## 1. Catchment Management

## **1.1** Flood Protection

#### 1.1.1 Overview

Flood Protection has made good progress on activities in the three major work areas being:

- Operational Delivery
- FMP Implementation
- Investigations, Strategy and Delivery

More detail on each of these work areas is given below. At an overall level, works are progressing on time and within budget.

#### 1.1.2 Key Results For The Year

- Progressing the Boulcott Hutt stopbank construction;
- Progressing the Waiohine FMP to Phase 2 Options Assessment for flood mitigation;
- Progressing the Phase 2 Waiwhetu FMP investigations;
- Progressing the Tawaha drainage project;
- Monitoring and implementing the Lake Onoke mouth opening over the Christmas period.

#### 1.1.3 Looking Ahead

- Boulcott Hutt Stopbank considering the option of advancing construction and managing the Golf Club's expectations for reinstatement;
- Operational consents establishing the project team required to renew the operational consents which expire over the next four years;
- Investigations continuing with the Waiohine, Waingawa and Waiwhetu FMP investigations;
- Asset Management Further developing our Asset Management database and completing the revaluation.

#### 1.1.4 Department Activity

## **Floodplain Management Plan Implementation**

#### **Boulcott/Hutt Project**

Construction is progressing on project works programmed for 2011/12, including low bund construction, road realignment, stopbank construction from Mills Street to Ariki Street and

stormwater management. The stopbank contract value was increased by \$465K to include the golf course Interim Works planned for 2011/12. These works will commence in January 2012. All works programmed for 2011/12 are now on track for completion by June 2012. The budget for 2011/12 is \$2.7 million and the forecast is \$3.1 million. The additional expenditure forecast is due to a timing variance in the stopbank contract and increased costs of golf course works. It is proposed to bring forward \$400K budgeted expenditure from 2012/13. Total project budget of \$11.4 million will not be exceeded at this stage.

The golf club has offered to close the south course earlier if part of the stopbank works planned for 2012/13 can be brought forward to 2011/12 and complete the total project construction by June 2013, instead of June 2014 as currently planned. This will involve bringing forward about \$900K worth of stopbank works, increasing the forecast for 2011/12 to \$4 million. This option will be reported to Council in the New Year for consideration.

## **Chrystalls Extended Stopbank – Land Purchase**

In December 2011, Council approved the purchase of 63ha of LINZ land at an agreed price of \$761K. It is expected that LINZ will approve the transfer in time to complete the purchase by June 2012. The available budget is \$396K. The forecast to complete the purchase, including legal costs is \$770K.

#### **Otaki River Works**

Following a risk analysis, two sites along the Otaki River were identified for improvement in 2011/12. Rock delivery has commenced and the construction is scheduled to commence in late February 2012. The budget for 2011/12 is \$171K and the forecast is \$371K. Savings from other Kapiti capital works will be used to fund the expenditure.

#### Lower Waitohu Stream

This project is now progressing to a revised programme, as presented to the Economic Wellbeing Committee. Tree clearing along the stream and obtaining consents are scheduled for 2011/12. Consultation with stakeholders is continuing on Council's preferred option. Tree clearing will commence in March 2012. The budget for 2011/12 is \$500K and the forecast is \$150K.

## LWVDS

Good progress was made in completing Stage 2 of the Tobin stopbank programmed for 2011/12. Stage 3 works programmed for 2012/13 were brought forward and the stopbank was completed. This will reduce the mobilisation costs and provides an opportunity to sell the Davenport property one year earlier than originally planned. The remaining work consisting of removing the old stopbank, lowering and forming the berm, boulder protection of the bank edge and lowering the berm on the opposite bank will be completed this year. The budget for 2011/12 is \$762K and the forecast is \$1,095K. It is proposed to bring forward budget from 2012/13 to meet the proposed additional expenditure.

## **Operations Delivery Activities**

## **Hutt River**

All planned works are proceeding to programme and within total budget.

#### **Otaki River**

All planned works are proceeding to programme and within total budget.

#### Waikanae River

All planned works are proceeding to programme and within total budget.

#### Western Watercourses

Stream clearing runs have been carried out in the Wainuiomata River and the Waimeha, Mangapouri, Waitohu and Te Mome Streams. The Waimeha Stream mouth was cut at the beginning of January. Gravel has been removed from the mouth at Korokoro Stream. Wind fallen trees where removed from the Waiwhetu, Porirua and Waitohu Streams following high winds in early January. Maintenance work is underway at the Seton Nossiter dam site.

#### Wairarapa River Schemes

The work programmes for 2011/12 have progressed as planned with tree work and willow tree layering being completed. Some beach shaping work is being carried out in areas clear of nesting birds and heavy rock has been used at a number of sites for constructing new rock groynes and reinforcing existing structures. Spraying to control willow regrowth is being carried out in a number of river systems.

The outlet from Lake Onoke to the sea has been cut eight times in the year to date.

A meeting was held with interested stake holders to the barrage gates operational consent, as required by a consent condition. There was considerable interest shown concerning the operation of the gates to allow fish passage, particularly when Lake Onoke is blocked. The LWVD Scheme Committee also carried out their annual inspection and meeting on 13 December.

## **Gravel Extraction**

Details of gravel extraction volumes are provided in the following table:

River	Extraction Vo	lumes (m <sup>3)</sup>
	YTD 11/12	FY 10/11
Hutt Mouth	10,600	34,000
Hutt	13,000	11,300
Otaki	49,000	42,800
Wairarapa	46,000	259,000

Wairarapa gravel extraction figures for 2010/11 were 259,000m<sup>3</sup> compared to 201,000m<sup>3</sup> in 2009/10 and a maximum in 2006/07 of 299,000m<sup>3</sup>. If the extraction for the new Masterton District Council (MDC) sewerage ponds (57,300m<sup>3</sup>) was subtracted the volume would have been very similar to the previous year. MDC will be extracting a similar quantity of gravel in 2011/12 to complete their ponds upgrade.

## **Drainage Schemes**

The annual meetings for the five pumped drainage schemes were held during November 2011. They were well attended by committee members who confirmed that schemes have been maintained to their satisfaction. The committees were advised of changes in insurance policies and premiums as a result of the Christchurch earthquakes. Given the increase in the insurance excesses the schemes committees have agreed to self insure from 1 July 2012. Scheme reserves will be progressively increased to provide for unexpected plant failures and disaster damage.

Expenditure to 31 December 2011 was \$92K and projected full year expenditure is on budget at \$250K. Spraying of the drains commenced in December and will continue over the next two months. There are no significant operational issues to report.

#### **Asset Management and Planning**

Expenditure on asset management to 31 December 2011 is forecast to be over budget and is attributed to the development and improvement of the Flood Protection asset management systems and databases. This work has included restructuring the asset database to enable business reporting and improve the notification process for cause and damages. An external consultant was employed to assist with significant changes and uploads into the SAP asset management system. Additional involvement of staff and ICT support was needed to develop processes and to project manage the changes.

With these system improvements in place, data management and audits checks are being completed which will provide information for the Asset Revaluation planned for June 2012. Reporting requirements for the department will be refined and developed over the next period.

## Investigations, Strategy and Planning

#### Waingawa River Scheme Review

Progress with the Waingawa River Scheme Review was reported to the review committee in early December. A number of different management options were presented. In April 2012, the committee will meet again to analyse the options in more depth with the intention of determining a preference.

#### **Tawaha Catchment Diversion**

The project to regularise the diversion of the Tawaha Catchment into the Whakawiriwiri Stream by increasing the channel and culvert capacities is progressing with a number of meetings with land owners to explain the potential impact of the project on their land and preparing resource consents.

## Waiohine Floodplain Management Plan

The Waiohine River FMP is progressing to programme.

#### **Technical Advice**

Staff continue to receive numerous requests for flood hazard advice across the region from the public, local authorities and internal departments on general enquiries and resource consent applications to Greater Wellington.

Work continued with the Alliance on the McKay's to Peka Peka RONS project, and NZTA consultants on the Peka Peka to Otaki project and TG.

Staff developed a paper to contribute to the review being carried out by the Technical Advisory Group (TAG) of Sections 6 and 7 of the Resource Management Act 1991 (RMA) and incorporating the Soil Conservation and Rivers Control Act 1941 (SCRCA), River Boards Act 1908 (RBA) and the Land Drainage Act 1908 (LDA) into the RMA.

## 1.1.5 Financial Reports

Last Year YTD Actual \$000	YTD Actual \$000	YTD Budget \$000	YTD Variance \$000	Flood Protection Funding Statement For the six months ended December 2011	Last Year FY Actual \$000	Full Year Forecast \$000	Full Year Budget \$000	Full Year Variance \$000
6,335	6,659	6,659	-	Rates & Levies	12,669	13,317	13,317	-
-	-	-	-	Government Grants & Subsidies	-	-	-	-
592	589	722	(133)	External revenue	1,022	1,155	1,325	(170)
237	217	229	(12)	Investment Revenue	426	458	458	-
38	26	36	(10)	Internal Revenue	92	72	72	-
7,202	7,491	7,646	(155)	TOTAL INCOME less:	14,209	15,002	15,172	(170)
1,483	1,592	1,551	(41)	Base Personnel Costs	2,933	3,141	3,101	(40)
(192)	(240)	(234)	6	Capex Project Resource Cost Credit	(402)	(527)	(467)	60
325	569	514	(55)	Materials, Supplies & Services	759	1,141	1,072	(69)
70	70	73	3	Travel & Transport Costs	179	145	145	-
1,194	853	1,205	352	Contractor & Consultants	2,371	2,597	2,653	56
-	-	-	-	Grants and Subsidies Expenditure	-	-	-	-
375	366	374	8	Internal Charges	694	685	685	-
3,255	3,210	3,483	273	Total Direct Expenditure	6,534	7,182	7,189	7
1,228	1,468	1,479	11	Financial Costs Bad Debts	2,455	3,028	2,958	(70)
427	447	447		Corporate & Department Overheads	854	895	895	
432	364	398	34	Depreciation	868	796	796	_
(13)	(7)	(88)	(81)	Loss(Gain) on Sale of Assets / Investments	(127)	(88)	(88)	-
5,329	5,482	5,719	237	TOTAL EXPENDITURE	10,584	11,813	11,750	(63)
1,873	2,009	1,927	82	OPERATING SURPLUS/(DEFICIT)	3,625	3,189	3,422	(233)
432	364	398	(34)	Add Back Depreciation	868	796	796	-
(13)	(7)	(88)	81	Other Non Cash	(127)	(88)	(88)	-
(1,051)	(2,114)	(1,486)	628	Net Asset Acquisitions and Capital Expenditure	(4,047)	(7,371)	(5,186)	2,185
(210)	(170)	(181)	11	Net External Investment Movements	(382)	(342)	(342)	-
(1,447)	(1,462)	(1,504)	42	Repaid Debt	(3,048)	(3,018)	(3,008)	(10)
(218)	(42)	(53)	11	Net Reserves (Increase) / decrease	(571)	(570)	(632)	62
(634)	(1,422)	(987)	737	NET FUNDING BEFORE DEBT ADDITIONS	(3,682)	(7,404)	(5,038)	2,024
889	2,109	1,341	768	Internal Debt Additions	3,557	7,222	5,037	2,185
-	-	-	-	External Debt Additions	-	-	-	-
255	687	354	333	NET FUNDING SURPLUS (DEFICIT)	(125)	(182)	(1)	(181)

Last Year YTD Actual \$000	YTD Actual \$000	YTD Budget \$000	YTD Variance \$000	Flood Protection Capital Expenditure Statement For the six months ended December 2011	Last Year FY Actual \$000	Full Year Forecast \$000	Full Year Budget \$000	Full Year Variance \$000
-	-	233	233	Total Asset Acquisitions	299	237	237	-
1,063	2,122	1,340	(782)	Capital Project Expenditure	3,871	7,222	5,037	(2,185)
(13)	(7)	(88)	(81)	Asset Disposal Cash Proceeds	(124)	(88)	(88)	-
1,050	2,115	1,485	(630)	Net Capital Expenditure	4,046	7,371	5,186	(2,185)
210	170	181	(11)	Investments Additions	382	342	342	-
1,260	2,285	1,666	(641)	Net Capital and Investment Expenditure	4,428	7,713	5,528	(2,185)

Flood Protection Reserve Balances	Actual Opening Balance \$000	Budget Transfer to \$000	Budget Interest \$000	Budget Transfers from \$000	Budget Closing balance \$000
Flood contingency reserve - GW	1,015	200	56	-	1,271
River scheme reserves - Wairarapa	2,483	167	138	-	2,788
River rate reserves - Western	1,983	150	109	-	2,242
Drainage scheme reserves	70	55	4	-	129
Shingle reserve - Wairarapa	91	-	6	-	97
-	5,642	572	313	-	6,527

## 1.1.6 Financial Variance Analysis

Significant costs have been incurred for the SAP Asset Management Project to get the asset data to a standard that will enable useful reporting. Additional work is also necessary to develop the associated business process. The additional cost is forecast to be \$100K over the original budget. This will be offset by reduced expenditure on other operational activities.

The total Capital Expenditure Programme for this year is now forecast to be \$2,186K over budget if the Boulcott Stopbank work is advanced. A forecast \$200K overspend on the Otaki edge protection works will be offset by a forecast \$350K underspend on the Lower Waitohu projects. The out years will also be adjusted to keep within the overall budget for the Kapiti area.

(i) Operational Expenditure Actual year to date variances to budget

- Reduced gravel and NZTA revenue of \$82K for Flood Protection Western Zone
- Isolated works revenue of \$91K below budget due to timing for Flood Protection Eastern Zone
- Increased insurance costs of \$40K
- (ii) Operational Expenditure year end forecast to budget
  - Reduced gravel and NZTA revenue of \$170K for Flood Protection, partially offset by reduced river maintenance expenditure (materials and contractors)
  - Increased insurance costs of \$80K
  - Additional consultants costs of \$200K for SAP Plant Maintenance and consent renewals
- (iii) Capital expenditure actual year to date variances to budget
  - Boulcott Hutt stopbank is running slightly ahead of budget
  - Some extra work was carried out in August to Bridge Road edge protection, Hutt
- (iv) Capital expenditure year end forecast variances to budget

The following variances to the 2011/12 budgets remain within the approved total project cost:

- River works from mouth to SH1 on the Otaki river will be increased by \$200K to allow for extra erosion control work at two sites
- Lower Waitohu project is forecast to be \$350K under budget
- Boulcott Hutt project forecast to be \$1,300K over budget (accelerating construction)
- LWVDS works forecast to be \$333K over budget (advanced construction of Tobin stopbank)

Category	Actual \$000	YTD Budget \$000	FY Budget \$000	Forecast \$000
Hutt Flood Protection				
Boulcott/Hutt stopbank	1,007	899	2,700	3,100
Ebdentown rock lining	0	10	10	5
City Centre Design	4	0	0	8
Bridge Road Edge Protection	33	0	0	33
Waiwhetu Flood Improvements	231	0	100	350
Waiwhetu Phase 2 Stream FHA	55	80	150	150
Pinehaven FH Contribution	26	22	29	29
Hutt valley sub total	1,356	1011	2,989	3,675
Otaki river				
Chrystalls extended stopbank	0	0	396	770
Lower Waitohu	35	100	500	150
River Works Mouth to SH1	31	10	171	371
Otaki environmental strategy implementation	3	0	0	3
Otaki river sub total	69	110	1067	1294
Lower Wairarapa Valley Development Scheme Upgrade and other scheme works	655	113	762	1,095
Waiohine Stopbank Design	40	106	219	159
Wairarapa sub total	695	219	981	1,254
Total	2,120	1,340	5,037	6,223
Other potential items Bring forward Boulcott stopbank works (part) from 2012/13				900
Waipoua Lidar Survey				100
TOTAL	2,120	1,340	5,037	7,223

# Summary of capital expenditure to 31 December 2011

## 1.1.7 Business Plan Performance Indicators

Performance indicator	Performance to date
The Waiohine River Floodplain Management Plan (FMP) will be adopted by the Council	FMP Phase 2: meeting to select preferred combination of options to be held 13 February 2012. Following this meeting a newsletter will be released detailing the background to the decision, the remaining FMP process and the project start of Phase 3 of this process.
The Waiwhetu Stream Floodplain Management Plan (FMP) will be adopted by the Council	Community engagement workshops for option development completed in December. To support these options hydraulic models were run to illustrate the effects of different flood management approaches in isolation of each other. Preparation of a draft plan remains within original prediction of June 2012. However, tolerance for further delays has been eliminated by time taken to complete the hydraulic modelling updates.
	Current resourcing is believed to be adequate for creation of draft plan.
A review of Masterton flood risk will be	The initial phase of the investigations will

completed to the satisfaction of the Council	commence this financial year but the total project will not be completed until the end of 2012/13 year
A review of the Hutt River floodplain management plan will be commenced	Deferred until 2013/14
The construction and upgrade of flood protection infrastructure in the region will be completed in accordance with	Boulcott/Hutt stopbank – construction progressing on target for completing the programmed Stage 1 works by June 2012
the capital expenditure programme	Lower Waitohu – investigations and consultation progressing on a revised programme to complete stream clearing works and to obtain consents for the proposed improvement works by June 2012
	Otaki River works – concept designs completed, rock delivery progressing. On target for completing the programmed and additional works by June 2012
	Chrystalls land – Council has approved the land purchase. On track for settlement by June 2012.
	LWVDS – preliminary works have commenced and on target for completing the programmed works by June 2012
Flood infrastructure in the western part of the region will be maintained in accordance with established standards, statutory requirements and the Western Rivers Asset Management Plan. Achievements will be approved by the Council.	2011/12 works programme on target.
Flood infrastructure will be maintained in the 10 Wairarapa river schemes and will be completed to established standards and to the satisfaction of the Scheme Advisory Committees	2011/12 works programme on target.
Maintenance within the Hutt River corridor, including tracks and restoration sites, will be carried out in accordance with the Hutt River Environmental Strategy. Progress will be reported to the Council.	Hutt River environmental enhancement projects including native planting projects and river trail maintenance completed to programme. Successful public planting day held on 27 August 2011 adjacent to Wellington Golf Club.
Maintenance within the Otaki River corridor, including tracks and restoration sites, will be carried out in accordance with the Otaki River Environmental Strategy and in partnership with the Friends of the River group. Progress will be reported to the Council.	Maintenance work on programme and budget. The Otaki Friends are working with Flood Protection to update the Otaki Planting Plan. The updated plan will include all existing sites as well as new planting sites.
Maintenance within the Waikanae River corridor, including tracks and restoration sites, will be carried out in accordance with the Waikanae River	The Waikanae Friends are working with Flood Protection to update the Waikanae Planting Plan. The updated plan will set out realistic planting and maintenance objectives for the coming years.

Environmental Strategy and in
partnership with the Friends of the
River group. Progress will be reported
to the Council.

# 1.1.8 Risk Analysis

The department has reviewed its risks and no changes or additions are required.