



**Report**                    **06.87**  
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**Committee**            **Landcare & Environment**  
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## **Waitohu Stream study**

### **1. Purpose**

To present to the Environment and Landcare Committees the draft summary report for the Waitohu Stream Study, a joint Landcare and Environment Division project, and to seek approval to distribute the draft for public comment.

### **2. Background**

As a result of a number of ongoing and longstanding issues with the Waitohu Stream, in particular relating to flood and erosion risks, water quality and ecosystems, Greater Wellington initiated the Waitohu Stream Study. The Study's aim was to better understand these issues and their inter-relationship and has been jointly undertaken by the Flood Protection Department and the Environment Division (see Attachment 1 - Report 04.25).

### **3. Study process**

The study consisted of a series of component technical investigations and a consultation programme. Broadly, topics covered included the flood hazard posed by the stream (refer to Report 04.25), and reviewing the stream's water quality and ecosystem health. The purpose of the consultation was to provide the Council with an indication about community aspirations for the stream, to identify issues and concerns and present findings arising from the Council's technical investigations. We met with most residents, landowners and interested groups involved with the Waitohu Stream, in a combination of small group and individual meetings.

Consultation and technical investigations were substantially completed in 2004. However further consultation and updating of some of the technical investigation results followed the flood event of 6 January 2005.

A report on each of these investigations, including the consultation summary, has been published separately.

From the outset, we have avoided raising expectations as to actions or possible solutions to problems. The emphasis has been on identifying problems and concerns and obtaining baseline data, rather than on identifying options for resolving any problems. However, where solutions to particular problems have been clear or specific improvements that could be made to management practices were readily apparent, and have community support, recommendations for action have been made.

#### **4. Draft Summary Report – key points**

A draft of the Summary Report is now complete, a copy of which has been distributed to Committee members (Attachment 2) with this order paper. This report summarises the findings of the Waitohu Stream Study investigations, links them and makes recommendations for ongoing management and further studies. The information gathered and collated has been presented pictorially, reach by reach, with the aim of helping show common themes, overlaps and interconnections between the various strands of the study.

##### **Key findings**

- Flood maps and floodplain development

Revised flood maps for the Waitohu floodplain have been produced. As well as a revised 1% AEP flood map, maps have also been produced for smaller, more frequent, floods. It has become apparent that smaller floods cause problems for many residents, and that newer residents are often not totally aware of the risk when first moving to the area. Copies of these smaller event maps will also be given to the Kapiti Coast District Council (KCDC).

The flood maps show that large areas of the floodplain are susceptible to flooding in a range of flood events. However, the relative lack of assets on the floodplain leads to relatively low potential flood damages. This suggests that, other than in isolated areas such as at Convent Rd, major flood protection works are not justified at this stage.

Landowners do not expect nor demand any such works. Nonetheless, there are minor drainage improvements that can be made to reduce the nuisance from minor floods.

KCDC's existing District Plan includes controls on development and land use within the floodplain and their continuation is supported by the outcomes of this Study.

- Mouth cutting

A trial mouth-cutting policy has been agreed upon by interested parties and landowners. Until now, mouth-cutting has been the subject of debate for many years. If successful, it is anticipated that this policy would be reflected in the Regional Coastal Plan.

- Riparian and stream channel management

The stream ecosystem has suffered from, amongst other things, a lack of suitable riparian planting. However, there is potential to improve the ecosystem, as recognised by the Waitohu Stream being included in the Streams Alive programme. Design guidelines for stream alignment and buffer widths have also been identified, along with plant species that will satisfy both ecosystem and erosion minimisation requirements.

- Gravel extraction

Gravel build up in the channel between the State Highway 1 and the Railway bridges has been identified as a problem by many of those consulted. The technical investigations also support this conclusion. Without gravel extraction, the stream is more likely to spill out of the channel in small floods and cause damage on the floodplain. Extraction is addressed in the summary report and a potential solution to ongoing issues concerned with siltation and consequent stream health damage has been provided.

- Mangapouri

The Mangapouri stream technical investigation shows that the stream has extensive pollution problems. Stream health is very poor with few invertebrate species evident in the stream and no native fish life. The pollution in the Mangapouri stream in turn affects the lower half of the Waitohu catchment. Resolving these problems requires some further investigation and costing.

- Relationship to the Otaki Floodplain Management Plan

Four proposals for works are included in the Otaki FMP which directly affect the Waitohu Stream Catchment: the South Waitohu stopbank, house raising, raising of Convent Road Bridge, and the enlargement of the Mangapouri Stream Channel. The South Waitohu stopbank was given a high priority in the Otaki FMP, and planning for it is well underway.

The other three projects are low on the priority list in the Otaki FMP and there is some uncertainty as to when (if at all) they will proceed, which has implications for current management and stream restoration for both the Waitohu and Mangapouri Streams. The Study recommends that these projects be readdressed.

- Further investigations

Mangapouri Stream Channel Enlargement. - As noted above, the proposed enlargement of the Mangapouri Stream needs to be assessed in detail. It is clear that enlargement would be a significant project and the costs and benefits should be reconfirmed.

Water quality in the Mangapouri Stream – The causes, and possible solutions, to the poor water quality need to be addressed, as the adverse effect of the Mangapouri Stream water quality on the Waitohu Stream is significant.

Flooding at Convent Road and Bennetts Road - The 6 January 2005 flood reconfirmed the flooding problems at Convent Rd and Bennetts Road. Solutions proposed in the Otaki FMP, eg bridge raising, are not widely supported by residents, and further analysis of the problem and options is required. Data gathered recently, even since the technical investigations of the Waitohu Stream Study were completed, will help this.

- Monitoring and review

Review and monitoring of the ongoing management of Waitohu Stream is important, particularly if the “whole stream approach” piloted by this Study is to be applied in other parts of the Wellington Region. Furthermore, the Waitohu Stream is dynamic and will change over time, and new information will become available (much of the information to date is based only on short records).

It is proposed that staff will report back annually to the Landcare and Environment Committees on progress in implementing approved recommendations.

## **5. Implementing the Summary Report recommendations**

The draft summary report contains a number of recommendations. These recommendations can be characterised as follows:

- Interim management: Recommendations 5.1 – 5.11
- Further investigations: Recommendations 5.12 – 5.16
- Reporting: Recommendation 5.17

In most cases the recommendations can be implemented using existing resources (eg stream maintenance priorities, improvements to flood warning) however work demands in other areas mean that there could be some delays to the proposed additional investigation work around the Convent and Bennetts Road areas.

## **6. Next Steps**

Prior to finalising the Summary report we recommend that the draft Summary document is circulated for comment to those individuals and organisations previously consulted with. An early draft of the report was provided to the Kapiti Coast District Council for comment. Their suggestions have been incorporated into the current document. However, none of the other parties has seen the completed draft report.

The final summary document will be presented to the Committees later in the year for formal approval. At this stage officers will advise the Committees on the resources required to implement the recommendations contained in the Summary Report. The possibility of preparing a formal Waitohu Stream

management plan as the guiding policy document for the future management of the Waitohu Stream will also be considered at this stage.

## 7. Communication

A further newsletter and press release will also be prepared to report the Waitohu Stream Study findings and recommendations to the wider community.

## 8. Recommendations

*That the Committee:*

1. **Receive** the report.
2. **Note** the contents of the report.
3. **Approve** the distribution of the summary report to previously consulted parties for comment.

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Attachment 1: Report 04.25 Waitohu Stream Study

Attachment 2: Draft Waitohu Summary Report (separate document)