



## Karara Pump Station No.1

**Client:**  
Karara Mining Ltd.

**Location:**  
Mingenew WA

**Construction Period:**  
Jan 11 – Oct 11

### Project overview

The Karara Pump Station No 1 was a key component of the Karara Water Operations Package. Process water for the Karara Mine was sourced from the Yandanooka Borefield near Mingenev. The borefield is located west of the Yandanooka Township on private property, halfway between Mingenev and Three Springs. The process water was drawn from the Mingenev sub-area of the Parmelia aquifer and pumped through a 136km DN600 DICL pipeline to the mine site.

We completed all aspects of the pump station including earthworks, installation of concrete footings and pedestals, two 500,000 litre galvanised steel storage tanks, interconnecting pipework of both DICL and MSCL pipe, isolation valves, magnetic flow metre and two 450kw Flowserve centrifugal pumps and motors. To minimise back pressure through operation, a 60,000 litre surge vessel was also supplied and installed complete with all interconnecting pipework.

The pump station also included the Yandanooka Bores field works, comprising installation and commissioning of four 92kw submersible pumps, bore head pipework, 3.2km of DN250 and DN375 PVC transfer main and 8.7km of optic fibre connecting all four bore locations to the pump station control building.

**The benefit of using our trenching machines was that material classified as rock was removed at a faster rate and at the same cost as common material.**

## Significant achievements and benefits

We were engaged to complete these works based on our previous history constructing water infrastructure projects across Western Australia. By being able to provide civil, mechanical and electrical services, we were able to successfully manage the project with the commissioning elements in mind.



Construction was based on a fast track design and therefore provided a challenge to meet changing criteria and requirements of the design. However, through excellent planning and management, the pump station was completed before the contract's practical completion date.

Construction of this pump station reinforced the experience of our competent team, demonstrating our ability to deliver any large scale pumping station including mechanical and electrical installation and commissioning.

DM Civil engaged a number of local suppliers and subcontractors for the works. Through strong project management and site engineering, all subcontractors met their applicable timeframes and provided a high standard of quality demanded under the contract. This was completed under strict safety guidelines established by Karara Mining Limited.

We were able to complete the commissioning process for the pumping station and borefield, which incorporated the requirements of the adjacent 136km transfer main. Our client's requirements were reached without reworks or adjustments.

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The pump station was partitioned into various stages, systems and sub-systems. The commissioning team used this partitioning as the driving force behind the various stages of commissioning, resulting in a successful operational facility.

Contact DM Civil to discuss your mining infrastructure projects.

**GUARANTEED PERFORMANCE**

**T: (08) 9492 1800**  
[dmc@dmcivil.com.au](mailto:dmc@dmcivil.com.au)