

Specifying a Pressure Sewer System helps a greenfield housing development to be completed in less than 12 months



In late 2010 a series of floods hit Australia, with the state of Queensland being particularly affected. By January 2011 an area of Queensland the size of France and Germany combined was underwater and declared a disaster zone.

The Lockyer Valley was hit hard. Located 100 km west of Brisbane, it was hit by a flash flood that resulted in nineteen residents losing their lives and severe damage to 119 houses, some of which were completely swept away. 77% of road infrastructure was damaged, including 40 bridges.

In response to the disaster, the Queensland Government and the Lockyer Valley Regional Council initiated an unprecedented project called 'Strengthening Grantham'. The project involved moving the Eastern part of the town of Grantham, in the Lockyer Valley, to higher ground, on a 935 acre parcel of land, acquired by the Council for the purpose.

Seventy two affected families participated in a land swap ballot, allowing them to swap their flood-prone land for a site in the new housing development.

Understandably, the residents were keen to move as soon as possible. The Lockyer Valley Regional Council and the Queensland Reconstruction Authority responded quickly, delivering the new housing estate in less than 12 months after the flood disaster, fast-tracking a process that would normally take years.

The use of a Pressure Sewer System was a critical component of delivering the greenfield development in the shortest possible time and in a cost-effective manner.

The topography of the site at Grantham meant that substantial pump stations would have been required to support a traditional gravity sewer. By utilising a Mono Pressure Sewer System (PSS) at each property, the Lead Consultant, Cardno, was able to overcome the high infrastructure costs and long installation time associated with gravity sewers. Typically, a PSS can be installed in less than half the time and for 50-70% of the price of a gravity system (depending on topography and soil types).

Ideal for hilly areas, like the new Grantham estate, a pressure sewer is a decentralised sewer system that utilises small, low powered, grinder pumps in each property which are then connected to a centralised discharge network. The pressure created at each

Product Type: **PSS EMS180**

Capacity: **Domestic Sewage (0.83 L/ sec)**

Pressure: **PSS - 80 meters**

"The first family had moved into the new estate by December 2011, just 11 months after the flooding disaster struck."

Cr Steve Jones,
Mayor Lockyer Valley Regional Council

Water & Waste Water

property connection allows the sewage to be transported to a treatment plant, in this case a new plant, built as part of the Strengthening Grantham project.

The network is constructed from small diameter poly pipe which is installed in narrow and shallow trenches or via directional drilling and allows the network to be constructed with minimal focus on grade and allows for greater control of the design and layout of the network. A Pressure Sewer System is also a great alternative to septic tank systems and all their associated environmental problems.

“The Mono Pressure Sewer System allowed for greater flexibility in the placement of houses and for future expansion of the system as the town grows.” said Peter Smith, Cardno’s Project Manager for the Grantham project. “We selected the Mono system based on the product’s design and the strength of the Mono support operations in Australia. Their pumps are well designed, with the motor sitting in a dry well, and are easy to maintain. It was the first time I had specified the Mono system and I’m now planning to use it again in other projects,” said Peter.

To find out how Mono can help you determine if Pressure Sewer is the right solution for you please contact your nearest Mono office or call 1800 333 138 or visit www.monopumps.com

Mono Pumps – pressure sewer with peace of mind.



Cardno (www.cardno.com), the Lead Consultants and Project Managers for the Strengthening Grantham project, received a 2012 Consultants Excellence Award at the Urban Development Institute of Australia (UDIA) Queensland Boral Awards for Excellence in recognition of the excellence and innovation associated with the Strengthening Grantham project.



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