

What is the Ecosystem Restoration (ESR) project aka Dredging, and how will it contribute to restoring our waterway?

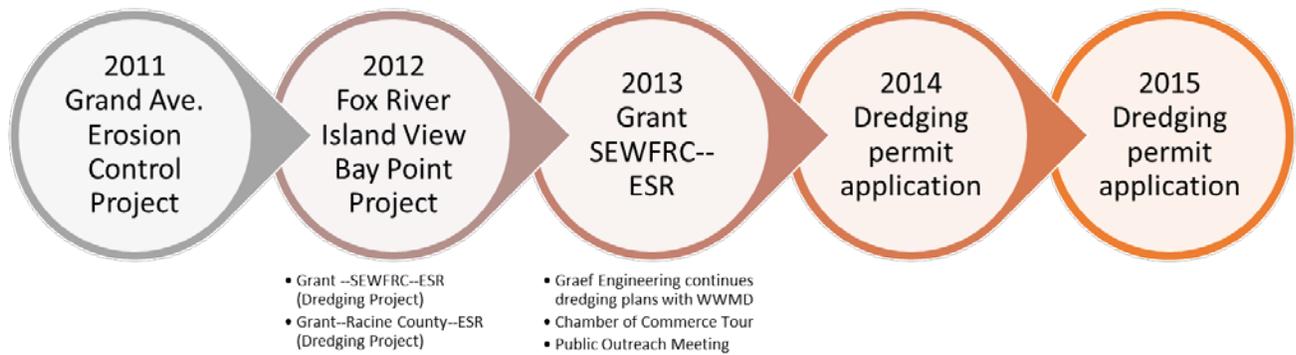
From time to time, we hear questions being bantered about regarding the WWMD's efforts to preserve our waterway particularly Dredging. In an effort to keep the community and riparian owners informed, we're including a short history and summary of projects. Perhaps you wonder about the status of our dredging proposal, the largest focus of improving our waterway. You'll also find a timeline detailing specific projects, many of which have already been completed.

First, let's look at a little background and the beginnings of the WWMD. Since its organization in 2003, this group has been diligently pursuing various avenues to restore and protect the Waterford impoundment. This includes the Fox River, Tichigan Lake, Buena Lake, and Conservancy Bay. The WWMD relies entirely on its volunteers--no commissioners or other positions are paid. If you reflect on the changes over past years, it's easy to recognize the need for ongoing maintenance, restoration, and preventative measures to ensure that our waterway is navigable and continues to provide fine fishing and recreational opportunities.

The Wisconsin Department of Natural Resources (WDNR) has authority over our waterway, and this is important to note. Everything that the WWMD wants to do must be approved by the WDNR. This requires ongoing meetings, time and research, permits, applications, etc., as well as plenty of patience! Fortunately, we have some extremely dedicated people, committed to our goals. These neighbors have devoted literally hundreds of hours and their individual talents to promote the goals of the WWMD.

Next, let's focus on the ESR committee, and it's overall goal-- 'to reestablish navigation in the main channel and access to the main channel.' In 2003, the WWMD applied for and received a \$20,000 grant from the WDNR to fund a Lake Management Plan. The state chartered, Southeastern Wisconsin Regional Planning Commission (SEWRPC), was selected to develop a plan to guide the restoration of our waterway. Their comprehensive lake plan included proactive efforts to correct drainage and erosion problems, which they concluded needed to be addressed prior to the removal of the large volume of silt and muck (dredging). Over a number of years, special projects have been implemented to prevent further damage from storm water run-off and erosion (see Timeline). Examples include, but are not limited to, mitigating the run-off into the waterway from development and construction along Highway 164 and initiating the Phosphorus Fertilizer Ordinance, which both the Village and Town of Waterford approved. The statement, "one pound of phosphorus generates 500 lbs. of green algae in the water", illustrates the importance of this ordinance. Subsequently, the state also adopted a similar statute. The WWMD was instrumental in bringing these and other significant projects to fruition.

Back in 2008, an initial plan was developed specifically for the Eco System Restoration committee. Designed with several phases, the ESR has been working continuously with Graef Engineering and water specialists to prepare for the largest dredging project in Southeastern Wisconsin. Many complex steps are required before even applying for a permit to dredge, and years of preparation have been necessary. Aerial photographs from the SEWRPC and topographical drawings were completed after taking field surveys of sediment depth at over 800 locations to establish base line for these drawing locations. The findings translated to 8 feet of sediment. Then the WDNR provided locations to accumulate scientific measurements of sludge plugs and the collection of approximately 300 soil and sediment samples took place. Silt was measured along the entire waterway and was analyzed.



Fortunately, our water was found to be basically free of hazardous chemicals, residues, and endangered species. This is critical to ultimately gaining approval of our dredging permit. To illustrate the need for dredging, the WDNR has accepted that an amount of 600,000 cubic yards of compacted soil (with water drained out) was the allowable measured amount that would be removed during initial dredging. Those who have been in the area for a number of years can attest to the large increase in sediment and loss of water depth. This is most obvious within every shallow bay in the waterway, including Tichigan Lake, Buena Lake, and the Fox River bays, as well as the upper reach Conservancy Bay area.

What is the status of the dredging project? Communication of all engineering reports to the WDNR has been continuous. Many meetings have occurred over a period of years with WWMD volunteer Commissioners and Graef Engineering in attendance. The WDNR has been reluctant to dredge, but our perseverance seems to be paying off. Our years of work at mitigating run-off, implementing ordinances, and providing extensive samples and studies have made a strong case for restoring our waterway through the dredging process. Graef, the Southeastern Wisconsin Fox River Commission (SEWFRC), and WWMD volunteers have all helped to get us to this point. The work listed in the timeline was accomplished through the WWMD budgeted funds, the SEWFRC, and the support of private corporations, including Runzheimer International.

We know the hydraulic dredging project is extremely expensive, and the ESR committee has worked diligently to manage the costs. Way back in 2003, the WWMD contacted the Army Corps of Engineers, applying for a \$100,000 grant to cover the cost of an Aquatic Ecosystem Restoration Project Feasibility Study. Unfortunately, many years later, the project remains on their 'active' list pending funding, so the WWMD has not received this support.

During the permit application process, WWMD commissioners also learned that our waterway was designated as a Scenic Urban Waterway in 1984, one of only 3 in the state. Wisconsin State law (Chapter 30.275, WI State Statutes) assigns the WDNR responsibility for managing and improving our waterway. Therefore, we have asked the state appointed SEWFRC to request state funding supporting the law. However, this has not happened. The WWMD has obtained well over \$150,000 through various grants, and we continue to apply for others. The SEWFRC in particular, has provided multiple grants for our storm water run-off projects. We are seeking financial assistance from county, state, and federal levels. Commissioners have been meeting with representatives and senators, local officials, and the WDNR and WI-DOT. We are hoping to enlist the help of private corporations as well, to assist us with this very large, very important project. It is estimated that not rehabilitating the waterway could negatively financially impact the region by more than \$100 million dollars.

Currently, the ESR Committee is finalizing our permit applications for the WDNR. Originally submitted in the fall of 2014, the WDNR would not approve our application without additional information, despite the numerous studies and reports provided. Graef Engineering has been working with us to satisfy their requirements, and we resubmitted the application in May 2016. We hope to hear of its approval this summer for the applications submitted, which would allow us to begin obtaining bids for the project. We have one last application to submit for the de-watering sites, which is in process. More will follow as this final permit application moves forward. Following that, approval of the riparian owners is required and will be accomplished with a referendum vote.