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Committee Strategy and Policy Committee  
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## **Floodplain Management Plan Implementation: Annual Progress Report to June 2014**

### **1. Purpose**

To advise the Strategy and Policy Committee (the Committee) of progress made to June 2014, in implementing the Hutt, Otaki and Waikanae Floodplain Management Plans, and the Lower Wairarapa Valley Development Scheme (LWVDS) upgrade.

### **2. Background**

This is the twelfth annual report on the implementation of the Hutt, Otaki and Waikanae Floodplain Management Plans and the seventh annual report on the Wairarapa capital works.

#### **2.1 Western Floodplain Management Plans**

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 Regional Council (GWRC) has adopted a 40-year time frame to fully implement the three FMPs. Implementation of the FMPs commenced in 2000 and \$48.5 million has been spent up to the end of June 2014. The Flood Protection Department's 2014-2022 Operating Plan (the Plan) provides a further \$49 million for implementing the three FMPs.

#### **2.2 Wairarapa Capital Works**

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 Wairarapa valley. The original programme was for implementation over 8 years, commencing in 2007/08 and estimated to cost \$8.82 million. Generally the work involved strengthening river bank protections and upgrading of stopbanks on the Ruamahanga and Tauherenikau Rivers. In 2011, Council approved a revised cost estimate (\$12.7 million in 2013 dollars) and extended the completion date to 2022. A total of \$5.47 million has been spent to June 2014. The Plan provides a further \$7.2 million to complete the project.

### 2.3 Waiohine FMP

The process for developing a FMP for the Waiohine floodplain commenced in 2008/09 and is progressing. The Plan provided \$6.3 million for implementation of the project during the period from 2013/14 to 2016/17, once development of the FMP is complete. The programme for 2013/14 was deferred until the FMP is completed.

### 2.4 Pinehaven FMP

The FMP development for the Pinehaven Stream is progressing with the target of completing the FMP by June 2015. The total estimated cost of the FMP works is \$10 million and the implementation is programmed to commence in 2015/16. This is a joint GWRC/Upper Hutt City Council (UHCC) project with a proposal to fund the FMP implementation works on a 50:50 cost share basis. The Plan provides \$2 million for implementing the project. A request for the remaining \$3 million of the GWRC share has been made through the 2015 – 2025 LTP.

## 3. Summary Progress

The FMP implementation is progressing well with the target of completing the western projects by 2040 and the Wairarapa project by 2022. Waiohine and Pinehaven projects are yet to commence. **Attachments 1 to 5** provide a summary by project of implementation progress. Table 1 below shows the summary of financial progress to date and the forecast to 2022. The progress shown in Table 2, as ‘% complete’ to June 2014 and the forecast progress to 2022 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 2013/14(\$M) <sup>2</sup>	Expenditure to June 2014 (\$M) <sup>2</sup>	Total expenditure forecast to 2022 (\$M) <sup>2</sup>
Hutt	78.00	3.2	36.3	76.5
Otaki	12.07	0.55	7.7	12.7
Waikanae	8.69	0.15	4.5	6.3
Pinehaven	10.00			2.0
Total western FMPS	<b>98.76</b>	<b>3.9</b>	<b>48.5</b>	<b>97.5</b>
LWVDS	8.8	0.77	5.47	12.7
Waiohine	5.5		-	6.3
<b>Total</b>	<b>112.08</b>	<b>4.67</b>	<b>53.97</b>	<b>116.5</b>

Notes:

1. Hutt, Otaki, Waikanae and LWVDS budgets are based on 1999, 1998, 1997 and 2007 dollar (FMP dollars) values respectively. Waiohine and Pinehaven are 2008 and 2014 estimates.
2. Expenditure figures are the sum of expenditure to date in current dollars and the budget (indexed) provided in the current Annual plan. The figures shown are current, and have not been converted to FMP dollars.
3. Additional budget has been requested through 2015 -2025 LTP to provide the total GWRC share of \$5 million for the Pinehaven Project

**Table 2: Progress Summary**

River	Budget/Expenditure FMP dollars		% Complete		
	Total budget (\$M)	Expenditure to June 2014 (\$M)	Actual to June 2014 in dollar terms	Forecast to June 2022 in dollar terms	June 2014 (Flood damages saved)
Hutt	78	23.15	30%	58%	35%
Otaki	12.07	5.62	47%	70%	70%
Waikanae	8.69	3.87	45%	56%	69%
LWVDS	12.7*	5.5	43%	100%	

\*LWVDS progress is on the basis of the 2013 estimate.

### 3.1 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 Park realignment works. The Wairarapa flood hazard information has been included in the Wairarapa Combined District Plan. A hearing on the proposed Upper Hutt District Plan change 15 to include the Hutt River and Mangaroa flood hazard, was held in June 2013. The flood hazard information is currently being reviewed following a request by UHCC. A decision on the plan change is expected by June 2015.

### 3.2 Structural measures

#### 3.2.1 Hutt River

By the end of June 2014, \$36.3 million had been spent in implementing the Hutt River FMP. The project is now about 30% complete on the basis of FMP dollars and progressing well.

The Ava to Ewen project, Belmont improvements, Whirinaki Crescent stopbank upgrade, the Bridge Road edge protection works and the Boulcott/Hutt stopbank project are complete.

The planning and design for the City Centre stopbank and channel improvements commenced in October 2012 and is progressing well. The City Centre Project, which includes stopbanks on both banks, is currently scheduled for completion by 2022. Strategic land purchase at critical locations in the Hutt River has continued.

The benefits in terms of flood damage saved are estimated at 35% on the basis of works completed to date. The benefits on the basis of flood damages saved will be 66% when the City Centre upgrade project is completed.

#### 3.2.2 Kapiti Rivers

By the end of June 2014, \$12.2 million had been spent implementing the Kapiti FMPs. The Otaki and Waikanae FMPs are both now 44% complete on the basis of FMP dollars. In Otaki, the Chrystalls stopbanks, the Rangiuuru 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.

### 3.2.3 LWVDS

Implementation of the LWVDS development works programme commenced in 2007/08. All works programmed up to 2013/14, amounting to about 43% of the revised total project cost, were completed. The total expenditure to June 2014 is \$5.5 million.

### 3.3 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. The Boulcott/Hutt stopbank was designed and constructed to blend in with the golf course. A review of the Waikanae Environmental Strategy, undertaken as part of the 10 yearly review of the Waikanae FMP, is now complete. The Friends of the Waikanae and Otaki Rivers are playing a significant part in the implementation of these strategies.

### 3.4 Emergency Management

Most of the emergency management measures identified in the FMPs to enhance the existing systems have been completed. Providing flood warning to local authorities and selected land owners is continuing on an on-going basis.

### 3.5 FMP progress reviews

All three western FMPS have adopted a 40 year timeframe to fully implement with progress reviews proposed every 10 years. The 10 yearly progress review of the Waikanae FMP is now complete and the reviews of Otaki and Hutt FMPs are programmed for the period from 2016 to 2025.

## 4. 2013/14 Targets and achievements

Significant progress was made on all FMP projects during 2013/14. A total of \$4.7 million was spent during the year. The highlights for 2013/14 are summarised below.

### 4.1 Western FMPs

In the Hutt, good progress was made in developing the integrated concept design options for the City Centre Project. Flood protection options for managing the changing flood risk due to climate change were investigated. Four properties were purchased as part of the strategic land purchase for implementing the Hutt FMP. The contractor's maintenance period for the Boulcott/Hutt stopbank was completed. Progress was also made on a peer review of the Managaroa flood hazard information.

In Kapiti, feasibility designs for the Jim Cooke Park stopbank reconstruction and construction of edge protection at Traceys in the Otaki River were completed. Good progress was also made with land entry agreements for the lower Waitohu Stream, particularly Maori Land at 74 Convent Road.

## 4.2 LWVDS

The 2013/14 works programme was completed. Works completed include stage 1 of the Turanganui stopbank upgrade (3k from the bottom end) and Boulder Protection works to Pauls Bank at Onoke. Resource consents were obtained for the proposed improvements to the Whakawhiriwhiri Stream.

## 5. 2014/15 works programme

### 5.1 Western FMPS

The total western FMP budget for 2014/15 is \$3.6 million. The key western FMP projects for 2014/15 include:

- Follow up work with UHCC to complete the **district plan change** to include the revised Hutt River and Mangaroa flood hazard in the Upper Hutt district plan
- Completing a Programme Business Case for improving the resilience of the **Melling Bridge** for consideration through the Regional Land Transport Plan.
- Completing an integrated concept plan that combines **Hutt River City Centre Upgrade Project** with components of the Hutt City Council's (HCC) Making Places Project and the New Zealand Transport Agency's (NZTA) Melling Intersection Project
- Completing land transfers associated with the **Boulcott/Hutt stopbank project**, completing a security fence at Safeway and handing over completed works for maintenance
- Completing Hutt River edge protections at **Totara Park and Belmont**
- Lodging resource consents for the **Jim Cooke Park stopbank** reconstruction project in the Waikanae River
- Lodging resource consents for the **lower Waitohu Stream** channel works.

### 5.2 LWVDS

The total LWVDS budget for 2014/15 is \$0.779 million. The key projects for 2014/15 include:

- Constructing boulder rip rap protection on the Ruamahanga River at Macland Farm.
- Stage 2 of stopbank upgrades on the Turanganui River downstream of Lake Ferry Road.
- Whakawhiriwhiri Stream upgrade work subject to getting land entry permits in time for the 2014/15 summer.
- Berm reduction work at two locations on the Ruamahanga River.

### 5.3 Waiohine

The total Waiohine FMP implementation budget for 2014/15 is \$0.3 million. The FMP implementation works are deferred to 2015/16 until the FMP is completed. However, land purchase and the detailed design could commence once the FMP is well advanced.

## **6. Activities proposed to 2022**

The Flood Protection 2014-2022 Business Plan provides a total of \$62.5 million to implement the Hutt, Otaki, Waikanae, Pinehaven and Waiohine FMPs and the LWVDS development works. The programme also includes completing the 10 yearly progress reviews of the western FMPs.

### **6.1 Hutt**

The programme provides for progressing with upgrading of all stopbanks on both banks of the Hutt River from Kennedy Good Bridge to Ava Rail Bridge to provide the Hutt River FMP recommended standard of protection to the Hutt CBD, the central residential areas and the western residential areas from Melling to Ava Rail. The proposed Hutt River City Centre Upgrade Project includes all the remaining works in this reach. Timing for completing this work is dependent on the upgrade option selected and integration with the Hutt City Making Places project and NZTA's Melling Intersection work. Initial work has signalled significant increases in estimated costs depending which design option is chosen. Update on this work will be provided through the normal Council reporting processes.

The Hutt River projects programmed for Upper Hutt includes the Maoribank river bed stabilisation and Ebdentown edge protection works.

The programme also provides for making good progress with **Pinehaven Stream** FMP implementation works commencing from 2015/16.

### **6.2 Waikanae**

In Waikanae, the Jim Cooke Park stopbank project is programmed for completion by 2016. Further environmental enhancement works will continue through the period.

### **6.3 Otaki**

The programme provides for completing the Lower Waitohu Stream project, including the south bank improvements and further bank edge protection works. Further environmental enhancement works will continue through the period.

### **6.4 Wairarapa**

The programme provides for completing the Waiohine Project by 2017 and the LWVDS development works schedule by 2022.

## **7. Communication**

This report is written primarily for internal purposes. However, a copy will be sent to HCC, UHCC and Kāpiti Coast District Council for their information. A copy of this report will also be presented to the November 2014 meeting of the Hutt Valley Floodplain Management Subcommittee and to the combined Wairarapa Councils meeting.

## **8. The decision-making process and significance**

No decision is being sought in this report. This report provides an update on progress made with implementing the floodplain management projects and

confirms that we are meeting the service improvement plans set out in the Council's Long Term Plan.

## 9. Recommendations

*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