

Reeds Creek Fish Hatchery Leakage Repair With Polyurethane

NCFI TERRATHANE™ 24-042 used to fill voids for reed creek fish hatchery leakage repair and soil subsidence stabilization. The pipes were experiencing leakage throughout the system that was causing soil washout and, subsequently, large voids underneath the raceway and settlement and cracking in isolated areas of the raceway that was leading to additional water loss.

About The Project

Contractor High Caliber Coatings	Location Reeds Creek Fish Hatchery, WV	Product Used Terrathane™ 24-042
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[Learn More About Terrathane™ 24-042](#)

Problem

The Reeds Creek Fish Hatchery consists of 8 raceways that have 10 overflow “boxes” distributed across the raceway. The boxes help ensure water overflow would be controlled by distributing overflows through a network of 70- year old 10” and 16” asbestos-concrete or transite pipes that feed into a 24” line to bring the water to an overflow pond. The pipes were experiencing leakage throughout the system that was causing soil washout and, subsequently, large voids underneath the raceway and settlement and cracking in isolated areas of the raceway that was leading to additional water loss. This necessitated a plan for hatchery leakage repair.

Solution

- The system needed to be remedied quickly without causing issues for the fish in the hatchery. This is where the [TerraThane 24-042](#) NSF/ANSI 61 certified polyurethane was the right solution.
- The 24-042 NSF/ANSI 61 clean drinking water standards ensured the water quality was not in any way contaminated.
- The polyurethane had to be able to seal the transit pipes from the exterior in a few zones where previous CIPP (Cured in Place Pipe) had some leakage issues.
- The polyurethane must be able to [fill the voids](#) underneath the hatchery and create positive contact between the raceways and the base soils, reestablishing load back to the soil without causing damage.

Results

- High Caliber was able to meet all of these requirements using the Terrathane 24-042 NSF polyurethane. The 24-042 NSF/ANSI 61 certification allowed for High Caliber to use the system around drinking water supplies or aquatic life without fear of contamination. The 24-042 is additionally able to seal and encapsulate the pipe while still achieving its void-filling requirements.
- As to void-filling, 24-042 is primarily a void-filling polymer which is designed to have optimal flow for filling large cavities without an abundance of expansive force. 24-042's slow cure time ensured the polymer's spread and expansion [filled all of the cavities within the void](#) area from one injection location. Additionally, the final cured system produces a hard shell that helps distribute the load through the foam and into the base soils.
- Update: In January 2021, Mark Proctor with West Virginia Division of Natural Resources confirmed the polyurethane is still performing exceptionally.

Project Gallery

