



DIRECTOR SUSTAINABLE DEVELOPMENT SERVICES REPORT

12th September 2006

DSDS2	SALTWATER CREEK CATCHMENT FLOOD STUDY
	FILE: E10 AJC

SUMMARY:

Reporting that the Final Saltwater Creek Catchment Flood Study has been prepared for Council's adoption.



Background

Council resolved at its meeting of the 14 March 2006 to endorse the Final Draft Saltwater Creek Flood Study for public exhibition purposes.

The draft Flood Study was prepared to provide background information for preparation of the Saltwater Creek and Lagoon Estuary Management Plan (EMP).

A critical factor in preparation of the Flood Study was the intermittent nature of the opening of the creek to the ocean, and the potential height of the berm. If the berm is at an elevated level when a 1 in 100 year event occurs, the potential flood levels are elevated by the berm holding back flood waters.

Consequently, a critical factor in the EMP was whether or not there would be a strategy to artificially open the berm in order to limit inundation of areas upstream. These issues were raised through the Estuary Management Committee prior to the draft being finalised for exhibition.

The draft Flood Study examined a number of options and the history of "break out" events of the berm, and recommended that the berm be managed to not exceed a height of 2m AHD. Based on this, modeling of various flood events determined flood levels in the catchment. These levels were contained in the draft Flood Study, and exhibited for public comment.

Public Exhibition

The draft Flood Study was exhibited in conjunction with the Saltwater Creek and Lagoon EMP. All submissions are addressed in detail in DSDS3.

Recommended Flood Levels

WBM Oceanics Australia has now finalised the Saltwater Creek Catchment Flood Study taking into account recent comments provided by Council.

It is proposed to adopt an Average Recurrence Interval (ARI) of 1 in 100 year flood event at a 2m high sand berm as the flood standard for this catchment area.

The 1 in 100 year flood event, with a 2m high berm, results in a flood level of 3.1mAHD in the Lagoon. The previous level was 2.9mAHD.

Following public exhibition, the Department of Natural Resources raised the issue of sea level rise as a result of predicted climate change, and requested it to be considered in determining flood levels in the catchment. The Department provided a publication entitled *Climate Change – the Future is Uncertain*, by McLuckie, Lord, Gibbs, presented at the 46th NSW Floodplain Management Authorities Conference, Lismore, February 28 to March 2, 2006. As a result, it was recommended to the consultant that an additional 0.3m freeboard be added to the Flood Planning Level at the lagoon, to account for sea level rise.

The consultant responded to the request by advising that under the NSW Government framework for Floodplain Management, it is not appropriate to include comments regarding the development levels and habitable floor levels, and that this is a matter for Council to determine as part of its floodplain management responsibilities.

Comment

It is considered inappropriate for Council to adopt any Flood Planning Level at this stage as:-

1. The request from the Department of Natural Resources was received after public exhibition such that affected owners and the Coast and Estuary Committee have not had the opportunity to comment.
2. Clarification needs to be sought from the Department as to the status of the recommendation and whether it represents adopted Government Policy or has been adopted elsewhere.
3. Flood Planning Levies should be set with full public consultation and adopted either as a policy or as part of a DCP for the Saltwater Creek catchment.

REPORT IMPLICATIONS:

- *Environmental*

This report has been prepared in conjunction with the Estuary Management Study in order to determine the extent of flooding in and around Saltwater Lagoon and Creek.

Social

There is no significant impact on existing dwellings as a result of increasing the adopted flood level in the catchment. The increased freeboard requirement will provide a conservative approach for future development to limit any impacts from future sea level rise.

- *Economic (Financial)*

The establishment of the flood planning level will limit the extent of economic impacts resulting from future flood events.

The cost for the Study was \$53,502. The Department of Natural Resources and Saltwater Developments will contribute \$40,000 with the balance to be met from Section 94 Contributions for Belle O'Connor Trunk Stormwater Drainage.

RECOMMENDATION:

1. That Council adopt the Saltwater Creek Flood Study Final Report.
2. That Council prepare a policy to determine Flood Planning Levels for the Saltwater Creek Catchment in consultation with the Department of Natural Resources.

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R B Pitt
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