

NOVOLOX-XT600 SHORELINE WWTP

CASE STUDY

THE SITUATION



In order to safeguard vital concrete containment areas exposed to harsh chemical environments, the Shoreline Wastewater Treatment Plant in Redland Bay, Queensland, needed a robust bund lining system.

A variety of treatment chemicals, such as sodium hypochlorite, sodium bisulfite, caustic solution, citric acid, and aluminium chloral hydrate, were intended to be included in the bund.

Redland City Council needed a seamless, chemical-resistant coating system that could deliver a safe, trafficable surface and dependable secondary containment due to the severe chemical exposure and the requirement for long-term asset protection.

In order to specify a high-performance coating system that would withstand chemical exposure, stop leaks, and prolong the concrete structure's service life, Liquimix collaborated with The Superseal Group, the principal contractor.

THE SOLUTION



Liquimix created a multi-layer protective coating system specifically designed to meet the wastewater treatment facility's service requirements.

To guarantee the best coating adhesion, concrete surfaces were first prepared to a Concrete Surface Profile (CSP) between 2 and 3. After that, the substrate was sealed with **Civilox-LV100**, which allowed for deep penetration into the concrete and guaranteed a solid base for the protective coating system.

A seamless, robust, chemical-resistant membrane was created by spraying **Novolox-XT600** epoxy coating at a minimum thickness of 200 microns. Because of its strength and ability to withstand the variety of chemicals kept in the containment area, this high-build epoxy system was chosen.

A second coat of **Novolox-XT600** combined with **Renderfill-F300** was roll-applied to improve safety by creating an anti-slip surface profile without compromising chemical resistance.

Adheseal, a joint sealant intended to create a flexible seal.

THE RESULTS



The system was completed in November 2024 and delivered a seamless, chemical-resistant bund lining capable of safely containing aggressive treatment chemicals while protecting the underlying concrete structure.

The completed surface offers:

- High chemical resistance appropriate for settings involving wastewater treatment.
- Waterproof seamless containment to stop chemical leaks.
- Anti-slip characteristics to increase worker safety.
- Durability over time, with an expected service life of more than 20 years.

The project effectively gave Redland City Council a strong secondary containment system that guarantees long-term infrastructure performance, operational safety, and environmental protection.

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PROJECT OVERVIEW: Shoreline WWTP Chemical Bund Lining

PRODUCTS USED: Novolox-XT600 / Renderfill-F300 / Civilox-LV100

SOURCE: Redland Bay, Australia