

# 1. Catchment Management

## 1.1 Flood Management

### (a) Overview

Flood Protection has had a busy start to the new financial year with Boulcott Hutt stopbank construction being the major focus. The contractor is working on the Connolly Street realignment and Ariki Street stormwater upgrade.

All Hutt River pole planting has been completed and mitigating snow damage to native plantings is ongoing. Staff were also involved with the preparation of the Otaki and Waikanae River Friends Groups annual walkovers in September, which were very successful with new contacts being made between interested parties.

Further investigative work on the Tawaha Catchment (Lower Wairarapa Valley) diversion has been carried out and consent applications are due to be lodged early in 2012.

### (b) Key results for the year

- Commencement of the Boulcott Hutt stopbank construction;
- Progressing the Waiohine FMP to Phase 2 Options Assessment for flood mitigation;
- Waiwhetu FMP is progressing with Phase 2;
- Progressing the Tawaha Catchment and Wainuiomata investigations projects;
- Maintaining and reporting the Lake Onoke mouth opening with seven openings undertaken in the first quarter;
- Hosting Dr Russell Norman's visit to the Wairarapa to look at river works. This visit was in response to critical comments Dr Norman had made about GW flood protection activities during an earlier visit;
- The establishment of a cross Council team to consider renewal of the department's Global consents for routine maintenance work in the rivers.

### (c) Looking ahead

The key challenge for the next quarter will be to continue the momentum with the Waiohine and Waiwhetu FMP investigations. Both projects are at a stage where considerable work to achieve completion is required. Staff will also be progressing the Whaka Stream/Tawaha diversion consent application and the review of the Wainuiomata Flood Hazard Assessment.

(d) Commentary

*Floodplain Management Plan Implementation*

**Boulcott/Hutt Stopbank Project**

The contractor for the Boulcott/Hutt stopbank has now commenced the construction works. The contractor is working on the Connolly Street realignment, Ariki Street stormwater upgrade and preparation work for building the retaining walls. GW and HCC are jointly funding the stormwater works. An application to NZTA seeking a roading subsidy on the Connolly Street realignment, made by HCC on behalf of GW, has been approved. This subsidy is worth about \$300K on the basis of contract prices. Work is also progressing on selecting contractors to construct the golf course preparatory works.

**Lower Waitohu Stream Project**

Consultation with the Kapiti Coast District Council and other stakeholders continues on Council's preferred option for flood mitigation on the Lower Waitohu. Planning for clearing of trees along the stream has commenced with work programmed to start in February 2012. The budget for 2011/12 is \$500K but the forecast expenditure is \$300K.

**Otaki River works from mouth to SH1**

Four sites on the Otaki River at high risk from erosion are currently being investigated to identify two sites for improvement under the 2011/12 capital works programme. The budget for 2011/12 is \$171K and the forecast is \$371K. The funding for the additional \$200K will come from the under spend this year on the Lower Waitohu project. The total 2011/12 budget of \$671K for Otaki Capital Works will not be exceeded.

**Other works**

Work is progressing on Waiohine and Waiwhetu Floodplain Management Plans (FMP). Outcomes from Phase 1 investigations of the Waiohine FMP were presented to the WFMP Advisory Committee on 26 September 2011. Phase 2, Option development, has commenced.

Preliminary works for the second stage of the Tobin stopbank on the Raumahanga River are progressing. Earthworks will commence once the ground is dry enough for machinery to operate.

## *Operations Delivery Activities*

### **Hutt River**

All native and willow planting programmes are now complete for this year. This work included a successful community planting day on 27 August 2011 along the river trail realignment behind the Royal Wellington Golf Course where some 2,500 native trees were planted.

Maintenance work including flood gate repairs, fence line spraying and berm clean ups are underway. River trail extensions are being carried out on the right bank down stream of Totara Park Bridge. The recent snowfall caused a lot of damage to native river side plantings and staff have been busy repairing this. Berm repairs and drainage improvements have been completed alongside the Upper Hutt River Road following extensive vehicle damage over the winter.

### **Otaki River**

The Otaki Friends walkover was held on 14 September with 120 local residents, politicians and interest groups attending the event. Staff were busy ahead of the day preparing access roads and cutting back vegetation so the buses could access many of the river sites. The event was very successful and gave people the opportunity to visit a number of work sites and exchange ideas. Native planting has continued along the river and at the estuary in conjunction with the Friends Group.

The Otaki River mouth was cut on 20 July to reduce water build up behind the Rangiuru flood gates which resulted in surface water flooding around a number of properties along Atkinson Avenue. Tree removal and bank reinstatement has been undertaken along the upper Taylor's stop bank. Willow planting is underway and willow rejuvenation work, to cut back dying willows, is continuing.

### **Waikanae River**

The Waikanae Friends walkover was held on 29 September 2011 with approximately 50 people attending. The day was very successful with some valuable connections being made between the various groups attending.

Berm clearing, willow planting and track maintenance has also been carried out in the Waikanae River. A Corrections Department Periodic Detention gang has continued clearing pest plants below the SH1 road bridge.

### **Western Watercourses**

Willow clearing was undertaken along the Mangaone Stream and a number of large wind fallen trees have been removed from the Waitohu Stream following the severe winds in July. River mouth cuts were carried out at the Waimeha and Mangaone River mouths after storms caused them to block. Audit inspections have been completed for the Porirua

Scheme including Seton Nossiter and Stebbings Dams. Stream clearing runs are underway in Hulls Creek and Pinehaven Stream.

### **Wairarapa River Schemes**

This year's planting work has been completed and river bank erosion problems are being repaired with tree work. Some beach shaping work is being carried out. Heavy rock has been ordered and delivered to a number of Waiohine River sites in preparation for constructing and repairing rock groynes.

The outlet to the sea from Lake Onoke has been blocked by sand thrown up by heavy seas on eight occasions over the last three months. The lake opening processes have proved more challenging than normal due to the number of southerly fronts causing small windows of opportunity in which to open the lake.

A presentation was made to the Lower Wairarapa Valley Development (LWVD) Scheme Committee on 30 September 2011 on the process for opening Lake Onoke and the associated operation of the Barrage gates. The presentation helped to improve communication to local landowners and to ensure a wider understanding of the complexity of the associated operations. The Committee and landowners present endorsed the current approach to managing the mouth opening activities.

### **Drainage Schemes**

The annual drainage scheme reports for the gravity drainage schemes have been prepared and distributed to scheme members. There are no significant changes to the works programmes or rates for 2011/12. The annual report also provides information on the proposed rates and works programme for 2012/13. Scheme members will have the opportunity to provide feedback for the next Annual Plan process.

### **Asset Management**

The Flood Protection SAP Asset Management Project is progressing well and has identified a number of issues and improvements. The current focus of the project is to ensure the department has well structured and robust asset data. Initial checks have been completed on 75% of the records. However, the Lower Valley Scheme will require further adjustment to align with the standard format.

### **River Management Resource Consents**

The Consents Department have almost completed drafting conditions for the Hutt River mouth gravel extraction consent application. Staff expect these will be provided to submitters for comment during the next few weeks. A legal opinion, relating to notification of the Hutt River wet gravel extraction consent, is also anticipated.

Further information to support the application to change the conditions of the Wairarapa River management consents has been provided to Consents staff.

Work is also continuing on the development of a strategy for renewing the Global Consents for all rivers in the region. These consents are due for renewal in the next 3-5 years. A coordinated approach involving staff from a number of Council departments is underway in order to make best use of resources.

### *Investigations, Strategy and Planning*

#### **Waingawa River Scheme Review**

Following a workshop on the status of the Waingawa River Scheme review it has been decided to expand the scope to align with the department's overall Floodplain Management Planning approach. A key driver in the need to expand the scope has been the upcoming renewal of resource consents for the scheme. As part of an agreement with major stakeholders with an interest in the management of the scheme it was agreed that a more comprehensive approach was required than has been used in the past. This agreement will also affect the other rivers in the Wairarapa but the Waingawa is the first to change as its global consent comes up for renewal in 2013.

#### **Tawaha Catchment Diversion**

The project to upgrade drainage from the Tawaha floodway by upgrading the drainage efficiency of the Whakawiriwiri Stream is progressing. A consultant has been appointed to lead the work, the stream survey has been completed and staff have commenced preparation of land information and agreements necessary to implement the works. The plan is to have resource consent applications lodged in early 2012 and construction commenced before June 2012. This timetable will be dependant on whether any appeals are lodged on the consent.

#### **Other Investigations**

- Wainuiomata River flood hazard maps and design channel: Work is continuing on updating the flood hazard maps as recommended at the Hutt Valley Floodplain Management Subcommittee with a revised draft anticipated to be completed at the beginning of November and reported to the Subcommittee on 1 December 2011.
- The Pinehaven Flood Hazard Assessment is progressing in conjunction with the UHCC. A range of initial flood risk management options have been developed which are being defined further before going out to consultation with key stake holders and the community.
- Porirua flood hazard maps are being developed into their final stages before consultation with key stakeholders – this exercise is anticipated to commence in November 2011.

## Technical Advice

Staff continue to receive numerous requests for flood hazard advice across the region from the public, local authorities and other GW departments on general enquiries and resource consent applications to Greater Wellington. In addition to this staff have continued to work with the Alliance on the McKay's to Peka Peka RONS project and NZTA consultants on the Peka Peka to Otaki project and TG.

### (e) Financial Summary for Flood Management

Last Year YTD Actual \$000	YTD Actual \$000	YTD Budget \$000	YTD Variance \$000	Flood Protection Funding Statement For the three months ended September 2011	Last Year FY Actual \$000	Full Year Forecast \$000	Full Year Budget \$000	Full Year Variance \$000
3,167	3,329	3,329	-	Rates & Levies	12,669	13,317	13,317	-
-	-	-	-	Government Grants & Subsidies	-	-	-	-
308	291	435	(144)	External revenue	1,022	1,155	1,325	(170)
119	108	115	(7)	Investment Revenue	426	458	458	-
14	13	18	(5)	Internal Revenue	92	72	72	-
<b>3,608</b>	<b>3,741</b>	<b>3,897</b>	<b>(156)</b>	<b>TOTAL INCOME</b>	<b>14,209</b>	<b>15,002</b>	<b>15,172</b>	<b>(170)</b>
				<i>less:</i>				
776	805	775	(30)	Base Personnel Costs	2,933	3,141	3,101	(40)
(89)	(95)	(117)	(22)	Capex Project Resource Cost Credit	(402)	(527)	(467)	60
167	193	246	53	Materials, Supplies & Services	759	1,077	1,072	(5)
30	23	36	13	Travel & Transport Costs	179	145	145	-
359	299	539	240	Contractor & Consultants	2,371	2,563	2,653	90
-	-	-	-	Grants and Subsidies Expenditure	-	-	-	-
217	172	205	33	Internal Charges	694	685	685	-
<b>773</b>	<b>1,397</b>	<b>1,684</b>	<b>287</b>	<b>Total Direct Expenditure</b>	<b>4,003</b>	<b>4,470</b>	<b>4,555</b>	<b>85</b>
611	724	740	16	Financial Costs	2,455	2,958	2,958	-
-	-	-	-	Bad Debts	-	-	-	-
213	224	224	-	Corporate & Department Overheads	854	895	895	-
217	183	199	16	Depreciation	868	796	796	-
(13)	-	-	-	Loss(Gain) on Sale of Assets / Investments	(127)	(88)	(88)	-
<b>1,801</b>	<b>2,528</b>	<b>2,847</b>	<b>319</b>	<b>TOTAL EXPENDITURE</b>	<b>8,053</b>	<b>9,031</b>	<b>9,116</b>	<b>85</b>
<b>1,807</b>	<b>1,213</b>	<b>1,050</b>	<b>163</b>	<b>OPERATING SURPLUS/(DEFICIT)</b>	<b>6,156</b>	<b>5,971</b>	<b>6,056</b>	<b>(85)</b>
217	183	199	(16)	Add Back Depreciation	868	796	796	-
(13)	-	-	-	Other Non Cash	(127)	(88)	(88)	-
(456)	(693)	(286)	407	Net Asset Acquisitions and Capital Expenditure	(4,047)	(5,186)	(5,186)	-
(105)	(83)	(91)	8	Net External Investment Movements	(382)	(342)	(342)	-
(723)	(731)	(752)	21	Repaid Debt	(3,048)	(3,008)	(3,008)	-
(80)	87	81	6	Net Reserves (Increase) / decrease	(571)	(602)	(632)	30
<b>647</b>	<b>(24)</b>	<b>201</b>	<b>547</b>	<b>NET FUNDING BEFORE DEBT ADDITIONS</b>	<b>(1,151)</b>	<b>(2,459)</b>	<b>(2,404)</b>	<b>(55)</b>
466	684	286	398	Internal Debt Additions	3,557	5,037	5,037	-
-	-	-	-	External Debt Additions	-	-	-	-
<b>1,113</b>	<b>660</b>	<b>487</b>	<b>173</b>	<b>NET FUNDING SURPLUS (DEFICIT)</b>	<b>2,406</b>	<b>2,578</b>	<b>2,633</b>	<b>(55)</b>

  

Last Year YTD Actual \$000	YTD Actual \$000	YTD Budget \$000	YTD Variance \$000	Flood Protection Capital Expenditure Statement For the three months ended September 2011	Last Year FY Actual \$000	Full Year Forecast \$000	Full Year Budget \$000	Full Year Variance \$000
-	350	-	(350)	Total Asset Acquisitions	299	237	237	-
469	344	286	(58)	Capital Project Expenditure	3,871	5,037	5,037	-
(13)	-	-	-	Asset Disposal Cash Proceeds	(124)	(88)	(88)	-
<b>456</b>	<b>694</b>	<b>286</b>	<b>(408)</b>	<b>Net Capital Expenditure</b>	<b>4,046</b>	<b>5,186</b>	<b>5,186</b>	<b>-</b>
105	83	91	(8)	Investments Additions	382	342	342	-
<b>561</b>	<b>777</b>	<b>377</b>	<b>(416)</b>	<b>Net Capital and Investment Expenditure</b>	<b>4,428</b>	<b>5,528</b>	<b>5,528</b>	<b>-</b>

Flood Protection Reserve Balances	Actual	Budget	Budget	Budget	Budget
	Opening Balance \$000	Transfer to \$000	Interest \$000	Transfers from \$000	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
	<b>5,642</b>	<b>572</b>	<b>313</b>	<b>-</b>	<b>6,527</b>

(f) Financial Summary Variances

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 \$80K over the original budget. This will be off-set by reduced expenditure on other operations activities.

The total Capital Expenditure Programme for this year is expected to be on budget. A forecast \$200K overspend on the Otaki edge protection works will be offset by a forecast \$200K underspend on the Lower Waitohu projects. The out years will also be adjusted to keep within the overall budget.

(i) Actual year to date variances to budget

- Reduced gravel and NZTA revenue of \$82K for Flood Protection – Western Zone;
- Reduced lease revenue and isolated works revenue of \$91K due to timing for Flood Protection – Eastern Zone;

(ii) Actual year to date variances to forecast

- Reduced gravel and NZTA revenue of \$170K for Flood Protection, partially offset by reduced river maintenance expenditure (materials and contractors)

(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, Otaki;
- Lower Wairarapa Valley Development Scheme works are behind budget due to weather conditions.

(iv) Capital expenditure actual year to date variances to forecast

- 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 \$200K under budget.

### Summary of capital expenditure to 30 September 2011

Category	Actual \$000	YTD Budget \$000	FY Budget \$000	Forecast \$000
<b>Hutt Flood Protection</b>				
Boulcott/Hutt stopbank	180	150	2,700	2,700
Ebdentown rock lining	0	0	10	10
City Centre Design	1	0	0	0
Waiwhetu Flood Improvements	47	0	100	100
Waiwhetu Phase 2 Stream FHA	24	30	150	150
Pinehaven FH Contribution	9	7	29	29
<b>Hutt Valley sub total</b>	<b>261</b>	<b>187</b>	<b>2,989</b>	<b>2,989</b>
<b>Otaki River</b>				
Chrystalls extended stopbank	0	0	396	396
Lower Waitohu	9	5	500	300
River Works Mouth to SH1	5	5	171	371
Bridge Road Edge Protection	33	0	0	0
Otaki environmental strategy implementation	2	0	0	0
<b>Otaki River sub total</b>	<b>49</b>	<b>10</b>	<b>1067</b>	<b>1067</b>
Lower Wairarapa Valley Development Scheme Upgrade and other scheme works	364	46	762	762
Waiohine Stopbank Design	19	18	219	219
<b>Wairarapa sub total</b>	<b>383</b>	<b>64</b>	<b>981</b>	<b>981</b>
<b>Total</b>	<b>693</b>	<b>261</b>	<b>5,037</b>	<b>5,037</b>

#### (g) Business Plan Performance Indicators

Performance indicator	Performance to date
The Waiohine River floodplain management plan will be adopted by the Council	Phase 1 has been completed and signed off by the FMP Committee.  Phase 2 is underway and it is anticipated that the finalisation of the FMP is on target to be adopted by the Council at the end of this financial year.
The Waiwhetu Stream floodplain management plan will be adopted by the Council	Phase 2 is progressing with the finalisation of preferred options to be taken to key stakeholders consultation  Progress is currently behind the planned time frame to be adopted by the Council at the end of this financial year.  Efforts are being made to bring this back on track though there is a risk that this time frame will not be met due to resource constraints
A review of Masterton flood risk will be completed to the satisfaction of the Council	The initial phase of the investigations will 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 the capital expenditure programme	Boulcott/Hutt stopbank – construction commenced and on target for completing the programmed Stage1 works by June 2012  Lower Waitohu – Consultation commenced and progressing on a revised programme to obtain



	<p>consents for the proposed works by June 2012</p> <p>Otaki River works – design process has commenced and on target for completing the works by June 2012</p> <p>Chrystalls land – negotiations are progressing and an offer had been made to LINZ subject to Council approval</p> <p>LWVDS – Preliminary works have commenced and on target for completing the programmed works by June 2012</p>
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 programme on target. 2010/11 programme reported to Council on 8 September 2011
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 programme on target. 2010/11 programme reported to Council on 8 September 2011
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.	On target. Successful Otaki Friends walkover held on 14 September 2011 attended by 120 politicians, community residents and interested public.
Maintenance within the Waikanae River corridor, including tracks and restoration sites, will be carried out in accordance with the Waikanae River Environmental Strategy and in partnership with the Friends of the River group. Progress will be reported to the Council.	Progressing. Successful Waikanae Friends walkover held on 29 September 2011 attended by 50 politicians, community residents and interested public.

(h) Risk Analysis

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