

1. Shell Reserve Retarding Basin

WHAT IS THE PROJECT?

This project would involve constructing a large retarding basin near Shell Reserve.

A retarding basin is a stormwater storage area that temporarily holds water during heavy rainfall and slowly releases it back into the drainage system. This helps reduce peak stormwater flows and may reduce flooding impacts downstream.

This option would involve creating approximately 16,000 cubic metres of stormwater storage near Shell Reserve, connecting into the existing drainage system to the south near Marlin Drive.

HOW WOULD THIS HELP?

- > The study suggests this option could reduce flood risk for approximately 13-22 properties during an intense rain event (1 per cent AEP). Results are based on computer modelling of the catchment area.

FURTHER INFORMATION

- > Design and construction of this project is expected to be very complex.
- > Achieving approximately 16,000 cubic metres of storage at this location is expected to be challenging due to the site conditions and levels across the area.
- > Alternative options for this part of the catchment have also been considered. However, these options appear to have similar constraints and would also require further assessment.



Figure 1: Shell Reserve Retarding Basin

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 2: 20 per cent annual exceedance probability (AEP) modelling results.

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



Figure 3: 1 per cent annual exceedance probability (AEP) modelling results.

INDICATIVE PROJECT COST	IMPLEMENTATION TIME	CAN THIS OPTION BE STAGED
High - more than \$5 million.	Long-term – more than 10 years.	No - the full project would need to be completed at one-time.