



North Thompson Sewer Pumping Station and Overflow Storage

Client:
Rottnest Island Authority

Location:
Rottnest Island WA

Construction Period:
Jun 22 – Sep 22

Project overview

DM Civil was engaged in June 2022 by Rottnest Island Authority (RIA) for a contract to upgrade the existing North Thompson Sewer Pumping Station No 6 located on the foreshore at Bathurst Point.

The North Thomson Sewerage Pumping Station (SPS) No 6 is a critical asset. This is the final SPS following a series of three other interlinked stations, being Kingstown, Parker Point and the Tearooms (Hub) units. The SPS No 6 is approximately 40 years old and was reaching the end of its service life. The station had no emergency overflow storage to cater for a pump failure or power outage.

In October 2021, RIA undertook a condition assessment of the precast concrete wet well. In April 2022 the pump station wet well liner was stripped back and relined internally as forward works for this contract.

DM Civil was then able to undertake the main works including the mechanical, electrical, SCADA and bypass upgrades for the pumping station separable portion one and the construction of new emergency overflow storage as separable portion two.

A key factor in the decision to award the contract to DM Civil was a demonstrated capability to work in a congested and environmentally sensitive environment without interruption to services or other tourist activities on Rottnest Island.

Significant achievements and benefits

The SPS No 6 overflow facility works required dewatering management, bulk earthworks, a limestone subbase, and installation of 75 No 1200mm diameter reinforced concrete pipes. This was constructed between existing tourist accommodation and an operating beach mooring area.

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Supply delays for precast concrete pipes, switchboards and pumps required re-programming of the works. These delays combined with inoperable existing valves and other mechanical issues challenged the management team to maintain programme and to not have an impact on the community. This was achieved by utilising the new bypass pump unit with the existing switchboards and staging to ensure that the station was always functional. DM Civil was able to work directly with and for the island facility operator to provide solutions and manpower as required.

DM Civil has extensive experience in the construction of water and wastewater infrastructure on Rottneest Island. With a willingness to work with RIA and the island utilities operator as well as demonstrated expertise in design and planning, the project was completed on time and budget, to a high standard, and with minimal impact to the community and the island utilities operator.

As a Tier 1 Water Corporation contractor and service provider, DM Civil has experience in the construction of high standard water and wastewater assets. These standards were replicated in the construction of SPS No 6. Design of the pressure main mechanical configuration and the bypass arrangement from the emergency pump required input from the DM Civil engineering and project management team to provide a working solution to the new asset.

The overall benefit to the client was the upgrade of a critical service asset for decades of future service and the construction of a failsafe contingency in the case of a power outage, all constructed without interruption to the island's tourist trade.

Contact DM Civil to discuss your wastewater infrastructure projects.

GUARANTEED PERFORMANCE

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