



GREAT
LAKES
DREDGING
TEAM

THE GREAT LAKES *Dredging Dispatch*

*Supporting efficient and responsible dredging
for the Great Lakes region*

Word from the federal co-chair

By Marc Tuchman, U.S. Environmental Protection Agency, Great Lakes National Program Office

I am looking forward to our 2016 Annual Meeting, which is being held in Chicago on May 18-19. Once again, beneficial use will be a key topic of discussion at this meeting. Although much work has been done over the years to explore potential applications for beneficial use, it continues to be an important option that needs to be investigated wherever feasible. At the annual meeting, there will be two sessions specifically focusing on beneficial use, including a special session on “Building Partnerships for Beneficial Use Projects.” This session will provide the opportunity for the Dredging Team to listen and learn from communities that have been successful in implementing beneficial use as part of their navigation dredging projects. At the end of the second day, we will convene another special session entitled “Science and Policy Needs for Dredged Material Management” as a prelude to the State of Science and Policy Symposium being planned for later this year. We are anticipating a very productive Annual Meeting, and we are looking forward to seeing everyone in Chicago in mid-May.

Word from the non-federal co-chair

by Stephen Galarneau, Wisconsin Department of Natural Resources

Across the Great Lakes region we continue to see significant progress in remediating contaminated sediment sites. Much of the credit for this work goes to the Great Lakes Restoration Initiative (GLRI) and the close coordination between the States, U.S. EPA-Great Lakes National Program Office, U.S. Army Corps of Engineers and local partners. We also are making strides in addressing non-point sources of sedimentation, both for the benefit of reducing the load of sediment that we then need to address as part of our navigation dredging, and also for nutrient reduction. These efforts are augmented as we strive to further our understanding and incorporation of beneficial uses of dredge material.

Our navigation dredging needs continue to be great. I look forward to working with you all this next year on the Great Lakes Dredging Team as we continue to find pathways for improved collaboration and coordination between our local, state and federal partners. Beneficial uses of dredge material has been a terrific place for finding common ground that can result in areas for agreement through creative, problem-solving partnerships founded on what can be done versus what cannot. I very much enjoy working with my highly talented state colleagues, our energetic local partners, and our skilled and experienced federal partners. Professional science-minded people will always find paths towards mutually beneficial solutions and I look forward to another year of taking on the challenging issues regarding navigation dredging. I trust that together we will solve problems and succeed.



Rendering of the Great Lakes Dredged Material Center of Innovation in Toledo, Ohio. See page 4 for full article.

U.S. Army Corps of Engineers Funding for Great Lakes Navigation

by Marie Strum, U.S. Army Corps of Engineers

U.S. Army Corps of Engineers (the Corps) funding for Great Lakes Navigation projects is typically established in two steps. The President’s Budget is released to Congress in February of the year proceeding the budget year. For example, the FY16 President’s Budget was released to Congress in February 2015. Congress then works on an appropriations bill that contains final funding by project and may or may not include what is termed ‘Additional Funds for Ongoing Work.’ Congress enacted the FY16 Consolidated Appropriations Bill on December 18, 2015. This bill included Additional Funds

for Ongoing Work that it directed the Corps to allocate. The Corps released the final allocations in the final FY16 Workplan on February 9, 2016.

For Great Lakes navigation projects appropriations are provided in three accounts: General Investigations (GI), Construction General (CG), and Operations and Maintenance (O&M). The vast majority of funding for Great Lakes navigation is allocated in the O&M account. In FY16, the final allocation in the workplan (including a 1% reduction in O&M project allocations in the final appropriations bill) was \$100,000 in GI funds,

Great Lakes Navigation Projects

| PROJECT NAME | FY 16 WORKPLAN* | FY 17 BUDGET |
|---|-----------------|--------------|
| GENERAL INVESTIGATIONS | | |
| Saginaw River Deepening, MI | \$100,000 | \$0 |
| CONSTRUCTION GENERAL | | |
| Calumet Harbor & River, IL & IN | \$300,000 | \$0 |
| OPERATIONS & MAINTENANCE | | |
| Alpena Harbor, MI | \$850,000 | \$0 |
| Ashtabula Harbor, OH | \$0 | \$2,315,000 |
| Barcelona Harbor, NY | \$650,000 | \$0 |
| Black Rock Channel and Tonawanda Harbor, NY | \$1,717,650 | \$1,780,000 |
| Buffalo Harbor, NY | \$316,800 | \$2,650,000 |
| Burns Waterway Harbor, IN | \$1,833,480 | \$3,034,000 |
| Calumet Harbor and River, IL & IN | \$8,960,940 | \$2,827,000 |
| Channels in Lake St. Clair, MI | \$178,200 | \$1,580,000 |
| Chicago Harbor, IL | \$5,017,650 | \$2,824,000 |
| Cleveland Harbor, OH | \$5,880,600 | \$5,855,000 |
| Conneaut Harbor, OH | \$2,638,350 | \$0 |
| Detroit River, MI | \$5,385,600 | \$5,210,000 |
| Duluth - Superior Harbor, MN & WI | \$6,494,450 | \$6,570,000 |
| Erie Harbor, PA | \$1,485,000 | \$0 |
| Fariport Harbor, OH | \$1,388,100 | \$1,700,000 |
| Grand Haven Harbor, MI | \$2,790,000 | \$500,000 |
| Green Bay Harbor, WI | \$4,456,150 | \$3,895,000 |
| Holland Harbor, MI | \$742,500 | \$650,000 |
| Huron Harbor, OH | \$3,168,000 | \$0 |
| Indiana Harbor, IN | \$11,225,610 | \$11,795,000 |
| Keweenaw Waterway, MI | \$0 | \$882,000 |
| Lake Michigan Diversion, IL | \$776,160 | \$800,000 |
| Lorain Harbor, OH | \$1,450,000 | \$0 |
| Ludington Harbor, MI | \$1,334,100 | \$0 |

| PROJECT NAME | FY 16 WORKPLAN* | FY 17 BUDGET |
|--|----------------------|----------------------|
| OPERATIONS & MAINTENANCE (continued) | | |
| Manistee Harbor, MI | \$643,500 | \$0 |
| Manistique Harbor, MI | \$850,000 | \$0 |
| Manitowoc Harbor, WI | \$836,550 | \$0 |
| Milwaukee Harbor, WI | \$1,584,000 | \$1,250,000 |
| Monroe Harbor, MI | \$1,100,000 | \$500,000 |
| Muskegon Harbor, MI | \$1,686,000 | \$0 |
| Ontonagon Harbor, MI | \$841,500 | \$0 |
| Oswego Harbor, NY | \$1,272,150 | \$0 |
| Presque Isle Harbor, MI | \$590,040 | \$0 |
| Project Condition Surveys, IL | \$102,960 | \$105,000 |
| Project Condition Surveys, IN | \$183,150 | \$185,000 |
| Project Condition Surveys, MI | \$702,900 | \$720,000 |
| Project Condition Surveys, MN | \$74,250 | \$93,000 |
| Project Condition Surveys, NY | \$386,100 | \$395,000 |
| Project Condition Surveys, OH | \$301,950 | \$305,000 |
| Project Condition Surveys, PA | \$69,300 | \$70,000 |
| Project Condition Surveys, WI | \$297,000 | \$306,000 |
| Rochester Harbor, NY | \$2,296,800 | \$0 |
| Rouge River, MI | \$891,000 | \$0 |
| Saginaw River, MI | \$4,747,250 | \$3,973,000 |
| Sandusky Harbor, OH | \$2,283,000 | \$1,618,000 |
| St. Clair River, MI | \$658,350 | \$680,000 |
| St. Joseph Harbor, MI | \$1,574,100 | \$750,000 |
| St. Marys River, MI | \$35,130,250 | \$28,619,050 |
| Sturgeon Bay Harbor and Lake Michigan Ship Canal, WI | \$0 | \$800,000 |
| Toledo Harbor, OH | \$7,219,100 | \$5,905,000 |
| Two Harbors, MN | \$990,000 | \$0 |
| Waukegan Harbor, IL | \$3,784,610 | \$1,580,000 |
| TOTAL | \$140,235,150 | \$102,721,050 |

*FY16 Workplan amounts include a 1% holdback on the Conference amount that is retained at HQ for emergencies

\$300,000 in CG funds, and \$140 million in O&M funds.

The final workplan balances and optimizes limited federal funding against multiple competing requirements across the United States. The Corps strives to address the work that will provide the best return on investment to the nation compared with other potential uses of the available funds. The FY16 final allocation for the Great Lakes included \$32.9 million in funds from Additional Funds for Ongoing Work that were included in the final FY16 Appropriations Bill. The \$140M for Great Lakes O&M is the highest amount of funding received for the Great Lakes in 10 years, with the exception of funds provided through the Stimulus Bill (ARRA) in 2009.

Included in the \$140 million is \$59.2 million for maintenance dredging of 30 projects across the Great Lakes in 2016.

These projects are scheduled to remove 4.4 million cubic yards of material to keep the primary commercial channels maintained for waterborne commerce. Thirteen of these projects are for low use harbors (less than 1 M tons), which in the past did not receive high priority for dredging.

The FY17 President's Budget was also released on February 9, 2016. The funding including in the President's Budget for Great Lakes navigation O&M was \$102.7 million, which was slightly less than the FY16 President's Budget amount. The final allocation for FY17 will be determined after Congress acts on an appropriations bill later this year or early in 2017.

A table of the FY16 and FY17 President's Budget for all navigation projects in the Great Lakes is shown in the table on page two.

Small Harbor Dredging Programs Face Daunting Climatic and Fiscal Challenges

By Dave Knight, Great Lakes Commission contract staff

Small harbors in the Great Lakes, those used mostly by recreational boaters, are confronting some challenging new realities in their efforts to maintain navigable channels by regular dredging. Not only have the Great Lakes seen some dramatically extreme swings in water levels in recent years -- including extremely low levels in 2011 that forced some harbors to severely restrict access -- but in an era of budget constraints, traditionally reliable sources of government funding for dredging have become sporadic at best.

Federally authorized "shallow draft" harbors, of which there are 80 in the Great Lakes, have been virtually eliminated in recent years from a U.S. Army Corps of Engineers maintenance dredging program that prioritizes the 60 "deep draft" commercial, cargo-handling harbors. And while a surprisingly rapid resurgence of water levels since 2013 has eased the need for dredging to some extent, natural river-borne sedimentation and coastwise drifting of sand continue to fill in channels and harbors -- at times catastrophically -- during storm events. What's more, most climate models point to increasing storm volatility and warming temperatures, meaning more evaporation and less ice cover, which may lead to lower water levels.

Organized advocacy initiatives like the Great Lakes Small Harbors Coalition created in 2008, have fought to restore small harbors' access to federal funds for dredging. These efforts were buoyed by enactment of the Water Resource Reform and Development Act of 2014 (WRRDA) which established annual target appropriations levels for increased spending of funds from the Harbor Maintenance Trust Fund (HMTF) leading to

full use by 2025 of the HMTF, which in recent years has generated over \$2 billion annually with less than half of that going to actual harbor maintenance. But there remains little assurance that small harbors will enjoy the potential "rising tide" of federal dollars without additional legislated direction such as a set-aside program.

Until and unless the federal funding returns, many Great Lakes small harbors are being compelled to explore new options to support the maintenance dredging needed to keep them viable. These include state assistance, such as the \$21 million emergency dredging program offered by the state of Michigan in the water level crisis year of 2011. Coastal communities have also benefited from privately funded contracting, city/county/municipal funds, and user fees.

One innovative approach taking shape in New York State involves a "Regional Dredging Management Plan," (RDMP) in which six county governments and two municipalities along Lake Ontario's south coast would collectively operate a dredging program to maintain some 19 small harbors. The idea was proposed originally in 2000 by Dr. Frank Sciremamanno, an engineering professor at the Rochester Institute of Technology and a member of the International St. Lawrence River Board of Control and the International Lake Ontario-St. Lawrence River Study Board of the International Joint Commission. The concept was updated in 2014.

Sciremamanno proposes formation of a not-for-profit corporation that "would allow for a focus by the organization solely on the dredging program, would provide bonding capabilities, would allow some sharing and/or donation of equip-

ment from the participating counties, would allow seamless funding by governments, and would allow for control of the program by the participating counties through combined incorporation and representation on the corporate Board of Directors.” At last report, the plan was still under consideration

by the respective counties and cities.

Whether collectively, individually, or under a return to federal support, Great Lakes small harbors hoping to stay safe and open in coming years will likely face some hard decisions ahead.

Great Lakes Dredged Material Placement

By Marie Strum, U.S. Army Corps of Engineers

The Great Lakes Navigation System includes 140 projects (60 commercial and 80 recreational) and over 600 miles of maintained navigation channels. Prior to the 1970s, virtually all dredged material from the Great Lakes was placed in water placement areas, either into the open lake or in shallower areas where the dredged material was used as fill or to create islands. With the beginning of a more environmental focus in the late 1960s, it became apparent that significant changes in pollution management practices had to be made to restore the nation’s waters.

Since the mid-1970s, the Corps has constructed and/or operated 45 confined disposal facilities (CDFs) for Great Lakes harbors and channels at a cost of nearly \$900 million (in 2009 dol-

lars). Most of this construction occurred between 1974 and 1980. Many of these CDFs were filled and have been closed. There are currently 22 active CDFs which are, on a cumulative basis, approximately 80 percent full.

Each year the Corps dredges 3 to 5 million cubic yards of sediment from 20-40 federal harbors and projects in the Great Lakes. Dredged material from Great Lakes harbors and channels is managed in one of four methods: open lake placement, beach nourishment or near-shore placement, CDF confinement, and upland placement.

For more details on dredged material placement methods, see the table on the next page.

The Pursuit of Beneficial Use Projects in Toledo Harbor

By Joe Cappel, Toledo-Lucas County Port Authority

We have a lot of material that needs to be dredged each year to keep the Port of Toledo open for business. The material is primarily silt and clay. Approximately 850,000 cubic yards of silt and clay is typically dredged each year from the Federal channel and an additional 100,000 cubic yards of material is dredged from the non-federal channel. That’s enough material to fill about 47,500 trucks or 9,500 rail cars.

Our shipping channel is long. It extends seven miles along the Maumee River and an additional 18 miles into the shallow Western Basin of Lake Erie. All of the material dredged from the Federal channel goes into a designated area of Lake Erie via the open-lake placement method. All of the material dredged outside the Federal channel goes to the Port Authority’s confined disposal facility known as Facility 3. All Harbor stakeholders agree that if the material can be used for a greater good, it should be used for a greater good, but there are challenges. Challenges involve the cost, regulatory hurdles, and the sheer logistics of orchestrating the movement of all that material each year. The State of Ohio recently passed legislation that prohibits any of the material to be put into Lake Erie after the

year 2020. So where will we put all this material?

In 2010 the Ohio Lake Erie Commission received a \$250,000 U.S. EPA Great Lakes Restoration Initiative grant that was sub-granted to the Toledo-Lucas County Port Authority to assist with developing a Toledo Harbor Sediment Management & Use Plan. This plan, completed in 2012, identified interim and long-term dredge material management and beneficial use options to reduce the reliance on open lake placement of dredged materials. The plan recommends the implementation of a combination of beneficial use options, including in-water and upland wetland restoration and shoreline protection areas, placement of dredged material onto improved agricultural fields, and development of products for landscaping or non-structural fill. The Ohio Lake Erie Commission provided matching funds from the Ohio Lake Erie Protection Fund to further evaluate the agricultural field improvement option and to help develop this concept as a near-term pilot demonstration project.

The Toledo-Lucas County Port Authority secured Ohio Healthy Lake Erie Funds (co-administered by ODNR and Ohio

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Great Lakes Dredged Material Placement Methods

This is a working estimate current as of May 2015. This data is for the time period between Jan 1998 and 2014.

| PROJECT | TOTAL | NEAR SHORE | CDF | OPEN WATER | UPLAND |
|-----------------------------------|-----------|------------|------|------------|--------|
| Alpena Harbor, MI | 36,924 | | | | 100% |
| Arcadia HarborR, MI | 58,238 | 100% | | | |
| Ashtabula Harbor, OH | 1,165,490 | | | 46% | 54% |
| Au Sable Harbor, MI | 82,502 | 100% | | | |
| Barcelona Harbor, NY | 106,106 | | | 100% | |
| Bayport, MI | 39,308 | | | | 100% |
| Big Bay Harbor, MI | 46,669 | 100% | | | |
| Big Suamico Harbor, WI | 17,266 | | | | 100% |
| Black River (Port Huron), MI | 33,898 | | | | 100% |
| Black River (Upstream), MI | 19,837 | 100% | | | |
| Black Rock Lock Channel, NY | 28,149 | | 100% | | |
| Bolles Harbor, MI | 78,180 | | 100% | | |
| Buffalo Harbor, NY | 1,160,823 | | 100% | | |
| Burns Harbor, IN | 857,042 | 50% | | 50% | |
| Calumet Harbor, IL | 972,287 | | 100% | | |
| Caseville Harbor, MI | 53,176 | 100% | | | |
| Cedar River Harbor, MI | 106,324 | 54% | | | 46% |
| Channels in Lake St. Clair, MI | 124,113 | | 100% | | |
| Cleveland Harbor, OH | 4,193,394 | | 100% | | |
| Clinton River, MI | 91,331 | | 100% | | |
| Conneaut Harbor, OH | 684,315 | | | 100% | |
| Cooley Canal, OH | 7,500 | | 100% | | |
| Cornucopia Harbor, WI | 20,000 | 100% | | | |
| Detroit River, MI | 2,428,964 | | 100% | | |
| Duluth - Superior Harbor, MN & WI | 1,022,062 | 47% | 53% | | |
| Dunkirk Harbor, OH | 201,564 | | | 100% | |
| Erie Harbor, PA | 348,715 | | | 100% | |
| Fariport Harbor, OH | 1,409,888 | 26% | | 74% | |
| Frankfort Harbor, MI | 45,545 | 100% | | | |
| Grand Haven Harbor, MI | 807,858 | 73% | | | 27% |
| Grand Marais Harbor, MN | 8,000 | | | | 100% |
| Grand Traverse Bay Harbor, MI | 50,757 | 84% | | | 16% |
| Great Sodus Harbor, NY | 42,497 | 100% | | | |
| Green Bay Harbor, WI | 2,338,908 | | 100% | | |
| Harbor Beach, MI | 179,403 | | | 33% | 67% |
| Harrisville Harbor, MI | 14,550 | | 100% | | |
| Holland Harbor, MI | 832,099 | 61% | 16% | | 24% |
| Huron Harbor, OH | 1,437,359 | | | 100% | |
| Indiana Harbor, IN | 940,019 | | 100% | | |
| Inland Route, MI | 25,298 | | | | 100% |
| Irondequoit Bay, NY | 60,380 | | | 100% | |
| Kenosha Harbor, WI | 57,506 | | 100% | | |
| Keweenaw Waterway, MI | 162,496 | | 100% | | |
| Lac La Belle Harbor, MI | 11,277 | 100% | | | |
| Leland Harbor, MI | 206,732 | 100% | | | |
| Les Chenaux Islands Harbor, MI | 67,780 | | | | 100% |
| Lexington Harbor, MI | 125,335 | 100% | | | |

| PROJECT | TOTAL | NEAR SHORE | CDF | OPEN WATER | UPLAND |
|----------------------------|-------------------|------------|------------|------------|-----------|
| Little Lake Harbor, MI | 264,347 | 100% | | | |
| Little Sodus Bay, NY | 12,000 | 100% | | | |
| Lorain Harbor, OH | 901,868 | | 51% | 49% | |
| Ludington Harbor, MI | 391,218 | 100% | | | |
| Manistee Harbor, MI | 521,515 | 100% | | | |
| Manistique Harbor, MI | 104,327 | | | | 100% |
| Manitowoc Harbor, WI | 156,230 | | 100% | | |
| Menominee Harbor, MI & WI | 104,313 | | | 100% | |
| Michigan City Harbor, IN | 334,727 | 99% | | | 1% |
| Milwaukee Harbor, WI | 197,058 | | 100% | | |
| Monroe Harbor, MI | 1,027,824 | | 100% | | |
| Muskegon Harbor, MI | 527,724 | 100% | | | |
| New Buffalo Harbor, MI | 78,478 | 100% | | | |
| Oak Orchard Harbor, NY | 33,821 | | | 100% | |
| Olcott Harbor, NY | 7,322 | | | 100% | |
| Ontonagon Harbor, MI | 613,248 | 100% | | | |
| Oswego Harbor, NY | 251,277 | | | 100% | |
| Pentwater Harbor, MI | 144,849 | 100% | | | |
| Point Lookout Harbor, MI | 102,108 | | 25% | | 75% |
| Port Austin Harbor, MI | 37,331 | | | | 100% |
| Port Sanilac Harbor, MI | 69,793 | 100% | | | |
| Port Washington Harbor, WI | 11,204 | | 100% | | |
| Port Wing Harbor, MI | 77,194 | 100% | | | |
| Portage Lake Harbor, MI | 75,596 | 100% | | | |
| Put-In-Bay, OH | 4,932 | | | | 100% |
| Rochester Harbor, NY | 2,532,440 | | | 100% | |
| Rocky River, OH | 136,481 | | | 100% | |
| Rouge River, MI | 257,880 | | 100% | | |
| Saginaw River, MI | 3,266,041 | | 100% | | |
| Sandusky Harbor, OH | 2,055,385 | | | 100% | |
| Saugatuck Harbor, MI | 165,498 | 100% | | | |
| Saxon Harbor, WI | 11,089 | | | | 100% |
| Sebawaing River, MI | 21,711 | | | | 100% |
| South Haven Harbor, MI | 71,651 | 100% | | | |
| St. Clair River, MI | 190,295 | | 100% | | |
| St. Joseph Harbor, MI | 944,361 | 72% | 6% | | 22% |
| St. Marys River, MI | 148,674 | | | | 100% |
| Sturgeon Bay Harbor, WI | 93,082 | | | | 100% |
| Toledo Harbor, OH | 13,183,812 | | 40% | 60% | |
| Toussiant River, OH | 100,358 | | | 100% | |
| Two Rivers Harbor, WI | 84,261 | 100% | | | |
| Vermillon Harbor, OH | 85,751 | | 35% | 65% | |
| Waukegan Harbor, IL | 966,991 | | | 100% | |
| West Harbor, OH | 48,000 | 58% | | 42% | |
| White Lake Harbor, MI | 26,738 | 100% | | | |
| Whitefish Harbor, MI | 43,264 | 100% | | | |
| Wilson Harbor, NY | 13,217 | | | 100% | |
| TOTAL | 53,305,148 | 14% | 45% | 37% | 4% |

The data source is the Annual Dredging Report (LRE website) and Dredging data spreadsheets (LRB and LRC)

Milwaukee's Lincoln Park Cleanup Now Complete

By Jim Killian, Wisconsin Department of Natural Resources

Visitors to Milwaukee's Lincoln Park saw a lot of activity during 2015, as Phase II of the Lincoln Park sediment remediation project dug into some of the most contaminated areas of the Milwaukee River. The Lincoln Park sediment cleanup project is addressing significant deposits of harmful polychlorinated biphenyls (PCBs) and polycyclic aromatic hydrocarbons (PAHs) which were likely left behind by industrial manufacturing practices and spills in the area. Phase II includes the main channel of the Milwaukee River starting immediately upstream of Lincoln Park and extending downstream to the Estabrook Park Dam. It is the final phase of a three part project which began with the cleanup of Blatz Pavilion in 2008 and Phase I in 2012, which included Lincoln Creek and the west oxbow of the Milwaukee River.

Excavation of the contaminated areas began in December of 2014. To ensure a safe and comprehensive cleanup, cofferdams were put in place to temporarily block water flow and allow for dry removal of the sediment. An on-site mobile lab allowed for contaminant testing before and after removal to ensure all the "hot spots" were adequately removed. In addition, the site included its own wastewater treatment system and decontamination area to ensure that water and equipment that came in contact with the sediment were properly and safely contained.

In July, sediment removal was completed in the area of the main channel above the Hampton Ave Bridge. Removal of ribbon deposits south of the Hampton Ave Bridge and above the Estabrook Park Dam continued into the end of the summer



Temporary cofferdams allowed for dry excavation of the sediment. Photo shows main channel of Milwaukee River looking upstream (North). Photo credit: Duane Thomas, EA Engineering.

with excavation work wrapping up in mid-September. In total, approximately 50,000 cubic yards of contaminated sediment were removed. To put that into perspective, it is about 2,500 dump truck loads of contaminated sediment hauled out of the river! Restoration work, which includes placement of boulders and root wads for fish habitat as well as native plantings, has begun and will continue through summer 2016, followed by several years of maintenance.

The Lincoln Park cleanup marks a very important accomplishment for the Milwaukee Estuary Area of Concern. Studies have shown that this site has been one of the major contributors to PCBs within the Milwaukee River and harbor, and the cleanup of this area is expected to result in significant long term reductions of PCBs within the river system. Completion of this project will help to address 6 of the 11 beneficial use impairments listed for the Milwaukee Estuary.

To get a bird's eye view of the sediment removal in action, check out the drone footage at <https://www.youtube.com/watch?v=9QeDiZ1ubAY>, filmed by Duane Thomas of EA Engineering.



Contamination is removed using a carefully mapped grid pattern on the Milwaukee River above Estabrook Park Dam. Photo credit: Duane Thomas, EA Engineering.

Toledo Harbor, continued from page 4

EPA) in 2014 to advance the beneficial use projects recommended in the plan. One resulting project is the design and construction of the Great Lakes Dredged Material Center of Innovation to be built on a former confined disposal facility owned by the City of Toledo (see rendering on page 1). This center will function as a location to accept dredged sediments and to demonstrate and analyze the feasibility and implementation of agricultural use management options which include dewatering and planting test crops in the material. The Center will allow for testing

and analysis of edge of field treatment options and the establishment of a blended soil product production area where compost and other material can be mixed with dredged material to make engineered soils. The Center of Innovation will provide a place for researchers, entrepreneurs, farmers, students and other interested parties to come together and gain a better understanding of the material and how it can be used in the community. We are hopeful that the first dredged material that would normally have gone out into Lake Erie will be placed at the Center of Innovation during the summer of 2016.

Member Updates

U.S. Coast Guard

The Local Notice to Mariner (LNM) is maintained by the U. S. Coast Guard Ninth District Office in Cleveland, Ohio and is updated every week. We include all construction and dredging projects and start and finish dates. Some of these projects are completed earlier than the advertised dates or run longer. To better serve the mariner we would like the contractors to keep this office updated on changes in their schedule so that we can update the Local Notice to Mariner (LNM). The phone number to the LNM desk is (216) 902-6069 or email: D09-DG-District-D9-LocalNoticetoMariners. **Contact:** Doug Sharp, William.D.Sharp@uscg.mil

Lake Carriers' Association

In 2015, even with rising water levels, the largest cargos were still less than full loads. When water levels plunged to record lows in early 2013, vessels designed to carry 70,000 tons per trip were leaving the docks with less than 60,000 tons on board. Depending on their size, vessels lose anywhere from 50 to 270 tons of cargo for each inch draft is reduced. There still remains more than 17 million cubic yards of sediment backlog for dredging in the Great Lakes 60 federally-maintained ports and connecting channels. Continued funding increases to meet the 100 percent expenditure outlays by 2025 of the Harbor Maintenance Trust Fund (HMTF) receipts for the nation and allocating 10 percent for the Great Lakes Navigation System are critical to helping to eliminate that backlog. We need to mandate this 10 percent provision of HMTF for the Lakes in a Water Resources Development Act of 2016. **Contact:** Thomas Rayburn, Rayburn@lccaships.com

Illinois

Dredging and disposal of dredged material in Lake Michigan is regulated by the U.S. Army Corps of Engineers, the Illinois Department of Natural Resources/Office of Water Resources (IDNR/OWR) and the Illinois Environmental Protection Agency (IEPA). For projects in and along Lake Michigan the IDNR/OWR and the IEPA issue a joint permit. Maintenance dredging and open water disposal permits have a 10-year life span. IEPA approval of testing results are required before each year's dredging. In 2015 the IDNR/OWR issued three 10-year dredging and disposal permits: 1) the City of Evanston, for the annual dredging and open water disposal of up to 10,000 CY of sand from their Church Street boat ramp; 2) the Park District of Highland Park, for the annual dredging and open water disposal of up to 2,400 CY of sand from their Park Street boat ramp; and 3) Midwest Generation, for the periodic dredging and upland disposal of up to 150,000 CY of sand at the Waukegan Generating Station. No applications have been received in 2016. **Contact:** Jim Casey, james.casey@illinois.gov

Minnesota

A plan to remediate contaminated sediments in the St. Louis River Area of Concern (SLR AOC) was introduced to the Minnesota State Legislature seeking \$12.7 million in State bonding for both the 2016 and 2018 biennium. These state funds would leverage a 65% federal cost share which uniquely match strategic funds, totaling \$72.6 million to accelerate completing the SLR AOC Remedial Action Plan by 2025. Reaching this milestone supports a regional vision of the SLR estuary as a restored natural resource that will help support further economic revitalization. In addition to remediating contaminated sediments, aquatic habitat resto-

ration activities continue in the Duluth/Superior Harbor, where plans have been approved to complete the remainder of the 21st Avenue West restoration, which began as a pilot project in 2013. Final stages of construction will again rely on in-water placement of 372,000 CY to complete the project. The 21st Avenue construction is scheduled for completion by 2018.

A working group formed through the Harbor Technical Advisory Committee (HTAC) is currently discussing alternative strategies for valuating resources within the port when initiating the permit and review of proposed construction projects. The objective of this collaboration is to better define the process and integrate socioeconomic with natural resource interests when determining practical solutions. The HTAC invites representatives from the Great Lakes Dredging Team to share the approaches followed by their states for addressing open water mitigation requirements. **Contact:** Dan Breneman, Dan.Breneman@state.mn.us and Jim Sharrow, jsharrow@duluthport.com

New York

Proposed Regulations for Beneficial Use of Dredged Material in New York: N.Y. Department of Environmental Conservation's Division of Materials Management has published proposed revisions to New York's Solid Waste Management Regulations at <http://www.dec.ny.gov/regulations/81768.html>. Part 360 General Provisions of these proposed regulations includes new permissions and requirements for beneficial use of navigational dredged material. Comments are welcome and accepted through 5:00 pm on July 15, 2016. More information on comment hearings and where to send comments can be found at the above link. **Contact:** Kathleen Prather, kathleen.prather@dec.ny.gov

Ohio

Lake Erie is one of Ohio's greatest assets. Much of the material dredged from Lake Erie is currently disposed into the open lake. Thanks to new state law, open lake disposal will end by July 1, 2020. Ohio is looking for new opportunities to use this valuable resource. As part of our continuing efforts, here are a few of the more recent items Ohio is working on: 1) holding a "Digging Up Ideas" Workshop on May 11 – Ohio will share workshop results at the GLDT Annual Meeting; 2) developing a series of videos – the first one will be released April 6 at the Ohio Brownfield Conference, identifying potential in-water and near shore beneficial use projects along the entire 312-mile Ohio Lake Erie shoreline; and 3) developing rules for upland uses and we expect to propose rules in 2016. Links to the videos and other information on Ohio's Lake Erie Dredge Material Program can be found online at <http://epa.ohio.gov/dir/dredge>. **Contact:** Pamela Allen, pamelaa.allen@epa.ohio.gov

Pennsylvania

Erie Harbor, Pennsylvania's only commercial port on the Great Lakes, is scheduled for its second consecutive year of navigational maintenance dredging by the US Army Corp of Engineers (USACE). USACE proposes dredging approximately 300,000 cubic yards of sediment from the federal navigation channel beginning in June 2016. Based on a tiered evaluation of sediment samples collected in 2015, USACE proposes disposal of dredged material at an open-lake site northeast of the Presque Isle peninsula. The Pennsylvania Department of Environmental Protection is currently reviewing USACE's request for project certification under Section 401 of the federal Clean Water Act. **Contact:** Jim Grazio, PhD, jgrazio@pa.gov

What is the Great Lakes Dredging Team?

The Great Lakes Dredging Team is a partnership of federal and state agencies created to ensure that the dredging of U.S. harbors and channels throughout the Great Lakes, connecting channels and tributaries is conducted in a timely and cost effective manner while meeting environmental protection, restoration, and enhancement goals. It serves as a forum for both governmental and nongovernmental Great Lakes dredging interests to discuss the region's dredging needs. In collaboration with its partners, it supports timely, cost-effective and environmentally sustainable dredging practices at U.S. harbors and channels throughout the Great Lakes, connecting channels and tributaries. For more information, please visit our website: <http://greatlakesdredging.net>

