in three very distinct and different parts of the world: Lake Superior; the South Pacific; and, the Mediterranean Sea. As we proceeded with the project, we were able to draw upon the Great Lakes Shipwrecks Preservation Society, Thunder Bay National Marine Sanctuary, Lake Superior Magazine, the Duluth arts community and many others for highly valued input and assistance.

The public response to the project has been terrific. A great deal of media coverage of various project milestones created a high level of anticipation, resulting in over 200 people attending the ribbon cutting ceremony the day the exhibit opened, over twice the number of people who normally attend such events. That high level of interest has continued throughout the remainder of the year. Some 40,000 people visited the exhibit in July and August alone, helping boost our annual attendance total for 2014 to 119,708 visitors, up some 6,500 from the total number of visitors in 2013, further securing our position as Duluth's most popular paid visitor attraction.

**SHIPWRECKS** *Alive!* has become the flagship feature at Great Lakes Aquarium. If the strong interest that it has generated during its first five months is any indicator of what is yet to come, we are very excited about its prospects for the remainder of its five-year schedule.

Please accept our grateful appreciation to the members of the Minnesota State Legislature for providing funding for this project from the Arts and Cultural Heritage Fund.

Sincerely,

Jack LaVoy  
Executive Director  
Lake Superior Center dba Great Lakes Aquarium

Elaine Hansen  
Chair  
Lake Superior Center Authority

# SHIPWRECKS *Alive!*



*is now open*

## PROJECT DESCRIPTION

This report outlines the final outcomes achieved with \$200,000 in Arts and Cultural Heritage Funds received “for development of an exhibit to examine the effect that aquatic environments have on shipwrecks and to preserve Minnesota’s history and cultural heritage.”

## EXHIBIT OVERVIEW

**SHIPWRECKS *Alive!*** is a new exhibit that opened to the public July 2, 2014 at Great Lakes Aquarium. This exhibit provides visitors with an in depth look at the fascinating world of sunken ships and the diverse ecosystems they attract and sustain. The exhibit focuses on three unique examples of shipwrecks serving as underwater habitat in three distinct parts of the world: Lake Superior; the South Pacific; and the Mediterranean Sea.

More than 70,000 people have experienced **SHIPWRECKS *Alive!*** and the exhibit is getting rave reviews. From shipwreck buffs to wildlife enthusiasts, the exhibit has something for everyone. Young children marvel at the movement of colorful fish, school aged visitors try time and again to load a Roman merchant ship with amphorae, and adults are intrigued by the historical chapters found at the bottom of the sea.

## EXHIBIT COMPONENTS

The exhibit includes live animals in various themed aquaria, historic artifacts including key pieces from the S. S. America, hands-on interactive activities, video displays, static signage with vivid graphics and live interpretive programming.

### LAKE SUPERIOR CENTER AUTHORITY BOARD

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Lt. Governor, State of Minnesota

#### EXECUTIVE DIRECTOR:

Jack LaVoy

218-740-2028

[jlavoy@glaquarium.org](mailto:jlavoy@glaquarium.org)

*Project description and reports can be accessed at:*

[www.glaquarium.org/shipwrecks](http://www.glaquarium.org/shipwrecks)

# BY THE NUMBERS

## THE RESOURCES INVESTED

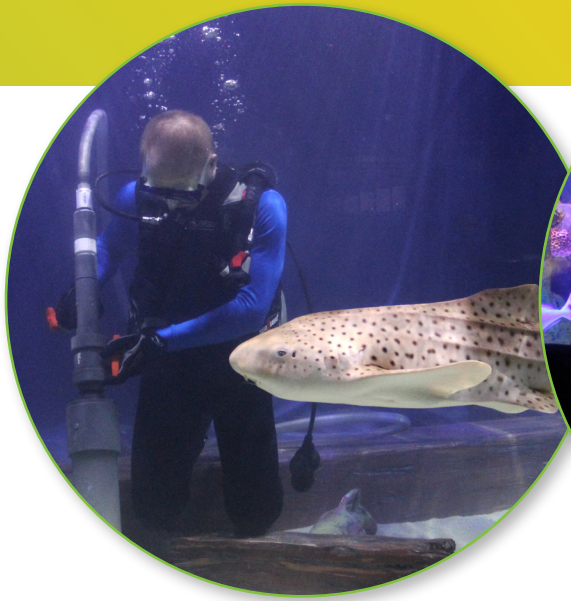
Lake Superior Center dba Great Lakes Aquarium received an allocation of \$200,000 from Legacy Amendment's Arts and Cultural Heritage Fund for fiscal year 2014. The City of Duluth provided the 25% matching funds required in the amount of \$50,000 from its Tourism Tax Fund. Great Lakes Aquarium contributed \$187,915 in additional resources including both cash and in-kind staff time.

**The final budget for the project was \$432,195.84.**

**Direct expense: \$432,195.84 | Administrative expense: \$0**

CATEGORY	BUDGET	ACTUAL	SOURCE
Supplies	\$210,970	\$238,524	\$170,970 – Legacy Fund
			\$67,554 – GLA
			\$3,720 – City of Duluth
Contract Services	\$27,030	\$34,397	\$27,030 – Legacy Fund
			\$7,367 - GLA
Specimen Acquisition	\$50,000	\$46,279	\$46,279 City of Duluth
Staff	\$112,994	\$112,994	\$112,994 - GLA
<b>TOTAL</b>	<b>\$400,994</b>	<b>\$432,195</b>	





## TIMELINE AND STAFF

The origination of the project idea and initial plans stretches back to 2011. Great Lakes Aquarium staff worked with an in-house exhibit design team to layout the foundation for the project. In February 2013, staff made a presentation to the House Legacy Committee. The funds were awarded during the Spring 2013 legislative session. A final grant agreement was confirmed November 8, 2013. The following chart outlines key stages in the project's completion.

FTE: The staff hours dedicated to this project are equivalent to 2.6 full time positions.

TIME PERIOD	PROJECT PHASE OR ACTIVITIES
Nov. 8, 2013 - Dec. 31, 2013	Gallery preparation; Development of content and interactive displays; Sourcing graphics; Collaboration with partners; Sourcing animals; Tank fabrication.
Jan. 1, 2014—March 15, 2014	Tank installation; Development of content and fabrication of interactive displays; Collaboration with partners; Marketing and public relations.
March 15, 2014—June 31, 2014	Acclimation of live animals; Installation of interactives and theming; Production of video and graphic displays; Finishes.
June 31, 2014—July 2, 2014	Exhibit finished and open to the public.

# OVERVIEW AND OUTCOMES



Lake Superior Center dba Great Lakes Aquarium is a 62,000 sq. ft. non-profit aquarium situated on the western tip of Lake Superior in Duluth, MN. The organization's team of dedicated staff and volunteers seek to "inspire people to explore their connections with Lake Superior and waters of the world" through live animals displays, hands-on exhibits, interpretive programs, classes, camps and community outreach. Great Lakes Aquarium staff members specialize in Lake Superior and freshwater education and animal care. Each year more than 115,000 visitors engage with exhibits, animals and educational programming at Great Lakes Aquarium.

## ANIMAL CARE



A team of animal care specialists and aquarists care for aquatic, marine and terrestrial species. The majority of species featured on exhibit and in programming are native to the Great Lakes Basin. The Aquarium also houses animals from other freshwater ecosystems. Several feature galleries showcase salt water species. The animal care team works closely with regional wildlife rehabilitators to triage and observe injured wildlife before and after treatment.

## EDUCATION



We believe that all people are curious capable learners. From infants to school aged children to adults, the Aquarium's education program aims to provide enriching experiences for everyone. Roving interpretation and animal encounters on the exhibit floor provide a personal touch. Weekly classes and camps make participants feel like a part of the Aquarium family. On-site, video-conference, and outreach classes support academic excellence with a Great Lakes focus. Teacher workshops and a Teacher Resource Center connect educators with resources to engage students with Lake Superior and waters of the world.

## EXHIBITS AND EVENTS



The Aquarium's exhibits are the focal point for visitors. Faithful recreations of six unique Lake Superior habitats are the anchor for an engaging exploration of regional and global water resources. A scale model Great Lakes water table complete with working locks, a two-story 100,000 gallon freshwater tank and a gallery filled with living fossils are among visitors favorites. Community groups, private parties and Aquarium sponsored gatherings utilize the vibrant setting for classes, speakers, and special events.

## CONSERVATION



Great Lakes Aquarium is nestled within a strong scientific and conservation action community. The Aquarium frequently shares research and restoration efforts with the public in person, through publications and as part of multi-media exhibits. In the field, Aquarium staff partner on wildlife monitoring projects and support the coordination of the annual International Coastal Clean-up event along Lake Superior's North Shore.

# RELEVANCE OF FUNDED PROJECT

The Aquarium is located on the shores of Lake Superior and holds the distinction of being the most visited paid attraction in the Twin Ports community. The organization has a successful track record of producing high quality exhibits and live animal displays. These factors along with the strong regional maritime heritage and SCUBA diving communities made Duluth an ideal location for designing and exhibiting **SHIPWRECKS *Alive!*** This one of a kind exhibit provides visitors with the opportunity to explore the world of sunken ships reclaimed and preserved as part of underwater ecosystems.

The exhibit's signage, interactive displays, theming and live animals engage visitors with the following themes:

1. Why do boats float?
2. What happens after a ship sinks?
3. Which animals inhabit a shipwreck first?
4. How are shipwrecks around the world similar and different?
5. What techniques and equipment, including SCUBA, are used to explore sunken ships?
6. What can we learn about human culture from shipwrecks?
7. What is marine archaeology?
8. Why are the Great Lakes so great for wreck diving?



## VISITORS SEEK OUT EXPERIENCES...

that enrich their time along the shores of Lake Superior and many choose the aquarium for both its entertainment and educational value.

*The aquarium* is proud to fit that bill for so many.

# THE FINAL PRODUCT



During the course of finalizing our design, adjustments were made to the actual layout of the exhibit in order to enhance the ease of visitor flow, and to address some structural needs of the new tanks that were installed. The final product is one that Aquarium staff and all partners can be proud of. The following is a synopsis of the final exhibit design.

## AN IMMERSIVE EXPERIENCE.

The exhibit invokes the feeling of being underwater through a special water effect light, spot lighting on the shipwreck features and the sound of a person breathing through a SCUBA regulator.

## SHIPWRECK EXPLORATION COMES IN MANY FORMS.

Upon entering the gallery, visitors explore the history of shipwreck exploration and advances in diving technology through images and historical text. A standard diving dress (suit) and helmet from the 1950s is on display. A life-ring styled table invites visitors to create poetry with shipwrecks related words. Nearby, a replica smokestack displays common boat building materials and what happens to them when submerged.



## OVERTIME SHIPWRECKS BECOME HABITAT.

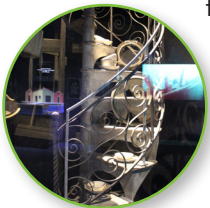
There are several locations around the globe that are the resting place for a large concentration of shipwrecks. Truk Lagoon is one such place. The site of a large scale sinking of Japanese ships and planes during a three day battle in 1944, hundreds of vessels and their crews now rest on the bottom of this protected Lagoon. In this section of the exhibit, visitors encounter a large scale photo collage featuring sunken vessels and debris from around Truk Lagoon. A generalized pilot house from one of these cargo ships provides the internal theming for the 4,000 gallon tank. This theming includes coral encrusted ship parts, a gas mask and ship's telegraph. Visitors are entranced by the colorful concentration of fish swimming in and around the structure. Video footage provides visitors with a sense of moving underwater. Interpretive panels present fish specific information and highlights the stages of wreck colonization by marine wildlife.



## ANCIENT WRECKS PROVIDE CLUES ABOUT THE PAST.

As visitors proceed through the exhibit, they arrive at another dive site, an ancient shipwreck from more than 2,000 years ago. This is a composite recreation of a typical Roman merchant ship from that time. The debris field appears as it might approximately 30 years after the ship sank. Wildlife, broken amphora and the ribs of the ship are intertwined. Large fish including sharks, rays and grouper are part of this marine community.

Visitors are encouraged to identify these fish during the popular interpretive feeding program that takes place in front of this 10,000 gallon tank. A hands-on interactive display challenges visitors to load and balance a ship with wooden amphorae.



## GREAT LAKES SHIPWRECKS HAVE BEEN PUT ON ICE.

In stark comparison to the shipwrecks featured in the rest of the exhibit, shipwrecks in the Great Lakes are well preserved in the cold freshwater. A large-scale model of the stern of the S.S. America, ship that rests within Isle Royale National Park, Lake Superior, is the statement fixture in this section of the gallery. The structure appears as though underwater and houses a mobile of Lake Trout images and artifacts from the ship. These artifacts include the original spiral staircase, life jackets, dishes and a wash basin on loan from Lake Superior Magazine. Video footage and interpretive panels provide visitors with a glimpse at a diverse array of Great Lakes shipwreck structures and the wildlife found in and around them.



# FEATURED PROJECT PARTNERS

Aquarium staff has a long history of leveraging resources to make great things happen through strong partnerships. In researching, designing and fabricating **SHIPWRECKS *Alive!*** project partners included:

## GREAT LAKES SHIPWRECK PRESERVATION SOCIETY (GLSPS) FRIDLEY, MINN.

Members of GLSPS have expertise in diving on shipwrecks all over the world. They have particular experience working to research, preserve and protect shipwrecks in the Great Lakes basin. GLSPS board members Ken Merryman, Phil Kerber, and Stephen Daniel were particularly helpful in providing and reviewing content, supplying and editing dive footage and connecting our team with other experts.

## LAKE SUPERIOR MAGAZINE DULUTH, MINN.

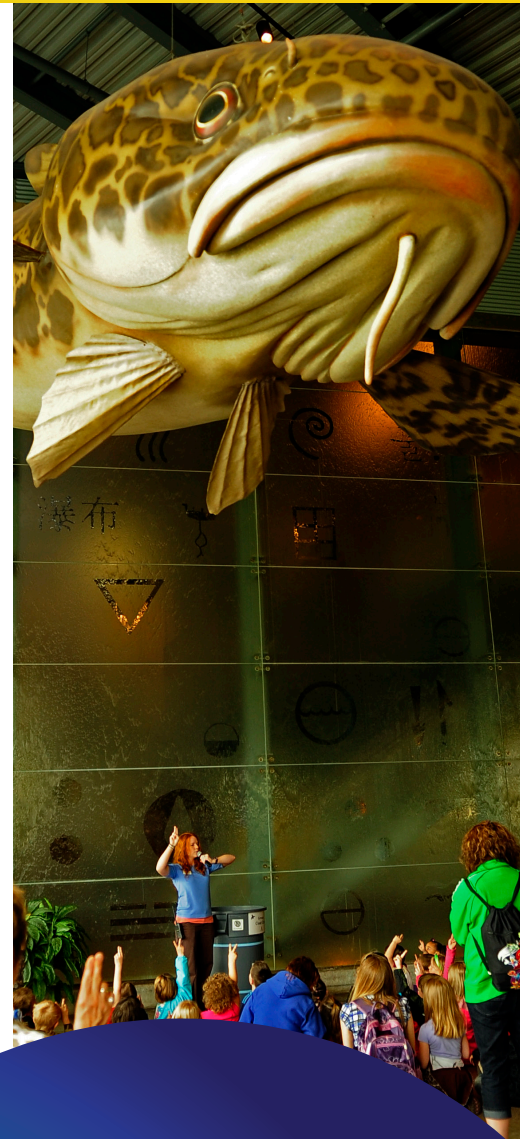
Owners Cindy (Marshall) and Paul Hayden have direct family ties to shipwrecks in Lake Superior. Cindy's father owned the salvage rights to the S.S. America (a ship featured in the exhibit) and even attempted to refloat the ship in the 1950s. A staircase and other artifacts from the S.S. America, now resting in the waters off of Isle Royale National Park, are featured in **SHIPWRECKS *Alive!***

## DULUTH ARTS COMMUNITY DULUTH, MINN.

The Aquarium has a long history of working closely with Duluth based artists to design and fabricate exhibits. From graphic design to hands-on interactive displays to lighting and scenery design, **SHIPWRECKS *Alive!*** was no exception. We are proud to support and feature the work of talented local and regional artists.

## THUNDER BAY NATIONAL MARINE SANCTUARY ALPENA, MICH.

This national landmark in Lake Michigan is renowned for its collection of shipwrecks. Sanctuary staff have expertise in maritime history, archaeology and shipwreck diving. They contributed to the **SHIPWRECKS *Alive!*** project by reviewing content and providing high quality images for displays.



“MY SON AND I...  
visited this beautiful facility. It has  
everything to see for all the family.  
The fish are amazing. The science and  
history of the Great Lakes basin  
is something everyone should  
*experience.*”

Visitor Review, Trip Advisor (2014)

# MEDIA COVERAGE

Local and regional media outlets and publications were engaged throughout the exhibit design and fabrication process. The arrival of new animals, the work of fabricators and the exhibit's story were frequently featured on TV, in print and online. Aquarium staff also engaged the community in the process through in person presentations at the Aquarium and throughout the region at various civic club meetings. The following list provides examples of the related media coverage.

## 2013

- Thursday, November 7      **SHIPWRECKS *Alive!*** Groundbreaking, coverage by KBJR/NNC, WDIO, FOX21 and KDAL Radio, HowieBlog
- Friday, November 15      Smoothhound sharks arrive, WDIO-TV
- Friday, December 13      Cownose stingrays arrive for **SHIPWRECKS *Alive!***, WDIO-TV

## 2014

- Monday, February 3      **SHIPWRECKS** as Habitat story for Nature Matters, KBJR-TV
- Monday, March 31      **SHIPWRECKS** biggest tank arrives, WDIO-TV
- Wednesday, May 14      SS America staircase move, WDIO-TV
- Wednesday, May 21      SS America model being assembled, WDIO-TV, FOX21
- Monday, June 30      **SHIPWRECKS *Alive!*** big fish move to tank, WDIO-TV
- Tuesday, July 1      **SHIPWRECKS *Alive!*** sneak peek preview, WDIO-TV
- Wednesday, July 2      **SHIPWRECKS *Alive!*** grand opening, FOX21
- Thursday, November 20      Christmas City of the North Parade float (featuring **SHIPWRECKS *Alive!*** exhibit), KBJR





#### **PUBLICATIONS, CAMPAIGNS, AND EVENTS**

GLA held a successful groundbreaking ceremony/press conference for **SHIPWRECKS *Alive!*** The event took place on Thursday, Nov. 7, 2013.

**SHIPWRECKS *Alive!*** ad purchased for Moms & Dads Today for July/August edition.

**SHIPWRECKS *Alive!*** boosted post purchased on Facebook received more than 12,000 views.

**SHIPWRECKS *Alive!*** Grand Opening e-blast sent to members and postcards to special guests.

**SHIPWRECKS *Alive!*** media preview held on Tuesday, July 1.

**SHIPWRECKS *Alive!*** preview in June/July edition of Lake Superior Magazine.

**SHIPWRECKS *Alive!*** feature story in May 2014 episode of On The Road, a KSTP program out of the Twin Cities.

Star Tribune's Minnesota Museums Guide, GLA was included in the annual edition (2014).

**SHIPWRECKS *Alive!*** grand opening was a very successful evening. Approximately 200 people came to the event with speakers including GLA Executive Director Jack LaVoy, Duluth Mayor Don Ness and Minnesota State Representative Mary Murphy.

The Duluthian featured Great Lakes Aquarium in a multi-page story layout for the September edition. The story focused on the recovery and resurgence of the Aquarium in recent years along with information on the new exhibit, **SHIPWRECKS *Alive!*** and upcoming Discovery Center.

New underwriting trade agreement with Wisconsin Public Radio. A sponsorship announcement featuring information on **SHIPWRECKS *Alive!*** began a 10-week run in mid-August.



# Great Lakes Aquarium

At Lake Superior Center

## FOR MORE INFORMATION VISIT:

[www.glaquarium.org](http://www.glaquarium.org) | [www.glaquarium.org/shipwrecks](http://www.glaquarium.org/shipwrecks)

## FOLLOW US ON FACEBOOK:

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## VISIT IN PERSON:

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Duluth, Minnesota 55802

## PROJECT MANAGER:

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