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Committee Hutt River Advisory
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Hutt River: Draft project implementation sequence for the capital works programme 2006-2016

1. Purpose

To obtain the Advisory Committee endorsement of a project implementation sequence for preparing the draft Hutt River capital works programme 2006-2016.

2. Background

The Hutt River Floodplain Management Plan (HRFMP) was completed in 2001. Greater Wellington's (GWRC) policy is to fully implement the HRFMP by 2040.

Substantial progress has been made in implementing the HRFMP during the last four years. We are now preparing a 2006-2016 Hutt River capital works programme for consideration through GWRC's long-term Council Community Plan (LTCCP) process.

In the Advisory Committee meeting on 7 July 2005, we will request the Committee to recommend to the Landcare Committee, a project implementation sequence list to be considered through the 2006-2016 capital works programme. We have prepared a draft implementation sequence to assist the Committee in making these recommendations.

3. Context

In preparing this implementation sequence, we have made a number of assumptions. These assumptions include;

- GWRC will continue with the long-term plan to complete the implementation of the HRFMP by 2040.
- Increase in costs from 1999 to 2005 is indicated by the increase in Construction Cost Index (CCI) for the same period. The overall increase from 1999 to March 2005 is about 25%.

- The projects in the current (2003-2013) 10 year plan will have high priority in the 2006-2016 works programme.
- Any new major projects would either already have high priority in the HRFMP or are required because of the increased risk to the flood defence system following the floods of 2004 and 2005.

4. Projects completed by June 2006

The projects currently complete or scheduled for completion by June 2006 are;

- Belmont edge protection works
- Norfolk Street stopbank and flood gates
- Strand Park river realignment
- Non-structural measures implementation

We are not seeking any funding for these projects in the next 10 year plan (2006-2016).

5. Project implementation sequence list

Attachment 1 contains a list of high priority HRFMP projects arranged in the proposed order of implementation. For each project, this list provides, location of works, total estimated costs (in March 2005 dollars), priority in the HRFMP and the proposed implementation sequence.

The HRFMP priorities were set on the basis of economic, social and environmental benefits. Project components with different HRFMP priorities have to be combined at the time of implementation to form practical implementation packages. The proposed implementation sequence sets the order for implementing these integrated projects.

Projects listed in **Attachment 1** are described below in the order of their proposed implementation sequence. The project costs referred in this report are in March 2005 dollars.

5.1 Ava to Ewen project

We are currently progressing well with implementing the Ava to Ewen project. At this stage we do not propose any change to the current implementation programme. However, we are currently discussing with HCC and GWRC's Land Transport Division the possibility of a combined rail/road bridge to replace the existing rail bridge. Outcomes of these discussions and any possible changes to the implementation programme will be reported to the 7 July meeting of the Committee. We will seek a budget increase to reflect the increased CCI.

5.2 Whirinaki Crescent stopbank upgrade

We are currently progressing with the design of the Whirinaki Crescent stopbank upgrade project. This project was brought forward after difficulties in purchasing Strand Park created a 'gap' in the capital works programme. GWRC's current 10 year plan provides for completing this project in 2006/07. We expect to keep to this programme. However, we will seek a budget increase to reflect the increased CCI.

5.3 Hutt/ Boulcott stopbank

GWRC's current 10 year plan provides for commencing this project in 2007/08. Hutt Golf club representatives and Hathaway Avenue residents have strongly canvassed to bring this project forward. There is support in the community for this project to be brought forward. The earliest it could commence is 2006/07. GWRC is aware of the desire to bring this project forward and officers have been asked to provide councillors with information so that the option can be considered through the LTCCP process.

5.4 Bridge Road edge protections

GWRC's current 10 year plan provides budget for completing the Bridge Road edge protection works in 2009/10. This section of the river bank was damaged during the January 2005 flood and a temporary repair was carried out. The river bank is currently at relatively high risk from erosion and we are asking the Council to consider bringing the edge protection project forward. The budget provided in the current plan is on the basis of providing debris fences for bank protection. Our thinking now is that stronger protection works are necessary for this section of the bank. We will therefore seek a budget increase to construct stronger protection works comprising of debris fences strengthened with rock heads.

5.5 Maoribank river channel upgrade design

The Hutt River bed surveys, 1998 and 2004, have shown that the river bed from Maoribank corner to Norbert Street foot bridge is continually degrading. This degradation was exacerbated by the January 2005 flood, damaging the existing edge protection works. The existing protection works are currently being repaired as part of the Hutt River flood damage repairs programme. However, major upgrade works will be required in this reach of the river to arrest further degradation of the river bed. Continued bed degradation could cause major damage to the existing edge protections putting Totara Park stopbank at risk.

The HRFMP recommends a river channel upgrade in this reach of the river at a cost of \$1.76 million but it has low priority in the plan. We consider that the recent damage has increased the priority of this upgrade and we will seek budget to complete the design in the next 2 to 3 years. Early completion of the design will enable us to carry out any future repair works to the final design or bring forward the project should the damage get worse.

5.6 Hutt City centre stopbank and river channel

This project includes the reconstruction of the stopbank from Connolly Street to Ewen Bridge and the river channel upgrade from Melling Bridge to Kennedy Good Bridge (KGB). It is proposed to carry out Ewen to Melling river channel upgrade first, followed by the stopbank upgrade and Melling to KGB river channel upgrade. With the completion of this work, all the proposed upgrade works on the eastern side of the river from Ava Rail Bridge to KGB will be completed. That will provide Hutt City Centre with the standard of protection recommended in the HRFMP.

GWRC's current ten year plan provides for commencing the design and consultation phase in 2011/12. This project, costing \$14 million, will take about 7 years to complete.

5.7 Akatarawa Road floodwall and Gemstone Drive stopbank

A number of houses below the Akatarawa Road Bridge, on the true left bank, is at risk of flooding during a 100 year flood in the Hutt River. A floodwall has been proposed to protect this area from flooding. Budgets for Akatarawa flood wall and Gemstone Drive channel works were originally provided in GWRC's 2000-2010 works programme. These items were subsequently deleted from the 2003-2013 works programme.

This is a medium scale project which has lower priority in the HRFMP. We believe that this project could be taken up with other larger projects without affecting the implementation time frames of those projects.

5.8 Pharazyn Street stopbank

This stopbank located on the true right bank of the river extends from Ewen Bridge to Melling Bridge. The project, costing \$4.9 million, includes a short length of new stopbank north of Melling Bridge. With the completion of this project, all upgrade works in Lower Hutt between Ava Rail Bridge and KGB will be completed.

5.9 Estuary to Ava upgrade

This project, costing \$10.4 million, includes all stopbank and river channel upgrades between the Estuary Bridge and Ava Rail Bridge.

5.10 Maoribank river channel upgrade construction

This project, costing \$1.5 million, involves construction of grade control works to arrest the continuing degradation of river channel at Maoribank. It is now proposed to complete the design by 2007/08 as described in section 5.5.

5.11 Moonshine Bridge waterway and stopbank upgrade

This project, costing \$4.1 million, involves improving the waterway and stopbank at Moonshine Bridge. This work has to be implemented in

conjunction with any bridge improvements that may be carried out by Transit NZ and Upper Hutt City Council.

5.12 Other HRFMP projects

Other HRFMP projects with lower priorities are not included in the project implementation sequence list.

6. Discussion

Attachment 1 shows that a number of smaller jobs with low priority in the HRFMP are listed higher up in the draft implementation sequence than some higher priority works. By combining these smaller jobs with high priority major jobs (e.g. Ava to Ewen, Hutt/Boulcott stopbank etc.) we will be able to 'smooth' the capital works programme to ensure that we make maximum use of our resources. In addition to this, it has become necessary to consider the early implementation of Bridge Road edge protections and Maoribank channel upgrade because of the increased risk to the flood defence system.

I should note that it is very unlikely that all the projects listed in **Attachment 1** will be completed by the end of the ten year plan. The reasons for this are;

- Any large construction project will require 2 to 3 years start up period to allow for the design, consultation, resource consents and tendering process. This will limit the number of large projects that can be completed during a 10 year period.
- The total cost of these projects will exceed the GWRC policy of an average capital works spend of \$2 m (1999 dollars) per annum. At current rates this is equivalent to \$2.5 million per annum. We have included additional works in the sequence as GWRC may choose to increase the speed of implementation of the HRFMP.

7. Where to from here

We will prepare a draft 2006-2016 capital works programme on the basis of project priorities recommended by the Advisory Committee and present it to a GWRC workshop on 12 July 2005. Following that GWRC will go through a full LTCCP process to determine what flood protection work will be done over the next 10 years.

8. Communication

Direct communications with the community on this programme are not appropriate at this stage. This works programme will go through an extensive consultation process before being adopted by Greater Wellington.

9. Recommendations

That the Committee:

1. *receive the report*
2. *note the contents of the report*
3. *recommend to the Landcare Committee that the proposed Hutt River projects implementation sequence be adopted in the 2006-2016 Hutt River capital works programme*

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Attachment 1: Hutt River: Draft project implementation sequence list