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Committee Catchment Management Committee  
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## **Floodplain Management Plan Implementation: Annual progress report to June 2010**

### **1. Purpose**

To advise the Committee on progress made to June 2010, implementing the Hutt, Otaki, Waikanae Floodplain Management Plans (western FMPs) and the Lower Wairarapa Valley Development Scheme (LWVDS) upgrade.

### **2. Significance of the decision**

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

### **3. Background**

This is the eighth annual report on the implementation of the western FMPs and the third annual report on the Wairarapa capital works.

#### **Western FMPs**

The Hutt, Otaki and Waikanae Floodplain Management Plans (Western FMPs) were completed in 2001, 1998 and 1997 respectively. They recommend structural, non-structural and environmental measures to reduce the flood risk to the respective floodplains and improve the environment. Greater Wellington has adopted a 40-year time frame to fully implement the three FMPs at a total cost of \$98M. Implementation of the FMPs commenced in 2000 and \$30 million has been spent up to the end of June 2010. The Flood Protection, 2010-2019 Operating Plan provides a further \$39 million for implementing the three FMPs.

#### **LWVDS**

A major review of the LWVDS, completed in 2006, recommended a structural upgrade programme to improve the security of the flood defences in the lower

valley. The proposed works, costing \$7.82 million, generally involve strengthening river bank protections and upgrading of stopbanks on the Ruamahanga and Tauherenikau rivers. Implementation commenced in 2007/08 and Greater Wellington has adopted a 10 year time frame to fully implement the works programme. The Flood Protection 2010-2019 Operating Plan provides a further \$5.5M for implementation.

#### Waiohine FMP

The process for developing a FMP for the Waiohine floodplain commenced in 2008/09 and is progressing. Implementation of the plan is scheduled to commence in 2012/13 with \$5.0M provided in the 2010-2019 Flood Protection Operating Plan for implementation.

## 4. Summary progress

The FMP implementation is progressing well with the target of completing the western projects by 2040 and the Wairarapa project by 2017. **Attachments 1 to 5** provide a summary by project of implementation progress. The tables below show the summary of financial progress to date and the expected achievements by 2019. The progress, shown as 'percent complete' to June 2010 and the forecast to 2019 was computed by discounting current dollars to dollars at the time of adoption of the respective FMPs.

Table 1 Expenditure Summary

River	Total 40 year budget (\$M) <sup>1</sup>	Expenditure in 2009/10(\$M)	Expenditure to June 2010 (\$M)	Total expenditure forecast to 2019 (\$M)
Hutt	78.00	1.67	20	53
Otaki	12.07	0.26	5.7	9.8
Waikanae	8.69	-	4.3	6.43
Total western FMPS	<b>98.76</b>	<b>1.93</b>	<b>30</b>	<b>69.23</b>
LWVDS	7.82	0.78	2.4	8.2
Waiohine	5.5	-	-	5.5
<b>Total</b>	<b>112.08</b>	<b>2.71</b>	<b>32.4</b>	<b>82.9</b>

Table 2 Progress Summary

River	Budget Expenditure		% Complete		
	Total budget (\$M)	Expenditure to June 2010 (\$M)	Actual to June 2010 in dollar terms	Forecast to June 2019 in dollar terms	June 2010 (Flood damages saved)
Hutt	78	14.05	18%	43%	20% <sup>3</sup>
Otaki	12.07	4.5	37%	57%	54%
Waikanae	8.69	3.79	44%	58%	68%
LWVDS	7.82	2.31	30%	100%	

Waiohine	5.5	-	-	100%	
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#### 4.1 **Non-structural measures**

The Hutt and Kapiti flood hazard information has been included in Hutt City and Kapiti district plans. The Kapiti flood hazard has been amended to reflect the reduced flood risk from the Chrystalls stopbank and Jim Cooke realignment works. Upper Hutt City district plan change to include the Hutt River flood hazard has progressed to the draft stage. Providing 'free' advice on flood hazards to the public is continuing on an ongoing basis. Flood Hazard information is also included in the Wairarapa Combined District Plan.

#### 4.2 **Structural measures**

##### 4.2.1 Hutt River

By the end of June 2010, \$20 million had been spent in implementing the Hutt River FMP. The project is now about 18% complete and progressing well.

The Ava to Ewen project, Belmont improvements and the Whirinaki Crescent stopbank upgrade are complete. The Boulcott/Hutt stopbank construction is currently scheduled for completion by 2013. The planning and the design for the City Centre stopbank and channel improvements are scheduled to commence in 2012/13. The completion of all stopbanks on the true left bank of the Hutt River from the Ava Rail Bridge to Kennedy Good Bridge are required to realise 40% of the flood damages saved benefits and are programmed to be completed by 2010. However, some benefits accrue from the partial completion of each section.

##### 4.2.2 Kapiti Rivers

By the end of June 2010, \$10 million had been spent in implementing the Kapiti FMPs. Implementation of the Otaki and Waikanae FMPs is now 37% and 44% complete respectively. In Otaki, the Chrystalls stopbanks, the Rangiuru floodgates, the Mangapouri culverts and about 52% of the river management works upstream of SH1 are complete. In Waikanae the Kauri Puriri works, Otaihanga Road raising, Jim Cooke Park realignment and part of Otaihanga edge protections are complete. About 59% of the planned river management works are now complete.

##### 4.2.3 LWVDS

Implementation of the LWVDS development works programme commenced in 2007/08. All works programmed up to 2009/10 amounting to about 32% of the total project were completed. The total expenditure to June 2010 is \$2.4 million.

##### 4.2.4 Environmental enhancement works

Significant environmental enhancement works have been completed with all the above capital projects. Environmental strategies have been completed for the Hutt, Otaki and Waikanae Rivers. These strategies generally include planting native trees, improving existing walkways, or providing new

walkways, and general landscaping. A review of the Waikanae Environmental Strategy, taken up as part of the 10 yearly review of the Waikanae FMP, is now substantially complete and consultation with Iwi has commenced. The Friends of the Waikanae and Otaki Rivers are playing a significant part in the implementation of these strategies.

#### **4.3 FMP reviews**

All three western FMPS have adopted a 40 year timeframe to fully implement with reviews proposed every 10 years. The review of the Waikanae FMP commenced in 2008/09. The review of the technical information was completed in 2009/10 and consultation commenced, initially with KCDC. Consultation with other stakeholders will progress during 2010/11. The 10 yearly reviews of Otaki and Hutt FMPS are scheduled to commence in 2011/12 and 2012/13 respectively.

### **5. 2009/10 Targets and achievements**

Significant progress was made on all FMP projects during 2009/10. A total of \$2.7 million was spent during the year. The highlights for 2009/10 are summarised below.

#### **Western FMPS**

In the Hutt, contract maintenance works in the Ava to Ewen project, Whirinaki Crescent stopbank project and the Maoribank urgent repair works were completed. The Boulcott/Hutt stopbank project reached a significant milestone with the lodging of the Notice of Requirement (NOR) and Resource Consent (RC) applications with Hutt City Council and GW Environmental Regulation on 11 March 2010. The public submissions on NOR/RC application closed 4 May 2010 with 80 submissions. The detailed design for the Boulcott/Hutt stopbank was completed. The Hutt River gravel analysis was completed and the outcomes reported to Council in November 2009.

In Otaki, bank edge protections to a length of about 190 metres at the SH1 were completed. Of this around 60 metres of rocklining under the bridge was funded by NZTA. The Chrystalls walkway improvements beneath the SH1 and Rail bridges were also completed as part of these works. The land purchase negotiations for the LINZ land between SH1 and Chrystalls continued. In Waikanae, the raising of the Boating Club clubrooms and the extension to the rock lining by 30 metres were completed. The preliminary planning for the Jim Cook Park stopbank commenced and the five yearly bed level survey completed.

#### **LWVDS**

The budget for 2009/10 was \$773,000. Work completed included purchase of land at Tauanui delta and construction of the stopbank. Completion of rock berm at Butcher's, boulder/rock groynes at 3 locations and boulder rip rap protection to about 700m of the Ruamahanga River. About 900 metres of Paul's bank at Onoke was also upgraded.

Total amount of major works carried out up to 30 June 2010 are:

- Stopbank at Tauanui delta - 550 m
- Upgrading of stopbanks - 900 m
- Boulder rip rap protection - 700 m
- Rock berm - 80 m
- Boulder groynes - 30 constructed

### **Waiohine FMP**

The Waiohine FMP investigations commenced in 2008/09 and the phase 1 investigations are progressing. The scope for phase 2 consultation is currently being developed. A major milestone was the formation of the WFMP Advisory Committee and the completion of the flood hazard maps.

## **6. 2010/11 works programme**

### **Western FMPs**

The total western FMP budget for 2010/11 is \$5.7 million. The key western FMP projects for 2009/10 include:

- Working with UHCC to complete the district plan change to include the revised Hutt River and Mangaroa flood hazards in the Upper Hutt district plan;
- Commencing and progressing with construction of the Boulcott/Hutt stopbank project. A decision on the NOR/RC applications is expected by October 2010. If there are no appeals, construction could commence in November 2010;
- Completing the detailed design and construction of the Bridge Road edge protections project in Upper Hutt;
- Progressing with the detailed design and construction cost estimates for the Ebdentown rock lining. This is a joint GW/NZTA project and the construction timing is dependant on NZTA funding. GW staff are progressing with separate funding discussions as part of the renewal of the River Works Agreement discussions with NZTA;
- Progressing with the preliminary design and consultation for the lower Waitohu Stream project involving South Waitohu stopbank, the implementation of the Waitohu Stream study recommendations and the KCDC stormwater improvements;
- Completing land purchase at Chrystalls in Otaki

- Completing consultation on the outcomes from the Waikanae FMP review;
- Progressing with environmental enhancement works.

## **LWVDS**

The total LWVDS budget for 2010/11 is \$0.76 million. The key projects for 2010/11 include:

- Completing the stopbank at Tauanui Delta;
- Planting native shrubs on the lower Ruamahanga River for wave damage erosion protection and biodiversity purposes;
- Large scale willow buffer zone development;
- Undertaking boulder groynes and rip rap protection on the Ruamahanga River.

## **Waiohine FMP**

Progress the development of the Waiohine FMP by completing Phase 1 and starting Phase 2.

## **7. Activities proposed to 2019**

The Flood Protection 2010-2019 Operating Plan provides a total of \$50.5 million to implement the Hutt, Otaki, Waikanae and Waiohine FMP and the LWVDS. The programme also includes completing the 10 yearly review of the western FMPs, the UHCC plan change and consultation with KCDC to develop measures for further refining land use controls on the floodplains.

### **7.1 Hutt**

The programme provides for completing all stopbanks on the left bank from Kennedy Good Bridge to Ava Rail Bridge to provide the HRFMP recommended standard of protection to the Hutt CBD. The Boulcott/Hutt stopbank, which is a component of this project, is programmed for completion by 2013. Upper Hutt projects including Maoribank bed stabilisation, Ebdentown and Bridge Road edge protections will be completed.

### **7.2 Waikanae**

In Waikanae, the Jim Cooke Park stopbank project will be completed by 2016. The house raising and further environmental enhancement works will continue through the period.

### **7.3 Otaki**

The programme provides for completing the Lower Waitohu Stream project, Chrystalls land purchase and North stopbank improvements by 2014. The

programme also provides for further bank edge protection works and environmental enhancement works to be completed from the mouth to the Otaki Gorge.

#### **7.4 Wairarapa**

The programme provides for completing the LWVDS development works by 2016/17 and the Waiohine FMP works by 2014.

### **8. Communication**

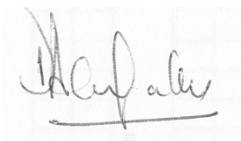
This report was written primarily for internal purposes. However, a copy of this report will be sent to HCC, UHCC and KCDC for their information.

### **9. Recommendation**

*That the Committee:*

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

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- Attachment 1: Hutt FMP summary progress table
- Attachment 2: Otaki FMP summary progress table
- Attachment 3: Waikanae FMP summary progress table
- Attachment 4: Wairarapa Projects - LWVDS summary progress table
- Attachment 5: Waiohine summary progress table