



CASE STUDY

**CUSTOMER**

Port Macquarie-Hastings  
Council

**PROJECT NAME**

Stormwater Pipe  
Rehabilitation

**LOCATION**

Port Macquarie, NSW

**DELIVERED**

2015

**REFERENCE NO.**

03-STO-PORT10



## LINING TO A SUBMERGED OUTLET

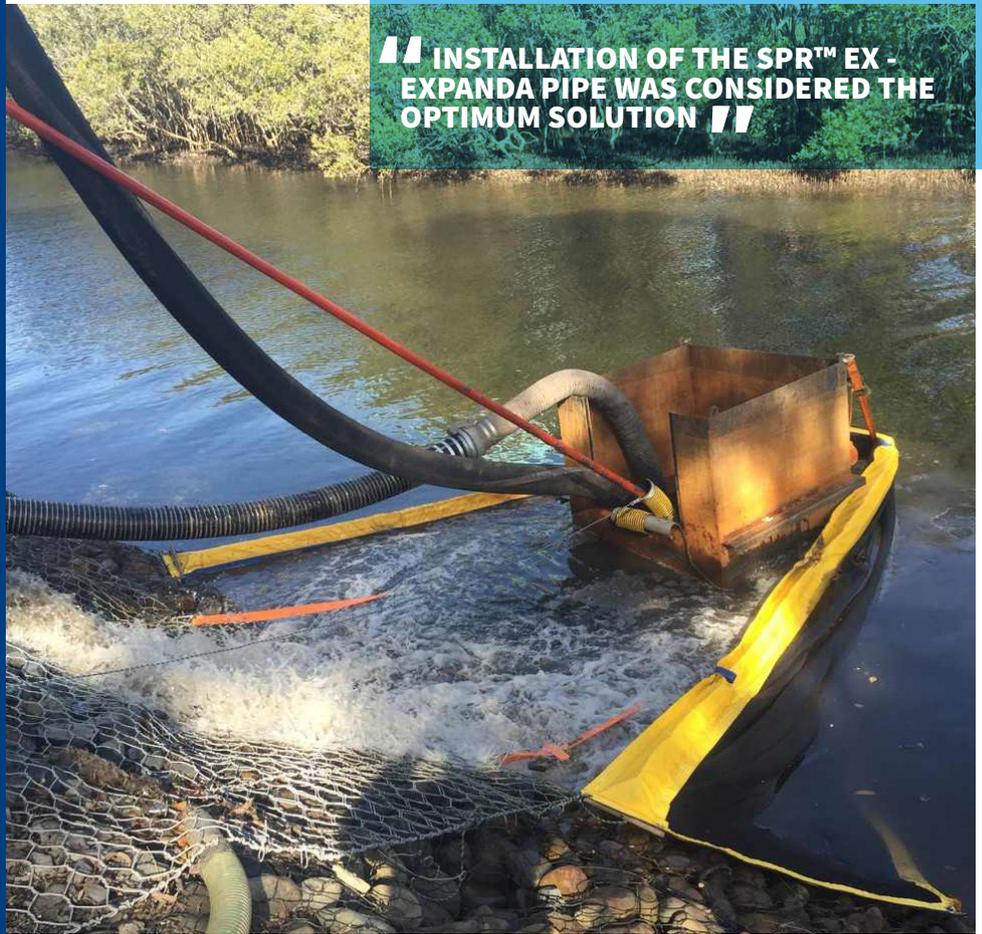
Deterioration in a large stormwater pipe was blamed for contributing to persistent flooding in the Port Macquarie CBD. Structural lining to fix the problem included managing the submerged outlet of the pipe.

## THE CHALLENGE:

A stormwater pipe draining to a waterway in Port Macquarie had deteriorated, with heavy infiltration through open joints and shellfish encrustation of the pipe walls. The reduction of its flow capacity contributed to regular upstream flooding. Rectification was complicated by the pipe outlet frequently being totally submerged and the pipe diameter varying from DN800 to DN950.

## THE SOLUTION:

Installation of an SPR™ EX - Expanda Pipe liner was considered the optimum solution to restore the pipe's structural capacity and eliminate infiltration, considering the working hours limited by tides, and the varying pipe diameter.



INSTALLATION OF THE SPR™ EX - EXPANDA PIPE WAS CONSIDERED THE OPTIMUM SOLUTION

## THE PROJECT:

To avoid disruption in the CBD, Interflow installed the SPR™ EX - Expanda Pipe liner from the downstream end, even though this was submerged much of the time. Work took place from a coffer dam installed at the end of the pipe. Dewatering inside the dam was carried out with Interflow's Super 2000, usually used as a combination recycling jetter.

Heavy cleaning was necessary to remove the oyster colonies encrusted inside the pipe.

The liner was installed from the dewatered coffer dam. As SPR™ EX - Expanda Pipe is mechanically expanded during the installation process, it was able to efficiently handle the variations in diameter along the pipe length. Installation does not block the pipe and heating is not part of the process, so work could be undertaken in working hours limited by low tide with the liner partially submerged.

Following the completed lining, a duck bill flap was installed at the pipe outlet to limit backflow into the line.

## CONCLUSION:

These works resulted in long term pipe restoration, restoring its flow capacity and minimising the chance of flooding in the CBD.

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)



The submerged outlet of the pipe



Super 2000 combination recycling jetter truck