



## BYPASS | Glenelg WWTP 1,500L/sec

### CLIENT:

Fulton Hogan and SA Water

### PROJECT:

High flow emergency bypass

### LOCATION:

Glenelg - Adelaide, SA

**SCOPE:** Manage high flow emergency bypass of sewer treatment plant inlet to enable remediation works

**DELIVERABLE:** Design, construct, commission and manage 1,500L/sec sewer bypass system

**RESOURCING:** Over 3,000 man hours to the commissioning phase

**PRICING MODEL:** Lump Sum installation with BOQ on pumping

**CONTRACT TYPE:** EPCM

**PERFORMANCE MODEL:** 100% Self Performed

Following a major collapse of the inlet pipework at the Glenelg Water Treatment Plant, SA Water had an urgent requirement to bypass the complete inlet works of the WWTP. SA Water failed to gain confidence in general pump hire contractors to satisfy the sheer scale and stringent requirements. After thorough investigation, it became evident, there is only one company in the country, with the agility, resources and commitment to manage the monumental scope. Welltech immediately deployed a technical team to carry out site investigation and were quickly contracted by SA Waters alliance partner Fulton Hogan, to provide a bypass solution.

This technically challenging project involves diverting flows of 1,500L/sec from a disused digester tank, which was utilised as a temporary wet well. Flows were sent over 450m of Welltech installed pipeline network, discharging into 10 separate ASR tanks using 20 control valves to achieve an ideal flow split. Each of the 10 outlets had to be custom designed and built to not only ensure optimal pipeline hydraulics but to also enable the plant to remain operational with complete accessibility by control crew. The custom outlets and spoolworks were all designed, engineered and built by Welltech's in-house team. With the temporary network fully installed and commissioned. The Welltech pumps, PLC controlled VSD's and generators were fully integrated into the SA Water SCADA system allowing full control and the ability to operate seamlessly as fixed plant without disturbing the treatment process.

This project has been testament to Welltech's ability to take control and full ownership, to meet the exacting and very often challenging client deliverable.

## SPECIFICATIONS

PUMPS	FLOW RATE	DISTANCE	PIPELINE	DURATION
Hidrostal Immersible 2 x 300kW L20K 2 x 140kW I16K	Up to 1,500L/sec Grand total of 8,678,000,000 litres pumped, equivalent to 3,471 Olympic swimming pools	250m DN630 Temporary pressure main with 200m of DN450 offtake pipework	DN 630 Main pipeline with 10 x DN450 offtakes to each ASR	8 months

*We will always deliver, on every promise we make, Guaranteed.*

**Zak Haines**  
Technical  
0451 057 567

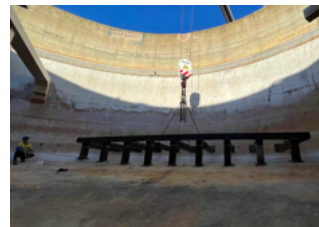


Welltech Total Water Management are Australia's leading specialist in Bypass Operations. When your next bypass project demands an innovative solution, offering the best equipment and a dedicated team, Welltech has you covered.

# Bypass Operations

## Why Welltech:

- Our Bypass Division specialises in the successful pumping and bypassing of sewer and wastewater across the nation and internationally, incident-free;
- Large-scale operator with the capacity to manage flow rates in excess of 14,000L/sec.;
- We ensure each project component is considered, planned and executed using the most advanced equipment and practices;
- Our in-house fabrication facility has the capacity to make and modify pipe and spool work to enable fast turn around, ensuring a one stop interface with existing assets, any time of day or night;
- We take full ownership of projects, including temporary works engineering and construction of temporary pressure mains up to DN900 HDPE;
- Our in-house Water Supply Division has a vast inventory of pumps, control equipment, pipelines and process instrumentation;
- We are the exclusive national distributor for Lampe® Sewer Sealing Cushions;
- Our highly skilled, fast deploy teams are available to mobilise our in-house fleet at a moment's notice;
- You can be assured we will deliver as promised and you will be supported by Welltech's guarantee of *Commitment = Satisfaction*.



[Click here to view our Bypass Operations Gallery](#)

We are proud to be aligned with and recommend:



ENGINEERING  
TOMORROW



SIEMENS

## Bypass Project Process:



**Commitment = Satisfaction**



## Zak Haines

Zak's highly technical background in electrical instrumentation and mechanical, coupled with his expert project management skills ensures you are in safe hands. He has a hard earned, decorated history, of successful sewer bypass projects.

Zak is also responsible for the development of Welltech's innovative Hypro app. Welltech Hypro is a free app, giving users access to a real-time pipe friction calculation, critical engineering information tables and an interactive unit converter.

Zak's thorough knowledge of sewer bypass operations and true understanding of project deadlines gives clients the confidence Welltech will deliver on every promise we make, guaranteed!



*"If you can't find a solution elsewhere, you will find it here – guaranteed".*

*From an ambitious dream to reality.*

*"A very challenging project with the usual ups and downs, but overwhelmingly it presented the best in all parties involved, and a great result was achieved. With the experience of this bypass and the understanding of the operational risks to metro Adelaide and the knowledge of other large scale bypasses that Welltech have successfully completed it is reassuring to know this capability and experience exists. I'm certain SA Water will call on the services of Welltech again, without hesitation." Gordon Holmes, Principal Mechanical & Hydraulic Engineer, SA Water*



Download the Welltech HyPro™ Hydraulic Pipe Friction App.  
Available free for Apple and Android devices.



## CONTACT US ANY TIME

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*Commitment = Satisfaction*



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