



CASE STUDY:

NEW YORK WATER TOWER

CLIENT

A New York Campground

PROBLEM

A large wooden water tower was in desperate need of rehabilitation, requiring a long-lasting and innovative solution.

RESULTS

Because of the inherent flexibility needed for the structure material, a combination of geotextile fabric and polyurea was used resulting in a successful rehabilitation.

At a campground in New York, a water tower presented unique challenges. This wooden water tower, standing 30 feet high on a 15-foot hill, desperately needed rehabilitation. The tower, which provided water to the whole campground, had suffered severe damage from previous maintenance attempts, including the use of chlorine to treat the water, which had eaten away at the wood. Despite various efforts, including attempts with CIPP liners, the tower remained unstable and unusable, posing a significant challenge to its operators.

SOLUTION

Sprayroq, in partnership with local certified partner Savy & Sons, approached the rehabilitation of this wooden structure with a strategic solution: polyurea. Polyurea was selected for its exceptional chemical resistance and flexibility, making it an ideal choice for an environment exposed to chlorine and subjected to freeze and thaw cycles. The team began by reinforcing the structure and creating a suitable application with a geotextile fabric liner, thus addressing the rotten wood, and creating a stable base for the polyurea application.

Before the application, all bolts and seams were meticulously sealed to ensure a tight barrier against water infiltration. Then, utilizing a two-step process, the team applied two 100 mil coats of polyurea. This comprehensive approach ensured thorough coverage and a durable finish, capable of withstanding the rigors of the tower's environment.

RESULTS

The rehabilitation of this wooden water tower yielded highly satisfactory results. The tower, once plagued by leaks and instability, now stands resilient and secure. Previously, water poured out uncontrollably, leading to nearby environmental damage and necessitating frequent chemical treatments. However, since the rehabilitation, there have been no reports of major leaks or water loss.

Furthermore, the surrounding area, once empty of plant life due to chlorinated water contamination, has seen a remarkable transformation. The stabilization of the tower has not only safeguarded the water supply but also revitalized the ecosystem below. No longer reliant on constant shock treatments, the operators have gained peace of mind knowing that the tower is reliably functional.

Savy & Sons's application of polyurea has not only restored the integrity of the water tower but has also delivered long-lasting benefits to the community it serves, demonstrating the effectiveness of polyurea in addressing complex rehabilitation challenges.



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