



KEMPSEY
Shire Council

DIRECTOR SHIRE SERVICES REPORT

14th August 2007

DSS2

VOLUNTARY HOUSE RAISING SCHEME

FILE: FM5 APV

{Folio No. * }

SUMMARY:

Reporting on the viability of a Voluntary House Raising Scheme for rural properties on the Macleay River Floodplain

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DESCRIPTION:

Following the flood in March 2001, a number of enquiries were received regarding the possibility of financial assistance towards the cost of raising dwellings in flood prone areas in order to reduce the impacts of flooding on the dwelling.

In 2004 a review was undertaken of the Lower Macleay Floodplain Management Plan. As part of the review it was recommended that the issue of House Raising in the rural areas be included in the plan for investigation. In November 2004 Council resolved that preliminary investigations regarding the house raising scheme in rural areas of the Lower Macleay floodplain be undertaken.

Funding was obtained under the Floodplain Management Program to undertake a survey of dwellings on the floodplain and to determine the economic viability of a house raising scheme.

Property information was collected for 715 properties. This included a survey of 463 properties undertaken by Council in 2006 as well as a further 252 properties surveyed for the RTA in 2004. Information regarding floor levels, building materials and ground levels was obtained for each dwelling.

Each house was assigned a flood level for a range of design events (5 year, 20 year, 50 year, 100 year). A flood damages assessment was then undertaken for each of the properties affected by flooding. A benefit cost ratio for each of the proposed criteria was evaluated and enabled the feasibility of a voluntary house raising scheme to be determined. Further, a priority ranking of the houses to be placed on such a scheme was developed based on the likely frequency of inundation and the depth of inundation.

Four criteria were evaluated, i.e. raising houses if the habitable floor was inundated in the:

5 year ARI event or smaller;
20 year ARI event or smaller;
50 year ARI event or smaller; and
100 year ARI event or smaller.

A copy of the draft report has been previously supplied to Councillors and will be tabled at the meeting.

It was determined that of the 715 houses within the study areas 278 houses would be inundated in a 100 year Average Recurrence Interval (ARI) event and that 213 of these could be raised.

It was assumed that all houses were raised to at least the 100 year ARI level plus 0.5m and that the cost for raising each house is an average of \$60,000.

The following table summarises the results:

Case	Annual Average Damage	Nett Present Worth of Benefit	No. Houses Raised	Cost	Benefit Cost Ratio	Incremented Basic Cost Ratio
Existing	\$3,220,000					
Criteria 1 (5y ARI)	\$1,870,000	\$21,130,000	52	\$3,120,000	6.8	6.8
Criteria II (20y ARI)	\$1,550,000	\$26,260,000	105	\$6,300,000	4.2	1.6
Criteria III (50 y ARI)	\$1,430,000	\$28,150,000	154	\$9,240,000	3.0	0.6
Criteria IV (100y ARI)	\$1,360,000	\$29,260,000	213	\$12,780,000	2.3	0.3

Note that the flood damages assessment only considers tangible costs and benefits. The intangible costs of flooding have not been considered in the analysis.

From the above it can be seen that the Voluntary House Raising Scheme is attractive from an economic perspective particularly those properties affected by a 5 year ARI event (52) and a 20 year ARI event (53).

The Flood Risk Management Technical Committee considered the report and formulated some guidelines for the implementation of the scheme. These guidelines are attached at [Appendix A – Page H1](#).

The Flood Risk Management Committee at its meeting on 25th July endorsed these guidelines. The guidelines recommend:

- that first priority be given to dwellings in the first category, i.e. those affected by a 5 year ARI event or less;
- that the owner contribute one-third of the cost of any subsidy received, such subsidy being a maximum of \$40,000;
- redevelopment proposals achieving the primary objective (i.e. the dwelling not being inundated by a flood up to 100 year ARI) will be considered;
- only dwellings with an existing use right or current building approval will be considered;

- dwellings likely to be impacted by the proposed Highway Bypass would not initially be considered in the scheme as some compensatory measures would be undertaken by the RTA.

Council has applied for funding for this scheme in 2007/08 under the Floodplain Management Program. It is proposed that a letter be forwarded to all dwellings surveyed on the floodplain, advising them of the results of the survey and seeking an indication from the landholders if they wish to participate in the scheme.

REPORT IMPLICATIONS:

- *Environmental*

Nil

- *Social*

The raising of dwellings on the flood plain will result in the reduction of damages to buildings and will also result in a reduction in personal trauma caused by the flooding of homes.

- *Economic (Financial)*

Funding for the scheme would be provided on a 2:1 basis under the Floodplain Management Program with the benefiting landowner providing the required matching contribution. Council would meet the cost of administration of the scheme as an in-kind contribution.

- *Policy or Statutory*

Nil

- *Director's Review*

The raising of dwellings is a cost effective means of reducing flood damages in rural areas.

The flood damages assessment indicates a Voluntary House Raising Scheme is economically viable particularly for those dwellings affected by the 5 year ARI and 20 year ARI events.

RECOMMENDATION:

- 1 That Council participates in the Voluntary House Raising Scheme for rural properties.
- 2 That the Voluntary House Raising Scheme be implemented as per the guidelines formulated and endorsed by the Macleay Floodplain Risk Management Committee.

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A P Vermeulen
DIRECTOR SHIRE SERVICES