## Project Challenges
- Soils underneath dam were allowing for water penetration and water movement
- Water movement was causing further soil degradation and exacerbating the problem
- Further degradation could cause significant structural problems for the dam
- Emergency Response due to potential for flooding of adjacent communities

## Solution
- Stabilize and densify support soils underneath the dam, creating a non-permeable layer to and stopping water movement by use of Deep Injection of high density polyurethane
- A retention pool was fabricated to continuously monitor water traveling through the weak soils during the injection process

## Support
- Stantec Consulting supported ODNR with soils reports and recommending the Uretek Deep Injection process
- Ride-able on State Contract

## Outcome
- **Problem Solved:** One day installation resulted in stabilized soils and a sealed dam
- **Quick Installation:** 1 Day installation and met needs of the emergency response
- **Cost Effective:** Project was completed under the engineered material estimate
- **Mitigated Project Delays:** ODNR can complete the remaining repairs and allow the lake to refill