

#### REPORTS THROUGH GENERAL MANAGER

### REPORTS FROM THE DIRECTOR ENGINEERING & OPERATIONS

aO16 [EO-OC] Tweed Shire Coastal Creeks Flood Study - Variations

**ORIGIN:** 

Planning & Infrastructure

#### **SUMMARY OF REPORT:**

Council has almost completed the Tweed Shire Coastal Creeks Flood Study with financial assistance from the Natural Disaster Mitigation program (NDMP).

During the project, additional work has been necessary for data collection and calibration of the computer model.

The original Council resolution allowed for up to 20% variation in the total cost and it will now be necessary to increase this allowance to cover the cost of the additional work. Sufficient grant funding with matching local component is available for this project.

### **RECOMMENDATION:**

That the General Manager be given delegated authority to approve variations to the Tweed Shire Coastal Creeks Flood Study project with an aggregate upper limit of contract works to not exceed \$150,000.



#### **REPORT:**

At its meeting of 17 April 2007 Council resolved to undertake a joint flood study of the coastal floodplains with Byron Shire Council (BSC). This study area extends from Kingscliff to Ocean Shores, and includes Cudgen, Cudgera, Mooball, Yelgun and Marshalls Creeks, and their main tributaries.

A memorandum of understanding has been signed by the General Managers of Tweed and Byron Shire Councils, to ensure that the joint flood study will be conducted and administered equitably between the Councils. Tweed Shire Council is the principal and project manager for the flood study contract. A joint Floodplain Management Sub-Committee has been formed between the two Councils to oversee the project.

Council has engaged consultants to undertake the study and work is nearing completion.

Additional work has been necessary for such tasks as data collection and model calibration and some variations amounting to \$14,140 (or 12.8% of the original proposal) have been approved (ie. Less than the 20% variation limit delegated to the Director of Engineering and Operations by Council).

The original quotation was \$109,650 (Exc. GST) and a 20% variation would bring the total available to \$131,580 (Exc. GST).

If approved, some further variations of \$9,100 for improvements to hydrology, scour modelling and some longer duration modelling would bring the total cost of variations to \$23,240 (Exc. GST) or 21.2% which would bring the total to \$132,890.

An NDMP grant of \$100,000 is available with a funding ratio of 1:1:1 so that the total budget for this project is \$150,000 (ie \$50,000 + \$50,000 + \$50,000).

At this stage, no further variations are envisaged but there is always the possibility that some further detail or investigation would be beneficial prior to finalisation of the report. It may also become apparent that utilisation of the remaining budget for some further investigation would save some expenditure on the next phase of the project which is the Floodplain Risk Management Study.

For this reason it is proposed that the Director of Engineering and Operations be authorised to expend the remainder of the budget on further variations if necessary.

#### LEGAL/RESOURCE/FINANCIAL IMPLICATIONS:

Council has been successful in gaining grant funding to carry out the Coastal Creeks Flood Study under the 2007-08 Natural Disaster Mitigation Program (NDMP). A total of \$150,000 has been allocated to this project, with a funding ratio of 1:1:1 (Commonwealth:State:Council).

Funds are available to cover TSC's share of the contract cost for the Coastal Creeks Flood Study.



#### **POLICY IMPLICATIONS:**

While the Coastal Creeks Flood Study has few direct implications for Council policy, it will form the basis of future floodplain risk management studies for the coastal localities, which will include a review of existing development controls and flood planning policies on the Tweed Coast.

### UNDER SEPARATE COVER/FURTHER INFORMATION:

To view any **"non confidential"** attachments listed below, access the meetings link on Council's website <a href="www.tweed.nsw.gov.au">www.tweed.nsw.gov.au</a> or visit Council's offices at Tweed Heads or Murwillumbah (from Friday the week before the meeting) or Council's libraries (from Monday the week of the meeting).

Nil.







bO16 [EO-OC] Natural Disaster Mitigation Program Grant Funding 2008/2009

**ORIGIN:** 

Planning & Infrastructure

#### SUMMARY OF REPORT:

Council has received advice from the NSW State Emergency Management Committee that its applications for grant funding under the Natural Disaster Mitigation Program (NDMP) for 2008/2009, have been successful.

#### RECOMMENDATION:

That Council formally accepts the following grant funding in accordance with the Natural Disaster Mitigation Program funding agreement and provides the necessary amount to match the Government grants for each project from its 2008/09 allocation:

Grant Program	Project	Funding Ratio	Total Grant Funding	Required Council Funding
Natural Disaster Mitigation Program (Commonwealth and State funding)	Tweed Shire Flood Warning System	1:1:1 (but local compone nt waived)	\$45,000	NIL
Natural Disaster Mitigation Program (Commonwealth and State funding)	Tweed Shire Coastal Creeks Floodplain Risk Management Study and Plan	1:1:1	\$140,000	\$70,000
Natural Disaster Mitigation Program (Commonwealth and State funding)	Tweed Valley Floodplain Risk Management Plan – Completion and Implementation	1:1:1	\$100,000	\$50,000
Natural Disaster Mitigation Program (Commonwealth and State funding)	South Tweed Levee Study	1:1:1	\$60,000	\$30,000



#### REPORT:

Council is in receipt of advice from the State Emergency Management Committee that its applications for funding under the Natural Disaster Mitigation Program have been successful.

The projects are summarised as follows:

Grant Program	Project	Funding Ratio	Total Grant Funding	Required Council Funding
Natural Disaster Mitigation Program (Commonwealth and State funding)	Tweed Shire Flood Warning System	1:1:1 (but local component waived)	\$45,000	NIL
Natural Disaster Mitigation Program (Commonwealth and State funding)	Tweed Shire Coastal Creeks Floodplain Risk Management Study and Plan	1:1:1	\$140,000	\$70,000
Natural Disaster Mitigation Program (Commonwealth and State funding)	Tweed Valley Floodplain Risk Management Plan – Completion and Implementation	1:1:1	\$100,000	\$50,000
Natural Disaster Mitigation Program (Commonwealth and State funding)	South Tweed Levee Study	1:1:1	\$60,000	\$30,000

### **Project Details**

## Tweed Shire Flood Warning System

Following the flood event in January 2008, it was apparent that flood warning for upstream areas such as the Chillingham area, could possibly be improved.

Council's application sought funding for an additional rain and/or stream gauging station in that area to link with the Bureau of Meteorology computerised flood warning system.

It is intended that liaison with the Bureau will determine the final specifications for the new installation and feasible site options.

Flood Warning Systems are sometimes eligible for full funding and Council has been successful in having its local financial contribution waived in this case, so that the full cost of the project is to be provided by grant funds (ie. No Council contribution is required).



# Tweed Shire Coastal Creeks Floodplain Risk Management Study and Plan

The Tweed Shire Coastal Creeks Flood Study is nearing completion and computer modelling of design flood events will provide predicted flood levels and illustrate flood behaviour. This project was subsidised by the Natural Disaster Mitigation Program.

The next step in the process is to develop a Floodplain Risk Management Study which will identify potential strategies for managing flood risk within our coastal creek catchments. This usually includes feasibility assessment of such strategies as strategic land use planning, voluntary purchase, house raising, public education, levee options and evacuation plans.

This funding is also intended to then prepare a Floodplain Risk Management Plan which provides a framework to implement the most suitable management options for each catchment.

# <u>Tweed Valley Floodplain Risk Management Plan – Completion and Implementation</u>

Council has commenced preparation of the Tweed Valley Risk Management Study and Plan with subsidy from the Natural Disaster Mitigation Program over the past 2 financial years.

The Tweed Valley Risk Management Study is to be completed by consultants over the remainder of this calendar year.

The proposed grant funds from the 2008/09 Natural Disaster Mitigation Program will enable completion of the Floodplain Risk Management Plan to incorporate the preferred strategies and commence implementation.

## South Tweed Levee Study

The flood levee at Tweed Heads South is ageing and in need of significant maintenance.

Its crest level is below the 1 in 100 year design flood level and approximately equivalent to the 1 in 20 year Average Recurrence Interval flood height.

With the extent of development in Tweed Heads South, the levee is intended to provide a degree of flood protection against costly flood damage and consideration may some day be given to raising the crest height to provide greater protection.

At this stage it is necessary to determine the stability of the existing structure before any consideration can be given to upgrading or undertaking major maintenance.

This grant funding will enable investigation of existing stability and potential for future modification. Further consideration of the options for the levee can also be given during the public consultation phase of the Tweed Valley Floodplain Risk Management Plan.



# **Funding Agreement**

If council resolves to accept the NDMP grant funding, the process then requires the NSW State Emergency Management Committee to prepare a formal Ministerial offer and funding agreement for each project.

Each funding agreement is then to be signed by Council's General Manager for each separate project.

It is not necessary to attach Council's seal to the documents and hence no Council resolution to that effect is necessary.

#### LEGAL/RESOURCE/FINANCIAL IMPLICATIONS:

Funds are available in the current 2008/2009 budget for each of the projects to provide Council's matching 1/3 component where necessary.

### **POLICY IMPLICATIONS:**

Nil.

#### **UNDER SEPARATE COVER/FURTHER INFORMATION:**

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Nil.