

ORFORD Pump Stations

Date: Apr 2024 to Apr 2025

Principal: TasWater CDO

Project Value: \$8.4M



TASK

TasWater CDO implemented for TasWater a program to improve the overall system efficiency and reliability at Orford by reorganising the pump system of the township along with the provision of emergency storage at five pump stations. Shaw was engaged by TasWater CDO to complete the upgrades to the pump stations along with the installation of these emergency storage tanks. Upgrades typically considered new wet well, valve pit and flow meter pit arrangements along with realignment of incoming and outgoing pipework.

CHALLENGES

The five sites for the project were characterised by difficult conditions. Pedestrian and community facilities – like playgrounds and pathways – abutted the site as well as landholders' driveways and access. Accordingly, Shaw's operations needed to be sympathetic to the impact to the community. Shaw worked closely with the TasWater stakeholder manager by providing regular updates to works such that community notices could be put out. Our operations were also amended such that we could minimise these impacts.

With the sites being located adjacent the local shoreline, ground conditions were not ideal. The excavation for the emergency storage tanks and the wet wells meant that most sites were below the water line. Not only did this lead to geotechnical instability but also the management of significant volumes of ground water. Each of the project sites required the use of sheet piling to provide structural integrity for the excavation. Geotechnical conditions meant that the excavations needed to be bigger than previously contemplated and therefore sheet piling design needed to be amended at site. The sheet piling operations generated significant challenges for the site team which was overcome by a collaborative and cooperative effort between TasWater CDO's, Shaw's and the Shaw subcontractor's (TMC) respective site teams. Ultimately, the works were completed safely and without negative impact to the local environment.

Shaw originally considered an order of delivery for the works, however, due to the network nature of the works, amendments to this order needed to be made. This meant that, at one stage, all sites needed to be worked on at any one time applying significant logistical pressure on Shaw and its subcontractors. Shaw reorganised our works, not only to accommodate our overall works programme, but also coordination with TasWater CDO's electrical and pipelines contractors to complete their works. Without this ability to manage the project, the works would not have been able to be commissioned to meet site and programme requirements.

OUTCOMES

The works for this project at Orford presented many challenges which needed to be overcome. The extent of these challenges were only apparent once works had commenced on site. Together with TasWater CDO and our specialist subcontractors, Shaw was able to deliver this project meeting TasWater's overall operational objectives whilst minimising impact to local stakeholders and the environment.

