



Narngulu Wastewater Treatment Plant

Client:
Water Corporation

Location:
Geraldton WA

Construction Period:
Aug 07 – Jul 07

Project overview

As Geraldton continues to expand, a new wastewater treatment plant (WWTP) was needed to take pressure off the town's existing infrastructure.

We were contracted by the Water Corporation to construct the new Narngulu WWTP south east of the town. This would be connected to the recently installed DN300 pressure main, running from the South Geraldton wastewater pump station No. 3 to the Narngulu WWTP site.

The project involved detailed earthworks for the construction of an HDPE plastic lined reactor basin, three clay lined settling basins, two clay lined sludge storage/drying beds and five infiltration lagoons. We also installed the inlet and outlet pipework connecting to the Principal supplied screening plant and a new effluent pumping station with a network of bypass pipework. An operations building was constructed for effluent testing and to house the plant's operating computer system. The whole site was connected to potable water and underground power and a communication network was installed to enable the operation of the plant both on site and remotely.

Our ability to assess and resolve project challenges resulted in the treatment plant being commissioned on schedule. This was a great benefit to the client and Geraldton community.

Significant achievements and benefits

Our vast experience in constructing wastewater treatment plants throughout Western Australia provided the Water Corporation the assurance that this plant would be completed on time. We had the flexibility to adjust our workforce to suit the changing scope of works.

Narngulu Wastewater Treatment Plant



The site was significantly large and the majority of the earthworks were done during unseasonable high wind and adverse conditions. Considerable dust management measures were incorporated throughout the earthworks with water carts, stabilisation, and cordoning off works to minimise the amount of air borne dust.

The practical completion date for the works was critical for Water Corporation to manage the treatment of the increasing volume of effluent. We were able to achieve this timeline whilst managing scope changes and completing additional works. This proved our flexible approach to client needs and demonstrated our ability to manage changing requirements.

The top layer of the basins and sludge drying beds required clay lining one foot deep. The clay source identified at time of tender did not meet the specification when sampled and tested. With carefully laid out test pits we were able to find a clay source on site that met the specification and ensured the project could proceed without any delays.

DM Civil supported community and business by engaging local subcontractors and suppliers for accommodation, machinery and materials.

Water Corporation's existing sewerage treatment system was not able to support Geraldton's growing population. The new WWTP eliminated the need for tankering during peak periods.

Contact DM Civil to discuss your water infrastructure projects.

GUARANTEED PERFORMANCE

T: (08) 9492 1800
dmc@dmcivil.com.au