



ABERGELDIE NEWS

NOVEMBER 2018



It is my pleasure to bring you, our valued clients, this update on what has been happening at Abergeldie over the past few months. We continue to grow and have been awarded a number of new and diverse contracts both nationally and internationally. Abergeldie currently has major projects being carried out throughout NSW, Queensland, Victoria in Australia and has major projects in New Zealand and Ireland as well.

The most significant recent development has been the announcement that over the next three years, with our JV partners RCR Tomlinson Ltd and Stantec Australia Ltd, Abergeldie will be working with Melbourne Water under a Framework Agreement to deliver critical projects for its Water and Sewerage Capital Works Program.

To support that work, we have recently relocated our Melbourne operations to a new office, yard and warehouse facility at Tullamarine. As I said at the recent function to open the office, Abergeldie is very excited about the infrastructure planned for Melbourne and Victoria and we are looking forward to working with Melbourne Water and other Victorian infrastructure owners as we build better communities together.

Building better communities is what we do at Abergeldie and we are all proud that for the third year in a row we have been named in the Top 10 leading corporate social responsibility companies in Australia.



ABERGELDIE IN JOINT VENTURE WITH PARTNERS TO DELIVER WATER AND SEWERAGE PROJECTS ON THE CAPITAL WORKS PROGRAM FOR MELBOURNE WATER

Abergeldie Contractors Pty Ltd, in a joint venture with its partners RCR Tomlinson Ltd (RCR) and Stantec Australia Ltd (Stantec), is pleased to announce that an initial 3-year Framework Agreement (plus extensions of up to a further seven (7) years) has been executed with Melbourne Water to deliver critical projects for its Water and Sewerage Capital Works Program.

In qualifying as a preferred service provider, Abergeldie together with its partners, will deliver a program of works covering a diverse range of design and construct and pipeline rehabilitation projects. Melbourne Water have indicated that the capital works program over the next 3-year period is valued at approximately \$500 million and it will be delivered between Abergeldie and its partners, and one other preferred service provider.

Abergeldie, RCR, and Stantec demonstrated that we were able to meet Melbourne Water's requirements including commitment to business integrity, diversity, inclusion and reconciliation as well engineering and construction expertise, approach to safety, capability and cost.

This agreement reflects an important development step in Abergeldie's 24 year history as an Australian owned multidiscipline construction company that delivers complex infrastructure contracts.



WATER



BRIDGES



TRANSPORT



UNDERGROUND



ENERGY



REMEDICATION

BULIMBA CREEK SEWER UPGRADE STAGE 2

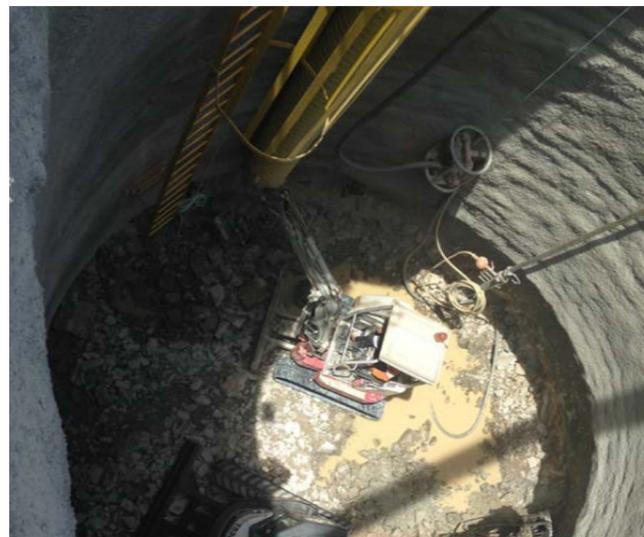
Investing to upgrade Brisbane's sewerage network, the Bulimba Creek Trunk Stage 2 Sewer Upgrade involves installing a 4.25km gravity trunk sewer between Wecker Road, Mansfield and Settlers Street, Carindale, with 3.6km being installed using trenchless technology. The Stage 2 project is a continuation of duplicating the existing sewer network and increasing capacity in the network. Stage 1 and 1A upgrades were completed in 2004-2006 and 2011-2013 in Mansfield, Wishart, Eight Mile Plains and MacGregor.

In this Australian-Japanese joint venture, Abergeldie and Obayashi are engaged to design and construct the pipe-jacked and open cut sections, as well as nine maintenance holes for the Stage 2 works.

An Abergeldie owned AVN slurry shield tunnel boring machine (TBM) is being used on the pipe-jacked sections of the sewer. The boring machine is guided by a VTM navigation system and is coring out a 1800mm tunnel, pushed forward by a jacking machine with sections of the sewer pipe following behind the TBM. This micro-tunnelling method is highly effective as it minimises impacts and disruption to the shaft locations avoiding the need to have extensive open trench construction along the whole 4.25km alignment, thus reducing the overall impact to the community and environment of these large infrastructure projects.

The works have been divided into 5 x 700-850m jacked pipe sections requiring construction of six temporary shafts to launch and retrieve the TBM, the deepest of which is 45m. Currently, 4 of the 5 tunnel drives have been completed.

Over the course of construction, the team has overcome challenges such as flooding in the tunnel at Bulimba Creek, varying geological ground conditions, high water ground water pressures requiring hyperbaric interventions, undertaking 24 hour tunnelling in close proximity to residential properties and working in environmental sensitive locations.



SPRINGVALE MT PIPER WATER TREATMENT FACILITY



In late 2017, Abergeldie was engaged by Veolia Water Australia under a design and construct contract, for the construction of a 14.8km Water Transfer Scheme from Springvale Mine together with a new Water Treatment Facility at Mt Piper Power Station to treat up to 48ML per day of water produced from mining operations for use in the power station.

Bulk earthworks to the Water Treatment Facility commenced in December 2017. During the first half of 2018, the Water Treatment Facility has progressed with construction of civil infrastructure comprising piled foundations, reinforced concrete water retaining structures, slabs and plinths, clad buildings, and inground process pipework and electrical services.

During the same period, construction of the Water Transfer Scheme has commenced with installation of 2.5km of 7100D PE pipeline completed on the Newnes Plateau, and several kilometres of pipework trenched and installed in other zones. Concurrently, works have been progressing with the installation of an 880m horizontal directional drill to enable the transfer pipeline to pass beneath the Castlereagh Highway.

Abergeldie and Veolia Water Australia have adopted an integrated approach to delivery of the project. Over the next few months, mechanical and electrical works will ramp up at the Water Treatment Facility with the installation of major process equipment including Actiflo and Multiflo units, chemical and polymer dosing equipment, media filters, RO skids, lime and magnesium storage, dosing equipment, HV and LV electrical infrastructure.

Works to trench and lay the remainder of the Water Transfer Scheme will continue with the pipeline to be commissioned towards the end of the year.

WILLIAMSTOWN SEWER MAIN REFURBISHMENT

Abergeldie was awarded the Williamstown Sewer Main refurbishment project in October 2017 under a design and construct contract to refurbish 3.6km of the 4.4km sewer main on Melbourne Water's Williamstown Sewer. The Williamstown Sewer has been servicing the Williamstown, Newport and Spotswood areas since 1905, but a recent examination revealed significant deterioration and groundwater infiltration prompting a rehabilitation of the pipeline.

There were a number of safety risks to consider prior to commencement of works, such as high sewer flows. Abergeldie was able to minimise the downstream flows by designing, constructing and installing a Weir board upstream of works to slow it down and enable the installation of Glass Reinforced Plastic (GRP) segments to proceed.

To deliver the scope, Abergeldie designed a World-First jack piping rig with cameras, spray bars, multiple sensors and feeding mechanisms among many other features which assisted in overcoming a multitude of challenges that exist by conducting works in or near existing manholes. Using the slip lining method, the Abergeldie team lowered GRP segments into the manholes, and subsequently socketed the segments one by one until each line was complete. The final step in the slip lining process was to inject highly flowable grout specifically designed to fill the space between the brick host pipe and the ovoid liner, thus refurbishing the pipe.

The scope was to extend the life of the existing ageing ovoid bring sewer main. The innovative methodology significantly reduced risk and further pioneered a method to rehabilitate existing deep sewers through automating the jacking rig method for efficiency. The Williamstown Sewer will now continue to service the area for many decades to come.



CORPORATE SOCIAL RESPONSIBILITY

For the third year in a row, Abergeldie is proud to announce that it has been named one of the Top 10 leading corporate social responsibility (CSR) companies in Australia.

Abergeldie has been building its corporate social responsibility framework based on the 17 United Nations Sustainability Development Goals (SDGs) since they were established in 2016. The SDGs are a call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

Abergeldie's Top 3 CSR priorities for the 2018/2019 financial year include promoting diversity in the workplace, reducing or eliminating any negative environmental impacts of our organisation and waste reduction/recycling initiatives.



RECENTLY AWARDED PROJECTS



Abergeldie has been awarded a package of track and geotechnical projects for Sydney Trains Project valued at \$5 million. The scope involves track reconditioning, draining and rock bolting works.



Abergeldie was awarded by Roads and Maritime Services a construct contract for the construction of roadworks, bridgeworks, retaining walls and other structures, services and all associated activities for the construction of the new Lansdowne Bridge and road approaches.



Abergeldie has been engaged by Wollongong City Council on a construct contract for the construction of approximately 1.2km of a new four lane road between the intersection of Fowlers Rd and Princess Hwy, and the intersection of Fairwater Dr and Daisy Bank Drive with the inclusion of a bridge over Mullet Creek and the South Coast Rail Line.