

Barton Dam Right Embankment Remediation Case Study



Client
Michels Construction

Run Time
04/25 - 10/25

Location
Ann Arbor, MI

Projected Value
\$702,000



Overcoming Challenges

Despite challenges such as shallow clay layers, unexpected high-flow seepage from the dam, and previously unknown underground pipes increasing water volume, we maintained system performance and project momentum. Targeted adjustments and precautionary measures effectively controlled seepage, managed flows, and kept the work area stable, ensuring the project stayed on track.

Results

- Delivered full compliance with FERC Part 12 requirements while addressing multiple identified Potential Failure Modes, including artesian flow, system capacity issues, and pumping of fines.
- Maintained reliable, uninterrupted performance through proactive measures such as silt-free discharge, Mersino Connect monitoring, and rigorous system controls.
- Strengthened team expertise and client relationships, positioning Mersino for future high-stakes, FERC-regulated dam safety projects.

Project Overview

We were chosen for its expertise in FERC-regulated, high-risk dam remediation to relocate the dam's toe drain ditch and pond under a tight, phased schedule. Using sonic rig-drilled wellpoints across nine zones, we operated two systems at a time to maintain progress—spanning 1,300 feet in one phase and a U-shaped, eight-leg layout in another. Work also included abandoning and grouting wellpoints with a cement-bentonite mix.

Actions

The dewatering system was built with two primary 8-inch diesel-powered open wellpoint pumps, two backups, a weir tank, up to 1,300 feet of suction header with wellpoints, and up to 1,000 feet of 12-inch and 8-inch HDPE discharge piping. A flow meter and Mersino Connect alarm/monitoring system ensured performance tracking and rapid response. By early August, 95% of drilling and installation was complete, with the system fully operational from Zone 9 through Zone 5. The main contractor had finished work in Zones 9 and 8 and advanced into Zone 7, with significant groundwater drawdown achieved in all active areas and the project progressing on schedule.



Collective knowledge, expertise, and execution all contribute to a successful project.

Gino Mersino
CEO