

Item 10: Operations

10.1 Mudgee Flood Study - Adoption

REPORT BY THE DIRECTOR OPERATIONS
TO 17 MARCH 2021 ORDINARY MEETING
GOV400088, SEW200053

RECOMMENDATION

That Council:

1. **receive the report by the Director Operations on the Mudgee Flood Study - Adoption;**
2. **adopt the Mudgee Flood Study;**
3. **note the proposed interim arrangements prior to completion of the Flood Risk Management Study;**
4. **accept \$6,250 in additional grant funding from NSW State Government, if successful, for the development of an interim flood study and to undertake additional community engagement; and**
5. **amend the 2020/21 Budget by increasing the expenditure budget by \$9,375 funded by NSW Government grant \$6,250 and Council funding of \$3,125 from unrestricted cash.**

Executive summary

The draft Mudgee Flood Study was placed on exhibition during March and April 2020. Only one submission was received.

Council commissioned WMA Water Pty Ltd to undertake the preparation of the Mudgee Flood Study. The primary objective of this Flood Study is to develop a robust hydrologic and hydraulic modelling that defines flood behaviour for the study area for a range of design flood events.

This report recommends the adoption of the Mudgee Flood Study and note the proposed interim arrangements including further engagement with the community regarding overland flow and the introduction of an interim flood policy.

Disclosure of Interest

Nil

Detailed report

The draft Mudgee Flood Study was considered by Council at the March 2020 meeting. It was placed on public exhibition and only one submission was received. The submission requested more detailed flood information in the Saleyard Lane area. This information will be available during future stages of the process following completion of the Flood Risk Management Study.

The NSW State Government's Flood Prone Land Policy provides a framework to ensure the sustainable use of floodplain environments. The Policy is specifically structured to provide solutions to existing flooding problems in rural and urban areas. In addition, the Policy provides a means of ensuring that any new development is compatible with the flood hazard and does not create additional flooding problems in other areas.

The Policy provides for technical and financial support by the Government through five sequential stages:

1. Data Collection: Compilation of existing data and collection of additional data.
2. Flood Study: Determine the nature and extent of the flood problem.
3. Floodplain Risk Management Study: Evaluates management options for the floodplain in respect of both existing and proposed development.
4. Floodplain Risk Management Plan: Involves formal adoption by Council of a plan of management for the floodplain.
5. Implementation of the Plan: Construction of flood mitigation works to protect existing development, use of Local Environmental Plans to ensure new development is compatible with the flood hazard.

Council received financial support from Office of Environment and Heritage (OEH) to undertake Stages 1 and 2 above. Council has commissioned WMA Water Pty Ltd to undertake the preparation of the Mudgee Flood Study. The primary objective of this Flood Study is to develop a robust hydrologic and hydraulic modelling that defines flood behaviour for the study area for a range of design flood events.

Under the Policy, the management of flood liable land remains the responsibility of local government. The State Government subsidises flood mitigation works to alleviate existing problems and provides specialist technical advice to assist Councils in the discharge of their floodplain management responsibilities.

The work by WMA involved data collection and review, topographic survey, flood modelling development, hydrologic analysis, hydraulic modelling and highlighting the consequences of flooding to the community based on their findings.

Based on the analysis undertaken the following has been identified:

- In a 1% AEP riverine flood event there is significant flood impacts present both within the township and on the roadways connecting the town to the surrounding region. During a riverine flood only the Castlereagh Highway running south is flood free. In this event all other routes out of the town have the potential to be closed in excess of 24 hours;
- During a local (flash flood) 1% AEP storm event due to overland flow there is a high likelihood that property flooding and damage will occur. With the exception of Redbank Creek most other overland flow paths through the township do not have sufficient capacity to safely contain flow through the township;
- Sensitivity analysis shows that in general the floodplain is not sensitive to changes in hydrologic or hydraulic modelling parameters which would still be in accordance with best practice. The catchment is sensitive to increases in rainfall intensity due to climate change however, with level increases in the 1% AEP event in excess of 0.50 m in the 1% AEP event within the Cudgegong River. These increased levels increases the risk of flooding on property and further reduces the evacuation capacity of the township.

This flood study has been provided to enable review and discussion of the findings of the analysis. In addition, this report provides preliminary advice to support decisions on activities in the floodplain. This has been provided as interim guidance in advance of a future Flood Risk Management Study (FRMS). The FRMS should review all work completed and build upon the outcomes using the additional information developed and gathered as part of the project.

Due to the identification of the overland flow flood risk, interim measures are proposed prior to undertaking the Flood Risk Management study. They include;

- Adoption of the Flood Study
- Additional Community engagement which will consist of the development of an information pack to help the community to understand the overland flow findings
- Development of an interim flood policy, incorporating a Flood Investigation area as part of the Planning process

Following completion of the Flood Risk Management Study the LEP and DCP will be updated in line with the findings and recommendations of the study.

Community Plan implications

Theme	Protecting Our Natural Environment
Goal	Provide total water cycle management
Strategy	Identify and implement innovative water conservation and sustainable water usage management practices

Strategic implications

Council Strategies

Not Applicable

Council Policies

Not Applicable

Legislation

NSW State Government Flood Prone Land Policy, under this policy the management of flood liable lands remains the responsibility of Local Government.

Financial implications

This Study is funded under the NSW Floodplain Risk Management Program with contributions from Council's adopted budget.

The development of the interim flood policy and the community engagement is not covered under the existing agreement and will be treated as a variation. The estimated cost for this additional work is \$9,375. It is anticipated this will be funded by 2:3 NSW Office of Environment and Heritage and 1:3 Mid-Western Regional Council.

Associated Risks

Nil

GARRY HEMSWORTH
DIRECTOR OPERATIONS

3 March 2021

Attachments: 1. Mudgee Flood Study - Final Report. (separately attached)

APPROVED FOR SUBMISSION:

BRAD CAM
GENERAL MANAGER