United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. **Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

1. Name of Property

historic name *May Flower* - Shipwreck

other names/site number

2. Location

street & number 2.25 miles south of Lester River in Lake Superior [ ] not for publication

city or town Lester Park [X] vicinity

state Minnesota code MN county St. Louis code 137 zip code 55804

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this __nomination __ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property __meets __does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

_ national __statewide _local

Signature of certifying official/Title Date

State or Federal agency/bureau or Tribal Government

In my opinion, the property _meets _does not meet the National Register criteria.

Signature of commenting official Date

Title State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:

__entered in the National Register _ determined eligible for the National Register

__determined not eligible for the National Register __removed from the National Register

__other (explain:)

Signature of the Keeper Date of Action

May Flower - Shipwreck
Name of Property

St. Louis, Minnesota
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply.)

- [ ] private
- [ ] public - Local
- [X] public - State
- [ ] public - Federal

Category of Property
(Check only **one** box.)

- [ ] building(s)
- [ ] district
- [X] site
- [ ] structure
- [ ] object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
		buildings
		district
1		site
		structure
		object
1		**Total**

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing)

Minnesota's Lake Superior Shipwrecks (A.D. 1650-1945)

Number of contributing resources previously listed in the National Register

N/A

6. Function or Use

Historic Functions
(Enter categories from instructions.)

TRANSPORTATION/ water related

Current Functions
(Enter categories from instructions.)

VACANT/ not in use

7. Description

Architectural Classification
(Enter categories from instructions.)

OTHER: Scow schooner

Materials
(Enter categories from instructions.)

foundation: N/A
walls: N/A
roof: N/A
other: N/A

Narrative Description

(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

Summary Paragraph

Located 2.25 miles south of Lester River, Minnesota, the remains of the wooden scow schooner *May Flower* rest in 90 feet of water in Lake Superior. Built in 1887 at the H. Johnson shipyard in Sturgeon Bay, Wisconsin, the *May Flower* was one of a unique class of Great Lakes vessels: the scow schooner. Lost in June 1891 while carrying sandstone blocks to Duluth, Minnesota, today the *May Flower* provides a rare glimpse into a poorly documented Great Lakes vessel type, and is the first of its type documented on Lake Superior. The *May Flower* site provides historians and archaeologists a unique opportunity to study nineteenth-century wooden ship construction techniques and shipboard life on late nineteenth-century Great Lakes merchant vessels. Because of the *May Flower*'s uniqueness in both vessel type and construction methods employed, the *May Flower* site has yielded significant information regarding nineteenth-century scow construction and has vast potential to yield additional significant information in future years.

Narrative Description

Site Description and Investigation

The *May Flower* lies upright on a sand bottom four miles northeast of the Duluth harbor entrance on a heading of 205 degrees. Her bow and stern areas are largely intact, but her hull sides have collapsed amidships. Much of her stone cargo remains stacked within the hold. At the bow, the bottom depth is 88 feet with the bow rail at a depth of 85 feet beneath the surface. At the stern, the bottom depth is 92 feet with the stern rail at a depth of 82 feet beneath the surface. The hull is 156.0 feet in length and 24.4 feet in beam at the bow and 24.1 feet in beam at the transom. Little of the starboard side hull is extant, but nearly all of the port side hull is extant, although it has separated from the stern and lower hull and lies flat on the lake bed at an angle to the hull. The port side is broken aft of amidships, and much of the side hull aft of the break is buried beneath the sand bottom. The majority of the hull and cargo are embedded in the lake bed with only a few feet of the hull and cargo visible above the sand bottom. The stern area is somewhat more exposed than the bow, with much of the starboard quarter visible above the lake bed.

The stem is exposed for three feet above the lake bed and is trapezoidal in section. The stem's width on the forward edge is 0.45 feet, widening to 1.7 feet wide at the aft surface and 2.2 feet in molded dimension. It appears that the stem is constructed from multiple timbers, but accurate measurements of individual timbers could not be taken due to the inability to distinguish the exact edges of the timbers due to tight fitment and excellent preservation of the wood. The stem is raked forward at 27 degrees and lists to port 3.0 degrees.

The bow is horizontally-planked with planks dimensions that are 1.0 foot wide by 0.25 feet thick. The bow is V-shaped and angles aft from the stem at 35 degrees to where it meets the hull's sides at 12.5 feet on baseline. A billboard is fastened to the bow beneath the rail immediately forward of the bow/hull side joint. Two iron hawsepipes are located 1.7 feet from either side of the stem and are 1.1 feet in outside diameter and 0.6 feet inside diameter, measured on the outside of the hull. Both the port and starboard anchor chains pass through the hawsepipes, with chain links that measure 0.45 feet long by 0.35 feet wide with a chain link diameter of 0.08 feet.

The vessel was not rigged with a bowsprit, but instead carried a large single towing bit fastened between the stem and samson post on the vessel's centerline. Immediately aft of the stem, a large wood block is fastened to the top of the rail with a large iron open fairlead fastened to the top of the block for a towing hawser. From the fairlead, the towing hawser passed aft to where it would fasten to the single towing bitt. This towing bitt rises 5.7 feet above the forward deck, and measures 1.2 feet molded by 1.1 feet sided. An iron norman pin penetrates the bitt longitudinally 2.3 feet below the top of the bitt, and there is significant wear from a towing hawser on all four corners of the bitt, located 1.9 feet beneath the top of the bit. The towing bitt is reinforced by a forward knee that is fastened to the deck that is 3.8 feet long, 2.75 feet tall, 0.55 feet thick, and 1.1 feet across the neck. The knee's forward toe abuts the aft side of the stem.

The windlass is a patent design that stands aft of the towing bit. The windlass is supported by a samson post that is 1.2 feet molded by 1.1 feet sided, and whose center is located at 13.0 feet on the baseline. The samson post rises 4.6 feet above the deck. The crosshead was originally mounted on an iron plate on the forward surface of the samson post, but it has fallen forward and now lies against the towing bitt forward of the samson post, atop a wooden block that braces the samson post against the towing bitt. The crosshead plate is 1.0 foot wide by 1.3 feet long and 0.08 feet thick. The crosshead is fastened to the center of the plate and is 2.8 feet in length. Both iron purchase rods remain attached to the crosshead and are each 2.3 feet long. The port side purchase rod remains attached to the windlass' ratchet arm, but the starboard purchase rod has separated from the ratchet arm and the ratchet arm has rotated 180 degrees around the windlass barrel and not now rests aft of the windlass barrel. Each ratchet arm is 1.7 feet long and 0.35 feet thick. Three separate pawls are extant on the aft side of the samson post, and the uppermost pawl is 1.3 feet long, 0.6 feet wide, and 0.1 foot thick. The middle pawl is 0.9 feet long by 0.6 feet wide , and the bottom-most pawl is 0.55 feet long by 0.6 feet wide. The pawls engage a pawl rack centered on the windlass that is 0.9 feet wide with teeth that are spaced 0.2 feet apart.

The windlass barrel is 13.5 feet in length overall with a diameter of 1.5 feet at its largest point, and there is a 1.0 foot space between the windlass barrel and the deck. A gypsy head is located on either end of the windlass; each gypsy head extends 1.85 feet from the carrick bitt and is 1.43 feet in diameter. The carrick bitts are 1.5 feet in length, 0.4 feet thick, and rise 4.3 feet above the deck. Each carrick bitt is braced by a wooden timber on the forward side that is 3.4 feet long and 0.4 feet thick. Green paint remains visible on the side of these braces. The carrick bitt cheeks are 3.3 feet tall by 0.55 feet wide, and there is a space of 4.0 feet between the carrick bitts and the ratchet arms. No strongback is extant on the windlass.

The catheads are fastened to the front of the carrick bitts and extend over the rail at an angle to the vessel's centerline. The port cathead is 0.85 feet square and extends 2.3 feet beyond the rail. The starboard cathead is 0.85 feet wide by 0.75 feet thick and extends 2.45 feet beyond the rail. The ends of each cathead are reinforced by two metal bands around the circumference with a sheave fastened within the end of the cathead for handling the anchor. Both catheads have evidence of white paint that was painted over a base coat of green paint.

The starboard anchor chain protrudes from the sand aft of where the chain lockers would have been and takes three turns around the windlass barrel before passing through the starboard hawsepipe and continuing on to the starboard anchor. The starboard anchor remains lashed in place on deck aft of the starboard cathead and immediately outboard of the windlass. The starboard anchor has a wooden stock that is 12.0 feet long and a diameter of 1.15 feet at the shank, tapering to a diameter of 0.83 feet at either end. The stock is reinforced with an iron band 0.2 feet wide around the circumference of the stock on either side of the shank, spaced 2.2 feet apart. The shank is 6.8 feet in length and is attached to the anchor chain via an iron ring with an outside diameter of 1.3 feet. The distance between palm tips is 5.8 feet tip to tip, and each palm is 1.8 feet long by 1.6 feet wide.

The port side anchor chain protrudes from the sand outside the port side hull, drapes over the port rail, and then takes many turns around the port side of the windlass (too many turns to be able to count) and then runs out of the hawsepipe to the port side anchor. The port anchor remains lashed in place aft of the port cathead and immediately outboard of the windlass. The port anchor has an iron stock that is 6.0 feet long with a diameter of 0.3 feet. The stock is not a standard folding stock, but simply a straight iron bar that has a collar on the port side of the shank and a 0.8 foot-long pin on starboard side to hold the stock in place in the shank. The shank is 6.5 feet long and 0.4 feet in diameter. The shank is fastened to the anchor chain via an iron ring with an outside diameter of 1.2 feet and an inside diameter of 0.85 feet. The distance between palm tips is 4.3 feet, and each palm is 1.8 feet long by 1.2 feet wide.

The foredeck planks are not extent aft of the windlass, and the hull is buried in the sand bottom to the foredeck level, so it could not be determined if a forecastle or forecastle hatch were located at the bow. Deck plank dimensions beneath the windlass varied between 0.4 and 0.6 feet wide and all were 0.2 feet thick. No other deck planks were visible on the site.

The port side hull is largely intact, but has broken away from the hull's bottom as well as the stern and now lies at an angle to the hull from the bow aft. The hull sides have a plank-on-frame construction that is a blend of traditional plank-on-frame and gunnel-built scow hull construction. The side hulls are framed with single timber king posts that are planked over with ceiling and outer hull planks. King post dimensions are 0.65 feet wide by 0.6 feet thick, and rise 6.0 feet above the lake bed near the starboard quarter (where the vessel is the most exposed above the lake bed). Ceiling planks are 0.7 feet wide by 0.27 feet thick, and white paint remains visible on the ceiling planks near the starboard quarter. Outer hull planks are 0.65 feet wide by 0.3 feet thick and are edge bolted together with iron bolts. Although

buried in the sand bottom and difficult to distinguish, it appears that the hulls sides and bottom are joined with a chine log that is 1.2 feet wide by approximately 0.9 feet tall that is mortised to accept the king posts.

Few deck beams are extant, but the few that are intact near the starboard quarter are 0.7 feet wide by 0.5 feet thick and have a space of 1.75 feet between beams. The deck beams were supported by wood hanging knees fastened directly beneath the beams. These knees are 2.8 feet across the top, 2.9 feet along the hull side, 1.4 feet at the neck, and 0.7 feet thick at the toe. A few hanging knees remain extant on the port side hull and are spaced at 8.0 feet, 8.0 feet, 10.0 feet, and 9.0feet from bow to stern, respectively. Two deck beams are also extant at the starboard bow that are 0.65 feet wide by 0.45 thick and 0.6 feet wide by 0.45 feet thick with a space of 1.8 feet between beams. A deck clamp is fastened to the side hull immediately above the knees that is 1.0 foot wide by .27 feet thick.

The covering board is 2.25 feet wide by 0.3 feet thick and constructed from two separate timbers that are each equally notched to fit around the bulwark stanchions. The bulwark stanchions are fastened to the forward side of the king posts and are 0.55 feet square with a space of 2.5 feet between stanchions. A rail, 1.2 feet wide by 0.4 feet thick, is fastened to the top of the stanchions 2.5 feet above the top of the hanging knees. A single plank is fastened to the inside of the bulwark stanchions immediately below the rail that is 0.65 feet tall by 0.25 feet thick.

Very little of the vessel's rigging remains, and what is visible is rather unusual for a vessel of this size – which may have contributed to the vessel's rigging being lost during the capsizing as well as validating the vessel's primary use as a tow barge rather than a self-propelled schooner. Chain plates are extant for the port side foremast as well as the starboard side mainmast. The location of the masts indicate that each mast was set disproportionately towards either end of the vessel, mimicking the proportions of the Grand Haven rig more than the typical schooner rig.

On the port side hull, three chain plates protrude from the top center of the rail at 32.2 feet, 36.2 feet, and 38.2 feet on the baseline. The forward two chain plates have clevises attached to them, but the aft-most chain plate has nothing attached. The chain plates protrude from the top of the rail, and each appears to be affixed to the outboard side of a bulwark stanchion. Farther aft, a single chain plate protruded from the rail at 81.8 feet on the baseline, but nothing is attached to this single chain plate and a single iron eye is attached to the top of the rail 2.25 feet forward of this chain plate. Between the forward set and the amidships chain plate an iron eye is attached to the top of the rail at 76.2 feet on the baseline and a large wooden cleat is fastened to the top of the rail at 77.4 feet on the baseline. On the starboard rail near the stern, two chain plates protrude from the top of the rail at 130.0 and 133.8 feet on the baseline; neither chain plate has anything attached to it. A small amount of wire rope lies off the port side, mostly buried in the lake bed. The diameter of the wire rope is consistent with that of wire shrouds, but so little is visible it could not be determined if the wire rope was indeed a shroud or if the vessel was wire rigged.

Three bitts are located near the starboard quarter – a single and a double set. The single bitt is located at 123.0 feet on the baseline, but does not penetrate the deck and is fastened to the bulwark only. It is 0.85 feet square and 3.55 feet in length. The center of the set of double bitts is located at 146.0 feet on the baseline with a space of 1.8 feet between the bitts. Each bitt of the double set is 1.0 foot sided by 0.95 feet molded and rises 1.55 feet above rail. The overall length of each bitt is 7.2 feet, and both penetrate the deck and are stepped in the bottom of the hull, with both bitts are tapering near the bottom.

On the port side, a set of double bitts is extant near the bow. Each bitt of this set is.8 feet square and 3.0 feet in length, and both are fastened to the bulwarks but do not penetrate the deck. The center of this set of bitts is located at 25.4 feet on the baseline, and there is a space of 1.8 feet between bitts. A single bitt is located on the port side at 51.2 feet on the baseline. This bitt is 0.7 feet square and is also fastened to the bulwark only and does not penetrate the deck.

The hull was reinforced against spreading by iron through bolts that spanned the width of the vessel just below deck level, and one is extant near the starboard quarter immediately forward of the bitts. The iron bolt is .15 feet in diameter and a 7.2-foot section protrudes from the hull just below deck level. This bolt penetrates the outer hull and is visible on the outside of the outer hull planks.

The center of the rudder post is located at 152.7 feet on the baseline and is 1.0 foot in diameter. The rudder post rises 4.1 feet above the stern deck, and an iron tiller is attached to the top of the rudder post that is 3.5 feet long and points towards the starboard quarter. The rudder blade is not visible outside the hull, as the hull is embedded in the sand to the bottom of the transom. The transom is 24.1 feet in beam and lists 2.0 degrees to port. The outside of the transom, above deck level, is planked horizontally with planks that are 0.6 feet wide by 0.27 feet thick. Below deck level, the stern ramp is angled and horizontally planked with planks that are 0.7 feet wide by 0.35 feet thick. The transom

timbers are visible from inside the hull and are 0.6 feet square and spaced at 2.5 feet on center. Large amounts of white paint remain visible on the inside of the transom and starboard quarter area.

No evidence remains to determine the dimensions and location of a stern deck cabin. No deck equipment was discovered, nor were any artifacts with the exception of two wooden blocks that were located off the port side. There is a high probability that artifacts are present but are covered by the deep, shifting sand that covers much of the site.

The *May Flower* is an unusual craft. She is described in historic literature as a two-masted scow schooner, and although her general lines follow that of other Great Lakes scow schooners that have been archaeologically documented, her construction features are somewhat unique compared to the archaeological remains of other scows that have been documented on the upper Great Lakes. The *May Flower* is rather large compared to other Great Lakes scows and likely spent most of her life as a scow barge being towed behind a steam-powered vessel rather than as a true self-propelled schooner. This is indicated by a complete lack of head rigging – the *May Flower* was not rigged with a bowsprit and therefore carried no head rigging. In place of a bowsprit, a large towing bitt and large iron fairlead for a towing hawser is fastened atop the head rail immediately aft of the stem. Additionally, it appears that her two masts were widely spaced and stepped near either end – more similar to a Grand Haven rig than a true schooner rig. With her large dimensions, lack of head rigging, and widely spaced masts, the *May Flower* was more suited to serve as a barge than a schooner in the truest sense, even though according to historic records she was indeed registered as a schooner. Although one historic newspaper accounts stated that she “could” sail independently of a consort, all historic records of her voyages uncovered thus far have indicated she was invariably towed (*Door County Advocate* 1887a).

Unlike other Great Lakes scow schooners, however, no evidence of a centerboard was discovered at the site. Centerboards were common to nearly all sailing vessels on the Great Lakes (including some steam-powered vessels), and the scow’s flat bottom made it especially suited for a centerboard as the vessel’s flat bottom resulted in considerable leeway when sailing close-hauled into the wind. Combined with her lack of a head rig, and relatively small sail area, the lack of a centerboard would have made the *May Flower* a rather weak sailer and most likely quite unhandy in all but the most favorable of sailing conditions.

Where a centerboard trunk would have been fitted, however, is a large section of heavily-timbered bulkhead that lies tipped toward the vessel’s port side. Additionally, another similarly constructed section lies further aft within the hull. These structures are constructed much differently than the hull sides, are much too robust to be part of the deck, making it possible that these structures served as bulkheads to divide the cargo area into compartments. As the hull is deeply embedded in the lake bed it could not be determined if these structures were fastened to the keelson, but it is possible that these structures may have stood vertically above the keelson and served as a fore-and-aft bulkheads.

Collectively, the *May Flower*’s size and construction features are markedly different than other scow schooners that have been archaeologically documented on the upper Great Lakes. Ironically, the *May Flower*’s construction features appear to be more closely related to New Zealand’s scows than to other contemporary scows constructed and used on the Great Lakes during the late nineteenth-century. A previously undocumented relationship is emerging between New Zealand and Great Lakes scows, and the *May Flower* appears to support that relationship. Only through continued historical and archaeological research will this potential relationship be further fleshed out.

May Flower - Shipwreck
Name of Property

St. Louis, Minnesota
County and State

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [X] A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] B Property is associated with the lives of persons significant in our past.
- [X] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [X] D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

- [ ] A Owned by a religious institution or used for religious purposes.
- [ ] B removed from its original location.
- [ ] C a birthplace or grave.
- [ ] D a cemetery.
- [ ] E a reconstructed building, object, or structure.
- [ ] F a commemorative property.
- [ ] G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance
(Enter categories from instructions.)

ARCHEOLOGY/Historic, Non-Aboriginal
MARITIME HISTORY
COMMERCE

Period of Significance
1887-1891

Significant Dates
1887

Significant Person
(Complete only if Criterion B is marked above.)
N/A

Cultural Affiliation
Euro-American

Architect/Builder
Johnson, H.

Period of Significance (justification)

The period of significance represents the working life of the vessel. The May Flower was built in 1887 and sank in 1891.

Criteria Considerations (explanation, if necessary) NA

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance and applicable criteria.)

Located 2.25 miles south of Lester River, Minnesota, the scow schooner *May Flower* rests upright and partially intact in 90 feet of water in Lake Superior. Built in 1887 and lost in 1891, the *May Flower* represents a vessel class, the scow schooner, which employed unique construction techniques that differed greatly from traditional Great Lakes merchant hulls yet provided a sturdy, economical vessel with great cargo capacity that could be constructed with minimal shipwright skills in primitive conditions. The *May Flower* was discovered in 1991 and archaeologically documented between 2009 and 2010. Little historical documentation exists regarding scow schooner construction and use on the Great Lakes, and much of our understanding of this vessel type comes from archaeological data recovered from shipwreck sites like the *May Flower*. While scow schooners were somewhat common on the lower lakes during the nineteenth century, and several scow schooners have been archaeologically documented on Lake Michigan, the scow schooner was rather rare on Lake Superior and the *May Flower* is the first scow documented on Lake Superior, and only one of two such vessel types known to exist in Lake Superior's archaeological record. Archaeological data gathered indicates the *May Flower* has unique construction features that differentiate the *May Flower* from the handful of other scows documented on the lower Great Lakes. Archaeological data, combined with historic research, indicates the *May Flower* exhibits construction features more common to New Zealand scows than Great Lakes scows, such as side hull construction and the use of bulkheads to partition the cargo spaces. Historic research suggests there may be a direct link between Great Lakes scows and those in New Zealand, and the *May Flower* may provide archaeological evidence of this relationship. The *May Flower* meets the registration requirements for Criteria A, C and D at the State level. The *May Flower* has produced a wealth of archaeological knowledge on scow schooner construction and use, and holds vast potential to yield further significant archaeological data in future years.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

Built in 1887, the scow schooner *May Flower* is a vessel type that employed unique construction techniques that differed greatly from traditional Great Lakes merchant hulls to provide a sturdy, economical vessel with great cargo capacity that could be constructed with minimal shipwright skills in primitive conditions. The *May Flower* was lost in June 1891 while carrying sandstone blocks from Portage, Michigan, to Duluth, Minnesota, capsizing in a heavy sea four miles from the Duluth entrance. All but the *May Flower*'s captain, Theodore Zerbst, were rescued from the water. Scow schooners were an important component of the Great Lakes economy and culture, and although once common on the lower Great Lakes, the scow schooner was somewhat rare on Lake Superior and few were documented in the historical record. Little is known about their construction and use today, and few examples of this vessel type exist in the archaeological record that lies on the Lake Superior bottomland. The *May Flower* provides a rare glimpse into this vessel type that played an important role in shaping the Great Lakes region by has all but escaped documentation in both the historic and archaeological record of Lake Superior maritime commerce.

Scow Schooners on the Upper Great Lakes

Scow schooners were vital to many Upper Great Lakes communities, connecting them with the larger regional markets through the coasting trade. As the size of commercial vessels grew during the nineteenth century so too did their draft, preventing these vessels from making stops at the smaller lakeshore communities that had shallow, unimproved harbors. The flat-bottomed scows, however, were well-suited to shallow harbors with their relatively shallow drafts, allowing them to provide vital transportation to communities that were otherwise cut off from lake transportation. Inexpensive to build and operate, the scow schooner was the life-blood of many small lakeshore communities and their immigrant families, and provided an entry point into the Great Lakes maritime trades for many immigrants as sailors, vessel masters, and vessels owners.

The scow was used in great numbers throughout North America, wherever a need for low-cost, shoal-draft transportation was required. Scows were in use along the Atlantic Coast from the Maritime Provinces to Mexico, the Great Lakes, the Gulf Coast, San Francisco Bay, and on nearly every river large enough for small craft (Chapelle 1951:45; Merriman 1997; United States Department of the Treasury1885). Despite its proliferation, or perhaps as a result of it, it is difficult to trace the scow's first introduction into the New World. It is also unknown when the term "scow" came into popular usage, but it was likely derived from the Dutch term "schouw", which indicated a square-ended hull that possessed a flat, or nearly flat, bottom. The first recorded use of the term appeared well into the eighteenth century (Chapelle 1951:33).

Flat-bottomed craft were numerous in North America for several reasons. One reason was that vessels with flat bottoms and sides were easily constructed by people with limited shipwright skills or those working under primitive conditions. Flat surfaces and sharp, angular corners did not require the advanced woodworking skills that were necessary to construct vessels with round hulls and fine lines. Another reason was that flat-bottomed craft could navigate shallow water with little difficulty. If they ran aground they were easier to refloat than vessels with greater deadrise, and they were less likely to sustain damage in a grounding or refloating. They were also a very stable craft that could carry large cargoes relative to their size.

There is little recorded information regarding the construction of colonial-era flat-bottomed craft. Considering that planked canoes and scows were the easiest boats to build with the least amount of skill, scows were numerous in the New World by 1670 and nearly every community used the scow or some other form of flat-bottomed boat (Chapelle 1951:15). There were several variants of flat bottom boats common to the New World, but their differentiation in lineage is often blurred as there were more similarities than differences between vessel types. Adding further confusion, the scow-type hull appeared under several names including punt, flat, radeau, periaugua, gondalow, and gondolo. Sloop-rigged scows were common as early as 1725, and by the time of the American Revolution the scow rig had expanded to schooners and occasionally square-riggers (Chapelle 1951:32-38).

Prior to the war of 1812, few commercial craft sailed the western Great Lakes. Following the war, however, the scow schooner made its appearance alongside the more conventional sailing craft and expanded onto the western lakes (Inches and Partlow 1964:289). The first recorded appearance of a Great Lakes scow schooner occurs in the mid-1820s with reports of several scows on Lake Ontario and New York's Finger Lakes, as well as the 60-ton *Bolivar* constructed at Erie, Pennsylvania, in 1825. By the 1840s, scows were common throughout all the Great Lakes, and they survived well into the twentieth century and the last days of Great Lakes sail (Labadie and Herdendorf 2004:5; Martin 1991:4).

Other North American regions mirrored the scow's Great Lakes expansion, including the Atlantic Coast, Gulf Coast, and San Francisco Bay. The scow's proliferation expanded all the way to the Pacific Islands, and if imitation is the highest form of flattery, much can be said by the fact that New Zealand scows were descendants of those of the Great Lakes. New Zealand's first scow was built in 1873 and named *Lake Erie*, followed by the *Lake Superior* in 1875, and the *Lake St. Claire* and *Lake Michigan* in 1876 (McGregor 1982:120; Hawkins 1987:23). Even today, the "jon boat" is common on shallow waters throughout the United States. Constructed in aluminum, the jon boat's lines are nearly identical to those of early colonial flat bottom craft.

The term "scow" refers to hull form rather than rig type, resulting in the terms "scow schooner" or "scow sloop" to describe these vessels. Despite a wide range of regional variation, the scow is defined as a vessel with a flat bottom, vertical sides, and a hard chine. Their hulls more closely resemble that of a barge than conventional sailing craft. Conventional sailing vessels have rounded bottoms and sides with a soft chine - a relatively gentle curve at the turn of the bilge where the hull bottom and sides meet. As in other regions, there was wide variation in how different Great Lakes shipyards constructed scows, and the term "scow" came to describe a variety of vessels. One of the clearest contemporary descriptions of a scow can found in *Merchant Vessels of the United States* (United States Department of the Treasury 1885):

Scows are built with flat bottoms and square bilges, but some of them have the ordinary schooner bow….The distinctive line between the scow and the regular-built schooner is, in the case of some larger vessels, quite

obscure but would seem to be determined by the shape of the bilge, the scow having in all cases the angular bilge instead of the curve (futtock) bilge of the ordinary vessel.

As the above definition suggests, even in contemporary times there was occasional difficulty in distinguishing the scow from more conventional sailing craft. This problem was not exclusive to Great Lakes vessels, as indicated by a dispute that arose in New Zealand's Auckland Anniversary Day scow race in 1884. Scow captains refused to race until the *Vixen*, a round-bilged vessel over which there was some dispute whether or not she was indeed a scow, was withdrawn from the competition (Hawkins 1987:24). Despite the occasional confusion, however, several traits were generally characteristic of scows and were used to differentiate them from conventional vessels: scows were boxy vessels with a flat bottom and sides, connected by a hard chine with a nearly ninety-degree angle where the bottom met the side. Conventional sailing vessels, whether flat-floored or with deadrise, possessed a soft chine, or a smooth, rounded edge where the bottom and sides met.

Scow construction varied from hull to hull as well as from region to region. This variation included obvious features such as sheer lines and transom and bow configurations, as well as less obvious features like cross or diagonal planking and longitudinal framing. Several bow variations are visible in historic photographs, including the square butt-end bow with little or no forward projection of the stem, the pointed flat-iron bow that produced a finer entry (similar to conventional craft), and the rounded spoonbill, swim-headed, or barrel-shaped ends (Labadie and Herdendorf 2004:8).

Martin (1991:2) categorized scows into three distinct types: (1) full scow with an angular bilge along the entire length, (2) half scow with an angular bilge along only part of its length and a bow and stern similar to that of a conventional hull, and (3) a less defined category for hulls not clearly exhibiting an angular bilge, but flat-bottomed enough to be considered scows by contemporaries. Martin supports these classifications with evidence from insurance registers that list both "scow" and "half scow" hulls as well as vessels with a "scow stern" or "scow bottom" (Martin 1991:2) Although this model illustrates the wide variation within the scow vessel type, it may be too simplified. Problems arise when attempting to define a vessel with a bow or stern "similar" to a conventional hull. The flat-iron bow, for example, has a fine entry not unlike a conventional vessel but remains an obvious scow with a sharp, angular joint between the bow and the hull side. More historical and archaeological research is needed to determine the extent of variation that was allowed within the scow vessel type, and how different from a conventional hulls a vessel needed to be in order to be classified as a scow. This could be a daunting task, however, as contemporaries appear to have been as confused as modern researchers.

The bottom of a scow could have been longitudinally, cross, or diagonally planked; the latter two methods requiring nontraditional framing. Hull sides were also subject to variation, from the traditional frame-on-plank construction to the scow-specific "gunnel-built" sides. Gunnel-built scows were constructed with thick longitudinal hull planks that were edge-bolted with iron drift bolts that fastened two or more hull side planks together (Inches and Partlow 1964:290). The edge bolts not only clamped the side hull planks together, but also served as reinforcement against horizontal forces. The large dimensions of the hull planks in this form of construction, in addition to the iron edge bolts, eliminated or reduced the need for frames as in conventional hulls. Side hull planks in gunnel-built vessels averaged four inches think for vessels sixty to ninety feet in length. Inches and Partlow (1964:291) suggest that gunnel-built construction with few, if any, frames, was one characteristic common to nearly all Great Lakes scows.

A second trait unique to scows and perhaps equally as common as the gunnel-built side was the use of a chine log at the turn of the bilge. The hard chine of the scow was a natural weak point in the hull, especially in larger, wooden vessels that were prone to working and flexing in a heavy sea. The chine log, a heavy longitudinal timber, reinforced or eliminated the weaknesses inherent in a hard chine. Chine logs were six to eight inch stringers that ran the length of the hull on either side and were often the principle framing members of the hull (Inches and Partlow 1964:291).

It is open to debate whether the scow's development and popularity on the Great Lakes resulted from a need for vessels capable of transiting shallow water or because their unsophisticated hull form was economical to build

and maintain (Inches and Partlow 1964:290; Labadie and Herdendorf 2004:8). It is certain, however, that scows demanded the simplest of shipwright skills of any of the Great Lakes freight-carrying vessels. The great variation in construction and appearance of the Great Lakes scow is likely a combination of the builder's shipbuilding skill, the type and quality of construction materials available, as well as available funding to complete and outfit the vessel.

Variation in construction was not limited to the Great Lakes. Despite the fact that New Zealand's scows were based on a Great Lakes model, there were many adaptations to the design to fit local needs. For example, New Zealand scows carried all of their cargo above decks, and while proportional in length and beam to Great Lakes scows, New Zealand scows carried half the depth of hold with no provisions for internal cargo. Registration documents stated that "no cargo is to be carried below deck, everything carried above; in fact, no hatchways are provided" (Hawkins 1987:23). There were several variations in hull framing as well. New Zealand scows utilized either a "post and rail" construction that used longitudinal stringers and stanchions, or a "solid partition" construction that utilized longitudinal bulkheads that partitioned the vessel into compartments. Centerboards were not as common as on the Great Lakes, but both the drop keel and pivoting centerboard was occasionally used (Hawkins 1987:26).

Evidence suggests that scows on the San Francisco Bay were more similar to Great Lakes' scows than those in New Zealand, but even San Francisco Bay scows exhibited an equal amount of variation in both construction and hull lines. San Francisco Bay saw both longitudinal- and cross-planked hulls, but the latter was less common. The longitudinally-planked hulls were framed similarly to conventional vessels, but had transverse floors scarphed into frames at the chine, precluding the need for a chine log. Ceiling planking was usually longitudinal, as was the ceiling planking on both the hull bottom and sides (Olmsted 1988:67-72).

Cross-planked Bay scows utilized an entirely different construction method and were called "log built" in local vernacular. These vessels used several longitudinal floor keelsons with heavy outer hull and ceiling planks that were edge-bolted. The hull sides were sometimes stiffened with widely spaced frames. The most noticeable difference between longitudinally- and cross-planked vessels was the angle of the bow and stern ramps. Longitudinally-planked vessels required steaming the hull planks to fit the more rounded bow and stern ramps, resulting in a more gradual upward curve at either end of the hull. Cross-planked vessels did not require hull planks to be steamed, and allowed a more abrupt angle where the bow and stern ramps met the bottom that created a more boxy hull with a nearly vertical bow and stern. Local opinion held that the boxy cross-planked hulls were less handy and slower than the finer lines of a longitudinally-planked hull. Despite the lesser sailing qualities, however, many builders chose cross-planked construction as it was cheaper to build and provided more cargo capacity (Olmsted 1988:67-72).

In general, scows were considered good sailors and were as fast or faster than conventional schooners in all but heavy seas. Their shallow draft and flat bottoms created little drag in the water. Sailing to windward was their worst point of sail, where their wide, flat bows would take a beating in a head seas and their shallow draft allowed for considerable leeway in a strong wind (Chapelle 1951:50; Inches and Partlow 1964:292; Kristiansen 1981:3; Olmsted 1988:19). Despite how seaworthy a scow may or may not have been, however, insurance companies held little faith in the scow's seaworthiness and even less confidence in those with cross-planked bottoms or gunnel-built sides. Construction rules for 1866 note:

Frame built scows, well-constructed and of good material, with fore-and-aft bottom planking, may be entitled to Class B1, [for] five years, but in no case will scows be entitled to the B1 grade if built with gunwale sides or athwartships bottom" (Board of Lake Underwriters 1866:14).

Vessels built according to the Underwriters' rules were given a classification rating that determined a vessel's insurance premium. Ratings of A1, A2, B1, B2, C1, C2, or "not insurable" were assigned. A rating of A1 was the highest rating with the lowest premium - a rating scow schooners were never allowed. In 1876, the Board of Lake Underwriters (1876:74) categorized scows with barges and even described them as "of unseaworthy form."

Scow *May Flower* Operational History

On 5 July 1888 the scow schooner *May Flower* was registered at the Port of Milwaukee with an indicated build date of 25 June 1888 (Bureau of Navigation 1888). This build date may be incorrect, however, as a search of contemporary literature has revealed that the *May Flower* may have been launched nearly a year and a half earlier and employed in Sturgeon Bay's lumber and stone trades prior to her initial enrollment (*Door County Advocate* 1887a; *The Independent* 1887).

The *May Flower* was built over the 1886-1887 winter and launched at 5:00 PM on Wednesday, 4 May 1887 from the yard south of the flouring mill in Sturgeon Bay. Mrs. Thomas H. Smith had the honored of christening the barge '*May Flower'*. There was a large crowd on hand to witness the event, as the vessel was reportedly the largest and strongest barge to have been built at Sturgeon Bay. Built by Henry Johnson, the barge was constructed to work in Leathem & Smith's lumber operation (*Door County Advocate* 1887a; *The Independent* 1887). The *Door County Advocate* (1887a) reported that the vessel would carry several loads of cedar before being fitted with spars and sails to allow her to "take care of herself like other craft".

A search of historic literature has revealed not only contradictions in the *May Flower*'s build date, but also in her ownership. According to the *1888 Marine Directory of the Great Lakes*, the *May Flower* was originally built for the Nau Brothers & Company of Sturgeon Bay as a tow barge for their tugs, but was later purchased by Leathem & Smith as a towed consort for that company's steambarge *Thos. H. Smith*. Under Leathem Smith ownership, the *May Flower* was intended to work in the Door County stone trade (Bureau of Navigation 1888; Polk 1888; United States Census Bureau 1880a). Although her true original owners may never be known, according to her first Federal documentation on 5 July 1888, her enrollment indicates that John Leathem & Thomas H. Smith were her first and equal owners (Bureau of Navigation 1888).

The fifty-four year old John Leathem and the forty-five year old Thomas H. Smith were neighbors and business partners in Sturgeon Bay, Wisconsin. The Canadian-born Leathem described himself as the owner of a sawmill and real estate dealer, while the Massachusetts-born Smith described himself as a lumberman and merchant (United States Census Bureau 1880a). The Leathem & Smith Company was established in 1881 and was involved in lumber, quarrying, retail merchandising, towing and wrecking, and coal distribution in Sturgeon Bay (Brehm 1997).

The *May Flower* was 147 3/10 feet in length and 27 feet in beam with a 7 3/10 foot depth of hold. She had a capacity of 212.22 tons under the tonnage deck and 14.18 tons of enclosures on the upper deck for a gross tonnage of 230.40 tons (Bureau of Navigation 1888; United States Department of the Treasury 1888; 1890). She carried an A2 insurance rating (Polk 1888). The *May Flower* was commissioned on 23 May 1887 under the commanded of Captain Louis Klinkenberg. Klinkenberg, a career sailor, was born in Norway in 1824, and became one of Sevastopol, Wisconsin's, first settlers in 1852, after he moved from Fort Howard (*Door County Advocate* 1887b; United States Census Bureau 1880b).

According to local newspapers, the *May Flower*'s first cargo was a load of cattle and horses owned by Leathem & Smith that she delivered to Chambers Island. After offloading the cattle, she returned to Sturgeon Bay for additional livestock which were also carried Chambers Island (*Door County Advocate* 1887c). After this initial cargo of livestock, the *May Flower* then turned to carrying lumber products. In tow of the steambarge *Thos. H. Smith* and in consort with the schooner *Winchester*, the *May Flower* next carried carry several loads of railroad ties, with upwards of eleven thousand ties stacked on her decks (*Door County Advocate* 1887c; 1887d; 1887e). Her next documented cargo was recorded on Sunday morning, 26 June 1887, when the *Thos H. Smith* cleared Sturgeon Bay with the *May Flower* and two other scows in tow. The *May Flower*'s carried 398,000 feet of lumber from Menominee that was consigned to the Soper Lumber Company. The scows were loaded with cedar for Capt. John A Susick, and the steamer carried 2,400,000 shingles for Leathem & Smith. The total value of cargo carried by the consort was estimated at $1,825.00 (*Door County Advocate* 1887g).

Leathem & Smith arranged to have spars for the *May Flower* constructed at Sturgeon Bay and then tow the barge to Chicago to have them stepped at a Chicago shipyard (*Door County Advocate* 1887d). Plans quickly changed, however, and by the end of June 1887 Leathem &Smith announced that *May Flower* would not be fitted with spars, but instead the company would purchase a second vessel of equal capacity and use both

barges as consorts to the *Thos. H. Smith* for cargoes between Green Bay and Chicago. The *May Flower* continued in this role throughout the rest of the 1887 season (*Door County Advocate* 1887f).

The *May Flower*'s career was largely uneventful for the remainder of the 1887 with the exception of the evening of 2 October 1887. That night at 10:00 PM, while eight miles off Sheboygan, her tow line to *Thos. H. Smith* parted, separating the barges *May Flower* and *Emerald* from the steamer. With near hurricane strength winds from the northwest, Captain William Boyd was unable to turn the *Thos. H. Smith* to render assistance to the barges, and it was all he could do to keep the steambarge from foundering in the large waves. The two barges were soon out of sight, drifting at the mercy of the seas (*Door County Advocate* 1887g).

It took several hours for the *Thos. H. Smith* to make the eight miles into Sheboygan, and early the following morning, on 3 October 1887, Captain Boyd telegraphed the Leathem & Smith office to inform them the consorts were lost. Captain Boyd remained in port at Sheboygan until Tuesday morning, when he departed to commence a search for the lost barges. The waves remained large and wind remained strong, however, and the *Thos. H. Smith* returned to port shortly after beginning her search(*Door County Advocate* 1887g).

Late Tuesday afternoon, Leathem & Smith received a telegram from the Captain of Muskegon Life-Saving Station informing them that both barges were safe in South Haven, Michigan, laying at anchor off that port. Captain Andrew Olson of the barge *Emerald* had requested that the telegram be sent. Taking advantage of the situation, Leathem & Smith were able to secure cargoes for the barges on the eastern shore of Lake Michigan, and the barges arrived back in Sturgeon Bay sometime during the second or third week of October 1887 (*Door County Advocate* 1887h).

On Thursday, 24 October 1887 the barge *May Flower* cleared the Leathem & Smith mill loaded with four million shingles – the largest cargo shipped from Sturgeon Bay on a single craft. Loaded with sixteen thousand bundles, each bundle contained two-hundred and fifty pieces and the estimated value of the cargo, including the shipping rate, was $6,880. The *May Flower* was towed by the *Thos. H. Smith*, which was loaded with an addition 2,400,000 shingles (*Door County Advocate* 1887i).

On 28 January 1888, Leathem & Smith announced that the *May Flower* would finally receive her spars. Although the original intention was to outfit her with three masts, it was decided the *May Flower* would now receive only two; the third spar would be stepped in the *Emerald*. The two barges would be towed to Chicago for rigging as soon as the navigation season opened (*Door County Advocate* 1888a). By 2 June 1888, both the *Emerald* and *May Flower* were back in service at Sturgeon Bay and both vessels were loaded with cedar. The *Emerald* took on cargo at points between Menominee and Arthur Bay, Michigan, and the *May Flower* loaded at Horseshoe Bay and Fish Creek, Wisconsin (*Door County Advocate* 1888b).

On 5 July 1888, the *May Flower* was registered at the port of Milwaukee to John Leathem and Thomas H. Smith of Sturgeon Bay. This appears to be her first enrollment document, as no previous enrollments have been discovered. Her home port was listed at Sturgeon Bay, Wisconsin, and she assigned the official number 92025. Captain Andrew Olson was registered as her Master, and she was described as a scow schooner with one deck and two masts, and a plain head and square stern. The enrollment further indicated that the *May Flower* was built at Sturgeon Bay, Wisconsin, by Harry Johnson and launched at Sturgeon Bay on 25 June 1888 (Bureau of Navigation 1888). The enrollment differs from newspaper accounts in that the builder's name is listed as Harry Johnson instead of Henry Johnson as in the newspaper, and also in the vessel's launch date, which is more than one year later than that listed in the newspaper. Historic research does not indicate that these were two different vessels, suggesting that the *May Flower* was not registered prior to receiving masts. The later (possibly erroneous) launch date may have been entered on the enrollment in order to not draw attention to the fact that the vessel had been operating for nearly a year in an unregistered status.

Over the winter of 1888-1889, both the *Emerald* and *May Flower* received a fresh coat of black and red paint (*Door County Advocate* 1889a). By June 1889, the *May Flower* was receiving charters for bulk cargoes to Chicago. Leathem & Smith earned three hundred and fifty dollars, including port fees, for bringing upwards of five hundred tons of ice to Chicago (*Door County Advocate* 1889b). In July 1889, Leathem & Smith entered into

a contract with a Chicago firm to deliver a large quantity of gravel from the Manitou Islands to Chicago, but the contract fell through at the last minute (*Door County Advocate* 1889c). No new contracts presented themselves, and by the middle of August 1889, the *May Flower* was sitting idle at Sturgeon Bay (*Door County Advocate* 1889d). It was September of that year before the *May Flower* was once again employed as a consort along with the *Emerald* and *Foster*, in tow of the steambarge *Thos. H. Smith*. The three departed Racine, Wisconsin, and took advantage of a strong south wind that blew them all the way down the lake until they reached the Sturgeon Bay Canal. There was no report of upbound or downbound cargoes for this trip (*Door County Advocate* 1889e).

During the last week of September 1889, the *May Flower*, loaded with stone from Brewster's quarry in Sturgeon Bay, was towed to Ludington, Michigan, by the steambarge *Leathem*. On Tuesday, 2 October 1889, the pair sailed to Cedar River, Michigan, to deliver a cargo of lumber and timber for the new lighthouse, and on the return trip they loaded stone at And. Nelson's quarry in Garrett Bay, Wisconsin, for delivery at Manitowoc, Wisconsin (*Door County Advocate* 1889f). For her final trip of the 1889 season, the *May Flower* loaded flour and feed at Sturgeon Bay and was towed to Menominee, Michigan, where she was unloaded for Smith & Daley. She returned to Sturgeon Bay on 7 December 1889 and was stripped and laid up for the winter (*Door County Advocate* 1889g).

On 18 January 1890, Leathem & Smith sold the *May Flower* to Carlos D. Shelden of Houghton, Michigan, for $4,500. Shelden explained that he would bring the *May Flower* to Lake Superior at the opening of navigation for use in his stone carrying business (*Door County Advocate* 1890a; 1890b). Sheldon paid cash for the vessel and pointed out her desirable features, such as a flat bottom that drew only eight feet of water when fully loaded, she was only a few years old and built of the best materials, and her sides were of double thickness to support his immense deck loads of stone, (*Door County Advocate* 1890a; *Portage Lake Mining Gazette* 1891). With a B2 insurance rating, the *May Flower* became the primary tow of Sheldon's tug the *Cora A. Shelden* (Inland Lloyds Marine Register 1890; United States Census Bureau 1900).

On 3 June 1890 the *May Flower*'s enrollment was surrendered at the Port of Marquette for a change in owners and districts (Bureau of Navigation 1888). A new enrollment was issued at Marquette, Michigan, that same day that listed Carlos D. Shelden of Houghton, Michigan, as sole owner of the *May Flower*. Her new home port was Houghton, Michigan, and Captain Charles Norman became her new Master (Bureau of Navigation 1890).

Captain Carlos Shelden was a widowed foundryman from Portage, Michigan. Born in Wisconsin around 1840, Shelden moved his family from Portage to Houghton in the late 1880's and began a diversified business of quarrying and real estate (United States Census Bureau 1880c; 1900)

Over the month of June 1890, the *Cora A. Shelden*, with the *May Flower* in tow, made several trips between Portage, Michigan, and Duluth, Minnesota, with a stone cargo. The *Duluth Daily News* reported the *May Flower*'s arrival at that port on 23 June and 28 June 1890 (*Duluth Daily News* 1890a; 1890b; 890c; 1890d). These are the only trips recorded for the 1890 season. Sometime that season, however, $500 worth of unspecified repairs were made to the *May Flower* that reportedly "greatly increased her already large carrying capacity" (*Portage Lake Mining Gazette* 1891).

An oath of loss was filed on 14 May 1891 at the Port of Marquette that indicated a loss of the enrollment documentation for the *May Flower*, and a new enrollment was issued (Bureau of Navigation 1890, 1891). Two weeks later, on Monday morning, 1 June 1891, the tug *Cora A. Sheldon* with the *May Flower* in tow departed Portage on her third trip of the season to Duluth, having also carried a load of stone down to Lake Michigan earlier in the spring. The *May Flower* was loaded with 493 tons of sandstone blocks from Portage Lake Sandstone that were consigned to Superior Cut Stone Company; about half of the cargo was stacked on her upper deck. The stone was to be unloaded the Superior Cut Stone Company's dock, and then handled by Tostevin & Moor. Aboard the *May Flower* were Captain Theodore Zerbst of Houghton, Michigan, Wheelsman Joe Roe of Houghton, Michigan, Cook Edward Elliot of Mancelona, Michigan, and Sailor Pat Smith of Houghton, Michigan (*Portage Lake Mining Gazette* 1891; *Superior Daily Call* 1891; *Superior Daily Leader* 1891; Lake Superior Marine Museum 2010).

A storm was blowing across Lake Superior as the *Cora A. Sheldon* and *May Flower* approached the Duluth entrance the following day. Around 4:30 PM on Tuesday, 2 June 1891 the pair were approximately three miles off the Duluth pier head light and five miles off Lester River. The *May Flower's* rigging was straining as she labored towards the canal, and Captain Zerbst had the *May Flower*'s foresail up to help balance the ship in the wind. As he approached the canal Captain Zerbst ordered all sails lowered, but as soon as the *May Flower* was relieved of her canvas she became uncontrollable and the vessel broached and her cargo shifted in the heavy sea. Her decks awash with the large waves, several of the large stones slid off the port side, carrying the port rail with them. A second large wave struck the *May Flower* before she could right herself and the vessel careened further to over to port and hurled her crew overboard as she capsized. A few minutes later both the fore and aft deck cabins were carried away, and soon after the *May Flower* sank from sight (*Door County Advocate* 1891; *Portage Lake Mining Gazette* 1891; *Superior Daily Call* 1891; *Superior Daily Leader* 1891).

The crew grabbed whatever flotsam they could find floating in the water as tug *Cora A. Sheldon* cut the tow line and came about to rescue the wheelman, the cook, and the seaman. Captain Zerbst, unable to find anything on which to cling, was heard crying above the roar of the wind and waves, "Boys, I'm gone," and he disappeared beneath the surface (*Door County Advocate* 1891; *Port Huron Daily Times* 1891; *Portage Lake Mining Gazette* 1891; *The Republican* 1891; *Superior Daily Call* 1891; *Superior Telegram* 1981). In other accounts, Captain Zerbst exclaimed, "Never mind, boys, it's too late," before he disappeared (*Duluth Tribune* 1891).

On the evening of the accident, a telegram was sent from Joseph Bourasseau, Master of the tug *Cora A. Shelden*, which read (*Portage Lake Mining Gazette* 1891):

Duluth, Minn., June 2, 1891.
To Carlos Shelden, Houghton, Mich.:
Arrived to-night. *Mayflower*[sic] gone down. Theo. Zerbst is drowned. Went down three miles from Duluth.
(Signed)
Joseph Boureasseau

Little is known of Captain Theodore Zerbst. One report indicated that Zerbst was 24 years old and lived with his parents and several brothers and sisters in Hurontown (*Portage Lake Mining Gazette* 1891). Another account suggested that Captain Zerbst was an old-time seaman who had spent several years sailing the Pacific Ocean, and he left a wife and two small children living in Escanaba (*Superior Daily Call* 1891). Regardless of his history, Carlos Shelden spoke highly of Zerbst, and considered him a valuable man whose place would not easily be filled (*Portage Lake Mining Gazette* 1891).

Nothing more was heard of the *May Flower* until Wednesday, 3 June 1891 when a second telegram was sent by Captain Boureasseau indicating that no wreckage had yet floated ashore. This confirmed to her owners that the *May Flower* had foundered in deep water (*Portage Lake Mining Gazette* 1891). As Sheldon had a contract for carrying stone for the entire season, he immediately sought another schooner for the work (*Portage Lake Mining Gazette* 1891).

The loss of the *May Flower* and her cargo was estimated at $9,500, with the vessel valued at $4,000 and the cargo valued at $4,500, but the vessel carried no insurance (*Superior Daily Call* 1891; *Superior Daily Leader* 1891). Newspapers reported her owners as Carlos Shelden, Will D. Calverly, and Joseph Bourasseau. The latter two reportedly held one-eight shares in the vessel, although this was not expressed on her enrollment documents (Bureau of Navigation 1890; 1891; *Portage Lake Mining Gazette* 1891).

On 9 June 1891 the *May Flower*'s enrollment was surrendered at the Port of Marquette, listing the vessel as sunk (Bureau of Navigation 1891).

Archaeological Significance
The *May Flower* meets the registration requirements for Criteria A (maritime history and commerce), C (engineering) and D (archaeology) at the State level, as described in the Multiple Property Documentation Form,

Minnesota's Lake Superior Shipwrecks (A. D. 1650-1945) Context 2: Settlement and Fishing on Lake Superior, and Property Type 1: Commercial Sailing Craft on Lake Superior (Labadie 1990).

The *May Flower* is a rare example of a vessel type that was once common to the lower Great Lakes, but was relatively uncommon to Lake Superior. The scow schooner employed unique construction techniques that differed greatly from traditional Great Lakes merchant hulls, providing an economical hull with a large cargo capacity that could be constructed with minimal shipwright skills for relatively little cost. While several scow schooners have been archaeologically documented on Lake Michigan, this is the first scow documented on Lake Superior, and only one of two such vessel types known to exist in Lake Superior's archaeological record. Archaeological data gathered indicates the *May Flower* has unique construction features that differentiate the *May Flower* from the handful of other scows documented on the upper Great Lakes. Archaeological data, combined with historic research, indicate that the *May Flower* exhibits construction features more common to New Zealand scows than Great Lakes scows, such as side hull construction and the use of bulkheads to partition the cargo spaces. Historic research suggests there may be a direct link between scows on the Great Lakes and in New Zealand, and the *May Flower* may provide archaeological evidence of this relationship.

Although partially broken up, the *May Flower* retains significant archaeological integrity. Much of the *May Flower*'s hull lies buried beneath the shifting sands of the Lake Superior bottom land, and as the sand shifts to reveal previously hidden construction features and significant archaeological data, additional archaeological questions may be answered. Scow schooner construction is poorly documented in the historic record, making archaeological examples particularly significant. Information gathered from the *May Flower* site has produced a wealth of archaeological knowledge and has increased our understanding of scow schooner construction and use not only on Lake Superior, but on the Great Lakes in general. Additionally, the *May Flower* site holds vast potential to yield even greater insight into this vessel type in future years.

The *May Flower* meets the MPDF registration requirements for Criterion A because of her role in maritime history and the development of commerce in Minnesota and the Great Lakes region. Positive identification of the vessel is a key requirement for Criterion A as stated in the MPDF. There is little doubt regarding the identification of the *May Flower*, as her cargo and construction features are rather unique to Lake Superior vessels and closely match those of the *May Flower*. The *May Flower* meets the registration requirements for Criterion C as an example of relatively rare vessel type on Lake Superior, as well as her unique construction details that significantly differ from other scow schooners documented on the lower Great Lakes, but more closely resemble construction features of scow schooners constructed in New Zealand. A connection between Great Lakes and New Zealand scow schooners is suggested in historical literature, and the *May Flower* is the first archaeological example of a scow schooner that suggests a confirmation of this connection. Under Criterion D, the *May Flower* clearly holds the potential to contribute to our understanding of the working life, design, operation and other aspects of this vessel type.

The wreck of the *May Flower* provides significant insights into use of the scow schooner on the Great Lakes, and the variability of construction techniques within this vessel class. The *May Flower* site provides historians and archaeologists a unique opportunity to study wooden vessel construction techniques and shipboard life on late nineteenth-century Great Lakes commercial sail. Little historical documentation exists regarding scow schooner construction and operation. Much of our understanding of this vessel type comes from archaeological data recovered from shipwreck sites like the *May Flower*. The *May Flower* site has already yielded significant information regarding nineteenth-century scow schooner construction, and has vast potential to yield additional significant information in future years.

Developmental history/additional historic context information (if appropriate)

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Previous documentation on file (NPS):

____preliminary determination of individual listing (36 CFR 67 has been requested)
____previously listed in the National Register
____previously determined eligible by the National Register
____designated a National Historic Landmark
____recorded by Historic American Buildings Survey #_____
____recorded by Historic American Engineering Record # _____
____recorded by Historic American Landscape Survey # _____

Primary location of additional data:

__X__State Historic Preservation Office
____Other State agency
____Federal agency
____Local government
____University
____Other
Name of repository: _____

May Flower - Shipwreck
Name of Property

St. Louis, Minnesota
County and State

Historic Resources Survey Number (if assigned):

10. Geographical Data

Acreage of Property Less than 1 acre
(Do not include previously listed resource acreage.)

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing		Zone	Easting	Northing
1	15	575460	5183775	3			
2				4			

Verbal Boundary Description (Describe the boundaries of the property.)

The area included in the site is a circle with a 500 foot radius centered on the UTM coordinates 575460 Easting, 5183775 Northing, Zone 15.

Boundary Justification (Explain why the boundaries were selected.)

The boundary was drawn to encompass the extent of the shipwreck and associated debris field.

11. Form Prepared By

name/title Keith Meverden and Tamara Thomsen
organization Wisconsin Historical Society date January 2012
street & number 816 State Street telephone 608.221.5909
city or town Madison state WI zip code 53706
e-mail keith.meverden@wisconsinhistory.org, tamara.thomsen@wisconsinhistory.org

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** (7.5 or 15 minute series) indicating the property's location.

  A **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.

- **Continuation Sheets**

- **Additional items:** (Check with the SHPO or FPO for any additional items.)

May Flower - Shipwreck
Name of Property

St. Louis, Minnesota
County and State

Photographs:

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

Photo #1 of 1
Scow Schooner *May Flower* - Shipwreck
St. Louis County, Minnesota
Photographer: Ken Merryman
May 2006
Port side bow view

Property Owner:

(Complete this item at the request of the SHPO or FPO.)

name State of Minnesota (Dept of Administration)

street & number 50 Sherburne Avenue telephone

city or town Saint Paul state MN zip code 55155

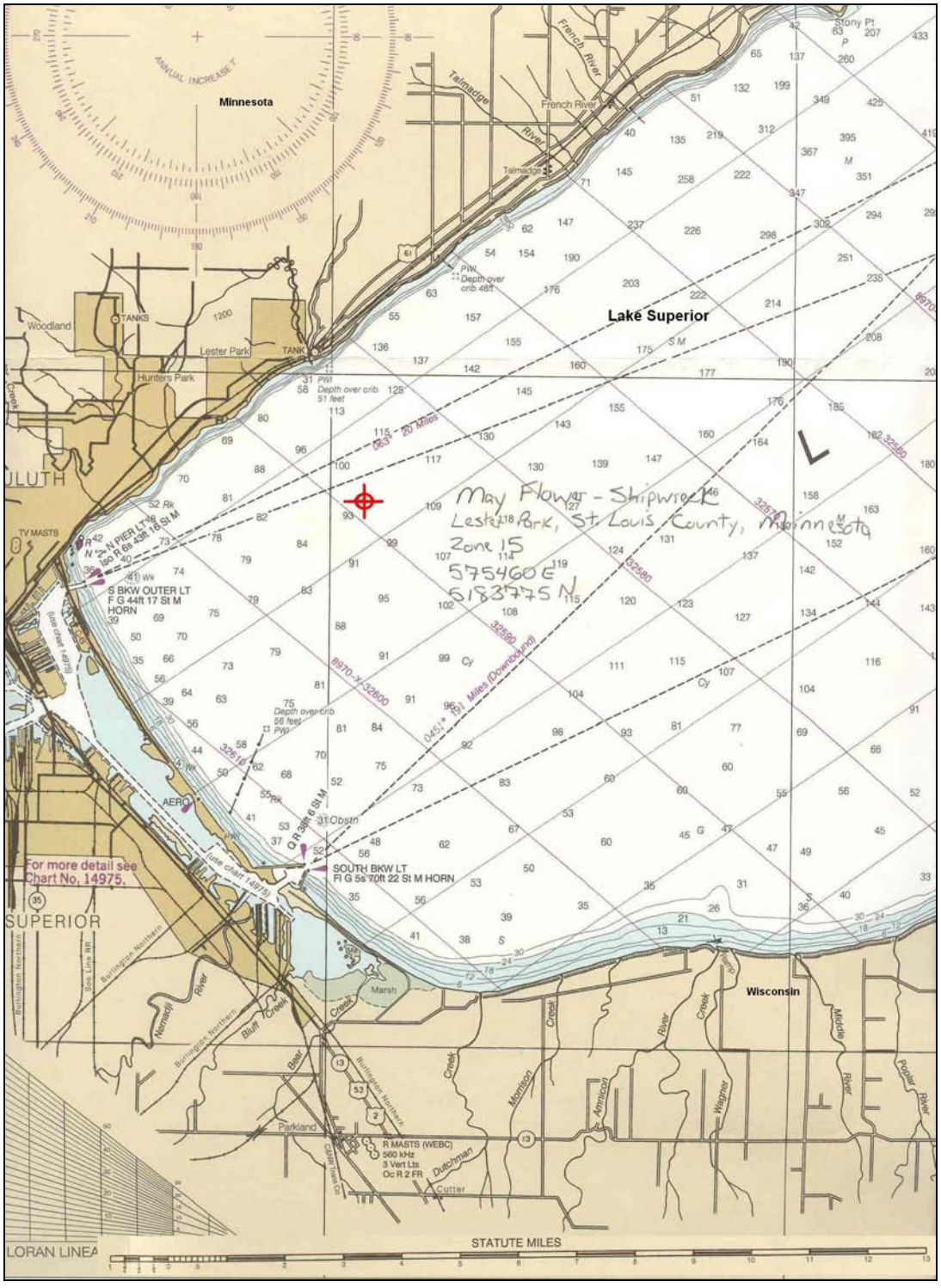
Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).
Estimated Burden Statement: Public reporting burden for this form is estimated to average 18 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management. U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Location Map

May Flower - Shipwreck
Name of Property
St. Louis County, Minnesota
County and State
Minnesota's Lake Superior Shipwrecks (A.D. 1650-1945)
Name of multiple listing (if applicable)



Location of the *May Flower* Shipwreck (red) on portion of the NOAA Coast Survey map, Lake Superior, Little Girls Point to Silver Bay (2005).