

## Bolivar Wastewater Treatment Plant Clarifier Concrete Works



<b>Client</b>	McMahon Services
<b>Location</b>	Adelaide, South Aust
<b>Value</b>	\$0.6 million
<b>Duration</b>	March 2019 to March

### Project Overview

Originally built and operational in 1966, the Bolivar Wastewater Treatment Plant located in the northern suburbs of Adelaide treats up to 470ML/day of waste water.

In 2018, SA Water identified the need for major upgrades to the internal mechanical scraper mechanism for eight clarifiers at the plant. One clarifier was upgraded in a trial process and the methodology proved successful. McMahon Services were then engaged by Head Contractor Waternish Engineering Pty Ltd as part of the remaining clarifier upgrade works.

McMahon Services then engaged Ballestrin to undertake the Concrete Remediation scope of works.

### Scope of Work

Concrete remedial works included hydro-demolition of the cantilever tie beam stubs, reinforcement treatment with zinc primer and reinstatement to wall face with proprietary repair mortar, installation of infills to 8 launder outlets with SA

Water approved S40 Concrete, manual demolition of screed layer where delaminated and reinstatement with epoxy primer and S40 Concrete. Other works included remediation of the joint within the structural slab beneath the screed layer, remediation of the vertical wall joints, and the installation of an epoxy coating to the outer launder.

Extensive use of inspection and test plan documentation withhold points ensured the correct preparation of substrates and different process steps for each area.

## Products Used

- > Floor Screed 60m<sup>2</sup>
- > Sikadur 32 as a primer
- > S40 MPa (SA Water approved mix design)
- > Sika Cure Crete
- > Cantilever Tie Beam Pockets – 32 nr at 0.21m<sup>2</sup> each
- > Parchem Nitoprime Zincrich
- > Nitobond HAR / Renderoc HB 40, to depths of 10-50mm
- > Water / BASF Mastermaco S 5300 CI, depths of 50mm+ (spray applied)
- > Water / Parchem Nitobond AR
- > Floor / Wall Joints totalling 207m
- > Hydrocor Type 3
- > Parchem NitoSeal SC 800
- > Spray Applied Epoxy Coating totalling 450m<sup>2</sup>
- > Parchem NitoMortar 903 as a primer
- > Parchem NitoCote EP 410

