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Waiwhetu Stream Floodplain Management Study

1. Purpose

To:

- present the Waiwhetu Stream Floodplain Management Study (WSFMS) scoping report, requested by the Landcare Committee in March 2004, and seek endorsement of the strategy.
- formally advise the Committee that officers have taken initiatives to commence part of the Waiwhetu Stream investigations, under the Flood Protection small streams investigations programme, in this 2004/05 financial year.
- seek the Committee's recommendation to the Council that funding for the balance of the WSFMS project investigations be considered as part of the 2005/06 Annual Plan update and
- seek the Committee's direction on a decision making framework for the WSFMS project.

2. Decision making requirements of the Local Government Act 2002

The matters 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. Hence decisions made under this report are not "significant decisions" under that Act.

Section 76(1) of the Local Government Act 2002 requires that every decision made by a local authority must be made in accordance with the relevant parts of sections 77, 78, and 79 of that Act.

The Waiwhetu Stream Scoping report recommends that you prepare a Waiwhetu Stream Floodplain Management Study (WSFMS). Hence, in this case you are being asked to make a decision to proceed with work (the WSFMS) which will:

- define the full extent of the problem and who it affects (section 78),
- identify reasonably practicable options (section 77),
- consider the social economic, cultural and environmental benefits and costs of those options (section 79),
- evaluate the options (section 77) and
- develop proposals (section 78) from which you can make a further decision on what if any actions the Council needs to take.

Section 79 (Compliance with decision-making requirements) of the Local Government Act 2002 allows the Council discretion to make judgements about how to comply with sections 77 and 78 of that Act.

If you accept the recommendations in this case you are obtaining the relevant information so that you can make a decision on the substantive programme (i.e. how to resolve the Waiwhetu flooding problem). Hence this report and its attachments are sufficient to demonstrate compliance with the decision-making provisions of the Local Government Act 2002.

3. February 2004 Flood Response

During the 15/16 February flood event approximately 75 homes on the Waiwhetu floodplain had at least one room that was flooded, and approximately 125 people were evacuated. Four months after the event 15 families had still not returned to their homes. There was considerable anxiety and disruption to the families and businesses that were flooded, and there was almost certainly an additional financial burden. Feelings within the community were understandably high.

Subsequent analysis indicates that the 15/16 February 2004 flood was approximately a 44 year return period event. Flooding difficulties first arise on the Waiwhetu (at Hayward Terrace) around a twenty year return period flow. A smaller four year return period flood event on 27 August 2004 created some concerns (despite the flood peak coinciding with low tide) and some houses were evacuated as a precaution. It appears that relatively frequent flooding of properties (not houses) occurs on the Awamutu and Little Awamutu.

Soon after the February 2004 flood events, Hutt City's Mayor requested that Greater Wellington (GW) and Hutt City Council (HCC) "ask a committee of officers to study ways in which the Waiwhetu Stream might be better contained in the future and to that end suggest that a group be convened".

On 23 March 2004 the Landcare Committee made the following recommendation which was adopted by the Greater Wellington Regional Council on 31 May 2004:

"That a scoping report is prepared on investigations required to look at options for reducing the flood impacts from the Waiwhetu Stream for subsequent consideration by the Committee".

This report delivers the scoping report (**Attachment 1**, separate with the Order Paper) for the Committee's consideration and direction.

The joint scoping report was completed and agreed by staff from both HCC and GWRC in late August 2004. Unfortunately this timing meant that the report was unable to be presented to Hutt City Council and Greater Wellington Regional Council prior to the local body elections. Nevertheless, HCC and GWRC Councillors were brought up to date on progress with the joint study through memoranda in their respective Councillors' Bulletins (both memoranda were included in each bulletin). The HCC and GWRC memoranda are appended to this report as **Attachment 2**.

4. Background

Regional Councils have a duty to gather information, in relation to the control of the use of land, for the avoidance of natural hazards under the Resource Management Act 1991. Greater Wellington's Regional Policy Statement (RPS) gives effect to this duty under Section 11.4 Policy 1, "to ensure that there is sufficient information available on natural hazards to guide decision making". Section 11.5 of the RPS (Methods), provides for Greater Wellington to "complete flood hazard assessments on all major floodplains in the Region…"

The Waiwhetu Stream has a long and recognised history of flooding. Over the last two decades GWRC's flood focus in the western Wellington region has been on the floodplain management plan investigations, and their implementation, for the Hutt, Otaki, Waikanae and Wainuiomata rivers and Porirua Stream. Now that those strategies are in place, investigations on the smaller watercourses, including the Waiwhetu, are climbing towards the top of the priority list.

GWRC is responsible for the Waiwhetu Stream from the lower end of the concrete channel in Naenae down to the stream's outlet to the Hutt River at Port Road. HCC is responsible for the concrete lined sections of the upper Waiwhetu in Naenae, the Awamutu Stream and the Little Awamutu Stream. Because of the hydraulic interdependence between the sections of stream managed by HCC and GW, it is not possible to separately investigate the flooding issues and the options to reduce them.

5. Proposed Waiwhetu Stream Floodplain Management Study

The joint scoping report sets out a framework (including timing and costs) for what is, in effect, a floodplain management plan for the Waiwhetu Stream. GWRC will take the lead role because of its greater responsibilities over the length of the channel.

As requested by the Landcare Committee, officers of both Councils have worked together to develop the project scope which has HCC officer endorsement. The only outstanding aspect relates to your (and Hutt City Council's) preferred governance structure. This matter is discussed in Section 8 of this report.

The Waiwhetu Stream study is complex as there are many flood related issues and a greater than normal range of flood reduction options to be investigated. The environmental issues on the stream are intrinsically linked to the flood problems, which adds to the challenge. The complexity of this issue means that it is important that all parties are clear on the strategy, timeframe, and milestones for the investigations.

The study proposes to integrate and investigate the environmental issues and their treatment, together with the flood problems and flood relief options (including aquatic weed management). Officers consider that there is unlikely to be a "quick fix" for the flooding issues in the area.

Because of the wide range of interests and concerns, the scoping report makes provision for thorough consultation based around four resource groups and the existing Waiwhetu Stream Working Group. The principal outcome from the WSFMS will be a plan that describes the investigations carried out, details the agreed and adopted flood mitigation measures, and describes the strategies and methods for integrating Iwi, environmental and recreational interests into the measures.

The costs for the WSFMS investigations, the cost sharing arrangements with HCC, and the proposed investigations programme are covered in Section 9.

6. Relationship with existing Waiwhetu Stream Action Plan programme

Since 2000 Greater Wellington has been working in collaboration with Hutt City and the Waiwhetu Stream Working Group (WSWG) to implement the Waiwhetu Stream Action Plan. The WSWG is a community-based group which meets on a monthly basis. The Action Plan is centred around a community-endorsed twenty year vision for improving all aspects of the whole stream. This non-statutory plan was adopted by both Greater Wellington and Hutt City in 2001 and budgetary provision for its implementation is made by the both councils.

The focus of the Action Plan programme to date has been on:

- investigating remediation options for the highly contaminated sediments in the lower reaches of the stream.
- running a community restoration planting programme on the stream banks
- engaging the local residential and commercial communities in the Action Plan programme.

The Waiwhetu Stream Floodplain Management Study scoping report acknowledges the close community connection achieved by the WSWG and, as a result, proposes a central role for the group in the consultation process associated with the study. The report also acknowledges the complementarity of the Action Plan programme with the proposed flood plain study.

7. Investigations Underway

In 2003, GWRC had already completed a preliminary evaluation of hydraulic model requirements. A review of the flood hydrology of the Waiwhetu floodplain and catchment was commissioned in early 2004. This work was carried out under the small streams investigations programme.

Since the flooding in February 2004, both councils have commissioned the following data capture (for GWRC, again under the small streams programme):

- LiDAR aerial survey of the lower Hutt Valley floodplain (joint HCC and GW).
- HCC Emergency Management has commissioned Geological and Nuclear Sciences (GNS) to gather and quantify the extent of residential disruption and losses.
- GWRC has commissioned GNS for a similar exercise on the commercial and industrial losses.
- A stream channel survey is proposed for December (GWRC).

The damage surveys were commissioned because any further delay could result in less reliable information being obtained. Using the LiDAR and stream survey data a floodplain hydraulic model and flood mapping (core components of the WSFMS) will be completed by 30 June 2005.

The decision to proceed with this part of the study does not constrain Councillors' ability to examine the balance of the study in the context of other Council priorities, as part of the 2005/06 Annual Plan update. If a decision is made not to continue with the full WSFMS, the hydrological and hydraulic assessments, their associated hydraulic models, and the flood maps would remain as important stream management tools.

8. Governance Structure

Should you decide to proceed with this project then both Councils will need to agree on a governance structure.

The scoping study includes a proposed governance structure for the WSFMS which is described in Section 6.2 and Figure 6.1 of **Attachment 1**. The proposed governance structure is derived in part from direction given by the Landcare Committee at its 23 March 2004 meeting. The proposal is based around a Project Steering Group (comprising officers from both Councils) reporting to the relevant HCC and GWRC Standing Committees. Each

Council would also have reciprocal speaking rights at meetings where Waiwhetu Stream reports were to be considered.

However, since then things have changed somewhat. At its meeting on 21 September 2004, HCC resolved "*That Council strongly advocates to Greater Wellington that the Terms of Reference for the Hutt River Advisory Committee be amended for the triennium to include consideration of issues relating to Waiwhetu Stream*". Our understanding is that HCC has found the Hutt River Advisory Committee (HRAC) a very useful forum and wishes to use that model for the Waiwhetu Stream.

HRAC is currently a single purpose sub-committee of the Landcare Committee and it comprises Councillors from GWRC, HCC and UHCC as well as representatives of Tangata Whenua groups. Its purpose is to monitor Hutt River Floodplain Management Plan implementation, operational and environmental management on the river, and to represent the local communities in Hutt River decisions.

The view earlier expressed by Councillors at the March 2004 Landcare Committee meeting was that introducing smaller streams into the HRAC Terms of Reference would detract from the status of HRAC.

Given that HCC request, it is appropriate that you now consider a range of governance options for the WSFMS. These are:

- The proposal as contained in the WSFMS scoping report.
- A special purpose Waiwhetu Stream sub-committee serviced by HCC's. Indications from HCC officers are that they are prepared to put this option to their Council for consideration.
- Altering the HRAC Terms of Reference to include consideration of Waiwhetu Stream (for consistency the ToR would also need to add Hulls Creek/Pinehaven Stream in Upper Hutt where a Flood Hazard Assessment is programmed to begin in 2006/07).

This report seeks the Committee's assistance and direction to finalise the decision making framework.

9. Work Programme and Costs

Table 9.1 contains estimated WSFMS costs, their suggested apportionment between the Councils and their phasing. Phase 1 comprises the full flood hazard assessment and Phase 2 the options evaluation and plan preparation. The cost estimates for Phase 2 are indicative and will be refined at the conclusion of Phase 1.

	GW (75%)	HCC (25%)	TOTALS
PHASE 1			\$280,100
Phase 1: 2004/05	\$113,300	\$37,750	
Phase 1 : 2005/06	\$96,800	\$32,250	
PHASE 2			\$214,900
Phase 2 : 2006/07	\$161,200	\$53,700	
PROJECT COST	\$371300	\$123,700	\$495,000

Table 9.1 : Projects Costs, Apportionment and Phasing

At this stage budgets have been reallocated so that both Councils can meet the estimated costs for 2004/05 from existing financial allocations.

The proposed project programme allows two years, after the 2004/05 work, to complete the WSFMS project. The completed study will include:

- A full description of the various investigations carried out.
- The agreed and adopted flood mitigation measures (including nonstructural, structural, emergency management and weed management), their projected costs and priorities for implementation
- Strategies and methods for integrating Iwi, environmental and recreational interests into the measures.
- A range of other information that may include future monitoring, allocation of responsibilities, funding arrangements etc.

The timetable above indicates that any structural measures (e.g. stopbanks, pump stations etc) would not be constructed before the 2007/08 financial year.

After a flood event there can be considerable pressure from the community to "fix it now". Hence, the WSFMS may be seen by some to take too long to address the issues. Because of the complexity surrounding the Waiwhetu and feeder streams, it is important that we have a thorough knowledge of the problem before deciding on solutions and certainly before constructing any works. If we don't, then we risk either making the problem worse or simply transferring the flooding to a new location.

Nevertheless, if during the investigations some flood reduction options are shown to be viable and self contained, then there may be the opportunity to implement them before the WSFMS plan is complete. Examples of such flood reduction options include flood warning procedures, emergency management provisions, minor stopbank raising or construction.

10. Communications

Recommendation 6 (a) suggests an approach for confirming and co-ordinating arrangements between GWRC and HCC. Following this process a joint media release may be appropriate from the two Councils to inform the public, particularly the Waiwhetu communities, of the strategy to be followed.

11. Recommendations

That the Committee:

- 1. receive this report and notes its contents.
- 2. *endorse* the proposed strategy and scope contained in the Waiwhetu Steam Floodplain Management Study (WSFMS) scoping report, including the joint study arrangements with Hutt City Council and cost sharing arrangements.
- 3. **note** that officers have taken initiatives to commence part of the Waiwhetu Stream investigations, under the Flood Protection small streams investigations programme, in this 2004/05 financial year.
- 4. **provide** guidance to officers with regard to a governance arrangement for the WSFMS, bearing in mind Hutt City Council's request for the Waiwhetu Stream business and recommendations to be formalised through the Hutt River Advisory Committee.
- 5. *note* that the WSFMS will require additional funding in years 2005/06 and 2006/07, assuming project completion in June 2007.
- 6. *recommend* to Council that:
 - a) funding for the balance of the WSFMS project investigations be considered as part of Greater Wellington's 2005/06 Annual Plan updates
 - b) subject to accepting recommendation 6 (a), the Council ask Hutt City Council to confirm that it will be a WSFMS project partner on the basis outlined in the scoping report and that it will also consider the Waiwhetu Stream Floodplain Management Study investigations for inclusion as part of Hutt City Council's 2005/06 Annual Plan process.

Report prepared by:

Report approved by:

Geoff Dick Manager, Flood Pro	otection	Rob Forlong Divisional Manager, Landcare
Attachment 1:	Waiwhetu Stream Floodplain Management Study, Scoping Report (separate with the Order Paper)	
Attachment 2:		Scoping Report Memoranda 4, GW Councillors' Bulletin)