

# Case Study

## Chemical Bund Lining

### Wybersley Water Treatment Works



## The Project

Wybersley Water Treatment Works was constructed 20 years ago to prepare water for distribution into the South Manchester distribution network.

Chemicals used in the water treatment process are stored in tanks which are contained by concrete bunds to capture spills and leaks. Over time the bunds have been progressively corroded through contact with chemicals resulting in a contaminated environment that compromises containment and provides an enhanced health and safety risk.

Traditional remediation would involve taking the treatment process 'off line', breaking out the existing bund and replacing with a new brick or concrete structure, resulting in lengthy downtime typically exceeding two weeks.



## The Solution

Adler & Allan have used the Adalline Polyurea coating to refurbish the existing bunds without the need for lengthy down time. The bunds are cleaned and any damage to the substrate repaired using traditional civils techniques. The bund area is then washed and primed before the Adalline coating is applied providing a quick cured finish within 5 minutes and full integrity and return to service within 24 hours.

## Methodology

### Preparation:

- Carry out a three stage wash to ensure all surfaces are uncontaminated.
- Remove all washings using a chemical resistant tanker.
- Carry out any minor repairs to existing substrate.
- Apply Rallithane sealant to all angles and joints.

### Coating:

- Apply Stainguard Rapide Primer and broadcast with fine grit.
- Ensure all existing assets are covered to prevent any overspray.
- Spray-apply Adalline 600 lining system to 2mm thickness.

### Quality Control:

- Carry out dielectric testing to ensure containment is fit for purpose and to validate the coating.
- Apply an anti-slip surface where required using a mixture of Polygrip adhesive and coarse grit.

### Key benefits of using Adalline:

- **Widespread use** - Adalline provides structural integrity to any surface, thanks to the nature of its elastomer base.
- **Ease of use** - there are no airborne particles, making it quick and easy to apply, even in confined spaces. It can be sprayed to any thickness in one application and be returned to service in a matter of hours.
- **Robust performance** - thanks to its unique formula, Adalline can withstand extreme temperatures, high impacts, expansion and contraction and is 100% waterproof, fire retardant and flame resistant.
- **Reduce costs** - it's a secure, low maintenance lining capable of reducing the cost and potential environmental impact associated with spill clean-ups.
- **Eco-friendly** - the coating is environmentally safe during application and once in place it contains low or no solvents or VOC's.

Adalline coatings provide a Totex solution that extends the asset life of the secondary containment bunds by at least 20 years without the need for Capex investment, restoring operations within 24 hours and providing a resilient solution and safer working environment.

**"A brilliant job, the operatives were very neat and tidy and cleared up on site leaving the area fully contained to mitigate the impact of any future leaks or spills"**

UU Project Engineer