



CASE STUDY

**CUSTOMER**

John Holland & KBR Joint  
Venture on behalf of  
Melbourne Water

**PROJECT NAME**

Merri Creek Intercepting  
Sewer Rehabilitation

**LOCATION**

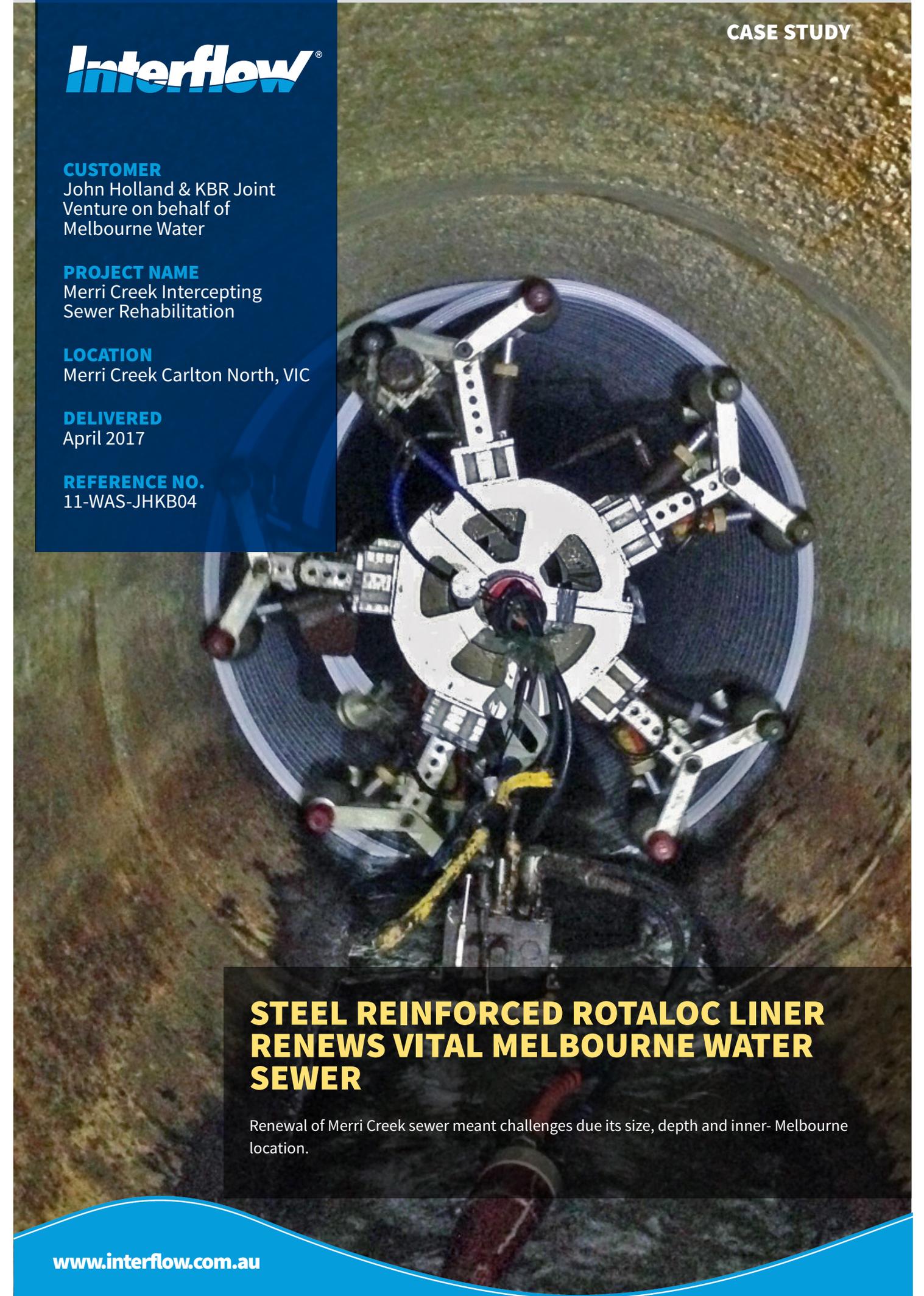
Merri Creek Carlton North, VIC

**DELIVERED**

April 2017

**REFERENCE NO.**

11-WAS-JHKB04



**STEEL REINFORCED ROTALOC LINER  
RENEWS VITAL MELBOURNE WATER  
SEWER**

Renewal of Merri Creek sewer meant challenges due its size, depth and inner- Melbourne location.

## THE CHALLENGE:

Melbourne Water's Merri Creek Intercepting Sewer is a DN1125 reinforced concrete pipeline collecting flow from several inner-Melbourne suburbs. CCTV inspection showed that deterioration in a 2.5km long section of sewer had accelerated to the point where renewal was required. The 15 maintenance holes along the length of the section of sewer indicated signs of corrosion. Heavy infiltration into the sewer and maintenance holes was also occurring.

The sewer was up to 26m deep, passing under densely populated suburbs. Distances between maintenance holes were up to 360m long. Its importance meant it could not be taken out of service during any rehabilitation work.

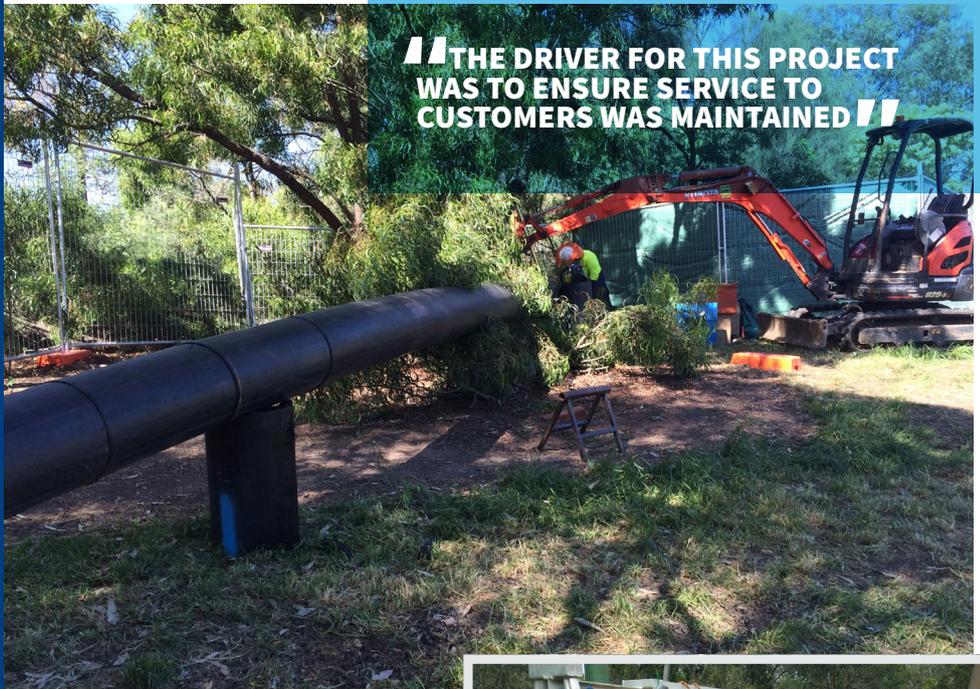
## THE SOLUTION:

A liner was needed with the strength to resist a high water table, that resulted in no loss of flow capacity and which was inert in sewer conditions. The depth of the pipeline and its location in inner Melbourne meant that excavation had to be avoided. The liner needed to be installed safely, in live flow conditions.

Interflow proposed lining the sewer with a steel reinforced Rotaloc liner. This liner is a development of spiral wound SPR™ RO - Rotaloc liners, strengthened by a band of reinforcing steel encased in each PVC liner rib. It has the high stiffness to meet structural requirements. The liner expands to fit tightly against the host pipe wall so minimising the loss of cross sectional area.

Interflow's experience has shown that the condition of a maintenance hole cannot be properly made by visual inspection alone. Testing and evaluation was carried out by Interflow on 15 maintenance holes which showed that only six out of the 15 maintenance holes required rehabilitation.

THE DRIVER FOR THIS PROJECT WAS TO ENSURE SERVICE TO CUSTOMERS WAS MAINTAINED



## THE PROJECT:

Work was mostly carried out during the day with the flow diverted a short distance to another sewer system. As steel reinforced Rotaloc installation does not block the pipeline and as flow can be allowed through a partially installed liner without compromising its integrity, full sewer flow capacity could be rapidly restored if there was a sudden flow increase.



Winding cages are installed to perform lining works

The small above ground site footprint meant there was minimal disruption to traffic. The liner could be continuously installed up to 360m distances between maintenance holes, meaning no excavation was needed.

Inspection showed six maintenance holes were significantly deteriorated. A 20mm thick CAC coating provided structural rehabilitation following thorough maintenance hole cleaning.

## CONCLUSION:

The project demonstrated Interflow's capability to safely provide a high strength liner in a deep sewer in the inner city. Steel reinforced Rotaloc has high abrasion resistance, is inert in sewer conditions and has the capability to extend the service life of this critical asset into the next century.

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

For more information about Interflow's integrated renewal services, and to find out about the full range of innovative products Interflow can provide, visit [www.interflow.com.au](http://www.interflow.com.au)