



Report **07.596**
Date 24 August 2007
File N/50/01/30

Committee Landcare
Author John Eyles, Assets and Investigations Team Leader

Western Rivers Asset Management report for 2006/07

1. Purpose

To report on the condition of Western Rivers infrastructural assets as at 30 June 2007.

2. Significance of Decision

The matters in this report do not trigger the significance policy of the Council or otherwise trigger section 76(3) (b) of the Local Government Act 2002.

3. Background

The Flood Protection Department is responsible for a variety of infrastructural assets that form the basis of flood protection schemes on the Hutt, Otaki, Waikanae, and Wainuiomata Rivers and the Porirua Stream. These assets have a total value of approximately \$90.0 million (2007 valuation) and provide flood protection to property and people residing on the floodplains of these rivers.

The monitoring of scheme assets over the past financial year seeks to reassure Council that the various assets are being managed appropriately, maintained to the desired standard, will perform when needed, and where necessary, are being appropriately enhanced by a capital works programme.

The capital works programmes for Hutt, Otaki and Waikanae Rivers are set out in the relevant Floodplain Management Plans. The Wainuiomata and Porirua Streams have no capital works programmes. Capital works raise the level of service of the flood protection schemes, and also creates assets which must be maintained. Progress with the implementation of the various capital works is the subject of a separate report to the Landcare Committee.

4. Summary

Our annual asset inspections showed that the majority of frontline flood defences are well maintained and are in good condition. The relatively stable weather experienced during the past year meant that the planned work programmes were completed on schedule without too many problems.

Operations staff took the opportunity to “catch up and get ahead” with work that we had not been able tackle previously because of the cleanups from flood damage during storms in 2005. This included a lot of work done on minor watercourses.

The majority of the stopbanks on the three major schemes have a condition rating of either 1 or 2. **Attachment 1** presents a summary of the stopbank maintenance condition ratings.

A major project to revalue the department's assets was completed during the year. The last asset re-valuation was completed in 2002. The total value of Flood Protection's assets has increased by 34 %. The increase can be mainly attributed to a substantial increase in material and construction costs and an increase in the number of assets since the last re-valuation. An external peer reviewer has confirmed that the revised asset values are acceptable and appropriate for financial reporting purposes.

A list of the work completed during the 2006/07 year, and planned tasks for 2007/08 is provided in **Attachment 2**.

5. Scheme summaries

5.1 Wellington

5.1.1 Hutt River

Infrastructural assets on the Hutt River are constructed to provide a high level of service and maintained to a high standard, as warranted by the scheme's importance in protecting one of the most developed floodplains in New Zealand. The total value of flood protection assets on the Hutt River is \$62.0M (2007 valuation).

Stable weather during the year meant the Wellington operations work programme was completed at year end with all programmed work, including flood damage works, finished as per programme and to budget. Annual asset inspections showed that the majority of frontline flood defences such as rocklines, debris fences, groynes and other edge protection works are well maintained and in good condition.

Work completed as part of scheduled maintenance included:

- Maoribank concrete block groyne with rockhead
- Whakatiki concrete block groynes with rockheads
- Wellington Golfcourse rockline extension

The above work resulted in the creation of 30 lineal metres of new rocklining, and five new groynes with 1310 tonnes of rock used in total at a value of approximately \$146,000.

Assets written off during the year were 41 debris fences (value \$155,000) that had failed or been replaced by rocklines.

We also specifically concentrated on the rejuvenation of our willow lines, which involved removing old willows and replacing with new on the correct river alignment.

Wet gravel extraction kicked off during the year, with the model for extracting gravel in wet conditions proving to be successful. Good feedback was received from Fish & Game however there is a requirement for increased supervision while the contractors find their feet with this new activity.

Environmental and recreational initiatives included planting of about 2,500 native trees and the use of the Hutt River Trail by the local community which has proved to be an outstanding success.

5.1.2 Wainuiomata River

There is a limited flood protection scheme on the Wainuiomata River, comprising of stopbanks, outlet structures and willows at a 2007 valuation of \$1.3M. While the stopbanks are in good condition, several willow lines are below the desired standard following flood events in Feb 2004 and July 2006. A design channel alignment has been completed by consultant Gary Williams. An extensive planting programme has been developed (mindful of the design channel alignment) and is underway to bring our willow lines back up to an acceptable standard.

5.1.3 Porirua Stream

The Porirua Stream scheme includes infrastructural assets through the central business district and two earth detention dams valued at \$5.5M. The scheme was completed in the 1990s, so assets are relatively new and are in good condition.

5.2 Kapiti

The last major flood event experienced on the Kapiti Coast was in January 2005 which was an estimated 1 in 80 year event for the Waikanae River. Since then there have been long periods of stable weather which has enabled the completion of planned work programmes on schedule and to budget and the repair of all the extensive flood damage experienced in the January 2005 flood event.

5.2.1 Otaki River

The annual asset inspection showed that infrastructural assets on the Otaki River are in good condition. This is attributed to improvements that have been completed and the regular inspection and maintenance regime carried out. Otaki River assets are valued at \$16.5M.

The planned work programme was completed on schedule. Work completed included:

- Top up of rock walls at Chrystall's bend and Lethbridge.

- Extension of rock edge protection at Upper Taylors.
- A rock return at the end of Lethbridge rock wall
- Channel realignment to divert the main flow from debris fences and rock walls at Barretts, Lutz/Wallace, Chrystalls and Winstones.
- Planting of 2,300 willows.

5.2.2 Waikanae River

As with the Otaki River, the annual asset inspection showed that the Waikanae River flood protection assets are in good condition. Waikanae River assets are valued at \$6.7M. Work completed this year included:

- Top-up of the Kebbells grade-control weir.
- Rebuild nose to Kebbells groyne
- Build rock line between groynes at Maple lane and Jim Cooke Park
- Planting of 450 willows.
- Completion of the Jim Cooke Park River Realignment.

6. Peer review

Historically, annual peer reviews are undertaken of infrastructural assets on rivers in both the Western and Wairarapa Regions. The peer reviews provide an audit of maintenance standards and procedures and provide a useful forum for the exchange of knowledge and ideas. This year, the Western Region peer review was completed by Wairarapa staff and focussed on infrastructural assets on the Otaki and Waikanae Rivers. The reviewers' comments were favourable and their report is included as **Attachment 3**.

7. Communication

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

8. Recommendations

That the Committee:

1. *Receives the report*
2. *Notes the contents of the report*

Report prepared by:



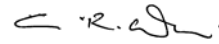
John Eyles
Team Leader,
Assets and Investigations

Report approved by:



Graeme Campbell
Manager,
Flood Protection

Report approved by:



Geoff Dick
Divisional Manager,
Catchment Management

Attachment 1: Stopbank maintenance performance measure

**Attachment 2: Asset management tasks completed in 2006/07 and
Proposed tasks for 2007/08**

**Attachment 3: Wellington Peer Review of Assets Maintenance Standards 2006/07
Waikanae & Otaki Rivers**