M/V Adirondack
Proposal for Reefing FAQ

Below are a series of frequently asked questions and answers that will provide further information about this proposed reefing project.

M/V *Adirondack* approaching the dock in Port Kent. Mid 1950s

Q. ***What is the reasoning behind this proposed project?***
A. Ferry ridership at the Burlington/Port Kent Ferry has been decreasing in recent years and three boats are no longer needed at this crossing. In addition, with re-alignment of the docks at LCT due to the marina expansion project, there is no longer a space to keep the third boat. The inclusion of *Adirondack* in the UHP system will prevent the vessel from being sent to the scrapyard and retain it in the Champlain Valley where it has served since 1954.

Q. ***What other options are available for the*** **Adirondack*?***
A. Several other options have been considered including:

- **Removing the vessel from the water and creating a static use for it**, such as a museum, or converting it into a restaurant. This method of preservation was done by the Shelburne Museum with the Steamer Ticonderoga in 1955. LCT feels that this option is not viable because of the cost

associated with such a project today. LCT received an estimate of $1.3 million from CCS Construction, Inc. of Morrisville, VT. to simply remove the vessel from the water using two 600-ton crawler cranes and placing it on land. This estimate did not include site preparation, assuming a site could be found, to lift such a large vessel. The estimate also did not take into consideration land acquisition or the substantial conversion cost associated with creating a new long term use. In either case the hull and superstructure of *Adirondack* would need to be maintained to keep her weather tight. This is an expensive venture as well. One needs only to consider the Steamer Ticonderoga. She went through a $1.5 million restoration project in the mid-1990s

- **Leaving the vessel in the water and creating a static use.** The costs of creating an in-water static display would vary greatly depending on the location selected and the use of the vessel. A major consideration would be where to berth the *Adirondack*. She is 152' long and draws 8 ½' of water. There are very few slips in the Burlington area that could accommodate her. After May of 2020 LCT will have no space for her, which is the reason driving this project. One of the few comparable slips of adequate size is currently being used by the Spirit of Ethan Allen III. The annual rental of this slip will be $105,000.00 in 2020. Obviously, this slip is not available, but a new dock lease would be a similar cost. If a suitable location could be found, in addition to the dock lease, there would be additional expenses associated with creating a slip. This would involve driving up to 40 pilings in groups to keep her stable and creating a gangway. LCT estimates the cost to do this to be approximately $75,000.00, plus some shore-side improvements.

  Even if an entity could raise the money for the slip and improvements, maintenance costs would then need to be taken into consideration. Since 2004 the *Adirondack* has been undergoing the re-plating of her hull. That process is now 2/3s complete. The next section would need to be done in the next 4-5 years at an estimated cost of $200,000.00. Two more sections would need to be completed in the years ahead. Leaving the vessel in the water and not completing the repairs needed would be very risky indeed. There have been several examples of static display/restaurant vessels that have sunk at the dock due to lack of maintenance/oversight. The salvage and clean-up of these events is tremendously expensive and usually involves dealing with petroleum products, either from the bilges or heating systems. This would not be the case if the *Adirondack* were purposely sunk as an artificial reef due to the stringent cleaning requirements which are listed in the M/V *Adirondack* Reefing Preparation Project Guidelines.

- **Selling the vessel off the Lake.** Finding a buyer for the *Adirondack* would be very difficult. Although she has been well maintained, she is still over 100 years old. In order to move her to a different location, her upper deck house would have to be removed in order to transit the Champlain Barge Canal. The deck house (pilot houses, passenger cabin, and stack) would have to be moved separately by barge. This would give clearance for the many bridges on the canal as well as reducing the vessel's draft. The control depth of the canal is only 7.5 feet, about 1 foot less than *Adirondack* draws now. The cost associated with the disassembly and transport is estimated to be $73,240.00. Once the *Adirondack* and barge with her super-structure arrived in Albany, she would need to be re-assembled. Scarano Boat Building in Albany has provided an estimate of $85,000.00 for this work. That makes the total cost of the project $158,240.00 NOT including the acquisition cost of the vessel. These figures make it very unlikely that the vessel would sell.

- **Scrapping the *Adirondack*.** This would be by far the least expensive option for LCT. It would involve removing the entire super-structure, the engines and all other machinery. This would be done at LCT for an estimated cost of $47,120.00. The vessel would then be towed to Donjon Recyclers of Statin Island at an estimated cost of $27,200.00. Donjon would take the *Adirondack* at no cost to LCT and cut her up. Depending upon scrap value, LCT may receive up to 2.5 cents per pound totaling about $10,000.00. The net cost to LCT for this option would be $64,320.00. Obviously, this option would involve the total destruction of the *Adirondack* and the loss of her legacy as a historic vessel here on Lake Champlain.

Q. ***If it is decided that sinking*** **Adirondack** ***is the best option, what precautions will be taken to ensure that sinking the vessel will not pollute the Lake which we are trying so hard to clean up?***
A. Preparation of the vessel for this project is a long, expensive, and laborious process which involves a thorough cleaning of the vessel to remove any contaminants that might be found on board. This process is guided by the U.S. Environmental Protection Agency and the U.S. Maritime Administration, which adopted a set of standards in 2006 called the "National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs" (BMPs). In the 75-page BMP document very specific steps needed to environmentally clean a vessel are spelled out. Since its adoption these BMPs have been utilized in dozens of projects in both freshwater and saltwater locations with great success. More information on BMPs can be found here: **https://www.epa.gov/sites/production/files/2015-09/documents/artificialreefguidance.pdf**

In summary the BMPs require that all petroleum lubricated devices be removed from the vessel. This includes the engines, compressors, and generators. The fuel tanks and wastewater tanks will be removed. All voids in the boat will be thoroughly cleaned. All electrical conduit will be removed as well as any sources of PCBs and asbestos. Environmental testing recently conducted on *Adirondack* shows very little of these contaminants on board currently. Any loose or flaking paint will be removed. The rubber roof of the hurricane deck will be removed prior to sinking. The cleaning standards require that no sheen is visible on the water when she sinks and that no danger to the environment exists.

To ensure that this process is done properly LCT has hired a firm, Artificial Reefs International (ARI), to act as consultants for the project. In addition to assisting with the cleaning of the vessel ARI will be responsible for the actual sinking of *Adirondack*. ARI has been involved in the sinking of dozens of vessels and has had no environment mishaps.

Q. Has sinking a large vessel as a dive site in cold fresh water been done before?
A. There are at least 3 examples of comparable sized vessel sunk as dive sites/ artificial reefs in fresh water in North America:

1) ***Wolff Islander II***: Sunk 3 miles east of Kingston, Ontario on September 21, 1985 by the Comet Foundation. She was a 164 ft long steel ferry that ran between Kingston and Wolf Island from 1946 to 1975. Her location is just off the North side of Wolf Island in about 80 feet of water. She is still a very popular dive site 35 years later.
2) ***Straits of Mackinac***: Sunk off Chicago on April 10, 2003 in Lake Michigan. She was also a steel ferry, 203 ft long that operated across the Straits of Mackinac from 1928 to 1957. Her location is about 10 miles off Chicago in 75 feet of water. This is also a very popular dive site today.

3) ***Buccaneer***: Sunk off Chicago June 18, 2010 in Lake Michigan. She was originally a WWII coastal patrol boat and was converted to a tour/excursion boat that operated out of the Chicago area. She is 98 ft long and rests in 72 ft of water. As with the examples above, remains a very popular dive site.

Q. ***Is LCT choosing to sink*** **Adirondack** ***because it is the least expensive option for them?***
A. No - quite the contrary**.** The estimated cost of cleaning *Adirondack* to the standards outlined in the BMPs is $106,000.00. Other costs, such as waste disposal, concrete for ballasting, consulting fees to ARI and sinking her, total approximately $69,000.00, making the total cost of this project $175,000.00. The vessel is being donated by LCT. The estimated cost of scrapping the *Adirondack*, per the methods described earlier, is approximately $64,320.00. LCT is investing in this project because they believe in preserving the legacy of the *Adirondack*.

Q. ***What considerations went into the decision of where to sink*** **Adirondack*****?***
A. One of the major considerations that went into this was the proximity to a population base and support services such as dockage, marina services and dive shops. This made the greater Burlington area a logical choice. These considerations were for not only the diving public, but also to the non-diving public who may want to visit the site using ROV charters. Another consideration was proximity to other shipwrecks of the Underwater Historic Preserve making dive excursions convenient for visiting divers. (See attached maps) Other considerations were to avoid areas of heavy boating traffic such as the mouth of Shelburne Bay, near the Burlington breakwater, or the busier boating routes such as between Juniper Island and the end of Shelburne Point A safe depth for scuba diving was also a consideration. Having a safe depth on the top of the vessel in approximately 25' of water for novice divers and deeper depths of approximately 70' at the bottom for more advanced divers will enhance the desire to dive this location. Obviously sinking the vessel at a depth that does not pose a hazard to navigation is important and is a US Coast Guard requirement. Choosing a location which provided some protection from prevailing north and south winds was also a consideration. We feel the site chosen, approximately ½ mile south west of Lone Rock Point, (N 44° 28'49.1", W 73° 14'52.1") met these selection criteria best (see attached map).

Q. ***Will public funds be used to complete this project?***
A. No. LCT is donating the vessel to the State and LCT is paying all costs associated with environmental mitigation and the sinking of the vessel. LCT is also paying all costs associated with Artificial Reefs International participation in the project. The only State funds needed will be to purchase a buoy to mark the site and limited funds for public interpretation of the site. The ongoing maintenance of the site, of which there is very little, will be handled through the already existing appropriation to the Lake Champlain Underwater Historic Preserve program.

Cost figures used to arrive at the estimates presented above are available for review upon request.

We welcome your comments and questions as your feedback is very important to us as the proposed project is reviewed. https://www.surveymonkey.com/r/AdirondackFerry

Proposed Location:
73 14’52.1” W, 44 28’49.1” N