Report 99.510

File: N/3/13/25 13 September 1999

Report to the Hutt River Floodplain Management Advisory Committee From Daya Atapattu, Project Leader (HRFMP), Flood Protection (Strategy and Assets)

Hutt River Floodplain Management Plan : Project Leader's Report

1. **Purpose**

To update the Advisory Committee on the status of investigations for the Hutt River Floodplain Management Plan (HRFMP).

2. Background

Investigations for the combined Phases 2 and 3 of the accelerated HRFMP are proceeding on track for completion by June 2000. The investigations, as reported to the Advisory Committee at its meeting on 28 June 1999, had identified:

- Detailed cost estimates (Uniform and Based) for three "Design Standard" options
- Schedules of works for the 2300 cumec and 2800 cumec "Design Standard" options
- "Saved" damages and residual risk for each option
- Impact on Rates for three funding scenarios
- Effects of climatic change on Hutt River flooding
- Non-viability of detention dams as a flood mitigation measure
- A programme for public consultation for the "Design Standard"

This Order Paper contains reports on the outcomes of the public consultation and comments on public preferences for the "Design Standard" and the status of investigations for other major components of the HRFMP.

A Hutt River gravel analysis report was presented to the Advisory Committee in September 1998, and an explanation of the current policy on gravel extraction was presented to the Advisory Committee in May 1999. The analysis of gravel movement during the October 1998 floods, in selected reaches, is now complete and the Report 99.527 on this Order Paper contains the outcome.

3. **Design Standard**

The Advisory Committee at its meeting on 28 June 1999 recommended two Risk Based "Design Standard" options for public consultation. The Advisory Committee noted for the Landcare Committee that it had a preference for a Risk Based 2300 cumec "Design Standard", with a requirement that all bridges and other key structures are upgraded on replacement to the 2800 cumec standard. This was a major milestone for the project. The public consultation process on the "Design Standard" commenced in July 1999 and is now complete. Report 99.519 on this Order Paper contains the outcomes. Report 99.526 on this Order Paper assesses public responses on the 'preferred' "Design Standard" and the costs associated with them.

Attachment 1 shows the process and timing for adopting a design standard. Provided the Advisory Committee make a recommendation, the Landcare Committee will consider its adoption at the 12 October 1999 meeting. The schedule of works presented to the Advisory Committee in June will be updated to conform to the adopted "Design Standard". The updated schedule of works will then be considered by the Wellington Regional Council in its Long-term Financial Strategy (LTFS).

4. Non-structural Measures

The HRFMP will consider an integrated approach of structural and non-structural measures to reduce the flood risk. The aim of non-structural measures investigations is to reach a sustainable situation such that when residual risk is taken into account potential flood damages do not keep on rising. The investigations will identify flood hazard areas and land use practices appropriate to them to minimise impacts of flooding. Other measures such as early warning systems and emergency procedures will also be developed.

Delineation of hazard zones in the River Corridor is nearing completion. Land use practices appropriate for these hazard areas are also being prepared. These will be presented to the Advisory Committee in December 1999, before proceeding with a public consultation process similar to that for the "Design Standard".

Maps showing flood hazard on the floodplain for various design options have been prepared. Final hazard maps will be prepared on adoption of the "Design Standard". A review of approaches and practices for non-structural measures, adopted in other countries and in other areas of New Zealand, is substantially complete. This review will form the base when developing non-structural measures appropriate for the Hutt Valley floodplain.

5. Environmental Strategy

Investigations for an Environmental Strategy, that identifies opportunities to maintain or enhance the environmental quality of the river and its corridor, are on track for completion by June 2000. The vision, objectives and options for the Environmental Strategy are contained in Report 99.512 of this Order Paper.

6. Construction Works

Capital Expenditure

Works completed during the 1998/99 financial year:

• Edge protection works for 500m of riverbank at Nash Street for \$473,435 (\$107,000 below budget).

Works programmed for the 1999/2000 financial year:

- Block Road edge protection works (\$300,000)
- Completion of landscape works at Nash Street (\$20,000)

Flood Damage Repairs

Total value of works completed during the 1998/1999 financial year	\$684,000
Total value of works programmed for the 1999/2000 financial year	\$522,600

Attachment 2 shows details of the flood damage repair works, with major works proposed for 1999/2000 at Manor Park Golf Club and Owen Street.

7. Budget and Forecast: HRFMP

Actual expenditure for the 1998/99 year exceeded the forecast for the accelerated programme by \$22,400. The total estimated costs for the HRFMP have now increased by an unbudgeted \$40,000 to \$1.345 million. The main reasons for the increase are:

- Audit and review of the "Design Standard" processes by an independent consultant
- Extra costs involved in publishing an additional newsletter for the "Design Standard"
- Extra costs involved in iterations for refinement of flood defences upgrade costs

	1998/99	1999/00	2000/01	2001/02	Total
Business Plan	\$244,850	\$414,650	\$306,550	\$354,150	\$1,320,200
Accelerated Plan December 1998	\$460,000	\$520,000	\$325,300	Nil	\$1,305,300
Accelerated Plan March 1999	\$524,750	\$471,250	\$309,300	Nil	\$1,305,300
Accelerated Plan July 1999	\$547,181 actual	\$488,519	\$309,300	Nil	\$1,345,000

A comparison of the estimated cashflows is given below.

No increased funding is sought at this stage; the costs of remaining works will be reviewed with a view to accommodating the extra costs within a total cost of \$1.305 million.

8. **Communication Opportunities**

The floodplain management planning structure has been designed to ensure community participation in all stages of the decision making process. The community is kept informed of the project status through press releases, newsletters and newspaper features. Community preferences are obtained through direct consultation, public meetings and submissions before arriving at major decisions. This process will continue in the future.

9. **Recommendation**

That the Hutt River Floodplain Management Advisory Committee receive this report and note its contents.

Report prepared by:

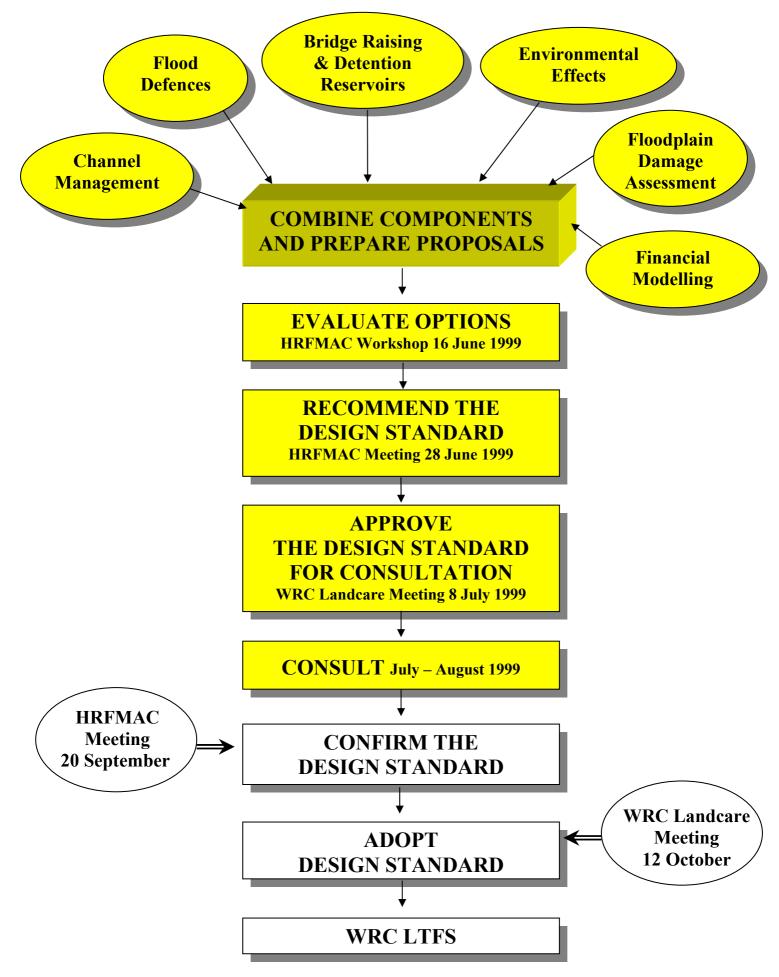
Approved for submission:

DAYA ATAPATTU Project Leader BRENDAN PAUL Manager, Flood Protection (Strategy and Assets)

ANDREW ANNAKIN Divisional Manager, Landcare

Attachment 1 : The Path To The "Design Standard" Attachment 2 : Hutt River Flood Damage Repairs





Hutt River Flood Damage Repairs

Name	Description	Cost
Works	Completed in the 1998/99 Financial Year	
Elbow Park	Berm reinstatement	\$97,000
Whakatiki Rock Line	Repair berm and construct rock line	\$63,000
Wellington Golf Club	Install new rock line	\$76,000
Manor Park Golf Club	Cross-blade to protect bank until new works are constructed	\$56,000
Stokes Valley Training Wall	Extend rock line	\$35,000
Mary Huse Grove	Repair berm and stopbank	\$53,000
Owen Street	Cross-blading and Groynes to protect berm until new works are constructed	\$37,000
Boulcott Stopbank	Repair existing stopbank	\$125,000
Black Creek	Repair rock line	\$20,000
Other Works	Numerous repair works along the river	\$122,000
	TOTAL	684,000
Works Pro	ogrammed for the 1999/2000 Financial Year	r
Bridge Road	Toe protection works	\$40,000
Memorial Park	New rock line	\$80,600
Manor Park Golf Club	Construct new bank protection	\$125,000
Owen Street	Construct three rock groynes and willow planting to protect berm.	\$202,000
Avalon berms	Debris fences and willows	\$75,000
	TOTAL	\$522,600

Hutt River Floodplain Management Plan

Project Costs

	1998/99	1999/00	2000/01	2001/02	Total
Business Plan	\$244,850	\$414,650	\$306,550	\$354,150	\$1,320,200
Accelerated Plan December 1998	\$460,000	\$520,000	\$325,300	Nil	\$1,305,300
Accelerated Plan March 1999	\$524,750	\$471,250	\$309,300	Nil	\$1,305,300
Accelerated Plan July 1999	\$547,181 actual	\$488,519	\$309,300	Nil	\$1,345,000