



caring about you & your environment

Report 02.511

7 August 2002

File: N/50/1/30

cls-#119919

Report to Landcare Committee
from Steve Murphy, Operations Support Engineer.

Western Rivers 2001/02 Asset Monitoring Report

1. Purpose

To report on the condition of Western Rivers infrastructural assets at 30 June 2002.

2. Background

The Flood Protection group is responsible for some \$62 million of assets in the western part of the Wellington Region. These assets include stopbanks, edge protection works such as rocklines and willow planting, access tracks, 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 accordance with the Plan. Most assets, including stopbanks and edge protection works, are to be maintained in perpetuity.

Major flood events happen infrequently, therefore it is not possible to regularly monitor the performance of a flood system by assessing it “in action”. However, the AMP monitoring provisions aim to ensure that a flood scheme is “ready for action” so that when the large flood does occur the system should perform as designed.

4. **Annual Asset Monitoring Report**

This report summarises the main findings of the annual 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 been appropriately maintained. The maintenance statement is an important component in achieving a clear audit from Audit New Zealand.

5. **Asset Monitoring Summary**

Monitoring required under the asset monitoring program for 2001/02 is shown in the top boxes on the attached chart (**Attachment 1**). This monitoring is designed to ensure that Flood Protection assets are being adequately maintained.

The actual monitoring completed during 2001/02 is summarised in the bottom row of boxes on the chart.

All the required monitoring was completed.

5.1 **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.

These performance measures were not re-assessed during 2001/02. The AMP is just two years old and it is unlikely that there would be significant change from the baseline performance figures set out in the plan. Performance measures for all watercourses in the AMP will be reviewed at the end of the current 2002/03 year.

5.2 **Asset Inspections and Peer Review**

Scheduled asset inspections were completed during the year. Inspections included both daily routine observations by works staff, set documented maintenance inspections, management inspections, and a peer review. Asset inspections and peer review audits are key components in ensuring the integrity of flood systems.

This year's peer review by WRC Wairarapa Operations (**Attachment 2**) was again positive. The inspection covered six sites on the Hutt and Wainuiomata Rivers, and the Porirua Stream. The reviewers considered that adequate resources were being applied to maintain assets

The documenting of asset inspections will be reviewed during 2002/03 to ensure that all components of the schemes are being adequately checked and that a suitable record of the check is made.

6. General Comments

2001/02 was another busy, but largely routine, year and it is pleasing to report that all significant planned maintenance works were completed. Some administration jobs were carried over into the 2002/03 year. Key achievements in the work programme are outlined in **Attachment 3**, and set out below are some general observations.

6.1 Hutt River

A largely routine maintenance programme was completed on the Hutt River with some edge protection improvements being completed at Maoribank and Stokes Valley. The absence of flood damage allowed some significant berm enhancement work to be completed at Owen Street and adjacent to the Belmont School. It is pleasing to note that the 4 year flood event in the Hutt River on 18 June 2002 caused little damage to the flood protection scheme.

6.2 Kapiti Rivers

Reconstruction of the Katihiku stopbank on the Otaki was completed during the year. This was the last of the flood damage repairs resulting from the October 2000 floods.

On the Otaki River the focus was again on channel alignment work, edge protection maintenance and gravel extraction. The flood event on 18 June 2002 caused some minor damage and means that the focus on channel alignment maintenance will need to continue into 2002/03. In the lower river a site inspection will shortly be undertaken to determine the priority areas for rock edge protection maintenance and improvement (\$88,000 capital expenditure budgeted).

The Waikanae River maintenance programme was disrupted by the need to clean up spilled agri-chemicals immediately downstream of Kebbels Bend. However, all significant maintenance items were completed with some over-expenditure of the Waikanae budget.

6.3 Wainuiomata River

There were no significant issues on the Wainuiomata River.

6.4 **Porirua Stream**

A comprehensive annual inspection of the Stebbings and Seton Nossiter detention dams highlighted a number of maintenance issues. These were all completed. An external safety review of the Seton Nossiter dam is also underway.

Gravel accumulation in the lower Porirua Stream increased in extent after several floods. A resource consent application is being prepared for its removal.

6.5 **Capital Works**

Year two of the current 2000–2010 ten year capital improvement programme was relatively quiet in terms of construction. The key achievement was the completion of the Rangiuru floodgate duplication as outlined in **Attachment 3**. Two works were not completed. The Findlay Street Improvements were deferred at the wish of Wellington City Council who requested a further review of options. Stage 2 of the Otaihanga road raising did not proceed at the request of the local community.

7. **Asset Revaluation**

The assets contained in the Western Rivers AMP were revalued during the year and this valuation was independently audited by John Easter of Riskworks. This resulted in an increase in the value of the Western Rivers flood protection assets to a total of \$62 million.

8. **Conclusion**

My overall assessment is that western rivers assets are in good order, and that they are being appropriately maintained with no significant deferred maintenance. In addition, Council has in place a robust capital improvement programme for the Hutt, Otaki and Waikanae Rivers that will ensure that specified levels of service are achieved within an appropriate timeframe.

9. **Communication**

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

10. **Recommendations**

That the Committee:

- (1) **Receive the report.**
- (2) **Note the contents of the report.**

Report prepared by:

Approved for submission:

STEVE MURPHY
Operation Support Engineer

GEOFF DICK
Manager, Flood Protection

ROB FORLONG
Divisional Manager, Landcare

Attachment 1 : Asset Monitoring Flow Chart

Attachment 2 : Wairarapa Division Peer Review Audit

Attachment 3 : Key Maintenance Programme Achievements