

4. Collendina Drain Upgrade

WHAT IS THE PROJECT?

This project involves upgrades to parts of the drainage system near Bonnyvale Road and the Collendina Drain.

This option would involve upgrading the culvert under Bonnyvale Road, widening a section of the downstream channel to the east of Bonnyvale Road, and upgrading an additional culvert further downstream.

A culvert is a drainage structure that allows stormwater to pass under a road.

The existing culverts and narrow section of channel can limit how quickly stormwater moves through the system during major rainfall events. This option would increase the capacity of the drainage system and may help reduce flooding impacts in the surrounding area.

HOW WOULD THIS HELP?

- > The study suggests this option could reduce flood risk for approximately 15-22 properties during an intense rain event (1 per cent AEP).

FURTHER INFORMATION:

- > A detailed assessment of the existing site conditions will be required when planning design and construction of this project.
- > The Collendina Drain and surrounding area are environmentally sensitive. Any future works would need to be carefully planned and supported by detailed biodiversity and environmental assessments.



Figure 10: Collendina Drain Upgrade.

WHAT DOES FLOOD RISK LOOK LIKE IF THIS PROJECT IS BUILT?

The diagrams below show the modelled change in flooding if this option was delivered.

Green = Decreased flooding Pink = No longer occur for the event shown.
Different shades of green show different levels of flood reduction. In some areas, even a small reduction in flood depth may help reduce the potential impact of flooding during a major storm event.

Modelled flooding risk after project built (20 per cent AEP)



Figure 11: 20 per cent annual exceedance probability (AEP) modelling results.

Modelled flooding risk after project built (1 per cent AEP)

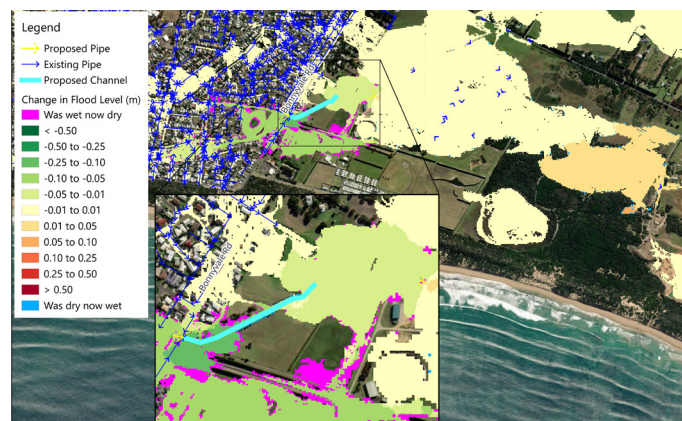


Figure 12: 1 per cent annual exceedance probability (AEP) modelling results.

INDICATIVE PROJECT COST

Medium – more than \$1 million.

IMPLEMENTATION TIME

Medium-term – more than 5 years.

CAN THIS OPTION BE STAGED

No - the full project would need to be completed at one-time.