

Kalgoorlie 400ml Reservoir

PROJECT DETAILS:

Location:	Kalgoorlie Western Australia
Contract Value:	A\$100 million (2007)
Contract period:	24 months
Safety Statistics:	Manhours: 356,725 LTIFR: 0



CLIENT: Water Corporation of Western Australia

Scope of Work:

WaterHorizons is an alliance between the Water Corporation, Clough Projects Australia Pty Ltd and Kellogg Brown & Root Pty Ltd and was established to design and construct awarded projects aimed at improving the catchment and storage of rainwater for the benefit of the community.

This was the first Project undertaken by WaterHorizons on behalf of our Client, the Water Corporation. The proposed Kalgoorlie 400 megalitre (ML) balancing reservoir and associated works were required to address the reliability of the water supply in Kalgoorlie for residential, commercial and major customers over the peak summer demand periods with a view to accommodate future growth of the city.

Over the summer demand periods, when the supply rate through the Goldfields & Agricultural Water Supply Main Conduit could not keep pace with consumption and reliability of the Kalgoorlie water supply decreased. The strategy for the summer water demand was to augment the volume of storage at Kalgoorlie/Boulder to balance limitations of the scheme pumping capacity and so improve the reliability of the supply to the region.

The increased water storage capacity was in place for the summer of 2007/08, which was in line with predicted growth in demand in Kalgoorlie.

Construction of 400ML of additional storage at Kalgoorlie by this time:

- Reduced the need to impose water restrictions in the Region until around 2010/11.
- Provided an effective means of reducing the risk of 'loss of supply' from interruptions to pumping.
- Provided the opportunity to significantly improve the quality of water delivered to Kalgoorlie/Boulder.



The reservoir:

- Intercepts all flows from the Main Conduit.
- Provides sediment 'drop out'.
- Provides re-chlorination.
- Delivers water back to the Main Conduit via a new pump station.
- Stores excess winter supply flows and uses this water to assist meeting peak summer demands.

There will be a linkage to a future project to provide a storage pipeline upgrade to link the new storages to Kalgoorlie's high level service reservoirs at Mt Percy and Mt Charlotte in order to fully integrate all the reservoirs to improve water quality management.