

14 May, 2010

## **LMYC Mooring Buoy Project Master Plan**

**CONCEPT:** This plan is to designate all the coves on the Lake Murray Bathymetric Survey map that the LMYC board of directors considers suitable for anchorage with mooring buoys. Suitability will be determined for “small” boats and “large” boats. Small boat designations will only be made in coves where large boats cannot navigate and anchor safely, 360 degrees about a buoy. The result will maximize the number of safe moorings for large boats, and not confuse large boat operators as to which are suitable for their vessel. Comparing the list of all suitable mooring locations with current buoy inventory will allow the sitting board to recognize inventory shortfalls. Priorities for filling the vacancies can be established, and assets dedicated to the project within the limitations established by the board.

**OBJECTIVE:** The system is designed to establish and maintain safe, dependable and well marked moorings. This plan seeks to maximize the utility of all the sheltered waters for both brief and extended anchorage. The type of anchor, tethering and surface float should be determined by the board through parliamentary procedure and recorded vote. Approved items will be listed in the Anchorage Standards attachment.

Selection of devices will be accomplished with cost factors being subordinate to safety. The small boat system will be scaled to reduce cost and reflect the significantly reduced load placed on the mooring.

### **DEFINITIONS:**

**All Coves Summary:** A document formatted the same as the Mooring Buoy Summary that identifies all proposed / desired mooring locations.

**Anchor:** A very heavy mass, usually concrete, positioned on the lake bottom in a selected mooring cove. This mass is connected by tether to the surface mooring buoy.

**Anchorage:** Synonymous with mooring.

**Anchorage standards:** A document listing the current standard components approved by the board for placing a mooring. Standards will delineate small and large boat components. A variety of anchors should be listed to permit flexibility necessary when accounting for ever changing concrete suppliers. Adequate anchors should always be specified with flexibility in mind. Over sized anchors are always approved for small boat moorings when supplies dictate. Tethers and buoys are never interchangeable.

**Buoy:** A hard shell floatation manufactured for use as a mooring device. Best suited for this plan are those with center connecting rods and at least one swivel device to allow the buoy to move about the anchor without generating twisting loads on the tether. Reflective tape will be fixed to all buoys for reflecting light beams at hours of darkness and reduced visibility.

**Buoy Numbers:** The buoys will be numbered according to the cove in which they are anchored. Any buoys occupying the same cove will be further designated with letters. The buoy nearest the Marina by way of shoreline will be "A" and so forth. Only numbers will be placed on buoys, as letters will change as the inventory changes. Numbers should be reflective material when possible to further enhance visibility.

**Cove Sponsors:** Club member volunteers selected to monitor and support the ongoing quality of the moorings and coves.

**Drag:** An additional anchor connected in tandem to preclude a vessel from "bouncing" the primary loose from its intended location.

**Drag-Anchor Connector:** A device 15' long securing the two concrete blocks together.

**Guaranteed:** Nothing in this plan is explicitly nor implicitly guaranteed by the LMYC nor the board members. The mooring buoy project is a good faith attempt to provide convenient standardized moorings in suitable places on Lake Murray. Anyone using this system does so at their own informed risk.

**Large boat:** Any vessel over 24 feet. All planning will be for 60 feet overall. [Larger is beyond the scope of this plan. Some buoys will no doubt support "jumbo" vessels for displacement considerations, but tail swing clearance will be solely the responsibility of the operator.]

**Minimum anchor water depth:** Small boat = 10 feet. Large boat = 15 feet.

Note: The large buoy in Cove #35 only meets the small boat standards. It was placed before this plan was created.

**Mooring:** The sum of the components necessary to secure a vessel in a relatively fixed location on the water. The components are the anchor [and drag if appropriate], the tether, the buoy and drag-anchor connector.

**Mooring Buoy Summary:** A document created and maintained by the LMYC board that shows the buoy locations, type anchor and tether, water depth and date placed.

**Mooring capacity:** Vessel operators are responsible for determining if any anchorage is suitable for them. Varying sizes, displacements and even the number of boats attached to a single buoy, make capacity publication impossible. The mooring buoy summary has anchor and tether information sufficient for boaters to evaluate.

**Replacement Priority List:** A document sequentially listing all the unfilled mooring positions on the All Coves Summary.

**Small boat:** Any vessel 24 feet in length overall.

**Splice:** Device capable of joining two mooring components.

**Swivel:** A device allowing the moored boat to rotate about the buoy without twisting the anchor tether.

**Tail swing clearance:** The best estimated distance from the buoy at rest, to one and one half the boat length plus 10 feet of dock line; Small = 46 feet. Large = 100 feet. Clearance will only estimate missing obvious obstructions and does not assure water depth is constant throughout the entire area. Lower Lake levels can further restrict clearance. The vessel operators are responsible for their own clearance.

**Tether:** A length of cable, chain or other material connecting the anchor to the buoy. Tether length will be sufficient to provide slack to raise the buoy for inspection of its connections to the buoy. When cove size permits, extra slack will be used to improve the scope of the tether and enhance the effectiveness of the anchor. [This information can be gleaned from review of the mooring buoy summary.

**Water depth:** The best known amount of water from the surface to the bottom at the anchorage when the lake is full to the spillway.

Any information not known will be identified with the “?” symbol in the summary matrix. This document will be posted on the [www.lmyc.net](http://www.lmyc.net) web site.

**Attachments:** All cove summary #  
Mooring buoy summary [current edition] \*  
Replacement priority list. [current edition] #  
Anchorage standards [current edition] \*

**Notes:**

\* These two attachments will be posted on [www.lmyc.net](http://www.lmyc.net) Mooring Buoys Page along with this plan.

# These are only working documents for developing and coordinating the placement of anchorages.