

Interflow[®]

CUSTOMER

Coliban Water

PROJECT NAME

Anstruther Street Bypass
Pumping

LOCATION

Anstruther Street, Echuca VIC

DELIVERED

September 2018

REFERENCE NO.

19-WAS-COL001-021

BYPASS PUMPING TO ALLOW INFRASTRUCTURE UPGRADES

Infrastructure upgrades were required at the Anstruther Pump Station, including the removal and replacement of a twin set of 10" pumps and associated pipework inside a 12m deep dry well. The system was directly connected to Echuca's sewer system and was subsequently unable to be shut down for these upgrade works to commence.

THE CHALLENGE:

The existing sewer network in this location was renowned for high gas levels and confined spaces. The pumping arrangement needed to bypass a sewer line 12m deep, whilst maintaining double isolation for protection of the workers inside the dry well.

THE SOLUTION:

For safe access into the confined space, the high gas levels needed to be reduced. This was achieved by removing the top manhole increment which enabled better ventilation. Extraction fans were also inserted to provide a source of clean air.

Double isolation was provided by inserting bungs from both ends of the pipe between the manhole and the Pump Station wet well. When the pumps were removed, blank flanges were then bolted onto the flanged pipework inside the wet well which mechanically provided isolation in addition to the two bungs.



UPGRADES WERE IMPLEMENTED WITHIN A LIVE SEWER NETWORK

THE PROJECT:

Interflow was approached by the client to provide support to their mechanical and electrical subcontractor in the form of setting up a bypass pump arrangement. This allowed the upgrades to be implemented within a live sewer network in a period of one week.

In order to create the bypass, a vacuum truck was used to pump down the network sewer. This allowed the crew to insert pneumatic bungs within the connecting pipes of an upstream manhole and the pump station wet well (at 12m deep).

Once the bungs were installed, the vac truck sucked out the manhole periodically, whilst the crew set up the dual bypass pumps and temporary transfer pipework. Suction pipes were inserted into the manhole and delivery pipework connected to an above ground flanged assembly (downstream of the Pump Station and isolated via an inline gate valve), subsequently bypassing the work zone.

These pumps had been suitably selected, as to maintain the average and peak flows expected within the system throughout the duration of works. The pumps operated on a series of high and low level floats, allowing them to maximise their efficiency during pumping and minimise disturbance to the nearby residents.

CONCLUSION:

On completion of the pump replacement works, the bypass pumps were dismantled in a reverse order as they were installed, which allowed Interflow to pack up and reinstate the site. There were no issues with the pumps during the works, no complaints from nearby residents, and the client's mechanical and electrical subcontractor was provided with safe access to successfully complete their pump replacement works.

Interflow is committed to offering its customers optimum solutions of the highest value for pipeline rehabilitation.

For more information about Interflow's sewer, stormwater and potable water renewal capabilities, and to find out more about the full range of pipeline services Interflow can provide visit www.interflow.com.au



Pump Station wet well chamber