DIY Dredging Project Wins 2014 Community Excellence Award

By Elizabeth Philips Foley
So impressive, in fact, that the project earned the League’s 2014 Community Excellence Award, voted by its peers at the League’s annual Convention in October. It’s the first community to ever win the statewide title in Region 5, which encompasses the state’s Thumb. “To be chosen by our peers the way it was, that was priceless,” said Mayor Pro Tem Al Kleinknecht. “My only wish was that City Director Ron Wruble, the dredge crew, and all the people of Harbor Beach could have been present when the city of Harbor Beach’s name was read out loud as the winner on the last day of the Convention.”

LOW WATER LEVELS

That triumphant moment began with one of the lowest moments in the city’s history—at least when it comes to water levels. Like many Michigan waterfront communities, Harbor Beach has always derived much of its identity and revenue from its enviable location along the Great Lakes shore. Founded by a pair of lumbermen in 1838 near the outer tip of the Thumb, the sawmill settlement eventually became the village of Sand Beach. When the aptly named Harbor of Refuge was completed in 1898, the village became Harbor Beach. A mile long and a mile wide, the massive manmade harbor shelters nearly the entire north-south length of this small city.

“Our waterfront is the front door to Harbor Beach. During the summer our population doubles if not triples and access to the waterfront is critical,” said Planning Commissioner Clark Ramsey. But in 2012, Harbor Beach was facing the lowest water levels seen on the Great Lakes since 1964. At this low ebb, the once-magnificent harbor and marina were in serious trouble.

During the summer the population of Harbor Beach doubles, if not triples, and access to the waterfront is critical. In 2012, the city was in a predicament—Great Lakes water levels were at the lowest since 1964, and contractors were in high demand. It looked like the marina would be closed for the entire 2013 season.
"Water was disappearing, no one knew where it was going," said Ramsey. "Out of 114 slips in our marina, maybe 12 on a good day were useable. The channel leaving the marina, even a shallow-hulled bass boat would have trouble getting out. The average depth was roughly two feet. The 24-person U.S. Coast Guard station based in our marina was practically helpless."

STATE PITCHES IN
Fortunately, state leaders recognized the water level crisis facing so many Michigan communities. In early 2013, Governor Rick Snyder and the Michigan Department of Natural Resources-Waterways announced that grant money would be available for dredging purposes across the state. Harbor Beach was awarded $558,696.46.

The trouble was everyone needed the same help at the same time. And no one could afford to wait.

"Dredging companies were in high demand at high cost and we needed a solution yesterday," said Ramsey. "Our city council and community leaders feared that due to contractors’ schedules, our marina wouldn’t even be open for the 2013 season."

So the city did “the absolutely insane,” said Ramsey. They would tackle the whole project themselves.

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—Harbor Beach Planning Commissioner Clark Ramsey

DARING, DIY (DO-IT-YOURSELF) ATTITUDE
"City Director Ron Wruble came to the council with this wild idea about self-dredging," said Kleinknecht. "Once he convinced the mayor and the council that he wasn’t nuts, he went about addressing every possible problem that arose: first in securing a grant, then learning about barges, buying a hydra unit, wheeling and dealing with the county to buy some surplus trucks, getting qualified people to operate the dredge unit, and even making a surplus dumpster bought from a local trash collection company work for the project."

After weeks of extensive legwork led by Wruble, the city purchased a two-piece 24-by-48-foot barge from
Illinois, a 40-yard dumpster, three dump trucks, and a Komatsu PC 120 extendable hydraulic excavator. The city was ready to dive head-first into the dredging business.

A crew of workers was put together from the city’s Department of Public Works staff, with some part-time employees borrowed from the local road commission to allow for more dredging hours and days. One worker did the digging from the barge and filled the dumpster while one or two others transported the materials to the dump site.

OBSTACLES ALONG THE WAY
That end of the process turned out to be as big a challenge as the digging itself “The DEQ found the sediment contained traces of heavy metals,” explained Ramsey. “We had to create a DEQ-approved dump site roughly a mile away, haul the materials there via dump truck, and environmentally cap the site when finished.”

To prevent the dump trucks from spilling dredged materials on the road on the way to the site, Wruble put his wits to work again to come up with a cost-effective protective cover: rubber roofing material.

A webcam located on the marina became a social media hit, with people as far away as North Carolina watching the dredging action online. Even the National Security Agency tuned in, joked Ramsey.

In the end, they removed 20,000 cubic yards of sediment from the marina and channel during the 2013 boating season without having to close the marina, with some follow-up maintenance in 2014 using the same five-year permit. Plus the city now has the heavy equipment and well-trained crew to tackle all kinds of jobs.

“Using the grant money we were able to purchase everything we needed for the project, cover our wages, and properly cap the dump site. The final project cost is still being tabulated but is projected to be $70–80,000 under budget...and we cut 14 months off the project completion date by doing it ourselves,” said Ramsey.

UNEXPECTED RESULTS
Marine traffic and revenues were up in 2014 and the deeper harbor now allows even 100-foot yachts to berth. A shuttle service and a paved walking/biking path connect the campground and marina to the beach and to the downtown shopping district, newly streetscaped in 2004.

“Our self-performed dredging project showed what can happen when you want to get something done and try to figure out the best way to do it,” said Kleinknecht. “It got the job done.”

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