

Banklick Creek Regional Wetlands

Sanitation District 1 – Northern Kentucky \$1 - \$2 Million

Overview: This project consisted of constructing two 5 acre treatment wetlands along with intake and outfall structures. Observation platforms were built in the wetland cells. A pump station was installed to pump water from Banklick creek into the intake pond structures. This allowed the water to naturally flow into the wetlands. Paved roads were installed between the wetland cells to allow easy access for the public.

Scope:

- Excavation Outlet & Inlet Headwalls
- Inline Water Control Structures
- Manifold Piping System in the Wetlands
- Underground Piping ranging from 8" – 36"
- Gates Valve & Flap Gate Valves
- Natural Stone Liner
- Observation & Sampling Platforms
- Low & High Marsh Emergent Plants
- Floating Leaf & Submergent Plants
- Test Plots for Emergent Plants
- Submersible Pump Station
- Paved roads

Key Issues:

- Project located in a flood basin
- Sequence of construction activities

Regulatory Requirements:

- US Army Corp 404 Permit
- Kentucky Permit
- US Army Nationwide Permit

Lessons Learned:

A major flood event on this project revealed a design error with the one hundred year flood elevation being shown 12 feet below the actual elevation. The entire project had to be re-designed and that required the entire site to be reworked. The project site flooded more than a dozen times. We learned how to more effectively work in a flood prone area along with

different methods of planting and staging materials that reduced damage during flooding events.

