

MARCH 2015 UPDATE: Detailed Design

Introduction

The ongoing and lengthy process to upgrade the levee systems protecting North Wagga and Central Wagga Wagga has reached another milestone, with the detailed levee designs currently being reviewed. Since 2007, Wagga Wagga City Council has been investigating the feasibility of upgrading these levee systems and responding to the lengthy requirements related to the project.

The current stage of this process, the detailed designs, will inform the construction stage and future funding applications.

The detailed designs are being undertaken by NSW Public Works, and are based on extensive geotechnical surveys and detailed investigations carried out over the past six months.

Main City Levee

The detailed design for the Main City Levee will raise it to a 1 in 100 year level of protection. This higher level of protection means unnecessary evacuation or flood damage in the Wagga Wagga CBD that has been experienced in the past may be avoided. To meet this level of protection the levee must be raised by approximately 0.9m.

Where there is sufficient space, the levee will be of earthen construction with the existing footprint of the levee increasing by 1-2m on both sides In situations where an increased levee footprint cannot be accommodated, sheet piling will be used to increase the height of the levee.

North Wagga Levee

Council is continuing to explore options for flood mitigation for the North Wagga, but is also proceeding with the detailed design process to upgrade the North Wagga levee to a 1 in 20 year level of protection. To meet this level of protection the levee must be raised by approximately 0.9m.

It would be constructed predominately of earth where space permits and will be approximately

1-2m wider on each side. Sheet piling may be used in a few locations where space is limited.

Impact on the Floodplain

Raising the North Wagga Levee to a 1 in 100 year level of protection will have minimal impact on the levels of flood water outside of the levees.

For example, in a 1 in 20 year flood event properties in the vicinity of Bomen Lagoon and the North Wagga Floodplain will experience an increase in flood height in the order of 2-5cm. There are small sections of East Wagga that will also experience a small increase in water level, but for most of the floodplain there will be no change in flood level compared to existing conditions.

This increase is in addition to the impact of raising the Main City Levee to a 1 in 100 year level of protection. For example, increasing the Main City Levee to this level will result in a change in depth of approximately 2cm in Gumly Gumly in a 1 in 100 year flood. Additional flood modelling can be found on the Flood Futures website.

What next?

Council is currently preparing an application for grant funding to commence the construction stage of the project. This application is due by 9 April 2015. Given the multi-million dollar cost of upgrading the levee system, the construction phase is dependent on securing alternative sources of funding.

Council has also commissioned laser survey and modelling to illustrate the impact of the increased levee heights at certain points. This 2D and 3D modelling will soon be available to the public.

More information

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