



City of Lorain

Black River Dredge Material Reuse Facility

Black River Dredge Reuse Facility

Ohio has eight federal commercial navigational harbors on Lake Erie, generating \$25 billion annually in business revenue and supporting 160,000 jobs, according to the Ohio Lake Erie Commission. To maintain navigability, these harbors require annual dredging, producing approximately 1.5 million cubic yards of sediment. Until July 2020, this sediment was disposed of in the open waters of Lake Erie, a practice that negatively impacted the ecosystem and has since been discontinued.

With initial funding from the Ohio Department of Natural Resources, the City worked with Coldwater Consulting to evaluate various options and selected the “Geopool” as the most effective storage and dewatering tool available. A Geopool functions like an above-ground swimming pool lined with a permeable liner acting as a filter. Sediment-laden slurry is pumped from the

dredging boat into the pool, where the liner allows only water to pass through, redirecting it back to the Black River. The remaining sediment is dewatered over several weeks, resulting in dry, nutrient-rich soil suitable for unrestricted use. Once emptied of sediment, the Geopool can be reused for the next dredging season.

In 2020, the City began construction of a singular pilot Geopool to determine if this solution was feasible for the Black River Harbor and after years of design and

planning, the Ohio Environmental Protection Agency granted the City a \$15M award in the fall of 2022 to build the full dredge material reuse facility.

The Black River Dredge Material Reuse Facility is set to be fully operational by July 2024, with the start date of the first dredging season to start on August 15th, 2024.

The Facility, housed on an approximately 70 acre site, will be capable of accepting 75,000 cubic yards of dredge material annually.

