Riverfront Road, Murray Bridge

REVIEW OF MANAGEMENT OPTIONS FOR FOUR RIVERBANK COLLAPSE HIGH-RISK SITES

Riverfront Road at Murray Bridge is downstream of Sturt Reserve and about 1.5km upstream of Long Island Marina, where four large riverbank collapses occurred in 2008 and 2009. Cracks have been observed parallel to the river.

The road was closed by the Rural City of Murray Bridge in 2010. Warning signs were installed and residents were advised not to access their properties.

The cause of riverbank collapse

Collapses of some sections of the banks of the River Murray began in February 2008 as a result of very low water levels in the lower reaches of the river in South Australia. As a result, some sites were closed or access was restricted. Inflows from the Murray-Darling Basin have restored river levels to the normal operating range. However, some sites continue to show instability.

The 2012 site review

The Department of Environment, Water and Natural Resources commissioned a review by Coffey Geotechnics of management options for four high-risk sites. It determined that sites which have already been affected by significant cracking may be particularly vulnerable to collapse.

Findings and recommendations

“In our opinion, the riverbank (including the houses) is vulnerable to collapse during periods of low river level. Although the riverbank is lower than at Long Island Marina, the depth of river is greater and buildings are right on the edge of the bank, providing some surcharge. If large-scale rapid collapses occur, houses are likely to be destroyed and occupants could be killed.”

Engineering solutions to reduce the likelihood of riverbank collapse are likely to be prohibitively expensive.

Next steps

The land is owned by the Rural City of Murray Bridge. Fifteen lots at the site are leased on 99-year perpetual leases by people who have built properties. Since the site was closed, the council has not charged rates for the properties and has stopped services to the area. It has also purchased two of the properties.

The Department of Environment, Water and Natural Resources has provided the investigation report to the affected councils and will continue to work with them, and the community, to achieve the best long-term outcomes for affected sites.

For more information

visit www.sa.gov.au and search for “riverbank collapse”

The investigation report, Review of Management Options for Four Riverbank Collapse High-risk Sites, is available at www.waterconnect.sa.gov.au