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Committee **Hutt River Advisory**
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Hutt River Floodplain Management Plan

Whirinaki Crescent stopbank upgrade - preliminary design

1. Purpose

To update the Advisory Committee on progress with the preliminary design of the Whirinaki Crescent stopbank upgrade.

2. Background

The Whirinaki Crescent stopbank is located in Heretaunga, Upper Hutt and is approximately 400 metres away from the Hutt River.

The HRFMP recommends upgrading the stopbank to a 2300 cumec standard. This project was originally programmed to commence in the 2005/06 financial year. However the preliminary design was advanced to 2003/04 due to spare staff capacity.

The preliminary design report for the Whirinaki Crescent stopbank upgrade is on track for completion by 30 June, although there are several matters that need further follow up.

3. Existing stopbank

The existing stopbank was constructed in 1966 to protect the residential subdivision developed at the same time. The existing crest level is slightly lower than the 1900cumec (1 in 100 year) flood level. Little information is available on the construction. The Whirinaki Crescent stopbank has not been the responsibility of Greater Wellington, or predecessor authorities, to date.

The stopbank is a “U” shape in plan and protects some 184 residential properties. The Mawaihakona stream, Wellington Golf Club, St Patrick’s College and 48 residential properties (including St Joseph’s Home of Compassion) bound the stopbank land parcel.

The stopbank is on a narrow strip of land and any appropriate upgrade is likely to require acquiring adjacent land. Accordingly preliminary consultation has been undertaken with the major adjacent landowners to check the possibility of obtaining additional strips of land.

4. Upgrade options

The following stopbank upgrade options were considered as part of the preliminary design process:

- Earthen stopbanks with batter slopes ranging from 2.5-3 Horizontal (H) to 1 Vertical (V).
- Earthen stopbank retained on one side.
- Flood wall along the existing stopbank crest.

5. Major land owner consultation

Preliminary consultation has been undertaken with the three major adjacent landowners (Upper Hutt City Council, Silverstream College Board of Proprietors & Wellington Golf Club). We have met each landowner twice and sent selected upgrade options for their feedback on the design and the possibility of purchasing additional land to contain the upgraded stopbank.

UHCC officers have provided detailed constructive feedback and comments on the proposed upgrade and associated land issues. We will continue to liaise with UHCC officers on this project.

We have met with the Wellington Golf Club regarding the upgrade of the northeast section of the stopbank. They prefer an alignment that encompasses their proposed subdivision development. We will continue to liaise with them to develop this option.

We have had constructive meetings with representatives of the Silverstream College Board of Proprietors and they have agreed to negotiate selling a strip of land to allow the upgraded stopbank to proceed.

6. Preferred option and investigation outcomes

Our investigations show that it is technically feasible to upgrade the stopbank to meet the recommended 2300 cumec standard.

The preferred upgrade option is a fully earthen stopbank with 2.5H to 1V batters. The upgraded stopbank will be between 0.5m and 1m higher than the existing stopbank crest.

The proposed stopbank alignment will follow the existing alignment over the section adjacent to the Silverstream College and the Mawaihakona Stream. There are 2 alignment options for the stopbank section adjacent to the Golf

Club land. One is to follow the existing alignment and the other encompasses the proposed subdivision.

The following are some of the issues identified through the preliminary design investigation:

- The upgraded stopbank profile would extend over the Silverstream College boundary, and requires a 3-4 metre strip of land to be purchased.
- UHCC own the reserve on which the current stopbank sits. Initial discussions held with UHCC officers indicate that they would continue to own the enlarged reserve and continue with day to day maintenance of the reserve and stopbank. GW would own the asset and be responsible for its structural integrity.
- A number of residential encroachments have been identified. UHCC and GW will jointly determine the best approach for each encroachment.
- The increased height of the stopbank will produce a small increase in visibility into the residential properties by people walking along the stopbank.
- As part of the construction, a majority of the vegetation on the stopbank land parcel will require removal. This will significantly affect the environment and the privacy to the adjacent residential properties. A landscape plan will be produced to help mitigate these affects and will need to be completed for the consultation with the residents.
- It will be difficult to carry out the earthworks in the existing narrow land parcel. Unless stockpile space can be found there will be additional costs associated with the earthworks. An agreement with either the School or Golf club to use their land as a stockpile area for the construction period would reduce the extra cost.
- The Wellington Golf Club preferred alignment is currently being developed. They have indicated they want to keep ownership of the stopbank and may want to construct earlier than when the upgrade is proposed. These issues are still being worked through.
- At this stage initial indications are that the total estimated cost will exceed the budget of \$544,000 by up to \$200,000. This estimate has been based on the existing alignment option. The higher estimate is due to an allowance for the restricted site access and work areas, land purchase and the inclusion of a significant landscaping and restoration cost.

7. Matters still under investigation

We expect to resolve the following matters before commencing consultation with nearby residents in 2005/2006.

7.1 Wellington Golf Club alignment

We are currently liasing with the Golf club and their surveyors to develop the Golf club's proposed new stopbank alignment and working through access, construction, and the future management and maintenance issues for the proposed new stopbank. We hope to report a final proposal to the Advisory Committee in September 2004.

7.2 Cost estimate

We expect to refine the estimate before the September 2004 Advisory Committee meeting when more information is available on the Wellington Golf club alignment.

7.3 Land purchase

We need to follow up our land purchase understanding with the Silverstream College Board of Proprietors. Ideally any land purchase should follow the community consultation and detailed design.

8. Where to from here

We should be in a position to report a refined preliminary design with a single alignment option and updated cost estimate to the September Advisory Committee for endorsement. We also aim to update and formalise the landowner agreements by September.

Consultation, detailed design and the resource consent process is programmed for the 2005/2006 financial year with construction in 2006/2007.

9. Communications

The adjacent residents were informed of the project and investigations with a letter in September 2003. Subsequently correspondence and meetings were undertaken with the 3 major adjacent landowners.

A letter will be sent to the Silverstream College Board of Proprietors to update them on the project and proposed purchase timing.

A news release will be issued after the September meeting informing the public of the preliminary design and proposed programme for the project.

The preliminary design will be forwarded to the UHCC for their feedback.

10. Recommendations

That the Committee:

1. *receive the report*
2. *note the contents of the report*
3. *note that the final preliminary design is proposed to be submitted at the September 2004 meeting for endorsement*

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Attachment 1: Layout plan