

LAKE WILDWOOD HOMEOWNERS ASSOCIATION UPDATES FROM AUGER TO CUTTERHEAD DREDGE WITH DREDGING SUPPLY COMPANY'S MORAY CLASS DREDGE

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Lake Wildwood, a prestigious private homeowners association in north central Illinois, invested in a new 8 inch Moray Swinging Ladder Dredge, which was purchased and manufactured by Dredging Supply Company (DSC). The Moray Class dredge was delivered in mid-summer of 2003 and immediately improved circumstances for both the Association and the lake's boaters and swimmers. DSC engineers performed a comprehensive sediment survey for the Association. The computer generated a silt program for the various size swinging ladder dredges (using no cables) and indicated that an 8 inch discharge swinging ladder dredge could outperform the existing auger dredge by a factor of 1.75 times. Not only was this performance improvement impressive to the Association, but also the dredge operation without the use of cables resulted in a significant liability reduction for the Board of Directors.



“One of the major problems with the auger dredge was that the unit operated on a long cable, sometimes up to 1,000 feet, which is difficult to manage,” explained Eric Seagren, DSC's sales representative for the MidWest. “The cable was dangerous for boaters and was a liability to the Association. This became even more apparent when the dredge was moved in front of the swimming beach and the cables were in close proximity to swimmers,” said Seagren. He continued, “Also, the cable had to be moved frequently to reposition the dredge and this process

eliminated a considerable amount of useful dredging time.”

Lake Wildwood, located in Varna, IL just north of Peoria, IL was built in the Late 1960's as a lake recreation complex for people living in the Chicago and north- central Illinois areas. The lake is man-made and covers over 220 acres and is filled by water runoff from the upland agricultural area. Today, Lake Wildwood is home for many permanent residents who are retired or work in the area and commute to larger city areas. Visit their website at www.lake-wildwood.com to see both lakes and the new dredge, as well as great areas to purchase and develop residential property.

Like many other homeowner association lakes, the drainage area in relation to the size of the lake was too large. During heavy rains the creek feeding the lake delivered enormous amounts of silt from the surrounding farmland causing the lake to fill very quickly with

silt. Rather than a lake only requiring dredging every 30 to 40 years, many parts of the lake become too shallow for boating, fishing and other lake recreational activities in a mere 8 to 10 years after construction.

This happened to Lake Wildwood and their only positive choice was to institute a long-term lake management plan which included dredging and the potential operation of their own dredge. There were also attempts made to work with the upstream farmers to institute land conservation plans to reduce sediment runoff from the land. However conservation practices are very slow to materialize. The Association investigated having the dredging performed by private dredging contractors but the costs were high



in dollars per cubic yard and the siltation is an on-going problem. Their decision to own and operate their own dredge was made in the early 1980's because it gave them the flexibility to help keep the siltation under control on a year-to-year basis and not let the silt build up and destroy the recreation values of the upper lake.

Early in the 1980's the Association purchased an auger dredge (Mudcat 915) to control the silt in the numerous coves and at the upper end of the lake where 93% of sediment settles first before moving further and further into the lake proper. The major objective is to keep the upper end of the lake cleaned out so this becomes the settling area for the silt and prevents migration into the main body.

In early 2002, the Association became aware of a unique dredge manufactured by Dredging Supply Company of Reserve, La. which used no cables to operate and was equipped with an underwater dredge pump which greatly increased solids concentrations, especially for finer silts. The existing auger dredge was now over 20 years old and replacement was necessary for two basic reasons. First the dredge production could not keep up with the incoming silt and the use of cables to operate the dredge was becoming a substantive safety hazard and nuisance to property owners.

Members of the Association visited the DSC manufacturing facility in Reserve, LA and spoke to other lake owners using this new dredging procedure. The Association decided to purchase a new 8-Inch MORAY SWINGING LADDER DREDGE. Lake Wildwood Homeowners Association received four days of on-site training by DSC field service engineers. "The operator of the older auger dredge was easily trained on the new DSC Moray Class dredge," said Seagren.

The new Moray dredge arrived just in time since the lake level was down five feet from normal due to a drought in the drainage basin. The dredge only draws 2.5 feet of water and in some areas of the upper end of the lake, the dredge is barely floating. However, it is cutting out silt 3 to 5 feet deep and hitting the hard lake bottom thick clay material. The dredge controls, which are all electric-over-hydraulic, are so accurate that the operator

can feel when the dredge cutterhead engages the original lake bottom. The new dredge can cut to a depth of 16 feet with reference to water surface elevation and this cutting depth is sure to be utilized as the dredge moves to deeper portions of the lake.



In a recent conversation with the Lake Wildwood General Manager, Mr. Robert A. Phelps reported, “Our new MORAY is exceeding the production of the old dredge by a factor of two. The sediment is being pumped through 8 inch ID HDPE pipe-line, pumping a distance of 2,250 feet with a 30 foot elevation rise from the lake water level.” Phelps continued, “I believe we are seeing increased pumping efficiency due to the Gatling Gun technology which screens out larger particles and rocks, thus preventing

jams or breakdowns. We are running our Cat engine about 70 hours per week and are very satisfied with our power plant. Our new Dredging Supply Company MORAY SLD will insure that the residents of the lake will have a properly maintained lake for full recreational use and their property values will remain high since the silt can now be removed on a yearly basis.”

Of the experience with DSC, Phelps said, “DSC is very responsive. They utilize e-mail, telephone and on-site visits for effective, swift communication. DSC helped us understand our fuel transfer challenge. Also, when we encountered a minor problem with one of the three winches, DSC sent a representative up here from Louisiana. He was prepared with all the required parts, replaced the winch and took the original parts with him. Fully standing behind their product and responsive...that was sweet.”

DSC, headquartered in Reserve, Louisiana, manufactures and delivers dredges to companies located worldwide.

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