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Report to Landcare Committee
from Geoff Dick, Manager, Flood Protection (Operations)

Flood Protection Group 2000/01 Asset Monitoring Report

1. Purpose

To report on the condition of Flood Protection infrastructural assets at 30 June 2001.

2. Background

The Flood Protection Group is responsible for some \$50 million of assets in the western part of the Wellington Region. These include stopbanks, edge protection works such as rocklines and willow planting, river berms, and detention dams. The assets are located on the Hutt, Otaki, Waikanae and Wainuiomata Rivers and on the Porirua Stream.

An Asset Management Plan (AMP) has been prepared which sets out how the assets on these five river schemes are to be managed. This plan, the Western Rivers AMP – Volumes 1 to 7, has been operative since 1 July 2000.

3. Asset Management Monitoring Requirements

An important component of the Western Rivers AMP is the comprehensive monitoring and reporting requirements. This monitoring aims to clearly demonstrate that the appropriate Level of Service is being provided and that adequate maintenance is being undertaken so that the assets are maintained in perpetuity.

The AMP monitoring requirements are summarised on a flow chart – **Attachment 1**.

Major flood events happen infrequently, therefore it is not possible to regularly monitor the performance of a flood system by assessing it “in action”. After all a “100 year flood event” only happens on average every 100 years. The AMP monitoring provisions aim to ensure that a flood scheme is “up to scratch” so that when the big flood does occur the system should perform as designed.

4. **Annual Monitoring Report**

This report summarises the main findings of the Annual Asset Monitoring Report required to be prepared under the Western Rivers AMP. The full annual monitoring report is available on request.

The annual monitoring report includes a maintenance statement, verifying that Western Rivers assets have not declined in condition, and continue to provide the levels of service specified in the Asset Management Plan. The maintenance statement is an important component in achieving a clear audit from Audit New Zealand.

5. **Asset Monitoring Report – Summary Findings**

The conclusions from the 2000/01 Asset Monitoring report are provided as follows:

- We completed another busy maintenance programme that included \$350,000 of flood repair work resulting from the October 2000 flood event. Key achievements in the work programme are outlined in **Attachment 2**. Despite the extra work involved in cleaning up and repairing the flood damage, normal maintenance was completed largely in accordance with the planned programmes.
- We have materially completed the flood repair work resulting from the October 1998 and 2000 flood events. The only significant outstanding work is the final repair of the Katihiku stopbank, Otaki. This repair will be completed in the current 2001/02 financial year.
- In many cases the additional flood repair work has resulted in significant improvements to flood defences.
- Good progress was made with year one of the ten year capital improvement programme set out in Council’s long term financial strategy. While two jobs, the Findlay Street Improvements and the Rangiuru Floodgate Duplication, were not completed, the edge improvements on the Otaki River below State Highway 1 were advanced substantially ahead of the original programme. At Otaki about \$400,000 worth of work (500m of new edge works) was completed against the original budget of \$70,000. The Findlay Street and Rangiuru work will be completed during 2001/02.
- Appropriate asset inspections were completed during the year. Inspections completed included for routine maintenance, for the flood damage repairs and an audit of Hutt City Council’s stormwater outlet system. Asset inspections and peer review audit are a key part ensuring the integrity of flood systems. Some improvements to the inspection programme are proposed for 2001/02, in particular appropriate documentation which will ensure a clear audit trail is provided.

- This years peer review by Wairarapa Operations (**Attachment 3**) was again positive. The inspection covered 12 sites on the Otaki and Waikanae Rivers. The reviewers considered that adequate resources were being applied to maintain assets. They also supported the ongoing programme of capital works. A particular recommendation was that we have a careful look at options for controlling the cliff erosion at Upper Rahui. This work has been completed and is reported separately.
- We continued with our ongoing aerial survey and bed level monitoring of river systems. Work completed during the year included the bed level survey of the Otaki River and the annual colour mosaic photography. The new high level photography of the Otaki River has been deferred until 2001/02 with a view to completing this as a joint project with Kapiti Coast District Council.
- The Western Rivers asset register was updated as at 30 June 2001. Work is continuing on reviewing asset valuations with a view of having this work audited in the first half of 2001/02.

6. Performance Measures

The Western Rivers AMP includes maintenance standard and operating performance measures for all five river schemes with assets. These performance measures cover the following:

- Flood warning
- Flood protection
- Erosion
- Environmental enhancement

The performance measures are intended to be the key assessment to show that our flood protection systems are in good condition and ready to handle a significant flood event.

The AMP intends that these performance measures are assessed and reported annually as part of this asset monitoring report. We have decided not to report on these performance measures for the year ending 30 June 2001. The AMP is only one year old and it is unlikely that there would be little change from the baseline performance figures set out in the plan. In addition, other project commitments means that officer time has not been available to undertake the assessment.

As part of the ongoing improvement to the Western Rivers AMP for 2001/02 we will review the performance measures in the plan to ensure they are still appropriate, and can be readily assessed and reported on an annual basis in future.

7. General Comments

We have completed another solid year's work, with a key achievement being the material completion of both the October 1998 and 2000 flood damage repairs. We look forward to 2001/02 being a "normal year" with no floods!

Completion of the flood damage repairs and the capital improvements resulting from the October 1998 event has enabled many long-term maintenance issues to be resolved. The number of maintenance issues “waiting to be addressed” is at a low, and satisfactory, level.

We have made a good start on implementing the ten year programme of capital improvements set out in Councils 2000-2010 Long-term Financial Strategy. The strategy has proved robust enough to be able to accommodate a change in priority in year one by bringing forward some additional edge protection improvements in the Otaki River.

We continue to refine and improve the Western Rivers AMP. A key improvement for the coming year is updating the asset valuation, and having this valuation peer reviewed.

My overall assessment is that flood protection assets are currently in good order, and that strategies and systems are in place to ensure that the specified levels of service are maintained, or improved in accordance with the design standards in the relevant floodplain management plans.

8. **Community Connection**

This report is written primarily for internal quality assurance purposes. No particular communication initiatives are proposed.

9. **Recommendation**

That the report be received and the contents noted.

Report prepared by:

Approved for submission:

GEOFF DICK
Manager, Flood Protection (Operations)

ROB FORLONG
Divisional Manager, Landcare

Attachment 1 : Asset Monitoring Flow Chart

Attachment 2 : Key Maintenance Programme Achievements

Attachment 3 : Wairarapa Division Peer Review Audit