

# Interflow<sup>®</sup>

## Monash Freeway Culvert Rehabilitation



**\$1M**   
project value

**Department of  
Transport Victoria**   
customer

**VIC**   
Endeavour Hills

**2020**   
year completed

**3**   
large-scale culverts

# Channeling flows under Melbourne's busiest freeway

## The project

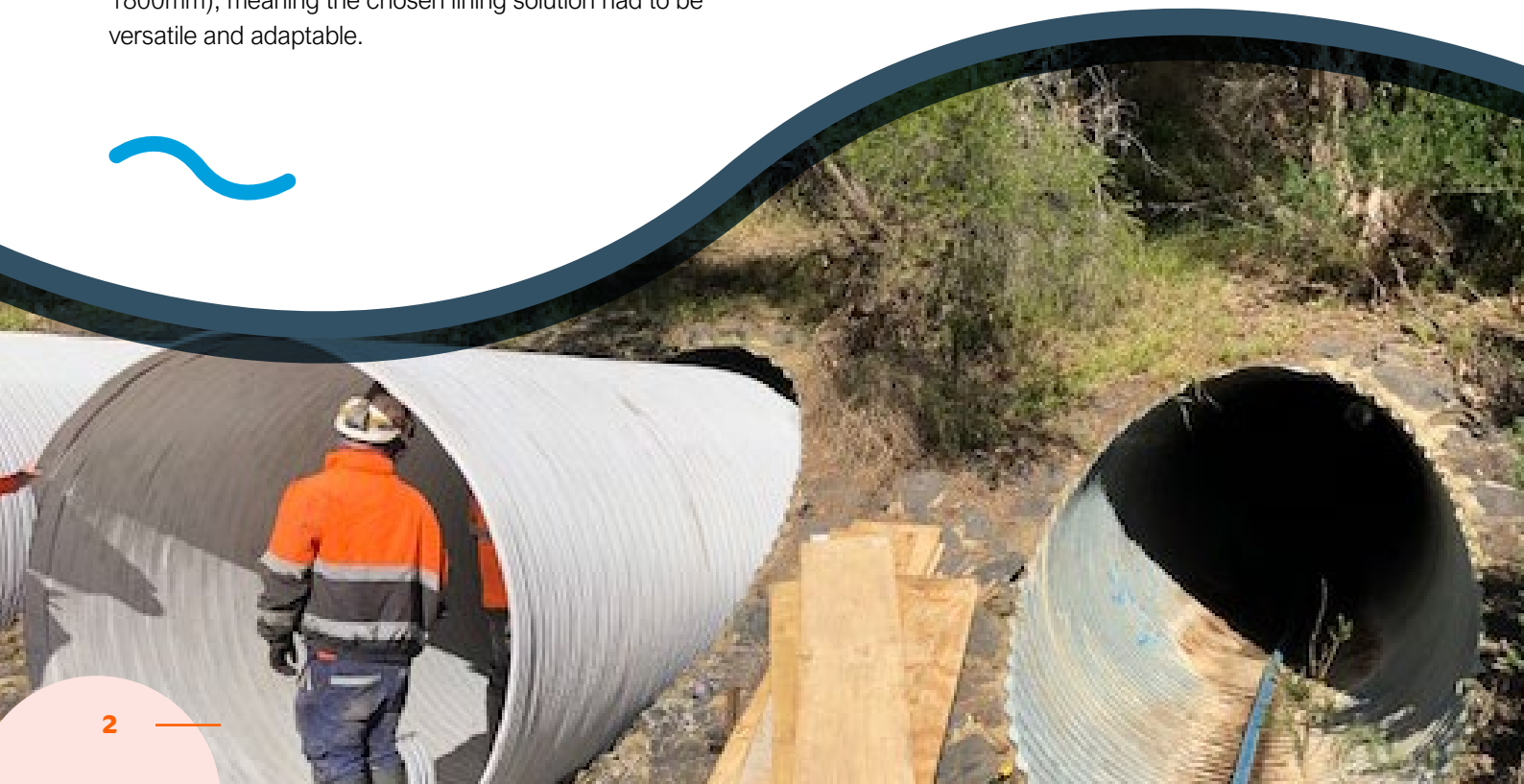
**Interflow responded to the urgent need to rehabilitate three road culverts running under a busy 6-lane Freeway. Understanding the need to minimise the impact on road-users above, the team utilised innovative Rotaloc technology, relining the culvert system and restoring to its former condition – all without a single road closure or diversion.**

Melbourne's Monash Freeway carries tens of thousands of vehicles a day, making it one of the busiest roads in the country. When it was discovered that three of the Freeway's culvert sections were compromised by joint failure and corrosion, the Department of Transport quickly responded, seeking a way to restore this critical infrastructure to a safe and reliable condition for decades to come.

Minimising disruption was critical to the success of this renewal project. With such a high volume of commuters relying on the road above each day, road closures and traffic diversions were not practical. This ruled out conventional renewal methods that rely on a large site footprint. Adding to the challenge, the three corrugated steel culverts were of varying diameter (2100, 1950, and 1800mm), meaning the chosen lining solution had to be versatile and adaptable.

Interflow responded to the Department of Transport's needs with a steel-reinforced Rotaloc solution, a spiral-wound liner strong enough to rehabilitate the culvert sections without relying on any host pipe strength. A significant advantage of this technology is that it can be installed in live flows, meaning rehabilitation works can be completed in a fraction of the time of concrete and cured-in-place pipe (CIPP) methods, returning failing assets to their safest and best condition in the shortest possible time – all while avoiding the need for costly and environmentally hazardous damming controls.

By taking the time to understand the needs of the customer, Interflow was able to assess all available technologies and identify the solution that best solved their problem. Through this approach, the culvert system was safely restored, ensuring the busy arterial road can safely serve the community for generations to come.





## The challenge

Three corrugated steel culverts running under Melbourne's busiest road, the Monash Freeway, were showing signs of age and needed to be rehabilitated to aid the continuity of traffic above. The varying-sized culverts were suffering joint failure, invert corrosion and deformation. A collapse of one or more of these assets would have caused significant disruption to the thousands of commuters and locals who rely on the road daily and presented a significant safety risk to road users above.

Traditional solutions would have had an enormous community impact, with road closures and diversions causing heavy traffic congestion and inconvenience to commuters. The Department of Transport needed a structural rehabilitation solution that minimised disruption and preserved the natural flow of the creek.

## The solution

Thinking outside of traditional renewal methods, Interflow proposed the use of Rotaloc, an innovative spiral-wound lining solution. A fully structural liner, Rotaloc was strong enough to rehabilitate the three culverts without relying on the integrity of the host pipe.

One of the unique benefits of this technology is that it can be applied in live flows, eliminating the need for costly and disruptive damming while works occur. The minimal site footprint needed to install the liner not only avoided impacting road users, but allowed works to occur despite wet, marshy conditions.

By listening to the needs of our customer, Interflow was able to quickly renew these deteriorating assets while commuters passed, undisturbed, above.

**Road culverts are an essential class of infrastructure that allow our creeks to flow naturally and protect road assets against the hazards of stormwater.**

**When Victoria's Department of Transport discovered three of their Monash Freeway culverts were at risk of failure they acted quickly, seeking a way to rehabilitate the assets and ensure the safety and amenity of commuters above.**

**Interflow utilised innovative Rotaloc technology to extend the life of the three culverts, ensuring the Freeway can continue to connect people across the country for the next 50 years.**



# How we help

Our 4 Waters



**Water**



**Stormwater**



**Wastewater**



**Culverts**

***Interflow***<sup>®</sup>

Creating the Future of Water

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