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Report to the Landcare Committee
from Graeme Campbell, Project Manager, Flood Protection Group

Waikanae River Gravel Extraction Review

1. Purpose

To advise the Committee on outcomes of the review of gravel extraction in the Waikanae River and to seek agreement of the proposal and programme for implementation of the new extraction strategy (subject to the reallocation, through the six month review process, of funding for the project).

2. Background

Progress on the review of the Waikanae River Gravel Extraction was last reported to the Committee at the 16 November 2000 meeting (Report 00.785) and July 2000 (Report 00.475). The review is now complete and is reported below. A programme to implement the review outcomes has also been prepared. Committee support for the overall proposal is sought before Flood Protection staff begin implementation.

3. Outcome of the Review

3.1 Gravel Build Up

Analysis of river cross-sections over the last ten years has shown that approximately 40,000m³ of gravel has accumulated in the lower reaches of the Waikanae River. It is anticipated that the build up will continue at the same rate unless material is extracted. The build up affects the river in three ways:

- River channel capacity is reducing, resulting in an increased frequency of flooding of the berms and in flood levels. This is particularly noticeable in the smaller events where levels are 200-300mm higher than for the same discharge 10 years ago. Levels in larger events increase by 70mm and while this is not considered significant at this stage, action will need to be taken in the future to prevent the increased flood levels becoming a problem.
- Approximately 20 houses are at risk from flooding in a 100 year event. The higher flood levels will increase flood damages and the number of properties affected.
- Further bed level increases could result in radical changes in alignment of the Waikanae river during a major flood event; an increased risk to people and property adjacent to the Waikanae River during a flood event.
- The increase in bed levels is reducing options for recreational use of the river by the community, particularly boating and swimming.

3.2 What is Proposed

It is proposed to extract approximately 40,000m³ of gravel from the river over the next three to five years commencing late 2001; essentially a catch up to restore bed levels set in the Waikanae Floodplain Management Plan. This extraction is in addition to the 3,000m³/year already allowed by the long term maintenance consent. Extraction is proposed over three reaches, as described briefly below. The reaches are shown on the plan in **Attachment 1**. A separate report on the Potential Environmental Effects has been prepared and is included as **Attachment 2**.

- Reach 1 is in the Coastal Marine Area and involves extracting 6,000m³ to maintain the river channel alignment. The work would be done in conjunction with the next mouth cut in order to minimise the environmental effects. No date has been identified for the next mouth cut; expected to be within the next two years.
- Reach 2 is in the tidal reach from the Coastal Marine Boundary to the Waikanae Christian Holiday some 1,500m upstream from the mouth. In this reach 5,000m³ of gravel would be cross-bladed (adjacent to the boating club) and secured in the banks with rock rip rap, and 6,000m³ extracted over the rest of the reach.
- Reach 3 is described as the Pukekawa reach and extends from the Waikanae Christian Holiday Camp to Greenaway Road. In this reach 24,000m³ of gravel would be extracted from the river channel over the next three to five years.

3.3 The Effects of the Extraction

Overall, the proposed works are considered to have a positive effect, with the local community having a greater level of security from flooding. The current situation has created anxiety in some sections of the Otaihangā community. There will be negative effects to the ecology and environmental quality of the river and its margins, particularly in the short term. It is proposed to mitigate these negative effects in two ways:

- Using a methodology for each reach that is specifically designed to minimise the effects on the most significant plant and animal species.
- Re-vegetation of the banks, including native species, and restoring the bed to as near as possible to the profiles existing prior to the works.

The major longer term effects are those associated with not maintaining the river in a relatively fixed alignment, allowing the river to migrate over the floodplain as it would naturally. The community, through its involvement in preparing the Waikanae Floodplain Management Plan, has considered these effects and indicated a preference to maintain the river in its current alignment.

All proposed works are consistent with the agreed outcomes of the Waikanae Floodplain Management Plan and are considered a balanced compromise between ecological requirements and those of the community who reside on the floodplain.

4. **Commercial Viability of Extraction**

Expressions of interest in gravel extraction from the Waikanae River have been received from four companies. All the expressions received show a willingness to pay for the gravel although the exact value of the return cannot be determined until a contract is signed with a potential extractor.

The expressions indicate returns from extraction in the order of \$50,000 although this may be affected by resource consent conditions. A preferred contractor will be selected prior to lodging consents in April and a value determined. The value of the contract will be revised, if necessary, once a consent has been granted and conditions agreed.

5. **Budget and Funding**

The costs of the review to date have been covered within the existing ongoing budget for the Waikanae River. These costs are estimated to be in the order of \$10,000.

The cost of the resource consent applications is estimated at \$52,000. The applications will be resourced via consultants. It is proposed to cover costs by reallocations from other Flood Protection budgets, principally from savings in personnel budgets due to recruitment delays. The estimated costs to obtain the consents comprise:

Consent Application	\$ 6,000
Assessment of Environmental Effects	\$10,000
Notify Consent and Hearing	\$20,000
Consent Fees	\$ 3,000
Legal Costs	\$ 3,000
Consultation	\$ 4,000
Project Management	\$ 6,000
TOTAL	\$52,000

It had been intended to cover the consent costs from gravel returns but this is now not considered practical. Firstly there is a timing issue, the consent costs will be incurred this financial year and the income will be received over the next four years. Secondly, the consent may not be granted.

Approval to reallocate expenditure will be sought through the six monthly review process.

Returns from gravel extraction on the Waikanae River are proposed to be used to fund any monitoring and ecological restoration work required as part of the process. The expenditure would be programmed to match the income from gravel extraction.

6. Programme

Key milestones to implement the proposal are detailed below. There are a number of factors that could affect this programme, however, careful consultation will minimise risk of the programme being extended.

Item	Description	Date
1	Endorsement from Landcare Committee	8 February 2001
2	Complete consultation with affected groups	mid March 2001
3	Meeting with Otaihangā Community	late March 2001
4	Select preferred contractor	30 March 2001
5	Apply for notified Resource Consent	1 April 2001
6	Receive consent decision	1 August 2001
7	Appeal period ends (the programme is based on no appeals being lodged)	1 September 2001
8	Formalise contract with preferred extractor	
9	Start extraction in Reaches 2 and 3 (based on current consent conditions of starting work in the river at the end of the trout spawning season). Estimated completion 2003-2005	1 October 2001
10	Extraction in Reach 1	as determined by the need for the next river mouth cut

7. Consultation

Community consultation will be an ongoing process right through the application period and during extraction. We will work with the Department of Conservation and Fish and Game to agree an acceptable extraction methodology. Discussions so far indicate that this can be achieved prior to lodging the application. Consultation with other community groups will continue to be channelled through the Friends Group, as all the major parties are represented on the Friends. Meetings with specific groups will be held as required. In addition, it is proposed to hold another public meeting in Otaihangā prior to lodging the consent. This meeting will confirm the final content of the application and the corresponding programme, with the local community.

Work to achieve a partnership arrangement with Te Ati Awa ki Whakarongotai, on the extraction methodology and what remedial works will be undertaken, is continuing.

No resources have been allocated beyond the point of receiving a consent decision from the Commissioners. We do not anticipate lodging an appeal if the application is declined through lack of clear community support. At that point, the river management strategy in the Waikanae Floodplain Management Plan may require revision.

8. Communication

A press release will be prepared following the Six Month Review, and prior to the Otaihanga meeting, noting the allocation of funding and start of the project.

9. Recommendations

That the Landcare Committee:

- (1) Receive the report and note the contents.*
- (2) Agree to the extraction proposal and programme as outlined.*
- (3) Note that a business plan change will be sought, through the Six Month Review process, to reallocate \$52,000 from existing Flood Protection operating budgets to fund the resource consents applications.*
- (3) Endorse holding a public meeting with the Otaihanga community in late March 2001 to explain the Regional Council's proposed strategy for gravel extraction in the Waikanae River.*

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Attachment 1 : Waikanae River Gravel Extraction Review Site Plan

Attachment 2 : Waikanae River Gravel Extraction : Potential Environmental Effects