



AGENDA

CATCHMENT OPERATIONS COMMITTEE

Wednesday, 9 February 2011 at 10.00am

Notice is given of a meeting of Horizons Regional Council to be held on
Wednesday 9 February, 2011 at 10.00am in the Tararua Room,
Horizons Regional Council offices,
11-15 Victoria Avenue, Palmerston North.

Business to be discussed includes:

- River and Drainage Engineering Report
- Lower Manawatu Scheme – City Reach Project Update
- Drain Maintenance
- Sustainable Land Use Initiative (SLUI)
- Lower Manawatu Scheme – Grazing Lease
(Public Excluded)

Deputation:

- Feilding Action Group – Makino Stream

**RECOMMENDATIONS IN REPORTS ARE NOT
COUNCIL POLICY UNTIL ADOPTED BY COUNCIL**

NEWS EMBARGO

Items in this agenda may be subject to amendment or withdrawal at the meeting. Items are embargoed until two days before the date of the meeting.

Reporters who do not attend the meetings should seek confirmation of the agenda material or proceedings from the Chief Executive prior to any media reports.

for further information regarding this agenda, please contact:
Julie Kennedy, 06 9522 800

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CATCHMENT OPERATIONS COMMITTEE

COMMITTEE MEMBERS

Cr JJ Barrow (Chair)
Cr EB Gordon

Cr LR Burnell (Deputy Chair)
Cr PW Rieger QSO
Cr RG Walker JP

AGENDA

9 February 2011
10.00am

	Pages
1. Apologies	
2. Public Speaking Rights Notification to speak is required by 4pm on the working day prior to the meeting. Further information is available on www.horizons.govt.nz or by phoning 0508 800 800	
3. Late Items: To consider, and if thought fit, to pass a resolution to permit the Committee to consider any further items which do not appear on the Order Paper of this meeting and/or the meeting to be held with the public excluded. Such resolution is required to be made pursuant to Section 46A(7) of the Local Government Official Information and Meetings Act 1987, and the Chairperson must advise: (i) The reason why the item was not on the Order Paper, and (ii) The reason why the discussion of this item cannot be delayed until a subsequent meeting.	
4. Members' Conflict of Interest Members are reminded of their obligation to declare any conflicts of interest they might have in respect of the items on this Agenda.	
5. Confirmation of Minutes – 10 November 2010	1 - 6
6. Deputation: Feilding Action Group – Makino Stream	
7. River and Drainage Engineering Report <i>Report No: 11-06</i> <i>File No: PRD 5 00</i>	7 - 34
8. Lower Manawatu Scheme – City Reach Project Update <i>Report No: 11-07</i> <i>File No: PRD 5 17</i>	35 - 38

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|-----|---|---------|
| 9. | Drain Maintenance
<i>Report No: 11-08</i>
<i>File No: PRD 5 00</i> | 39 - 44 |
| 10. | Sustainable Land Use Initiative (SLUI)
<i>Report No: 11-11 (Incl. Annex A)</i>
<i>File No: ELM 6 00</i> | 45 - 48 |
| 11. | Members' Questions | |

PART TWO - PUBLIC EXCLUDED SECTION

The public is to be excluded from the remainder of the Council meeting as the general subject matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48 (1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution is as follows:

General subject of each matter to be considered	Reason for passing this resolution	Grounds under section 48 (1) for passing this resolution
PX1 Lower Manawatu Scheme – Grazing Lease <i>Report No. 11-19</i> <i>Pgs 49 - 50</i>	As disclosure would not be in the public interest because of the greater need to enable Council to carry on without prejudice or disadvantage commercial negotiations.	That the exclusion of the public from that part of the meeting is necessary to prevent the disclosure of information for which good reasons for withholding exist.

M J McCartney
CHIEF EXECUTIVE



Minutes of the first meeting, eighth triennium, of the Catchment Operations Committee of Horizons Regional Council held in the Tararua Room, Regional House, 11-15 Victoria Avenue, Palmerston North at 10.04am on Wednesday 10 November 2010.

PRESENT Crs MC Guy (Chairman), JJ Barrow (Chair Elect), LR Burnell, EB Gordon, PW Rieger, RG Walker JP

IN ATTENDANCE Chief Executive Mr M McCartney
 Group Manager Operations Mr AD Cook
 Secretary Mrs J Kennedy

ALSO PRESENT At various times during the meeting:
 Crs VJF Chettleburgh, GM McKellar, MW Plowman, CI Sheldon, and J White, Mr C Mitchell (Group Manager Environmental Management), Mr G Cooper (Environmental Manager Land), Mr P Blackwood (Manager Investigations & Design), Mr W Wheeler (Design Engineer), Mrs C Rowe (Media & Communications Manager), Ms L Jackson (Communications), Mr J Greer (Ministry for Agriculture & Forestry), and a member of the Press (Manawatu Evening Standard).

The Chairman welcomed Mr John Greer, Ministry for Agriculture and Forestry, and asked that Item 11 on the agenda, Sustainable Land Use Initiative (SLUI) be considered at the beginning of the meeting.

APOLOGIES

COP 10-01 *Moved* *Walker/Burnell*

that an apology be noted from Cr Cox.

CARRIED

LATE ITEMS There were no late items.

MEMBERS' CONFLICT OF INTEREST

There were no conflicts of interest advised.

PETITIONS / DEPUTATIONS

There were no petitions / deputations advised.

SUSTAINABLE LAND USE INITIATIVE (SLUI)

Report No. 10-169

This report updated Members on the progress on Council's Sustainable Land Use Initiative (SLUI).

Mr Mitchell, Group Manager Environmental Management (GMEM) referred Members to the tables summarising Whole Farm Plan (WFP) development, implementation, and works completed for the financial year. The GMEM introduced Mr Greer, Ministry for Agriculture and Forestry (MAF), who gave a brief outline of the role that MAF played in regard to the Hill Country Erosion Fund (HCEF), and stated that the HCEF was established to increase the rate of protection for seriously eroded land.

The GMEM explained to Members the concept around 'managed retirement' of land and possible mechanisms that could be used to fund the 'managed retirement' works, eg. the introduction of a lease agreement for the short-term loss of income on any managed retirement of land. When asked what MAF'S views were around managed retirement of land, Mr Greer responded that MAF was investigating options around funding grant works on land that was being developed to improve production, rather than provide funds for lease payments on retired land.

Members considered the report and asked for further clarification around managed retirement of land, and achievement of performance targets relating to implementation of WFPs. There was discussion around the percentage of soil sediment entering rivers and streams from various slopes of land with a suggestion made to perhaps also target lower land slopes under SLUI. The Chairman suggested that a workshop to discuss Members comments around SLUI would be useful.

COP 10-02

Moved

Guy/Gordon

that the Committee recommends that Council:

a. **receives** the information in Report No. 10-169.

CARRIED

The meeting adjourned at 11.13am

The meeting reconvened at 11.20am

RIVER AND DRAINAGE ENGINEERING REPORT

Report No. 10-176

This item reported on progress with river and drainage activities for the three month period 1 August 2010 to 31 October 2010.

Mr Cook, Group Manager Operations (GMO) referred to the content of the report and said he had included more background material in order to give new councillors a better understanding of the activities undertaken. New members were invited to ask for clarification on points of interest if required. A series of photographs were shown to Members in support of items in the report.

The GMO reported on the considerable amount of damage caused to river banks and drainage channels by recent periods of high rainfall. He advised that the insurance claim process was underway and provided a verbal update on that. The GMO provided clarification around the operating parameters and general information about how the flood control system at Makino stream had been operated during the recent flood events.

Members considered the information and noted that a recently circulated brochure should improve the community's understanding of operating parameters and moderate expectations.

The GMO outlined for the benefit of new Members the background to options and the consultation process involving all Manawatu Drainage Scheme ratepayers for providing improved drainage outlet from the Taonui Basin.

The meeting adjourned at 12.20pm

The meeting reconvened at 1.02pm

RIVER AND DRAINAGE ENGINEERING REPORT (Continued)

During discussion on the proposed changes to Rangitikei River Scheme management, it was agreed that members of a Special Committee to hear submissions would comprise of Crs Gordon (Chair), Barrow, and Chettleburgh. A Hearing date would be confirmed in consultation with those members shortly.

Further discussion ensued with topics of interest around: timeframes to address flooding, erosion and associated damage to the native forest at Kitchener Park; the significant reinstatement work required at the bottom end of the Mateongaonga Stream; the proposal to draw on the emergency reserve fund held by the Mangatainoka Scheme, Upper Manawatu/Lower Mangahao Scheme, and South Eastern Ruahine Scheme to assist with damage reinstatement; and consent conditions relating to extraction of gravel from Kimberley Reserve on the Ohau River.

There was discussion around a request to give consideration to approval of additional funds for Environmental Grant works in recognition of the harsh weather conditions experienced recently. Demand for Environmental Grant assistance had been high and the GMO advised that it was not possible to approve all applications within the present budget provision. Ultimately, it was agreed to decline the request and recommendation (b) was amended accordingly.

COP 10-03

Moved

Walker/Gordon

that the Committee recommends that Council:

- a. **receives** and acknowledges the information contained in Report No. 10-176;
- b. **declines** additional funds for Environmental Grant (Rivers) works in 2010-11;
- c. **nominates** members of a Special Committee, Crs Gordon (Chair), Barrow, and Chettleburgh, to hear submissions on proposed changes to Rangitikei River Scheme management; and
- d. **acknowledges** that a Schedule of Works Completed is available for inspection.

CARRIED

FOXTON EAST DRAINAGE SCHEME – DEFERRED MAINTENANCE

Report No. 10-170

The purpose of this report was to seek the Committee's approval for an increased level of maintenance works within the Foxton East Drainage Scheme and for resulting expenditure in excess of the approved Scheme budget.

Mr Cook, Group Manager Operations (GMO) explained that the maintenance works were required in order to improve the standard of drainage channels and accordingly deliver a reasonable level of service to ratepayers. He clarified there would be a small impact on the general rate contribution to fund the proposed works.

COP 10-04

Moved

Rieger/Burnell

that the Committee recommends that Council:

- a. **receives** the information contained in Report No. 10-170;
- b. **approves** a scheme expenditure of approximately \$12,000 in excess of approved budget;
- c. **notes** the proposed means of funding the additional work; and
- d. **notes** the impact on total rates and external borrowings.

CARRIED

KAHUTERAWA STREAM MANAGEMENT PLAN

Report No. 10-172

The purpose of this item was to seek the Committee's approval, for the purpose of public consultation, of options for a managed approach to channel maintenance and improvements for the Kahuterawa Stream.

Mr Cook, Group Manager Operations (GMO) pointed out that investigation work so far had been addressed out of the non-scheme investigations fund. Accordingly, if approval was given to proceed with the establishment of a new scheme, funding provision would be made through the 2011-12 Annual Plan.

Mr Wheeler, Design Engineer (DE) gave an overview of the key issues and proposed options for the Kahuterawa Stream.

Members discussed the report and consideration was given to the current tight fiscal conditions, and the long-term implications to the Operations Group workload. As a considerable amount of investigation work had already been undertaken, Members agreed to approve the process for consultation and accordingly allow the landowners and stakeholders concerned, the opportunity to comment on the findings of the report.

COP 10-05

Moved

Gordon/Rieger

that the Committee recommends that Council:

- a. **receives** the information contained in Report No. 10-172;
- b. **determines** to promote the establishment of a new river management scheme at this time; and

- c. **approves** a process of consultation with landowners and stakeholders in relation to the findings in the report, and in particular the possible establishment of a scheme to manage channel improvements and ongoing channel maintenance along the lower Kahuterawa Stream.

CARRIED

ASHHURST STREAM SCHEME – FLOOD PROTECTION UPGRADE

Report No. 10-171

This report updated Members on issues concerning programmed flood protection upgrade works within Ashhurst Township.

Mr Cook, Group Manager Operations (GMO) introduced the report and answered questions of clarification.

COP 10-06

Moved

Rieger/Gordon

that the Committee recommends that Council:

- a. **receives** the information contained in Report No. 10-171;
- b. **endorses** the final proposal for providing improved flood protection for Ashhurst Township and the associated rating impacts;
- c. **endorses** the proposal to convene a meeting of Scheme ratepayers prior to commencing further works; and
- d. **provides** for the identified increase in capital works in the draft 2011-12 Annual Plan.

CARRIED

AKITIO AND HERBERTVILLE – COASTAL HAZARD ASSESSMENT

Report No. 10-174

This item informed Members of the findings of coastal hazard assessments for Akitio and Herbertville in the Tararua District.

Mr Cook, Group Manager Operations (GMO) introduced the report and together with Mr Blackwood, Manager Investigations and Design answered questions of clarification. Discussion ensued around coastal erosion issues and what could be done to protect dwellings and infrastructure on existing and any new development in the area.

Councillor Burnell left the meeting at 3.14pm

COP 10-07

Moved

Guy/Rieger

that the Committee recommends that Council:

- a. **receives** the information in Report No. 10-174 and Annex;

- b. **notes** the value of the report findings for planning purposes; and
- c. **authorises** the Group Manager Operations to jointly discuss with Tararua District Council the implications of the defined coastal hazard zones, and present this to representatives of the two communities of Akitio and Herbertville.

CARRIED

ISSUES ARISING FROM ANNUAL SCHEME RATEPAYER MEETINGS

Report No. 10-176

This item informed the Committee of progress in addressing the significant issues raised at annual meetings for river and drainage schemes that were held during April/May 2010.

Members discussed the report and asked questions of clarification.

COP 10-08 Moved

Walker/Barrow

that the Committee recommends that Council:

- a. **receives** the information contained in Report No. 10-175 and Annex A.

CARRIED

MEMBERS' QUESTIONS

Cr Plowman asked for an update on progress with obtaining resource consent for river management works at Kakahi. The GMO said it was a staff resource issue and anticipated that progress would be made before the end of the year.

In regard to progress with the Taringamotu Stream investigation, the GMO advised that the field investigation phase had been completed and a report including a proposal for consultation would be presented at the February 2011 Catchment Operations Committee meeting.

The meeting closed at 3.25pm.

Confirmed

GROUP MANAGER OPERATIONS

CHAIRMAN

A Significant decision? If Yes	No
Do recommendations meet Significance Policy (contained within the LTCCP)	

Item No: 7
Date: 9/02/2011
Report No: 11-06
File No: PRD 5 00

RIVER AND DRAINAGE ENGINEERING REPORT

PURPOSE

1. The purpose of this item is to report on progress with river and drainage activities for the three month period 1 November 2010 to 31 January 2011.

FINANCIAL IMPACT

2. Funding provision for all activities reported on in this item is included in either the 2010-11 Annual Plan or the 2009-19 Long-term Council Community Plan (LTCCP) under the River and Drainage Schemes Activity.

BACKGROUND

3. The focus for the Operations Group over the three-month reporting period has been the implementation of a full programme of capital works. Normally such works would have been underway in early November, especially in favourable weather conditions such as experienced this season. However delays in closing off various pre-requisite matters resulted in a late start to physical works in most schemes. In particular a number of resource consents have been required and the delayed lodgement of applications, as a consequence of staff being distracted by September flood issues, has had a flow on effect with the preparation of contract documentation and with tender processes.
4. Within the past few months, consent applications have been lodged in respect of Lower Manawatu Scheme (LMS) City Reach works, Ashhurst Stream Scheme flood protection proposals, Rangitikei Scheme flood protection upgrade works, Linton Main Drain stopbank upgrade works, Kopane bridge replacement (variation), Stoney Creek culvert replacement, Upper Manawatu Scheme gravel management and Turakina Scheme aerial spraying.
5. Nevertheless, most projects were either underway or were poised to commence by the end of January and subject to normal summer and autumn weather conditions, should be substantially completed by mid May.
6. A significant additional demand on staff time was experienced during the period in relation to inspection of flood damage and provision of information to form part of an insurance claim.
7. The claim process was initiated immediately following the floods in September and our insurers promptly assigned a company of loss adjusters to assess the damage. However those same loss adjusters have been heavily involved in the Canterbury earthquake claim and only completed their initial inspections of HRC damage in late January.
8. A formal claim was submitted to each of our insurers on 11 January in the sum of \$1.9 million. The most favourable scenario would be the acceptance of that claim in full by both insurers, with a total deductible of \$153,000, being 0.1% of declared asset value. It is hoped that some response will have been received in time for a verbal update to be provided at the Committee meeting. In the meantime the commencement of reinstatement works in respect of most insured damage is being deferred pending a response to the claim.

9. Horizons Regional Council (HRC) has been named as first defendant in a claim for damages (\$15,000) arising from flooding of a residential property on the outskirts of Levin. The flooding resulted from overflows from a willow congested section of the Koputaroa Stream that is outside the Koputaroa Scheme works area. In the past engineering advice and grant assistance has been offered for isolated improvement works, however that has been declined on the basis that the affected party believed HRC had a statutory responsibility to address the problem. That is clearly not our view and the claim is being defended accordingly. New Zealand Transport Agency and Horowhenua District Council (HDC) have been named as second and third defendants respectively.
10. As part of the HRC sponsored Wanganui Summer Programme, staff accompanied a group of interested people on a walk along part of the new stopbank at Balgownie and gave a presentation on Whanganui River flood risk. A demonstration of erection of the 'Blobal' stoplog at the Yacht Club was also arranged.
11. The Chairman, Cr Gordon and staff met with the Chief Executive and staff of Rangitikei District Council (RDC) in December to discuss Marton stormwater and flooding issues that had arisen in September 2010. RDC is currently undertaking some investigation of the Marton stormwater system and HRC has offered assistance in the form of providing rural catchment mapping, area and design run-off characteristics. It would appear that much of the flood water that entered the town in September originated from those catchments to the west of Marton that do not have runoff control through detention dams. It was also agreed that HRC will prepare a document that clearly sets out which stream and drainage channels are maintained as part of the Tutaenui Flood Control Scheme.
12. Staff have submitted in support of Palmerston North City Council's (PNCC's) Proposed Plan Change 2 that provides for the removal of the existing Cliff Protection Line at the top of Anzac Park Cliffs. The Plan Change is a critical step towards achieving channel realignment and cliff stabilization works that will enhance the integrity of the City's flood protection works, save future costs for erosion mitigation and reduce the risk to human life arising from potential collapse of the cliffs. Subject to the adoption of the Plan Change as proposed, HRC will proceed with an application for resource consents for channel realignment works. It is possible that a combined application, including the cliff stabilization component, will be prepared with PMB LandCo, the owner of land at the top of the cliffs.
13. A newsletter has been prepared for mailing to all Manawatu Drainage Scheme ratepayers, to initiate wider consultation around the proposal to install a large pump at the Burkes floodgates outlet from the Taonui Basin. The Committee was advised at the November meeting of the intention to conduct a preliminary non-statutory consultation process in advance of the statutory consultation process required for the Draft Annual Plan. In subsequent discussions with the Council Chair, it has been agreed that it would be more appropriate in this instance to address the pumping proposal through the one statutory consultation process. Accordingly a Statement of Proposal will be included in the Draft Annual Plan and public meetings to present the proposal will be scheduled in advance of but close to the Annual Plan consultation period. Submissions on the proposal will then be received and considered by the full Council, through the Annual Plan hearings process. It is proposed that the newsletter be mailed out in the week commencing 14 February. Copies will be available at the Committee meeting.
14. Annual meetings will again be held for 21 of the 33 river and drainage schemes managed by HRC. If possible all meetings will be held within the Annual Plan submissions period of 6 April to 6 May. A schedule of meetings is presently being prepared in consultation with the Committee Chair.
15. In consultation with Tanenuiarangi O Manawatu Incorporated (TMI), a name plaque has been designed for installation at the Okatia Steps on the Manawatu River bank

immediately downstream of the Fitzherbert bridge. The design will be available for Members' comment at the Committee meeting. It is proposed that the plaque be unveiled at a low-key ceremony towards the end of February.

ASSET MANAGEMENT

16. The mapping and digitising of infrastructural assets on the LMS is 95% complete. The maps will be issued to the scheme engineers for checking and verification at the beginning of February. Any revisions necessary to the asset registers will be undertaken subsequent to this verification.
17. The next scheme to be mapped is the Pohangina-Oroua Scheme. Work has already started on compiling the information, and digitising of the assets will commence in the middle of February.

SCHEME REVIEWS, AUDITS AND RATING SYSTEM REVIEWS

RANGITIKEI SCHEME – REVIEW OF CHANNEL MANAGEMENT

18. A submissions hearing was held on 9 September and the Hearing Committee's recommendations were adopted by Council at its December meeting. Discussions with the gravel industry are ongoing and the prospects of reaching a good level of agreement around transitional measures to achieve the necessary reduction in gravel extraction required to achieve a total recommended extraction quantity from the degradation reach of 30,000 cubic metres per annum within three years, are very good.
19. Provision has been made in the Draft 2010-11 Annual Plan for the funding implications arising from the review recommendations.
20. All submitters to the hearing have been informed of the outcome of the scheme review process.

MOUTOA DRAINAGE SCHEME AUDIT

21. An audit of the Scheme is underway to review the implementation of the 1997 Scheme Review and rating system, to report on changes since then and identify any further changes required. In particular the rating system will be reviewed to ensure that the system continues to collect rates in an equitable manner from those who benefit from Scheme works. In this regard there have been some significant new services (pumping) added to the Scheme in recent years and we need to ensure that the rating system is fairly apportioning the costs associated with those.
22. An audit report will be presented to the Committee at its April meeting.

UPPER WHANGANUI SCHEME AUDIT

23. An audit brief has been prepared and John Philpott and Associates have been engaged to undertake an audit of the Upper Whanganui Scheme. The Scheme was first established in 2003 and with the majority of capital works identified at the outset having been completed, it is timely that an audit of physical and financial performance against the objectives set out in the original scheme proposal be undertaken. The brief calls for the presentation of an audit report at the June meeting of the Committee.

DESIGN AND INVESTIGATIONS

WHANGANUI FLOOD RISK AND MITIGATION OPTIONS

24. Only minor design support for the Balgownie flood protection project has been necessary during this period, mainly on finalising the “planter-box stopbank”.

PAREWANUI STOPBANK

25. Design stopbank levels were determined for the Parewanui Stopbank for traverse distances 5,920 (river distance 7,900) to 7,040 (river distance 9,100). This section of stopbank is scheduled for upgrading during the current construction season. Note the stopbank distance is slightly shorter than the river distance as it is constructed essentially in a straight line. The design levels are for 1% Annual Exceedance Probability (AEP) flood flows plus 25 years aggradation plus 600 mm freeboard.

LOWER MANAWATU SCHEME

26. The resource consent application to upgrade the City Reach stopbanks to 0.2% AEP (500-year) was granted in early December 2010 and no appeals were lodged in the appeal period.
27. Design of the 120 m long Landfill Road floodwall was completed. This floodwall is up to 700 mm in height.

ASHHURST STOPBANK

28. An assessment of effects of the proposed new stopbank was undertaken for inclusion in the resource consent application lodged late in 2010.
29. A stability analysis was completed on a proposed floodwall included in the proposal. This wall is necessary because of the extremely narrow works corridor available in places.

BURKES PUMP STATION

30. A draft newsletter was prepared explaining the proposal to build a new pump station at the Manawatu River outlet to Burkes Drain.

LOWER MANAWATU SCHEME

31. An assessment was completed of the potential erosion threat to the Lower Manawatu River left bank stopbank near Paiaka Road (river distance 19 km). This is at a promontory near the now-abandoned “Speirs’ Floodgate”. The conclusion was that the threat of an undermining failure was low, but on balance it is worthwhile programming the realignment of a 70 m stretch of stopbank. The assessment also recommended further survey of areas where the berm was less than 5 m in width – to enable decisions on whether rock linings or stopbank setbacks are warranted.

MOUTOA DRAINAGE SCHEME – COOK’S DRAINAGE

32. Investigation and design work has been completed for a comprehensive upgrade of drains feeding to Cook’s Pump. A design report has been completed for consultation with ratepayers.

KAHUTERAWA STREAM MANAGEMENT PLAN

33. A draft newsletter has been prepared setting out the findings of recent investigations and details of the consultation process to commence shortly. While it was indicated at the November meeting of the Committee that consultation would be timed to allow inclusion of a proposal in the Draft 2010-11 Annual Plan, the timeline to achieve that has proven to be too tight. Accordingly it is now proposed to take a more measured approach to the consultation and to include a proposal, subject to community support, in the Draft 2012-22 LTCCP.

REGULATORY ADVICE

34. The design section provided a substantial amount of specialist advice on flood risks and technical reports for consent applications, rezonings and subdivisions during the reporting period. This included 25 recorded matters, including:
- technical assessment of 37 proposed bridges being constructed by the Department of Conservation on the Pureora-Ongarue Walkway;
 - advice on three other bridges;
 - advice on a proposed temporary ford on the Manga-Atua Stream;
 - advice on a new culvert for a private landowner at Kaitoke;
 - detailed assessment of a gravel consent on the upper Oroua River;
 - seven floor levels/floodability assessments involving both individual buildings and multiple lot subdivisions;
 - further discussions with Manawatu District Council (MDC) on the comprehensive stormwater consent covering part of Feilding;
 - advice on flood risks and mitigation for the Feilding urban growth study;
 - advice on the respective merits of two sites at AgResearch in Turitea; and
 - an array of various matters.

DESIGN ADVICE

35. Design advice has continued to be given to Operations Group project and scheme management staff and other department's staff in relation to several matters. An increased amount of advice has been necessary following the September 2010 floods and has included:
- finalising the detailed design of the repair to the Matapuna rock lining at Taumaranui;
 - advice to Ruapehu District Council on repairs to the Taumaranui water supply intake. Undermining is threatening the stability of two associated buildings;
 - advice on a proposed weir on the Oruakeretaki Stream;
 - remedial works to a weir on the Mangatainoka River;
 - detailed design of erosion protection works for the Marton Block Road on the Oroua River;
 - preliminary advice on erosion protection works on State Highway One near the Rangatira golf course;
 - a site visit to assess options to remedy erosion at the Riley farm on the Upper Manawatu River; and
 - assessment of several other remedial options for flood damage caused in the floods – particularly on the Mangatainoka River.

CENTRAL AREA

GENERAL

36. In comparison with the previous reporting period between August and October 2010, the climatic conditions during this reporting period have been very favourable with only relatively minor freshes being reported in the rivers within the LMS.
37. This settled weather pattern has allowed a considerable volume of work to be undertaken, even with the Christmas break temporarily stalling progress. Flood damage repairs from the September floods have been the focus of works during this period.

LOWER MANAWATU SCHEME (LMS)

38. Works undertaken within the LMS during November, December and January included:

MANAWATU RIVER MAINTENANCE

39. A stopbank mow was undertaken in December within the Palmerston North City reach. The Fitzroy bend bermland area was also mown in preparation for increased public use over the Christmas period. A programme of weed-eating and chemical spraying was carried out in conjunction with this mowing. The native plantings located on the true left bank of the Manawatu River, adjacent to the Fitzherbert Bridge, were release sprayed.
40. A programmed chemical spray of the rock protection assets throughout the Palmerston North reach, and the Fitzroy Bend groynes was carried out. The establishment of vegetation within rock linings is undesirable in that it may prevent rock from settling and retaining apron integrity in response to any toe scour.
41. A 7 km length of stopbank was mown at Foxton, including the walkway, to improve access. In this area, a 350 m length of river edge was sprayed to eradicate gorse.
42. During the winter months a large number of trees were removed from the vicinity of stopbanks within the Scheme and stacked for burning. A large stack was burnt during the period at river distance 14.5 km on the left bank. A buried culvert was also exposed and inspected at this location.
43. A large number of erosion sites were identified as a result of inspections after the floods of September 2010. Considerable progress has been made during this reporting period to address those sites with protection planting. A total of 5,132 willow poles were planted between river distance 39 km and 83 km. Because this work was carried out following the traditional planting season, large willow poles in excess of 2 m in length were utilised. All of these poles required machine planting.
44. At most of the planting sites, additional preparation works were required prior to planting willow poles. This mainly consisted of reshaping the bank.
45. At river distance 64.5 km on the right bank, existing tree groynes that were damaged during the September 2010 floods have been re-pinned into place.
46. The newly constructed stopbank up-stream of Palmerston North on the Barnett/Vanderkolk properties was mown and chemically sprayed for weeds.
47. Prior to the Christmas break, all of the Manawatu River floodgate outlets were inspected to ensure they were operational.

MANAWATU RIVER CAPITAL EROSION PROTECTION WORKS

48. Within the Palmerston North City reach, a total of 307 m of tied tree bank protection was constructed at four locations. The majority of this work was carried out adjacent to the walkway behind the Esplanade. Riverbank reshaping and pole planting was also carried out at these sites.
49. Also within the Palmerston North City reach, several other sites which were damaged in the floods during September 2010 were repaired. Downstream of the Fitzherbert Bridge at the river access steps, the bermland behind the structure was reinstated, extra rock was placed around the existing drainage pipe and the whole area replanted.
50. At the Ruamahanga Reserve rock lining site, a length of bermland above the rock lining required reinstating. The new Gas works Drain culvert required some minor repairs at both the invert and outlet ends. This was completed using rock.
51. A short section of tied tree bank protection was also undertaken on the left bank downstream of the Ashhurst Bridge. At this location, an erosion site had developed at the top end of a length of layered willows.
52. Capex works also included the delivery and placement of a further 510 tonne of concrete riprap to the significant Staces Road erosion site located at river distance 85.6 km.

OROUA RIVER MAINTENANCE

53. On the Oroua River, works have focused on vegetation clearance. This is further discussed in the vegetation management section of this report.
54. Other maintenance work has included the mowing of a one kilometre section of un-grazed stopbank up-stream of Kopane. Floodgate inspections were undertaken prior to the Christmas break to ensure they were operational.
55. Also just up-stream of Kopane on the Rowe property, approximately 250 willow poles were planted on the right bank.

OROUA RIVER CAPITAL EROSION PROTECTION WORKS

56. Capex works comprised the construction of 20 tree groynes to protect an erosion site on the Patching property at river distance 32.2 km on the right bank. Just up-stream of these works, 120 m of tied tree bank protection was established on the Fleming property.
57. At river distance 27 km, 360 m of tied tree bank protection was constructed on the Rowe property. A further 30 m of tree protection was established at river distance 25 km. Opposite this property on the left bank, a further 148 m length of tied tree bank protection was constructed on the Harnett property.
58. Located behind the Rangiotu Marae, two erosion sites were reinstated using tree groynes on the Lynch property.

MANGAONE STREAM

59. A programmed stopbank mow was carried out within the Palmerston North city reach. Weed-eating and chemical spraying of weeds was conducted at the same time.

60. A programmed maintenance run was carried out in Jacks Creek, a tributary of the Mangaone near Bunnythorpe. The very tight channel was chemically sprayed to clear back the blackberry that has infested this area.
61. The Mangaone Stream channel sustained moderate erosion damage during the floods of September 2010. A programme of protection works has begun with the commencement of rock delivery totaling approximately 2,500 tonne.

MAKINO STREAM

62. The Makino Stream channel throughout Feilding was subject to a scheduled maintenance run in the form of channel clearance, chemical spraying, and the re-instatement of rock back into protection works. The Makino Stream flood diversion structure was also given a tidy up with grass areas being mown, weed spraying, debris clearance, and fence repairs being undertaken.
63. Works have begun to permanently reinstate 100 m of stopbank that failed below Manfield Park during the September 2010 floods. A temporary gravel stopbank has been in place since that event. Clay material has been stockpiled on site and a contractor has begun the reconstruction.
64. Just up-stream of Boness Road, a 50 m length of tied tree bank protection has been constructed on the Avery property. Up-stream of the Makino flood diversion structure, a total of 105 m of tied tree bank protection has been constructed at three locations.
65. A diesel powered generator was purchased and installed at the Reid Line sluiceways to provide back-up power for gates operations.

TOKOMARU RIVER, MANGAPUKATEA STREAM, MANGAORE STREAM, KARA STREAM

66. All floodgates were inspected prior to the Christmas break.

MOUTOA FLOODWAY AND TOWER

67. All floodgates within the floodway were inspected prior to the Christmas break to ensure they were operational.
68. Scheduled maintenance also included the spraying of weeds around all structures, car park and the Control Tower. Grass at the concrete piers was also mown.

VEGETATION MANAGEMENT

69. A programme of spraying for willow re-growth on Manawatu River beaches was undertaken between river distances 67 km and 97 km. These beaches were located at the Akers property at river distance 67 km, two sites adjacent to Massey farms at 77.1 km and 80 km, and at the Barnett property at river distance 86.5 km. Three further beaches were sprayed at Blenkiron's, Hoult's, and Higgin's, at river distance 87.5 km, 91.3 km and 97 km.
70. On the Oroua River, a programme of vegetation clearance has been undertaken between Awahuri and Feilding covering an 8 km reach of river. A total length of 4,200 m was mulched within this reach. The focus of this work was to mulch the vegetation back off the points on internal bends and to control any other growth encroaching out into the channel.

KIWITEA STREAM

71. A scheduled maintenance run was undertaken with works incorporating channel clearance and gravel redistribution. At two sites, a total length of 190 m of layering was carried out and a small 8 m erosion site was reinstated with tied tree bank protection.

LOWER MANAWATU SCHEME – CITY REACH PROJECT

GENERAL

72. Works to be completed this construction season are as follows:
- Construction of 1,200 m of new stopbank from the Napier Road ‘hump’ to the existing upgraded stopbank at Ruamahanga Crescent.
 - Raising of the existing stopbank between Roxburgh Crescent and Albert Street. (1,500 m).
 - Construction of 690 m of stopbank and 120 m of concrete floodwall downstream of Maxwell’s Line, together with the raising of three road crossings.

NAPIER ROAD RAISING

73. The major City Reach works scheduled for completion in the year ending June 2010 were in the vicinity of the Napier Road Drain at the north-eastern gateway to the ‘City’. Those works comprised the raising of the State Highway formation and the construction of a concrete floodwall and earth embankment between the highway and the high terrace to the north.
74. The concrete wall and embankment were substantially completed; however contract works on the highway were suspended in late July due to unsuitable weather conditions. Work recommenced in the second week of September and good progress has since been made.
75. All work on the contract has now been completed. This includes the main carriageway, the industrial subdivision intersection and the private driveways. The ‘Certificate of Practical Completion’ was issued on the 19 November 2010. The Defects Liability Period will expire on the 18 November 2011.
76. Twenty ‘Notices to Contractor’ have been issued instructing various changes and/or variations to construction plans. Most are of a minor nature; however two are significant and will ultimately lower the value of the contract works. The adjusted contract value is \$536,527, against the contract awarded cost of \$592,717. One more contract payment is to be made for the period of December and January.

NAPIER ROAD STOPBANKS

77. Negotiations have been finalised with both the landowners on the eastern side of Napier Road to facilitate the construction of a new stopbank, commencing at the existing upgraded stopbank adjacent to the Manawatu River in the vicinity of the Napier Road Drain outlet, and linking into the newly constructed ‘hump’ on State Highway 3.
78. The construction site has been cleared of large macrocarpas and gum trees and the access track into the construction site has been upgraded.
79. Quotes for the supply to stockpile of the 10,000 cubic metres of fill material required for the construction of the new stopbank were obtained. Prices came in from three contractors, and ranged in value from \$154,500 to \$240,000. The work was awarded to Paranui Contractors Limited in the sum of \$154,500.

80. The contract to construct the new stopbank was advertised, with tenders closing on 21 December 2010. Ten tenders were received, with prices ranging from \$87,948 to \$257,106. The engineers estimate was \$109,973. A contract has been awarded to Allan Gibson Ltd. of Levin for the sum of \$87,948.35.
81. Construction works commenced on 21 January. The contract period is eight weeks.
82. On the western side of Napier Road, through MacPhersons Nursery, the earth stopbank was completed. The waste material which had been stockpiled over the winter months, was trucked off site. The whole construction site was reinstated, harrowed and sown. New fencing was erected and a floodgate was installed on the culvert pipe through the stopbank crossing the old oxbow lagoon.

MAXWELLS LINE AND LANDFILL STOPBANK

83. Survey, design and plans have been completed for the upgrading of the flood protection from Maxwell's Line downstream to the entrance to the Palmerston North City Landfill site.
84. Works will consist of raising the level of the Maxwell's Line/Tip Road intersection, raising the height of the existing stopbank adjacent to Tip Road, constructing an engineered concrete retaining wall along the back boundary fence of the houses in Escort Grove, constructing a new earth stopbank through the adjoining paddocks to the Higgins Redimix plant, crossing the Tip Road (raising) and constructing a new earth stopbank adjacent to the road to a point where it will again cross the road (raising again) and continue on downstream to blend into the high ground at the Landfill entrance.
85. Negotiations have been finalised with landowners regarding the route of the proposed stopbank.
86. Quotes were sought from suitable contactors for the construction of the engineered concrete retaining wall (115 m) along the back boundary fence of the houses in Escort grove. ABC Contractors Ltd. was awarded the contract in the sum of \$59,685. The engineer's estimate was \$69,000. Construction works are underway.
87. Three roading contractors have been requested to quote for the reconstruction of the Maxwell's Line/Tip Road intersection, plus the raising of Tip Road in two locations. The closing date for these quotations is 4 February 2011.

ROXBOROUGH CRESENT / ALBERT STREET STOPBANK

88. The length of existing stopbank on the true right bank of the Manawatu River through Palmerston North City from Roxburgh Crescent downstream to Albert Street (1500 m) is being upgraded.
89. Material for the reconstruction has already been stockpiled on site in two locations. The reconstruction work was tendered in December 2010. Seven tenders were received by the closing date of 17 December, with prices ranging from \$158,728 to \$457,657. The engineer's estimate for the contract was \$228,609.
90. A contract has been awarded to G. Bagrie Ltd. of Waitarere for the tendered price of \$158,728.60. Work is due to commence during the first week of February.

LOWER MANAWATU SCHEME RURAL FLOOD PROTECTION UPGRADE PROJECT

KOPANE BRIDGE REPLACEMENT

91. The closing date of tenders for this project was 17 August 2010 and a contract was subsequently awarded to Higgins Contractors Ltd on 3 November 2010 in the sum of \$4,287,753. The successful tender is an alternative design which provides significant cost savings to Council through the use of more conventional pile foundations and piers, whilst retaining the conforming bridge superstructure and road realignment configuration.
92. Works commenced on 13 December 2010 with tree clearance and the removal of river bed gravels and silt from around the existing bridge. The removal of river bed material over a 900 m reach of the river approximately centred on the bridge, in advance of bridge foundation works, is a consent condition imposed to ensure that the present bridge waterway is maintained during construction of the new structure. The excavated gravel is able to be used to form part of the bulk fill required for the realignment of Rongotea Road. The total amount of gravel available is 15,000 m³ with the remainder of the 90,000 m³ of fill required for the road formation being taken in the form of silts from the river berms upstream and downstream of the site.
93. Good progress has also been made to date with the driving of two pile casings and the placement of fill on the new bridge approaches. The contractor has advised that it is his objective to complete the contract by the end of 2011 – well ahead of the contract period.

LINTON MAIN DRAIN – STOPBANK UPGRADE

94. Two contracts to upgrade sections of the Linton Main Drain stopbanks on the right bank downstream of Ashlea Road and on both banks upstream of Ashlea Road were suspended in June last year on account of inclement weather. The contractor (Downer EDI Ltd) re-established on site on 6 December and has since made good progress with completing those works. To date, a Certificate of Substantial Completion has been issued in respect of the works upstream of Ashlea Road and the defects Liability Period will end on 27 April 2011. It is anticipated that the works downstream of Ashlea Road will be substantially completed by the end of February.
95. Tenders closed on 9 November 2010 for contract works to extend the Linton Main Drain stopbank upgrade for a further 300 m upstream of works referred to above. The successful tender was submitted by Pratt Quarries Ltd (PQL) in the sum of \$557,428. PQL will establish on site on 25 January 2011 to coincide with Downer EDI Ltd achieving practical completion with their adjoining contract.
96. Design work has been completed for the extension of the Ashlea Rd bridge wing-walls which are required to transition the bridge structure into the newly upgraded stopbank. The design has been approved by the HDC Roding Engineer. Linework Power Contractors have also been engaged to relocate the overhead power lines which currently interfere with the alignment of the upgraded stopbank at the bridge.
97. Work will commence in January 2011 to construct a retaining wall behind the Ashlea Rd Pump Station. This wall is required to ensure that the pumpstation and associated structures are not affected by the stopbank upgrade works.

MANAWATU RIVER – STACES ROAD STOPBANK

98. A contract for the construction and upgrading of 1,530 m of stopbank below Aokautere School was suspended in June 2010 on account of inclement weather. Works re-commenced in December and practical completion was achieved on 21 January 2011.

MAKINO STREAM STOPBANK UPGRADE AT WARWICK STREET, FEILDING

99. A contract was awarded to Pratt Quarries Ltd in the sum of \$56,666.40 for the construction of short sections of stopbank on both banks of the Makino Stream between Warwick and Manchester Streets in Feilding. Works commenced on site on 13 December 2010 and achieved practical completion on 20 January 2011.

STONEY CREEK CULVERT

100. Survey and design work has been completed to replace the culvert on Stoney Creek where this creek passes under the Manawatu River stopbank at Te Matai Rd. Resource Consent has been granted and Land Entry Agreements have been put in place with affected landowners. The work is required due to the existing culverts being too small to adequately release water that ponds behind the stopbank during significant flood events.
101. This work was initially planned to be carried out in February 2011 however a decision has been made to postpone the project due to the significant funding commitments that have been made in respect of the Kopane Bridge and Linton Main Drain projects.

LOWER KIWITEA SCHEME

102. A scheduled maintenance run incorporated 841 m of willow layering at numerous sites throughout eleven properties. A small number of willow poles were also planted to boost existing planted sites.
103. The focus of works carried out during this period was damage repairs required as a result of the September 2010 floods. A total of 652 m of tied tree bank protection was constructed to repair erosion at 16 sites.

ASHHURST STREAM SCHEME

104. The Committee received an update on the proposal to upgrade flood protection for the residential and industrial areas of Ashhurst township, at its November 2010 meeting. The essence of the update was that detailed investigation and design work had identified a number of issues that resulted in a significantly increased cost estimate for the project.
105. A public meeting was held at Ashhurst on 8 December 2010 to explain the issues that had arisen and their impact on estimated project costs and on targeted rates for the Scheme. Some matters were raised as regards individual property impacts associated with the final works proposals, however there was general acceptance of the increased costs and no suggestion that the project should be reconsidered.
106. Those ratepayers who raised issues have all been visited and their concerns have generally been addressed. An application for resource consent has subsequently been prepared and was lodged late in December. It is anticipated that consent will be granted in February and that a first stage of works will proceed this construction season.

NORTHERN AREA

GENERAL

107. Weather conditions over the three months have been generally favourable, with little rainfall. In fact for many parts of the northern area near drought conditions have been experienced.

108. Two weather events of note passed through the region, the first being on 28 December when a storm front had little impact on the northern area. Strong winds were experienced and despite some good rainfall in the upper catchments of the Rangitikei and Whanganui, river flows were not significantly elevated.
109. A second storm front passed over the North Island over the weekend 22-24 January and brought significant rain across the region, particularly to the headwaters of the Whanganui, Whangaehu and Rangitikei Rivers. The outcome of this storm was high flow levels particularly in the Whanganui River where a peak level of 10.39 m and flow of 2,566 m³/sec was recorded at Pipiriki. Fortunately the peak flow did not coincide with a high tide so little more than localized flooding occurred.
110. The Whangaehu River peaked at a level of 8.4 m and a flow of 700 m³/sec at Kauangaroa. The community at Whangaehu Village was on alert for the night as the river and high tide threatened flooding, but fortunately the peak flow was contained in the channel.
111. The Rangitikei River reached a peak level of 6.53 m and flow of 1,130 m³/sec. at Mangaweka. Initial observation would suggest that there has been some aggravation of damage suffered at a number of sites in the September flood. A river survey will be undertaken as soon as conditions allow to more fully assess the situation.
112. Medium flood flows were experienced in the Oroua and Pohangina Rivers, but were significantly less than the September and October flood events with peak flows of 83 m³/sec and 267 m³/sec respectively. The rivers will be inspected as soon as practicable to assess any damage aggravation.
113. The Matarawa experienced high flows, with a peak of 1.73 m recorded at the City Branch. There has been some further damage to the river bank at the entrance to the diversion channel which is threatening a farm track, but overall the Scheme coped well with the flows.
114. Inspections of flood damage from the protracted September flood event were undertaken over a number of days and were completed with the assessor on 18 January. In total three schemes suffered damage to insured assets across the northern area, with a total estimate of \$700,000 for reinstatement work. In total 21 insured sites require repairs, while at another 80 sites either damage has occurred to non-insured assets or new erosion sites have developed.
115. An erosion site caused by September floods that is threatening the Whanganui River water intake for the Taumarunui community was inspected by the Manager of Design and the Area Engineer - Northern in December. A rock lining design was prepared and forwarded to Ruapehu District Council staff for their consideration. An offer has been made to incorporate work at that site in a contract for similar works being undertaken as a Scheme work in close proximity.
116. A consultant engaged by the Consents team undertook a study of the potential impact of new development work at Ohakea on Makowai Stream flows, especially in light of the recent flooding of a near new home on Fagan's Rd. The report from the consultant concluded that the development at Ohakea is not significantly adding to peak flows in the Makowai, and in fact the total runoff from Ohakea is only approximately 6% of the total contribution of the very large catchment upstream of Speedy Road. It then can be surmised that the flooding that impacted on the Fagan Road property in September was due more to the extreme rainfall/runoff experienced; limited channel capacity; and localized obstructions particularly in the form of vegetation. House location and floor level advice provided in July 2007 in respect of the Fagan Road house was based on the best information then available, however as a result of the flooding that occurred in September,

Council's information has been updated and clearly different advice would be given in respect of any building proposed in the future.

117. Some significant staff changes in the Northern Area as from 1 January have resulted in an increase in capacity to respond to both increased scheme management demands and the many wider issues that arise within the geographically very large northern area. Lew Marsh is now working four days a week in the Marton office in this capacity.

RANGITIKEI RIVER CONTROL SCHEME

118. A meeting was held with owners of properties adjoining the lower sections of the Parewanui stopbank who have concerns regarding impeded egress for drainage flows and local runoff at times when Rangitikei River levels are elevated. They have asked staff to consider the possibility of installing pumps to alleviate the surface flooding that impacts upon their farming operations. Staff are considering whether this is really a Scheme issue or an issue for the landowners involved and will further discuss the matter at the next liaison committee meeting.
119. A meeting with Ngati Waewae representatives was held at Onepuhi with regard to the proposed logging of trees planted by the Scheme on river reserve land that is the subject of ownership dispute. The trees concerned are mature and the river is encroaching on the plantation with the result that a significant number of trees have been washed down the river. After robust discussion it was agreed:
- that the trees could be logged once Ngati Waewae had been formally advised of estimated returns;
 - that Ngati Waewae be advised of the actual logging returns on completion of the work;
 - that all recoveries be expended on river management works within the particular reach of river that is of interest/concern to Ngati Waewae; and
 - that the details of all such works including costs be reported to Ngati Waewae.
120. This agreement allows for the funding of specific capital works within the river reach concerned, as proposed in the recently adopted Scheme review.
121. Subsequently, proposals have been received from two logging consultants and a proposal submitted by John Turkington Limited has been accepted. It is anticipated that logging will commence in mid-February.
122. Staff are awaiting a response to our insurance claim prior to commencing the reinstatement of insured asset damage arising from the September 2010 flood. However two sites have been reinstated in the interim because sufficient quantities of armour rock were available on site. Repairs to non-insured assets will be undertaken on a prioritised basis as approved funding allows. In all cases, repairs will be considered in the context of the new channel design widths and alignment, as adopted through the recent Scheme review.
123. Works undertaken over the reporting period include 700 m of layering; 510 m of willow clearing; 365 m of live tree bank protection works; and clearing of a beach around Kakariki Bridge. Five ha of pine trees have been logged from the Walker plantation in Parewanui Rd; some rock has been recovered from the river from a 350 m rock lining seriously damaged in September; and concrete rubble has been stockpiled in one location.
124. Stopbanks have been inspected and floodgates have been checked and cleaned. Plant pests on the stopbank have been sprayed and the Parewanui stopbank crest has been mowed.

RANGITIKEI SCHEME CAPITAL WORKS PROGRAMME

125. **Tangimoana Flood Protection – Stage 2.** Good progress has been made over the reporting period with the major part of the contract completed by 21 January. There will be some minor tidying up work to still be completed including fencing, topsoiling and grass seeding when soil conditions allow, probably towards the end of March.
126. **Tangimoana Stormwater Pump Station.** Significant flooding occurs from time to time at the north-east end of the Tangimoana township (Corner of Aru and Punga Streets) due to a floodgated culvert being blocked when high flow conditions exist in the Rangitikei River. During the public consultation period relating to the flood protection upgrade proposal, it was agreed that MDC and HRC would install a pump to alleviate this surface water flooding as part of the stopbank and flood protection works. Currently staff are working on designs and drawings and it is anticipated that the pump installation will occur during March/April this year. This aspect of the overall flood protection project is primarily being funded by MDC in that it addresses a long-standing urban stormwater issue in the Tangimoana Community.
127. **Parewanui Stopbank Upgrade – Flockhouse.** A further 1.2 km section of the Parewanui stopbank is scheduled for upgrade this year. The section extends downstream from the downstream limit (in the vicinity of Burnsford Road) of previously completed upgrade works. A consent application has been submitted and contract documents have been prepared. A total of 19,000 cubic metres of earthworks will be involved in raising the section of stopbank by approximately 1 m. Tenders for the work closed on 25 January and a contract has subsequently been awarded to Gary Holland Earthmovers Limited of Paraparaumu in the sum of \$131,859. The Engineer's estimate was \$193,136.

POHANGINA-OROUA RIVER CONTROL SCHEME

128. A scheme liaison meeting was held in November, primarily to discuss the erosion resulting from the September and October floods, and the implication on works programmes and Scheme finances.
129. Repairs to damaged erosion protection assets are estimated to cost approximately \$200,000, which is double the approved budget for those works. In this Scheme, all erosion protection works are 60% funded by the landowner concerned, 20% funded from the general rate and 20% funded from scheme rates. In establishing this new funding arrangement in 2008, it was clearly understood that in the event of demand for scheme subsidy on erosion protection works exceeding the approved budget, additional Scheme funding would be sourced from Scheme reserves. Accordingly, depending on the level of uptake by landowners, up to \$20,000 will be withdrawn from reserves and an additional un-budgeted \$20,000 will be required from the general rate. The liaison committee recommended that funds be released from reserves and that Council be requested to approve the additional general rate contribution required.
130. A considerable amount of staff time has been expended in responding to issues raised by a particular ratepayer. The issues are related to performance expectations around works that are not funded by the landowner concerned. These issues are yet to be resolved and the next step will be to involve the liaison committee.
131. Further erosion has occurred on the left bank of the Pohangina River adjoining Pohangina Valley East Road. Repair works at this site will require significant funding from MDC since it is their road asset that is a risk. A decision on funding from NZTA is awaited and in the meantime gravel relocation works have been undertaken by the Scheme to temporarily relieve erosion encroachment on the road reserve.

132. Gravel extractions for the following rivers have been recorded for the months of October to December.
- Pohangina - 210 m³
 - Oroua - 3600 m³
133. Landowner funded erosion works mainly associated with damage arising from September and October floods have been undertaken at three sites on the Pohangina River and nine sites on the Oroua River.
134. On the Oroua River, planting and layering works have been undertaken at one site and a programme of channel clearing and gravel beach shaping has been completed
135. Gravel beach work at five sites, along with groyne repairs and tree layering at one site, was completed on the Pohangina.

POHANGINA-OROUA SCHEME - TOTARA RESERVE PROJECT

136. The programmed erosion control works for the Totara Reserve reach of the Pohangina River are all but complete and will complement last season's works which have begun to consolidate well with good willow growth evident.
137. Gravel movement has continued to occur through the avulsed channel opposite Camp Rangī Woods. It appears that the designed channel alignment is settling in with less gravel movement when compared to the movement that took place last year. However some gravel redistribution has been required recently in order to maintain this alignment and to clear any unwanted gravel build-ups.
138. One further site of concern is that adjoining the picnic area between the road bridge and the eroding bluff. Channel capacity is restricted here and this may become a problem during a large flood. The concern is that water could flood into the upper picnic area. Further investigations are required in this regard.

UPPER WHANGANUI RIVER MANAGEMENT SCHEME

139. A scheme liaison meeting was held on 6 December. A report on works completed and proposed works still to be done over the financial year was the focus of discussion at the meeting. Committee members also visited the Turaki Street rock lining site to look at the work completed in this area.
140. A draft scoping report document for a Scheme audit has been prepared and will be peer-reviewed before engaging a Scheme reviewer.
141. Final drawings and contract documentation for a proposed rock toe lining and extension work at Matapuna are currently being prepared. Prices for the work will be sought early in February and it is anticipated that works will be completed by mid March.
142. Maintenance works accomplished over the reporting period include rock lining repairs in two locations; tree clearing and thinning; fence repairs; and mechanical drain cleaning. No further maintenance works will be undertaken until the funding commitment associated with programmed capital works is confirmed.

MATARAWA FLOOD CONTROL SCHEME

143. A scheme liaison meeting was held in November with an average turnout of members. Discussion focused on the Scheme maintenance programme, damage arising from the September floods and to what extent insurance would fund repairs. It is expected that the

most important work around the Mateongaonga diversion structure will be funded by insurance with other works either a Scheme cost or landowner responsibility.

144. A site survey has been completed at the Mateongaonga diversion structure and design of reinstatement works is underway. This is a priority issue and while it would be desirable to have certainty around our insurance claim, it may be necessary to proceed with remedial works without that certainty.
145. Work has commenced on stream bank erosion protection works in the lower reach of the Mateongaonga Stream. The works include the placement of railway irons and netting to restore the bank shape and resist further erosion; the removal of trees that have fallen in and are contributing to bank erosion; and the placement of rock and concrete blocks to restore a proper alignment through a particularly tight bend. Planting of willows and native shrubs will also take place at the appropriate time. Work was interrupted by the impact of the Wanganui River flood of 22-24 February. This has necessitated an application for consent variation to allow the works to be completed during the month of February, when a current consent condition, precludes that occurring.
146. Other works that have been completed over the period include the spraying of Bardell Drain along No. 3 Line; checking and clearing of all detention dams and associated inlet/outlet structures; and grassing and harrowing of the ponding area of Dam 1.2.

TUTAENUI FLOOD CONTROL SCHEME

147. A scheme liaison committee meeting was held in November which focused on the September floods, forward work programme and finances. It was noted that there were a number of minor in-stream issues that will need to be dealt with as part of general inspections and maintenance works.
148. Only a minor amount of activity has occurred in the Scheme over the reporting period, with the dams being inspected and cleared, along with some plant pest spraying.

MAKIRIKIRI FLOOD CONTROL SCHEME

149. Repairs to flood damaged flow and grade control structures have been delayed until a response has been received to our insurance claim. The insurance assessor has inspected the various damaged assets and may require further scoping proposals before final approval is given for repairs.

POREWA FLOOD CONTROL SCHEME

150. Only minor activity has been undertaken in the Porewa Scheme over the period, with the removal of trees from the channel at two locations.

PAKIHI FLOOD CONTROL SCHEME

151. An inspection of the channel was undertaken by the Scheme manager. A meeting with the Scheme ratepayers has been scheduled for early February to discuss the Scheme works programme for the year.

WHANGAEHU-MANGAWHERO RIVER MANAGEMENT SCHEME

152. A Scheme liaison meeting was held on 2 December. The meeting discussed the works programme for the current year, including an aerial spraying programme. The Committee was presented with an updated 20-year funding forecast, based on actual expenditure to date and projected expenditure based on an amended forward programme that

recognises experience gained in the four years since the Scheme was established. The new forecast indicates that Scheme rates will peak at a level 7.5% lower than indicated in the original Scheme proposal. This primarily results from savings made through changes in work techniques and resulting reduced borrowings.

153. Scheme work completed over the period included the clearing of vegetation from a total of 1.6 km of river channel at four locations and clearing of one river blockage. The aerial spraying programme was advertised in November. Notices of intention to spray will be forwarded to potentially affected landowners three weeks prior to the operation scheduled for March.

LOWER WHANGANUI RIVER SCHEME

154. The flows in the Whanganui River over the reporting period have been low and until 22-23 January had no impact on the construction works related to the new flood protection works at Balgownie.
155. A Draft Asset Maintenance Plan has been prepared for the new flood protection works shortly to be completed at Balgownie. The works comprise a number of different asset types, each with particular maintenance requirements, located in an area where a high level of 'wear and tear' can be expected. For this reason it is imperative that an appropriate inspection and maintenance regime is in place and the specific Plan being prepared will reflect that need.

Capital Works

156. A Certificate of Practical Completion was awarded on 23 December 2010 in respect of the substantial contract to construct the stopbanks and blockwalls at Balgownie. Practical completion is awarded by the Engineer to the Contract when he judges that the contract works have been completed except for minor omissions or minor defects that do not prevent the contract works from being used for their intended purpose. In this case the minor work to be undertaken involves re-harrowing and seeding the earth embankments when soil and weather conditions are more suitable – as is expected early in March.
157. A three month period of defects liability commenced on the award of the Practical Completion Certificate and will terminate on 17 March 2011. During this period, the contractor shall rectify any defects arising from defective workmanship or materials.
158. The final contract cost including all variations and dayworks was significantly below the second ranked contractor in the tender evaluation process. The overall estimated project cost for completing all flood protection works at Balgownie is still marginally within the original project estimate of \$3.2 million, as developed in 2008.
159. With the major contract completed, attention is now focused on three relatively small works required to provide a continuous flood defence between Balgownie Avenue and lower Wharf Street. Details of those three works are as follows:
- **Gilberd Street 'planter box' flood wall.** – Contract documentation was prepared in early November with tenders closing on 30 November. Four tenders were received ranging from \$164,087 to \$288,345. The Engineer's estimate was \$175,581. The lowest tender price of \$164,087 submitted by Whitaker Civil Engineering Ltd of New Plymouth was accepted and a contract has subsequently been awarded. Work on the eight week contract commenced on 10 January 2011. The contract involves the construction of 175 m of compacted earth-filled timber planter boxes to provide flood protection along a short length of river bank where there is insufficient width for either conventional earth stopbanking or earth filled concrete block walls. To date the contractor has completed the tie-in to the existing downstream stone block floodwall,

excavated the foundations for the planter boxes and commenced installation of the timber posts for the timber flood wall.

- **Wharf Street Timber Flood Wall** – Design and plans have been completed and a minor works contract document prepared for the construction of 150 m of timber flood wall around two houses at numbers 2 and 3 Wharf Street. The estimated cost is \$45,000 and it is expected that the work will be completed by the end of March 2011.
- **Wharf Street to Heads Road Stopbank** – Over the last three months several options have been investigated for the final short section of stopbank required to close the downstream end of the Balgownie flood compartment off into high ground at Heads Road. Protracted discussions have been held with Wanganui District Council (WDC) in an endeavour to satisfy its interests in providing access from Heads Road to Wharf Street in conjunction with the flood protection. Discussions are also being held with an affected landowner. It is expected that a final decision will be made by the end of January; that plans and documentation will then be completed; and prices sought for the works. The firm objective is to have all works completed by the end of April.

VEGETATION MANAGEMENT PROGRAMME

160. Vegetation management activities completed over the period include the monthly maintenance around the Upokongaro site and a meeting regarding proposed walkway improvements at that site. Planning for planting work to be undertaken during the approaching winter months as part of the Balgownie flood protection project has almost been completed and some initial site preparation and planting has been undertaken. Clearing and thinning of vegetation was also undertaken at two sites.

TURAKINA RIVER MANAGEMENT SCHEME

161. The inaugural liaison committee meeting was held on 1 December with seven people in attendance. The meeting started with a discussion on the setup of the committee, with Patrick O'Neill elected chairman. Issues discussed included the role of a liaison committee; the boat inspection undertaken by HRC staff to assess the areas of high priority work; a consent application to allow aerial spraying of river bank vegetation; NZTA involvement in blockage removal by the SH3 Bridge; and the need to set aside significant money to deal with river blockages due to vegetation infestation.
162. The aerial spray consent application has been submitted and is awaiting approval.
163. Works accomplished over the period include removal of debris from the vicinity of the SH3 bridge and nearby sites.

EASTERN AREA

GENERAL

164. November through to late January was particularly dry with less than 250 mm of rainfall across most of the catchment. While low river levels made bank erosion repairs easier there is a concern that some of last winter's plantings have been under stress. The dry spell was broken on January 23 with most of the area receiving 100 mm of rain over a 36 hour period; as a result flooding was recorded in most rivers. While it is expected that there will be some aggravation to existing erosion sites, early inspections show that the damage has been minimal. Importantly river levels have fallen steadily allowing works to continue with little interruption.

165. Work to repair river bank erosion and damage to erosion protection structures, which occurred as a result of the September 2010 flood, is well underway in the Mangatainoka and Upper Manawatu/Lower Mangahao River Schemes. Although this event had a lesser effect on the South Eastern Ruahine streams, good progress has been made there with the majority of all repairs now completed.
166. Staff have been inspecting Willow plantations for signs of Willow Sawfly, with none found to date. Generally all established Willow plantings throughout the Eastern Schemes look healthy with plenty of new growth.
167. The estimated cost to repair high priority damage as a result of the September floods in the Mangatainoka, Upper Manawatu/Lower Mangahao and South Eastern Ruahine Schemes exceeds approved budgets. For this reason a recommendation was made to the respective liaison committees and to the Group Manager to make the following funds available:
- | | |
|---------------------------------|-----------|
| Mangatainoka | \$380,000 |
| Upper Manawatu / Lower Mangahao | \$82,000 |
| South Eastern Ruahine | \$62,000 |
168. Approval for the use of scheme reserves has been granted, however a decision on the application of the General Rate component in accordance with Council's funding policy has been deferred pending consideration of 2011-12 budgets. If ultimately approved, these extra funds will allow the scheme managers to work toward getting all high priority works completed before winter. Staff are also working with Insurance assessors in order to gain further funding toward the repair of insured assets.
169. The preparation of a Resource Consent application to aurally spray re-growth on beaches in the Mangatainoka and Upper Manawatu/Lower Mangahao Schemes is currently on hold as other priorities are being focused on. Work on this application will resume during the coming winter.

AKITIO SCHEME

170. Willow spraying is programmed to resume in March 2011. Staff have spent time visiting a number of ratepayers to discuss these proposed works.
171. Landowners have commented that the river is "looking good" with little slumping or erosion of the banks resulting from the September floods.

EASTERN MANAWATU SCHEME

172. Willow spraying is programmed to resume in March, while work to repair willow plantings affected by spray drift on a property near Oringi two seasons ago was completed in December. The effect of the spray drift became apparent last summer and an insurance claim was made to fund the repairs.
173. Staff have spent time visiting a number of ratepayers to discuss the proposed aerial spraying works.

MANGATAINOKA SCHEME

174. Re-programmed works including work to repair damage to riverbanks and bank protection structures as a result of the September flood is well underway, with funding from the emergency reserve being approved (less the General rate contribution at this stage). Subject to the outcome of our insurance claim, the majority of all high priority works

should be completed this year. These works will include some large rock lining projects, tree bank protection works and permeable mesh unit repairs.

175. While river works have been focused on repairing erosion and damaged erosion protection structures, the willow layering programme has been largely maintained. This is because layering carried out in recent years has proved to reduce the amount of bank erosion during the floods.
176. Scheme drain inspections are underway with spraying and mechanical cleaning planned for the coming months. A notice will be sent to all drainage ratepayers to inform them of the intended works early February.
177. Because the damage to Scheme assets throughout the region during the September flood was significant, an insurance claim has been lodged. A total of 28 assets from the Mangatainoka Scheme were included in this claim with a total repair estimate of \$632,000. An insurance assessor has visited all damaged assets during November and has asked for scoping reports to be submitted for each job with a contractor's quote for the works. These scopes are almost complete and will be submitted in the coming weeks.
178. During the hearing for the Mangatainoka Scheme Proposed Differential Rating System held on the 9 September 2010, there was concern regarding some of the direct benefit rating boundaries. John Philpott and the Scheme manager have investigated this query by assessing the land formation and corrections where necessary will be included in the Final Report.
179. Staff have been working closely with contractors who extracted 6,100 m³ of gravel during November and December. A total of just over 21,000 m³ was taken out of the Mangatainoka River last year, only 4,000 m³ short of the total allowable take. A large portion of this material was taken for use on a large roading project. As such there is no guarantee that the same demand will be present this year, however gravel extraction is planned to continue in the coming months.

SOUTH EASTERN RUAHINE SCHEME

180. Re-programmed works including work to repair damage to riverbanks and bank protection structures as a result of the September flood is almost complete. This has been made possible by having funding from the emergency reserve approved for use (less the General Rate contribution). The majority of all high priority works will be completed this year.
181. Scheme drain inspections are underway with spraying and mechanical cleaning planned for the coming months. A notice will be sent to all drainage ratepayers to inform them of the intended works early February.

TAWATAIA-MANGAONE SCHEME

182. Since the Audit Report on the Tawataia-Mangaone Scheme was presented to the Committee in June 2010, further investigation and design work has been completed by the Design team and three options have been identified to upgrade and improve the safety of the detention dam spillway.
 - Option 1 involves maintaining the present spillway crest level and raising the dam crest by 450 mm. That would provide the appropriate increased spillway capacity without compromising the present flood storage design standard. The estimated cost for this option is \$55,000.
 - Option 2 involves increasing the spillway capacity by lowering the spillway crest level to provide a depth of 850 mm and increasing the spillway width to 35 m. This will

provide the appropriate increased spillway capacity but will reduce the amount of storage in the dam before the spillway operates. In other words the effectiveness of the dam will be reduced. This option has an estimated cost of \$14,300.

- Option 3 involves increasing the spillway capacity by increasing its depth to 1,100 mm and its width to 23 m. This option further reduces the dam's effectiveness and has an estimated cost of \$11,000.
183. Option 1 is clearly preferred however the funding implication for such a small scheme is very significant. After utilising the present Scheme credit balance, loan funding of approximately \$46,000 would be required.
184. A newsletter has been prepared outlining the audit process and its findings and presenting the upgrade options for ratepayers' consideration. The newsletter will be distributed by the end of January and a meeting of scheme ratepayers has been arranged for 9 February 2011 at the Hamua Hall.
185. The 2011-12 Draft Annual Plan includes provision for Option 2 only. In the event that ratepayers support a staff recommendation for Option 1, a submission will be required through the Annual Plan consultation process for the provision of additional funding.
186. Scheme drain and channel inspections are underway with spraying and mechanical cleaning of both planned for the coming months. A notice will be sent to all drainage ratepayers in early February to inform them of the intended works.

UPPER MANAWATU–LOWER MANGAHAO SCHEME

187. Re-programmed works including work to reinstate damaged riverbanks and bank protection structures as a result of the September flood is well underway, with funding from the emergency reserve being approved (less the General Rate contribution). The majority of high priority works will be completed this year.
188. Because the damage to Scheme assets throughout the region during the September flood was significant, an insurance claim has been lodged in an attempt to help fund the repairs. Three assets from the Upper Manawatu-Lower Mangahao Scheme were included in this claim with a total repair estimate of \$28,400. An insurance assessor visited all damaged assets during November and has asked for scoping reports to be submitted for each job with a contractor's quote for the works component. These scopes are almost complete and will be submitted in the coming weeks.
189. Scheme drain inspections are underway with spraying and mechanical cleaning planned for the coming months. A notice will be sent to all drainage ratepayers to inform them of the intended works in early February.
190. An application to renew the current gravel extraction consent for the Upper Manawatu and Mangahao Rivers has been granted with some changes to the conditions. The most notable change is an increase in the maximum allowable take. The increase has lifted the total take from 36,000 m³ to 68,000 m³; however this is to drop back to 48,000 m³ after three years. In the past there has been little demand for the gravel but with a significant roading project underway the increase in consented quantity will allow the removal of some of the excess gravel from the system.
191. Staff have been working closely with contractors who extracted just under 10,000 m³ of gravel during November and December. While this quantity was taken under the old consent, extraction under the new consent commenced in January and the contractors plan to take 15,000 m³ in January. Further extraction is planned to continue in the coming months.

192. Staff are currently preparing a consent application to allow channel shaping in two specific reaches of the Upper Manawatu River where channel distortions cause unwanted gravel islands and beaches to form. The aim is to have this consent granted in February if at all possible to allow staff to relocate a gravel island which has formed 1 km upstream of the Ballance Bridge. The island is causing bank erosion and damage to a Scheme asset on the true right bank.

MANGAROA STREAM CATCHMENT PROJECT

193. Plantings are growing well and the fencing survived the September flood. Staff are liaising with landowners to plan the next phase of fencing and planting.

SOUTHERN AREA

GENERAL

194. Settled weather patterns over the period have enabled good progress to be made with scheduled maintenance programs and particularly with the application of herbicides for drain maintenance.
195. Liaison Committee meetings have been held for each of the Makerua, Manawatu, Moutoa, Te Kawau and Ohau-Manakau Schemes. The main purpose of those meetings was to discuss maintenance programmes and September flood damage issues.
196. A meeting was held with the new Hokio Scheme Liaison Committee to update them on work undertaken since implementation of the new Scheme in 2009. General discussion was had as to how the Committee can best operate in the interest of all Scheme ratepayers.
197. During the period staff have prepared information on flood damage to the Southern schemes for inclusion in an overall insurance claim and have accompanied insurance assessors on inspections of all damage sites.
198. Staff attended a Panui in the Maori Land Court (Levin District Court) to hear the two Interlocutory Injunctions brought against HRC and the Lake Trustees by Vivienne Tauiki regarding our Biosecurity activity involving Purple loosestrife in Lake Horowhenua and our proposed willow clearance activity on the Hokio Stream. A decision is awaited with interest.

OHAU-MANAKAU SCHEME

199. Flood damage reinstatement works continued during the period with two existing tied tree works being repaired and extended on the Ohau River and concrete rip rap being used to protect a site on the Manakau Stream.
200. Three additional tree groynes were constructed downstream of Burnell's bend.
201. A 30 m section of bank on the Ohau River at Ta Hamata was repaired using broken rock to armour the face of the bank. A small tidal bank in the same location was also repaired.
202. A 20 m section of willows and fescue was removed from the right bank downstream of Catley's bend to improve flow around the bend.
203. Staff continue to collaborate with a local contractor who is looking to obtain consent to extract gravel from the Kimberley Reserve in conjunction with our maintenance programme for the Reserve. It is understood that draft consent conditions have been prepared and have been forwarded to the contractor for comment. These will then be

forwarded to the Department of Conservation (DoC) for their final comment after which the consent should be granted. Gravel extraction is an essential tool in effectively managing this section of the river and we will be better able to meet expectations, including those of HDC, around river management in relation to Kimberley Reserve once a consent is granted.

MANAWATU DRAINAGE SCHEME

- 204. Wave damage on the Burkes stopbanks caused by ponded water in the Taonui Basin lapping the back of the bank has been repaired.
- 205. A 6 km section of Aranui Road Drain has been machine cleaned and a number of slumps which occurred in the September floods have been repaired.
- 206. A meeting was held with a representative of MDC to discuss the significant damage that has progressively been occurring to the banks on a number of roadside drains. However, due to the extent of the damage caused to other assets within the District, MDC have indicated that they would be unable to assist with any of the drain bank repairs along their roadsides, until the slumping actually encroaches on the sealed carriageway.
- 207. Several large trees which had fallen across the Taonui Stream and Whiskey creek during the September floods have been removed.
- 208. A total of 43.6 km of drains were sprayed with herbicides this period.

MAKERUA DRAINAGE SCHEME

- 209. Sections of both drain cleanings and toi toi's were removed from the edge of Intersecting channels during the period.
- 210. Gravel was again removed from Linton Main Drain in order to maintain low flow drainage in the area.
- 211. A second barrier made from concrete power poles has been constructed across the Linton high flow in an attempt to minimise the amount of gravel that is being flushed out of the Tokomaru Stream into the Linton Main Drain.
- 212. A new vortex plate has been installed at the Mangaore pumpstation to prevent the pump from forming cavitations when operating at low levels.
- 213. A request has been received from a landowner along Tane Road to have a floodgated culvert which outlets into Linton Main Drain lowered. This is because over time the ground levels in this area have lowered and it is now impossible to get gravity outlet for tiled drainage over part of his property. It is estimated that the cost of lowering this culvert will be between \$40,000 and \$50,000. The landowner has offered to assist with the work however the current year's budget is already committed and the request will need to be considered next financial year.
- 214. A total of 31.7 km of drains were sprayed with herbicides during the period.

KOPUTAROA DRAINAGE SCHEME

- 215. Minor maintenance was undertaken on several floodgates during the period, including Koputaroa No. 4 and Koputaroa No.2 pumpstation.

216. The steel culverts on drains P1 and P3 were replaced with new concrete culverts after both began to collapse. Both of these culverts were originally installed by the Scheme some years ago and are used primarily for access to Scheme assets.
217. Repairs were undertaken on the outlet headwall of the A2 Drain after the headwall started to collapse.
218. A total of 8.7 km of drains were sprayed with herbicides during the period.

MOUTOA DRAINAGE SCHEME

219. Drain 20 was mechanically cleaned and the Scheme drain was extended to provide improved drainage along the toe of the stopbank forming the southern side of the Moutoa Floodway.
220. Minor maintenance was undertaken at several pumpstations including the Pleuger Pumpstation where metal was carted in to repair the access track and Cooks Pumpstation where new split pins were installed in the internal floodgates.
221. A new stock fence was constructed around the recently completed Bowler Pumpstation.
222. Following serious flooding in the Cooks drainage area in December 2009, a design report on the current drainage network in this area was commissioned. The report has now been completed and a number of improvements have been proposed to improve the drainage network. These proposals will now be presented for the consideration of the Scheme Liaison Committee. Provision has been made in the 2011-12 Scheme budget for the improvements proposed.
223. A total of 1 km of Scheme drains were mechanically cleaned and a further 15.3 km were sprayed with herbicide during the period.

TE KAWAU DRAINAGE SCHEME

224. At a meeting with a representative of MDC it was agreed that the Scheme would extend Kopane 10b Drain to include the section of drain along Green Road up to the Highden Property. It was agreed that the Scheme would mechanically clean the drain and trim the toi toi's which are alongside the drain so they no longer interfere with the operation of the drain. At the same time it was agreed that MDC would repair all of the damage along the road verge. The agreed work was completed during the period.
225. A meeting was held with Chris Russell to discuss a proposal that has been around for a long time to install a new pumpstation on his property. After discussing the various pumping options and their respective rating impacts on his property, it was agreed that the project would not proceed. This has subsequently been confirmed in writing and funding for the proposed pumpstation has been withdrawn from the 2011-12 budget.
226. A design has been completed and a consent application has been lodged in respect of the replacement of a major culvert that provides outlet from Spillway Drain into Sluggish Main Drain. An existing Armco culvert under the stopbank has partly collapsed and seriously threatens stopbank integrity. The replacement culvert will be a 2 metre square concrete box structure. It is anticipated that consent will be granted by the end of January and site works will commence in early February.
227. Several fallen tree stumps were removed from Johnsons Drain.
228. A total of 24.6 km of drains were sprayed with herbicides during the period.

HOKIO DRAINAGE SCHEME

229. Several requests have been received from the Hokio A Trust asking for us to proceed with the design for a new groyne and mouth opening for the Hokio Stream. Council has previously given an undertaking to prepare a consent application and to progress these matters. However due to current Maori Land Court proceedings which question the Council's legal ability to undertake works on the Hokio Stream, there is some reluctance to commit further staff time and expenditure in this regard at the present time. Strictly speaking they are separate issues, however past experience would suggest that unless the Court gives a clear direction that legally approved activities cannot be disrupted by way of injunction, there is a strong likelihood that any consented work at the River mouth is likely to be disrupted.
230. A total of 0.2 km of drains were mechanically cleaned this period.

FOXTON EAST DRAINAGE SCHEME

231. A report considered by the Committee in November 2010 identified the need for significant deferred maintenance work to be undertaken within the Foxton East Drainage Scheme. Council approved additional expenditure for this purpose, to be funded by loan.
232. Subsequently the entire length of the Purcell Street Drain has been machine cleaned to remove silt build-up from the invert of the drain; several roadside slumps have been repaired; and heavy toi toi growth has been removed from the edge of the drain.
233. A number of trees were removed from the edge of Kings Canal downstream of Cook Street and a small flood bank was constructed along the edge of the drain to reduce the risk of water spilling into the adjacent property. A small bank was constructed along the edge of Kings Canal to reduce the risk of water spilling into the Coley Street School.
234. A culvert downstream of Cook Street which was removed during the September floods has been upgraded to 1.35 m culverts.
235. Several large pipes that had been under-scoured and dislodged within the sand cutting on Kings Canal were removed and relayed.

ENVIRONMENTAL GRANT WORK

236. A number of further enquiries have been received in respect of flood damage outside scheme areas arising from the September 2010 floods. In most cases, staff have visited sites and have offered advice around repair options. However in line with Council's resolution at the December meeting, requests for environmental grant assistance have been declined at this stage.
237. It is understood that in some cases works will proceed without grant assistance while in others, the parties concerned may wait and submit applications for assistance when funds become available in July.
238. Tentative environmental grant approval has been granted in respect of proposed erosion protection works, involving a substantial rock lining, on the Tutaenui Stream below Bulls. At the present time a house on an elevated terrace close to an eroding stream bank is at significant risk and grant assistance has been offered on condition that a well engineered mitigation option is adopted. Discussions are progressing with the landowner and Rangitikei District Council officers in this regard.
239. The status of all projects that have either been approved or have come to charge during the year to date is shown in the following table.

Name	River	Type of work	Date approved	Work status	Estimated/ actual works cost (\$)	Value of Grant
HRC River Enhancement Project	Mangaroa Stream	Bank protection	July 2010	Completed	\$20,000 (estimate)	\$10,000
M Fouhy	Mangahao River	Erosion protection and planting	July 2010	Completed	\$2,300 (Actual cost)	\$690
Elliott and Fouhy	Mangahao River	Bank repair and planting	July 2010	Completed	\$3,400 (Actual cost)	\$1,344
Alabaster	Koupoupo Stream Bell's Junction	Removal of willow congestion	August 2010	Not Started	\$27,720 (Estimated)	\$8,316
Johnston	Ponui Stream (Alfredton)	Removal of willow congestion	August 2010	Completed	\$8,000 (Estimated)	\$2,400
Horizons Operations Group	Hautapu Stream	Environmental damage reinstatement and enhancement works	August 2010	Not Started	\$29,400 (Quoted)	\$29,400
Herbertville Camping Grounds	Wainui River	Removal of willow congestion	August 2010	Completed	\$880 (Actual cost)	\$264
Swanson	Mangahao River	Bank protection, groynes and planting	September 2010	Completed Not invoiced	\$15,030 (Actual cost)	\$4,506
M Fouhy	Mangahao River	Bank protection and planting	September 2010	Completed Not invoiced	\$18,000 (Actual cost)	\$5,400
Hughes	Mangahao River	Bank protection and planting	September 2010	Completed Not invoiced	\$16,070 (Actual cost)	\$4,821
Elliott and Fouhy	Mangahao River	Repair rope & rail groynes	October 2010	Completed	\$6,150 (Actual cost))	\$1,845
MDC/HRC	Piakatutu stream	Willow spraying	December 2010	Completed	\$1500 (estimated)	\$750
	Tutaenui Stream	Erosion protection	Tentative	Tentative	\$30,000 (estimated)	\$9,000

RECOMMENDATIONS

240. That the Committee recommends that Council:

- a. **receives** and acknowledges the information contained in Report No. 11-06;
- d. **acknowledges** that a Schedule of Works Completed is available for inspection.

A D Cook

GROUP MANAGER OPERATIONS

A Significant decision? If Yes	No
Do recommendations meet Significance Policy (contained within the LTCCP)	

Item No: 8
Date: 9/02/2011
Report No: 11-07
File No: PRD 5 17

LOWER MANAWATU SCHEME –CITY REACH PROJECT UPDATE

PURPOSE

1. The purpose of this item is to provide members with an update on progress with the Lower Manawatu Scheme (LMS) City Reach Project.

FINANCIAL IMPACT

2. There is no funding implication arising from the recommendations contained in this item. Funding provision for all City Reach Project works is made in the 2010-11 Annual Plan and the 2009-19 Long-term Council Community Plan (LTCCP).

BACKGROUND

3. In December 2006 Council approved a programme of works to the value of \$11.5 million to allow Palmerston North 'City's' flood protection to be upgraded to withstand a 4,500 cumec flood in the Manawatu River. This flood had an estimated Annual Exceedance Probability (AEP) of 0.2%, or one chance in 500 of occurring in any year. The programme was subsequently revised and the budget increased to \$12.4 million, through the 2009-19 LTCCP, to accommodate a changed proposal in respect of channel realignment at Anzac Park Cliffs.
4. Works required to achieve the increased standard of protection include raising or building approximately 8 km of stopbanks; constructing approximately 1.1 km of concrete floodwalls; and installing 2.1 km of new rock linings. A number of recreational access and amenity enhancement elements and improved river edge vegetation management are also included.
5. All upgrade works are programmed to be completed over a 7-year period that formally commenced in 2007-08, although some preliminary work was completed in 2006-07 to raise an isolated particularly low section of stopbank.

PROGRESS TO DATE

6. Works completed in years 0 to 3 include:
 - Stopbanks raised between Ruamahanga and Roxburgh Crescents.
 - Major rock linings at Dittmer Drive, upstream of Fitzherbert Avenue and Napier Road Drain outlet.
 - Partly raised highway formation – SH3.
 - Gated culvert installed at Napier Road Drain outlet.
 - Stopbank/floodwall to link raised SH3 formation with high terrace to north of the highway.
 - Stream bank erosion protection structures in Mangaone Stream.
 - Major amenity enhancement elements at Dittmer Drive and upstream/downstream of Fitzherbert Bridge.
 - River edge vegetation enhancement at various locations.

7. Total project expenditure to 30 June 2010 is \$5,512,610.
8. With the work completed to date, the lowest sections of stopbank have been raised and the City is protected from a flood with a return period of at least 300 years.

FORWARD PROGRAMME

9. Project works planned for 2010-11 (Year-4) include:
 - Completion of SH 3 formation raising.
 - 1.2 km of new stopbank to connect the Napier Road 'hump' to the existing upgraded stopbank at Napier Road Drain outlet.
 - Raising of the existing stopbank between Roxburgh Crescent and Albert Street.
 - Construction of 690 m of stopbank and 120 m of concrete floodwall downstream of Maxwell's Line.
 - Vegetation management and minor amenity enhancement.
10. Consents were granted in December 2010 with regard to all outstanding project works, including those scheduled for this year, but with the exception of proposed channel realignment works at Anzac Park Cliffs. The consent appeal period ended on 20 January and subsequently contracts have been awarded in respect of the first two works referred to above. It is expected a contract will be awarded for the work at Maxwell's Line by the end of January. It is anticipated that all programmed contract works will be completed by mid May.
11. The completion of Year-4 works will result in the achievement of a significant milestone in terms of improved flood protection standard. At that time, all that part of the City to the East of Ruahine Street and a smaller area to the west will enjoy the full design (500-year) standard of protection and the rest of the City will have some improvement on the 300-year standard.
12. The completion of Year-5 works, that is, all work upstream of Fitzherbert Bridge, will result in the full standard of protection being achieved in respect of all that part of the 'City' upstream of a line joining the esplanade camping ground and West Street.

PROGRAMME TO COMPLETION

13. Works are scheduled through to project completion as follows:

Year	Work description
5. (2011-12)	<ul style="list-style-type: none"> • Raise stopbank Albert Street to Fitzherbert Avenue (Manawatu Golf Club). • Raise stopbank at Dittmer Drive. • Anzac Park channel realignment preliminaries. • Enhancement element downstream of Fitzherbert Bridge.
6. (2012-13)	<ul style="list-style-type: none"> • Channel re-alignment at Anzac Park Cliffs.
7. (2013-14)	<ul style="list-style-type: none"> • Raise/build stopbanks from Dittmer Drive to Maxwell's Line (intermittent). • Stopbank construction at Longburn (mitigation work). • Major enhancement elements.

14. Cost estimates for outstanding works have been revised to include actual tender sums for the current year's works; changes in market rates for earthworks and concrete

construction; and additional works required as a condition of the recently granted consent, in particular a section of stopbank to be constructed at Longburn.

15. The estimated cost to completion including year 4 works is \$7,038,000, and accordingly the overall project estimate is increased slightly to \$12.55 million. That revised estimate is within the inflation adjusted capex budget for the project through to completion.

OTHER OPPORTUNITIES

16. As part of the investigation work undertaken to assess the effects on adjoining floodplain areas of upgrading the protection for the "City", the extent of flood risk to the Turitea Science Centre during the 500-year flood was assessed and mitigation measures were designed in some detail. The preliminary estimate of cost for such measures is \$1.24 million. Ultimately it was determined that the effect of the 'City' works on the Turitea floodplain were no more than minor and consequently no work was required as mitigation.
17. However very significant benefits from protecting the science centre to the same high standard were identified and in meetings held with representatives of Science centre property owners over the past year or so, a high level of interest has been expressed in progressing a proposal for flood protection works. A formal request was received in that regard in August 2010.
18. Given the high level of interest in undertaking the works and the potential saving in consent processing costs, the proposed flood protection works at Turitea were included in the recent consent application and are covered by the consent now granted.
19. It is proposed to have further meetings shortly with Turitea property owners and now that physical works details and consenting issues have been finalised, discussions will need to focus on funding.
20. It is anticipated that a proposal for the Turitea work as an extension to the City Reach Project, with appropriate funding provisions, will be included in the Draft 2012-22 LTCCP.

CONSULTATION

21. A City Reach Working Party, comprising all HRC Palmerston North constituency Councillors, a number of Palmerston North City Councillors, together with Officers from both Councils was established at the commencement of the Project. The Working Party has met on a number of occasions to receive progress reports and to make input around various issues that have arisen. The Working Party, which has been supportive throughout, last met in August 2010 and it is proposed that the next meeting be held during the Annual Plan consultation period.

RECOMMENDATIONS

22. That the Committee recommends that Council:
 - a. **receives** and acknowledges the contents of Report No.11-07.

A Significant decision? If Yes	No
Do recommendations meet Significance Policy and LGA requirements?	

Item No: 9
Date: 9/02/2011
Report No: 11-08
File No: PRD 5 00

DRAIN MAINTENANCE

PURPOSE

1. The purpose of this item is to inform the Committee of the scope and nature of drain maintenance activities undertaken by Horizons Regional Council (HRC) within the River and Drainage Schemes. This information was requested at the November 2010 meeting of the Committee.

FINANCIAL IMPACT

2. There is no financial impact arising from the recommendations contained in this item.

BACKGROUND

3. Asset registers currently record a total of 1,090 km of drainage channels maintained by HRC within 21 River or Drainage Schemes. The vast majority of those channels are artificial watercourses constructed progressively over the past 100 years or thereabouts, to provide community drainage outlet to the various river systems. With very few exceptions, those drains are located on private property.
4. The total annual cost of drain maintenance within the 21 schemes is approximately \$640,000.
5. The respective Asset Management Plans specify the frequency for inspection to determine drainage channel condition. In general, full inspections are undertaken either once or twice a year; the condition is recorded in the Asset Management System (AMS); and maintenance programmes are developed on the basis of that information. More regular localised inspections are undertaken to address exceptional seasonal or weed growth issues.
6. The provision of a high standard of drainage service is critical to the economic wellbeing of the rural communities served by the various drainage schemes, particularly those on the Manawatu flood plain. Accordingly, there are very high expectations of HRC staff to maintain drainage systems in a fully effective operating condition at all times. There is also ongoing tension and close scrutiny around scheme costs. Furthermore, there is constant debate between individuals and groups of ratepayers as to what level of maintenance work is required to achieve the desired level of service; what the optimum maintenance cycle and timing should be; and whether mechanical or chemical maintenance should be undertaken in any particular circumstances. Nevertheless the various schemes function very well overall, due in large part to the high level of accountability; the considerable effort applied to stakeholder relationships and to the valuable input from Liaison Committees.

RELEVANT PLANS AND POLICIES

7. The drainage maintenance activities undertaken by HRC are permitted in terms of three specific consents and by the Proposed One Plan (POP).

8. Discharge Permits were granted in 1999 for the discharge of sediments and herbicides to land, water and air, as a consequence of undertaking both mechanical and chemical maintenance of drains managed by HRC. Those consents are due to expire in 2014. An Environmental Code of Practice for Drain Maintenance Works was developed in 2001 in accordance with a condition in those consents. The Code sets out principles to avoid, remedy or mitigate adverse environmental effects and provides guidelines for good practice together with performance standards pertaining to all activities associated with drain maintenance.
9. The POP also permits the maintenance of artificial water courses by both mechanical and agrichemical measures under rules 16-18, 14-2 and 16-13, subject to conditions. An Environmental Code of Practice for River Works (ECPRW) has been prepared as an adjunct to the POP. The Code sets out standards for good practice in respect of weed control in drainage channels and modified streams, either by mechanical means or the application of herbicide.
10. All drain maintenance activities are undertaken in general accordance with the consents and Codes referred to above.

CHEMICAL VS MECHANICAL MAINTENANCE

11. The two primary methods of controlling weed growth and generally maintaining drain capacity and condition are the mechanical removal of weeds and silts and the application of approved herbicides. Key advantages and disadvantages of the two methods are as follows:

Method	Advantages	Disadvantages
Mechanical	<ul style="list-style-type: none"> • Immediate and assured effect • Channel capacity and efficiency is maintained • Spray drift and chemical spill risks are avoided 	<ul style="list-style-type: none"> • Potential destabilising of channel sides • Intrusive on farming operations • Sediment release • Spoil disposal issues • Gradual enlargement of channel • High cost
Herbicide application	<ul style="list-style-type: none"> • Minimal intrusion on farming operations • Relatively low cost 	<ul style="list-style-type: none"> • Delayed effect • Effect not assured • Progressive loss of capacity • Potential (very low) for spray drift or chemical spill.

12. The amount of maintenance work undertaken in any year can vary significantly, mainly as a result of weather conditions and their effect on flood flows/channel scour and weed growth. The following table provides details of the amount and type of maintenance work undertaken across all schemes during 2009-10 and the associated costs.

Table 1. Drain maintenance work undertaken 2009-10

Scheme	Total Drainage Channel Length (km)	Length Maintained 2009-10		Maintenance Cost 2009-10
		Mechanical (km)	Chemical (km)	Total
Ashhurst	5.70	0.02	2.25	\$ 3,371
Forest Road	14.87	1.00	14.80	\$ 4,153
Foxton East	6.41	0.17	4.50	\$ 2,166
Haunui	8.79	0.30	8.79	\$ 2,919
Himatangi	51.80	0.20	34.60	\$ 8,049
Hokio	42.96	2.60	3.40	\$ 9,327
Koputaroa	49.90	12.40	26.00	\$ 45,601
Lower Manawatu	26.86	2.05	7.28	\$ 12,191
Makerua	103.30	36.18	56.93	\$ 96,372
Manawatu	275.55	25.40	351.20	\$ 211,398
Mangatainoka	49.49	7.10	42.49	\$ 20,760
Matarawa	7.48		7.48	\$ 3,974
Moutoa	65.13	26.70	31.80	\$ 61,764
Ohau Manakau	41.70	8.50	17.60	\$ 42,581
Pohangina-Oroua	17.08	2.00	1.20	\$ 2,530
Rangitikei	22.34	19.00		\$ 14,695
South East Ruahine	72.30	67.50	0.52	\$ 21,196
Tawataia-Mangaone	11.86	0.60	11.26	\$ 4,384
Te-Kawau	179.15	20.40	170.00	\$ 55,148
Tutaenui	3.00	0.31	1.50	\$ 3,113
Upper Manawatu/ Lower Mangahao	15.89	1.00	14.89	\$ 11,637
Upper Whanganui	0.71			\$ -
Whirokino	10.55	2.50	6.80	\$ 5,721
TOTALS	1,082.82	235.93	821.28	\$ 643,049

13. There are a number of variables that effect the cost of the different maintenance methods, however the range of costs is as indicated in the following table.

Table 2. Typical costs of maintenance

Type	Sub-type	Cost per km
Mechanical	Average drain – 12 tonne excavator	\$1,350
	Wide drain – long reach excavator	\$3,250
	Average drain- spoil carted to local dump site	\$6,900
Chemical	Easy access along roadside drain	\$116
	Farm paddock-easy access	\$165
	Lifestyle blocks (broken access)	\$508

14. The use of agrichemicals is the most widely accepted and used method to control weed growth, especially emergent weeds, and is extremely cost-effective. Most drains are sprayed at least annually and in some cases as often as three or four times a year, for example where problem weeds such as Parrot's Feather are present. Most spraying is carried out in the autumn and spring months.
15. Submergent weeds are more problematic. There are very few chemicals registered for use in drains that are effective on submergent weeds and those that are available are very dependant on water temperature and quality and can take as long as 12 weeks to produce results. Accordingly, mechanical cleaning is frequently resorted to where submergent weed is a problem.

16. The mechanical cleaning of drains is primarily undertaken to remove a build-up of silts and decomposed weed from the invert of the drain, in order to either maintain channel capacity or to restore channel gradient. Drains are typically machine cleaned once every five years. In the coastal sand country areas that frequency might reduce to 10 years, while drains subject to high submergent weed or silt loads may require cleaning as frequently as once every year.
17. The disadvantages associated with mechanical maintenance, particularly those of cost and land disturbance, are such that the method is only resorted to when absolutely necessary.

CHEMICAL USE

18. All of the chemicals utilised in the spraying of scheme drains are approved agrichemicals for application in drains; all chemicals are applied in accordance with label directions; and all spraying operations are undertaken in compliance with NZS 8409:2004 which requires the applicators to be GrowSafe accredited.
19. It is estimated that 95% of the chemical used within schemes is Glyphosate. Small quantities of Reglone are used for submergent weed control and of Krovar for use in dry drains where a residual effect can be achieved. Approximately 2,500 litres of glyphosate was applied to drains in the Southern Area (primarily Manawatu floodplain area) over the past 12 months.
20. Different formulations of glyphosate containing various surfactants are used from time to time to achieve improved performance, however many of the formulations are avoided on the basis of cost or no apparent benefit.
21. The key issue is that all chemicals used are approved for use in drains, subject to adherence with label instructions. HRC does not have the expertise in-house to review technical literature on developments in the field of agrichemicals and must rely on experts from the Environmental Risk Management Authority (ERMA) in that regard. ERMA has statutory responsibility under the Hazardous Substances and New Organisms Act (HSNO) for the registration of all agri-chemicals for use in New Zealand. Glyphosate is an HSNO approved chemical and is on the inventory of approved chemicals adopted by ERMA in 2006. Considerable confidence in the robustness of the registration process can be assumed from the difficulty Regional Councils have experienced over the years in obtaining registration for the use in New Zealand of new chemicals that have been identified in use overseas with significant apparent benefits.

ORGANIC FARMS

22. Within all the 21 schemes in which drain maintenance activities are undertaken, there are currently three registered organic farms and four other properties which are organic but are not yet registered.
23. In each instance staff have discussed the implications with the landowners concerned and have devised action plans for drain maintenance on the properties. In some cases it has been agreed that spraying may continue but with particular vigilance around containing all chemicals within the lower part of the channel and avoiding any spray drift. It is understood that provided water is not being taken from the drain for irrigation, this approach does not necessarily affect organic status.
24. Where landowners will not allow the use of chemical on their property, agreement has been reached whereby the landowner will maintain the drain at his/her own cost. In these situations the drains are closely monitored and if the agreed standard is not

achieved then HRC will undertake mechanical clearance work and invoice the property owner for the difference between mechanical and chemical maintenance costs.

25. There is a significant amount of concern amongst the wider scheme ratepayers as regards the potential for the performance of community drains to be compromised as a result of the difficulty of maintaining drains through organic farms. Such concern is not justified at the present time. Staff are very aware, however, of the need to work closely with owners to ensure that there is no progressive deterioration of maintenance standards through organic properties.

RECOMMENDATIONS

26. That the Committee recommends that Council:
- a. **receives** the information contained in Report No. 11-08.

John Foxall
AREA ENGINEER SOUTHERN

Allan Cook
GROUP MANAGER OPERATIONS

A Significant decision? If Yes	N
Do recommendations meet Significance Policy (contained within the LTCCP)	

Item No: 10
Date: 9/02/2011
Report No: 11-11
File No: ELM 6 00

SUSTAINABLE LAND USE INITIATIVE (SLUI)

PURPOSE

1. This report is to update Members of the progress on Council's Sustainable Land Use Initiative (SLUI).

FINANCIAL IMPACT

2. There are no financial impacts associated with this report.

PROGRESS TOWARDS TARGETS

3. The 2010-11 target for completing Whole Farm Plans (WFP) is 100 WFPs or 55,000 hectares mapped. Of these, at least 75 (75%) will be completed by our main contracted supplier, LandVision Ltd, the remainder by Horizons staff or another supplier. By the end of December 2010 LandVision had mapped 28 properties (18,316 ha). Table 1 summarises progress toward WFP development.

Table 1: Whole Farm Plan Development – 18 January 2011

Whole Farm Plan Development					
	2006-07	2007-08	2008-09	2009-10	2010-11
Farms Mapped	46	89	80	81	28
Draft Completed	46	89	80	81	10
Completed	45	89	80	81	10
Copy to Landowner (Active)	45	88	80	81	0
TARGET	40	80	80	100	100*
CUMULATIVE (WFPs Completed)	45	133	213	294	294

* 100 plans or 55,000 ha

4. Implementation generally begins the year following the completion of the WFP. The SLUI programme budgets on implementation taking at least five years to complete. Table 2 summarises implementation progress to date.

Table 2: Implementation Progress – 18 January 2011

	2006-07	2007-08	2008-09	2009-10	2010-11
Total Active WFPs	45	133	213	294	294
Works Programmes Planned *1		40	120	264	279
Works Started *2		39 (86%)	146 (109%)	248 (94%)	260 (93%)
Projects Completed (Jobs)	13	67	99	191	84

*1 plans delivered

*2 work carried out or agreed to start this year

5. For the financial year to 18 January 2011 the 84 individual implementation projects completed have had a grant cost of \$673,421.

Table 3: Work Types and Grants 1 July 2010 – 18 January 2011

Work Type	Number of Claims	Total Cost (\$)	Grant Paid (\$)	Grant Rate – Average (%)
Afforestation	24	885,175	458,756	52
Bush retirement	6	50,337	35,226	70
Gully planting	4	8,980	4,041	45
Managed retirement	0	0	0	-
Riparian retirement	15	194,732	134,580	69
Space planting	27	53,176	23,298	44
Structures Earthworks	2	10,007	6,020	60
Wetland	4	10,909	5,094	47
Other	2	10,753	6,406	60
Grand Total	84	1,224,069	673,421	55

ACTIVITY SUMMARY

6. All claims for the Regional Afforestation Grant Scheme (AGS) plantings last winter have now been submitted to MAF for approval. There were nine projects approved, eight were fully or partly completed with a total of 298.8 ha claimed.
7. One of the requirements of MAFs new funding to SLUI was that a joint MAF/Horizons governance group was set up. This group has held two meetings, one in October and one on the 13th of December.
8. The McGreggor Forestry Right agreement has been registered and payment has been made to the farmer. The forest has been planted with approximately 167 ha of *P. radiata*, 2 ha of redwoods and 1 ha of eucalypts. An additional 67 ha has been retired from grazing and left to regenerate. This area was considered unsuitable for planting a production forest.
9. A spreadsheet to manage priority assessment is continually updated for proposed WF Plans. The priority list for 2010-11 Whole Farm Plans (WFP) stands at 60 properties. Staff are managing the names that go onto this spreadsheet slightly differently than in previous years. In the past any landowner who expressed a reasonable interest in getting a WFP was included. Now the list is much more immediate and we only include those ready and fully committed to the process.
10. As noted in point three, LandVision is the only contractor confirmed to carry out the WFP this year. They have indicated a willingness to pick up extra plans to help meet the shortfall from CPG (25 plans). Horizons staff will complete four or five plans and we are currently in discussion with another contractor to do another three plans. At this stage there is still reasonable confidence that the 100 plans or 55,000 ha target will be achieved.
11. Table 3 shows the full breakdown of works by type for this financial year. In a normal year less than half of the potential claims will have been made at the half way stage of the financial year so we would expect more claims to come in over the next few months. Traditionally February to May are when the bulk of the claims are made.
12. While we still expect many more claims to come in, the progress toward meeting the agreed contract targets is very pleasing. By work type we are on or ahead of target in every category except the “managed retirement”. No progress has been recorded for managed retirement but there are a number of projects in the pipeline.

13. The November report highlighted damage to our Forestry Right/Joint Venture forests following the rain and strong winds. Follow up inspections have indicated a major replant is required on a block in the Pohangina. The estimated cost for this work is around \$100,000 and will come from the Horizons share of the SLUI funded work. This will be completed within the existing budget.
14. Pine seedlings have been secured for next winter and we are working hard to secure more poplar and willow poles. Another dry season hasn't helped the development of poles in our own nursery at Bulls but we are hopeful of securing extra poles from the Aokautere nursery.
15. Staff have met with a number of groups over the past few months including an Iwi group with an interest in developing forestry, a business consultant, Hawkes Bay Regional Council and two parties interested in undertaking SLUI associated work. Phone advice has been given to Rural Valuers and farmers on SLUI, carbon farming and the ETS.
16. The November report noted that a field day was to be held on the AgResearch Ballantrae farm (on the Saddle Road) on the 24th of November. The SLUI presentation outlined the importance for farmers to have good resource and business information in order to make informed decisions. Around 100 people, mostly farmers attended this day.

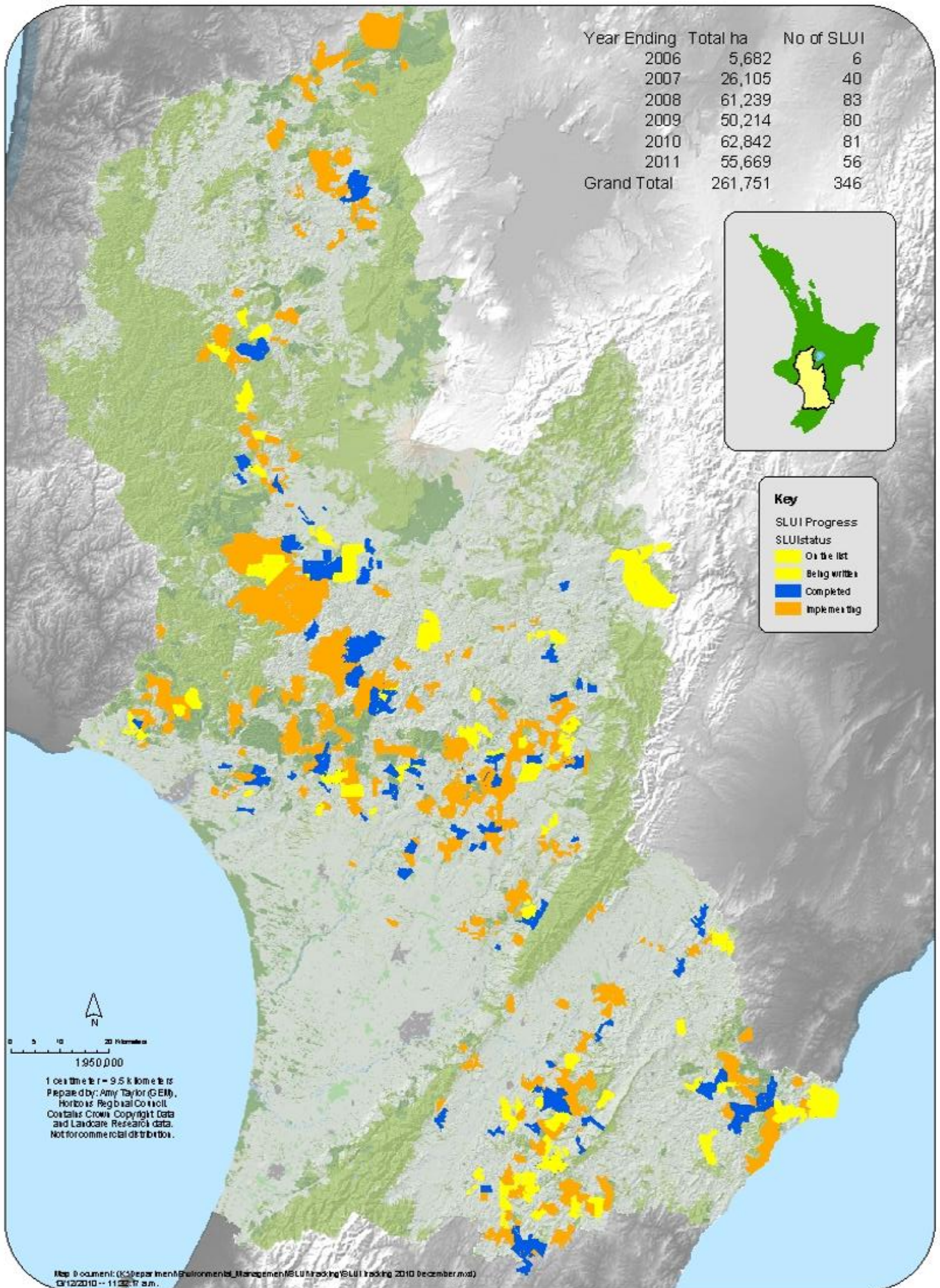
RECOMMENDATIONS

17. That the Committee recommends that Council:
 - a. **receives** the information in Report No. 11-11

C C Mitchell
GROUP MANAGER ENVIRONMENTAL MANAGEMENT

ANNEX

- A SLUI Overview Map





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