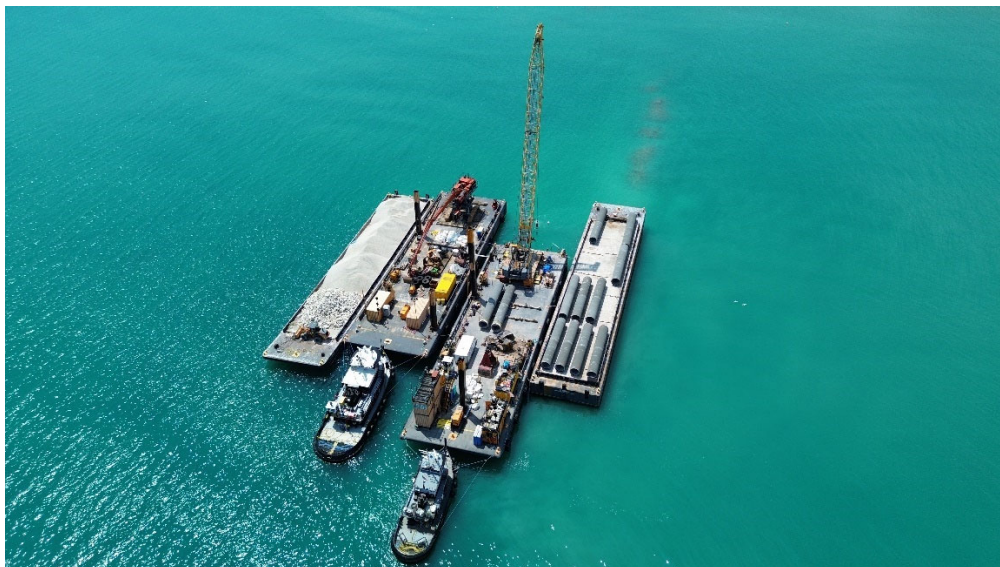


RWI Update: September 6, 2023

The Raw Water Improvement Project was awarded in May 2022 and construction began shortly thereafter. The project has been steady and has quickly moved into its second year of construction. Many milestones have been met by state/local government, utility staff, and skilled contractors.

As we move forward into September 2023, we will see construction activities increase on Lake Michigan and along the shore. On Lake Michigan, the marine contractor is averaging installing 3-4 pipe sections per day given weather delays and rough waters. Each pipe section is 60" in diameter and 40 feet in length. Currently, there are 79 sections of pipe installed on the primary intake line or 3,160 feet. The primary intake line will be 6,500 feet in length upon completion. The future backup intake line installation is complete at 440 feet in length. The water depth of the new intake crib structure is estimated to be 48 feet deep below the lake's surface. Both the primary and future intake pipelines are connected to a shore well concrete structure that was completed earlier in 2023. The new shore well will replace the existing shore well built in 1887.





Located on the lake shore, many can see the new raw water pump station is beginning to take shape. The pump station is built on top of the new shore well. The building's structural steel is in place and the interior masonry block is almost complete, with the exterior brick work scheduled to begin in the coming weeks. The contractor has the building trusses near completion and the metal roof work will follow. Underground electrical and substation work is underway north of the building.





Excavation and horizontal boring operations for the pumpstation's discharge piping continues. These large transmission lines are routed south of the new pump station, crossing existing critical infrastructure, and will soon be making its connection into water treatment plant operations.





As for the interior of the building, the building's electrical and generator rooms are ready for equipment installation. Other equipment onsite, like the traveling screens, is in place and the process pipe work is underway. The traveling screens provide a layer of protection, preventing debris from moving into the pump wet well and causing damage to pumping equipment. While process piping routes raw water to the water treatment plant.



In the coming months the pumpstation will be outfitted with four vertical turbine pumps with a total pumping capacity of 36MGD, HVAC system, dual backup generators, chemical feed system, security system, and Supervisory Control and Data Acquisition (SCADA).