Transcript – RMS Grafton Bridge "Developing the new flood modelling" Video

Time		Voice Over
00:00		The New South Wales Government is funding the additional crossing of the Clarence River, known locally as the Grafton Bridge project, to provide a transport network that meets the needs of road users and the local community into the future.
00:15		The new bridge will be built downstream of the existing crossing and will include one lane in both directions plus a separated shared user path to improve pedestrian and cycle connectivity. The bridge is also designed to allow it to be widened to four lanes if traffic volumes increase.
00:34		The existing bridge will remain in use, but with a weight restriction for heavy vehicles.
00:40		The current levee system provides protection from a 1 in 20 year flood event and a key objective for the project is to minimise the flood impact of the new bridge while maintaining the existing level of flood immunity for Grafton and South Grafton.
00:55		Roads and Maritime Services, through detailed field investigations and changes to the bridge design, has reduced the upstream water increase due to the new bridge from nine centimetres, to only three centimetres.
01:10		This reduction has been achieved in a number of ways.
01:14		Detailed river bed surveys were carried out in 2015 to measure the depth of the river. The last survey of this type was in 1963 and this helped the project understand the changes to the riverbed.
01:27		11 kilometres of the levee system were also surveyed to map the elevations and identify low sections.
01:35		But the biggest influence was through innovations to the bridge design. The concept design developed for the Environmental Assessment had a bridge pier requiring eight piles. Improvements to the design have streamlined the pier shape, requiring only two large piles. This change allows water to flow around them more efficiently.
01:58		In order to offset the remaining small water level increase, Roads and Maritime has been consulting with the community, council and SES to carry out work to the levee system.
02:10		This will include re-levelling the low points to a minimum height to maintain the current level of flood protection.
02:16		In a few cases where this is not possible, the project team is working with property and business owners to find individual solutions to reduce this impact.
02:26		While there will be a slight increase in upstream river levels, there will be no rise in water levels downstream of the bridge.
02:34		The new bridge will bring many benefits to the residents of Grafton and South Grafton.
02:39		The innovative design for the bridge, and the flood modelling done as part of the project, ensures the community will enjoy these benefits with no additional flood risks.

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