



STAFF REPORT

TO: Environment & Planning Subcommittee

FROM: Leif Pigott – Consent Planner Natural Resources
Eric Verstappen – Resource Scientist, Rivers and Coast

REFERENCE: RM070685

SUBJECT: **LAMB CONTRACTING LIMITED - REPORT EP08/07/02** - Report prepared for 14 July 2008 Hearing

APPLICANT: Lamb Contracting Ltd

PROPOSAL: Section 357 objection to Condition 2 of Resource Consent RM070685

LOCATION: Aorere River (access from Swamp Road, Collingwood)

1. INTRODUCTION

In 2007 Lamb Contracting Ltd (the 'Consent Holder') applied for resource consent RM070685 to extract 5,000 cubic metres of gravel from a beach in the Lower Aorere River, Golden Bay. The resource consent was subsequently granted under delegated authority for a duration of seven years.

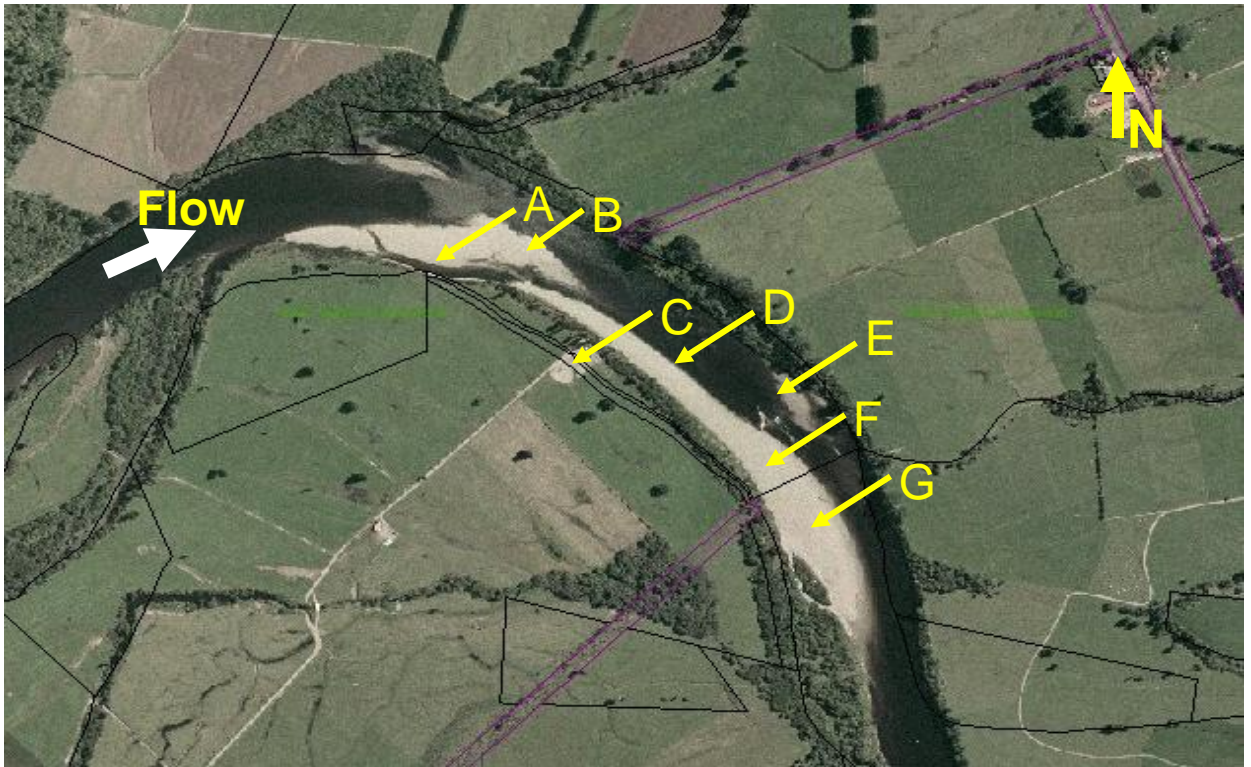
The resource consent allowed the extraction of up to 2,000 cubic metres of gravel for the first year, followed by up to 2,000 cubic metres per year thereafter. These further extractions were authorised only if monitoring and assessment confirmed that been gravel replenishment in the extraction area, and that this was occurring above a minimum mean bed level threshold appropriate to maintain river stability.

The consent conditions therefore require the Consent Holder to undertake monitoring and subsequent assessment to support any further take of gravel from the area. Monitoring of the gravel resource and confirmation of the sustainability of the resource is required annually if gravel extraction is to continue on an annual basis.

If after monitoring and assessment it is found that gravel deposition has occurred above minimum required levels for bed stability purposes and also above the maximum allowable take of 2,000 cubic metres, the applicant can apply to vary the consent through S127 of the Act. However, it is not appropriate for the Council to grant consent or set a condition that, either nor or then, adversely starves the river and the estuary downstream of the extraction site of any new gravel.

The activity authorised by RM070685 is a "stand alone" gravel extraction which is not for river management purposes. If gravel needs to be extracted or moved within the riverbed for river management purposes, Council can do so under its existing consent NN010109, or otherwise apply for resource consent to undertake other specific activities as may be required.

Figure 1: Aerial photograph of the site with significant features marked



- A Evidence of erosion against the true right bank
- B Gravel bar with some deposition evident
- C Extracted gravel stock plied
- D Lowered riverbed showing signs of recent extraction
- E Shallow rapids
- F Low-lying beach just above low flow water level
- G Inside of meander with some deposition evident

2. BACKGROUND

History of consented gravel extraction at the site

This is the second resource consent held by Lamb Contracting Ltd to extract gravel from this beach (previous consent RM060851). In the original consent RM060851 the applicant sought to extract 3,000 cubic metres of gravel.

In the second application (RM070685) a single extraction of 5,000 cubic metres was sought by the Consent Holder, partly on the advice of Colin Michie (at that time one of Council's Compliance Officers). However, at the time the application was made there was insufficient information supplied for Consents staff and the Resource Scientist, Rivers and Coast to determine if such a take would affect riverbed stability, or whether the proposed take was sustainable.

Preceding application RM070685 being lodged, Colin Michie provided the Consent Holder with an aerial photo of the site and estimated that 4,000 cubic metres of gravel was potentially available to be extracted. Following the receipt of application RM070685, this assessment was reviewed by Eric Verstappen using photographs that were taken in late December 2007. His conclusion was that 4,000 cubic metres was an over-generous assessment of gravel availability on the lower beach, and that a one-off extraction of up to 2,500 cubic metres was more realistic.

This site is not monitored as part of the Council's River Management Programme. Accordingly, the Consent Holder was required by consent conditions to monitor gravel accumulation on the beach and supply an annual report to the Council as part of this consent.

A site visit was conducted on 13 December 2007. Those present were Philip Drummond (Asset Engineer, Rivers), Eric Verstappen (Resource Scientist, Rivers and Coast) and Leif Pigott (Consent Planner, Natural Resources).

It was observed during the site visit that the gravel extracted under the previous consent had not been replaced. The extraction area was still clearly visible eight months after the previous consent RM060851 had expired (31 March 2007). It is also noted that the gravel return supplied to the Council on the 24 July 2007 showed that 18 cubic metres of gravel was taken from the beach on the 25 June 2007, a date that followed the expiry of RM060851.

Background to monitoring and sustainability of river gravel extraction

Gravel beaches and bars are a standard feature in alluvial rivers such as the Aorere River. Further, there are many examples around the District where the mean bed level of a river reach has dropped. Yet in these rivers, gravel bars and beaches are still present. This may indicate to the casual observer that there is gravel available to be taken. However this observation is incorrect, particularly if the volume of extraction results in (further) bed degradation.

If gravel extraction is undertaken without any form of monitoring, then the indication of unsustainable extraction may take the form of increased bank instability, increased bank protection costs, increased depth to groundwater or decrease in groundwater recharge. With respect to this application, Council has set conditions so as to avoid these adverse effects in the area in question.

It is almost impossible to measure by eye and with any certainty changes to the mean bed level. Changes in bed level and assessment of mean bed levels can only be undertaken robustly by using such methods as comparative survey and calculation. The Consent Holder has aspirations for gravel extraction from this site for a significant time to come. Council has a duty to ensure any extraction is only undertaken on a sustainable basis.

Processing of resource consent RM070685

Council staff indicated to the applicant that the proposed extraction of 5,000 cubic metres was not considered to be sustainable. Following this, the following two options were provided circulated to the applicant the 25 January 2008:

1. A single year consent allowing a maximum of 2,500 cubic metres to be extracted (the maximum that Council staff considered could be extracted without causing adverse effects that were more than a minor).
2. Multi year consent with a requirement for ongoing monitoring, that would provide a degree of certainty with respect to ongoing gravel extractions. This consent would authorise up to 2,000 cubic metres of gravel to be taken during the first year, then up to 2,000 cubic metres per year thereafter, assuming monitoring had shown that there had been gravel deposition above a minimum threshold for bed stability, thus allowing a sustainable gravel extraction from the area in question.

Draft conditions for both these options were circulated to the applicant at that time.

The applicant chose the multi year consent which is provided in Attachment 1.

3. SECTION 357 OBJECTION

Condition 2 of resource consent decision RM070685 is as follows:

2. During the second year and subsequent years following the exercising of this consent, up to 2,000 cubic metres of gravel may be taken per year if this volume has accumulated above the base level of the beach, as defined by Condition 3.

The applicant objected to this Condition under section 357 of the Act. The reasons for this objection are listed below in *italics*, with staff comments following:

1. *A contour model of the beach system, which is required as item 3 of the Conditions and which is the basis of this Consent, is currently being prepared by Golden Bay Surveyors.*

Staff Comment:

This is a condition of consent for work required to be undertaken so as to establish a beach profile from which to determine any gravel deposition and subsequent extraction.

2. *During the period from which application for RM060851 was first contemplated and subsequently granted in October 2006, significant accretion of beach material has occurred in considerable excess of the 1000 m³ removed and subsequently replaced by the river, under this initial consent. The contour model for which field work is programmed for the week beginning 5 May will thus establish a base upon a surface elevated above that which your previous Gravel Consents Officer – Colin Mickie [sic] recommended in mid 2007, be reduced by 5000 m³ to alleviate the concentration of river flow against the TLHS bank. (Further accretion also appears to have occurred since the site inspection by TDC representatives as part of the processing of the consent above and we also note recent additional rock protection work on the opposite bank from the noted accretion and additional normal river flow against this new protection.)*

Staff Comment:

The claim that significant additional accretion occurred after the extraction of the 1,000 cubic metres is anecdotal, with no evidence provided by the Consent Holder to indicate actual quantities or location of the gravel deposition described. It should be noted that this consent is for significant and ongoing extraction of gravel, which requires greater scrutiny and precaution than a modest, once-only extraction application.

When in December 2007 staff visited the reach in question there was no sign of recovery of at least part of the extraction site, and this would not recover if deposited material at the upstream end of the reach were to be removed. With respect to flow direction, flows will always concentrate on the outside of bends, in this case the left bank. Rock protection on the left and right bank is more likely to be indicative of bed degradation than river flow deflection by major bar and beach complexes.

Monitoring required by the Conditions of RM070685 as granted will bring rigour to the extraction process. If deposition is occurring in larger volumes as claimed, then the process allows for its potential removal, either under existing consent conditions or under a request for a review of the authorised extraction volume.

- 3. The base so established will thus be at a level elevated from that which has formed the basis of the determination of volumes in previous inspections.*

Staff Comment:

This claim cannot be substantiated as no monitoring of beach and bar levels in this reach of the river has been previously undertaken. Visual observations can be misleading. It is only with a properly established monitoring program that observations of deposition can be quantified and sustainable extraction practices established.

- 4. As noted in your Reasons for the Decision: - "The consent includes the monitoring of the beach level that will be used to determine the sustainable take of gravel off the beach". On this basis it appears reasonable to include provision for the annual take to be capable of being adjusted to match the actual gravel replacement as established by calculation between annual or more frequent contour modelling which may be in excess of 2000 m³ PA.*

Staff Comment:

An "optimistic" annual extraction of up to 2,000 cubic metres was allowed, depending on recovery of extraction site. If greater than 2,000 cubic metres deposition has occurred, a variation to the consent to extract a larger volume can be applied for. However, it is not sustainable to extract all material that may be available above a stable beach level at a particular site, as renourishment of downstream riverbed and coastal environments are also required for long term system stability.

- 5. Further examination of the river bed and flood flow patterns may establish the benefit of lowering the hydraulic gradient on the TRHS of the river in this extraction location by the removal of material below that established by the initial contour model. If this additional removal should be considered beneficial, the Consent should include for the flexibility for this outcome to be achieved.*

Staff Comment:

Council has no cross section network in this reach of the river that has been surveyed rigorously and sufficiently frequently so as to determine any change to the riverbed longitudinal profile. The applicant has also not put any evidence before Council to suggest that such longitudinal bed changes are necessary and additional extraction warranted. Nor has the Council determined that such works are necessary, for reasons mentioned. It would be premature to allow flexibility in the consent for extraction for "longitudinal bed profile adjustment" until such has been determined.

6. *Currently elevated upstream beach gravel levels including the elevated bed level within normal river flow is raising flood levels and contributing to additional spilling of flood waters over the paddock shown in the top LH corner of the Plan A of the Consent.*

Staff Comment:

There is no evidence, survey or otherwise, to suggest that bed levels in this area are elevated and consequently increasing flooding risk to the adjacent plain. Until such evidence is provided, either by survey records, photographic records or similar, then any suggestion of increased flooding risk due to increased bed levels is no more than unsubstantiated opinion or perception. There may be occasional instances or river flow direction or other riverworks being required to mitigate specific bed level anomalies or flow disturbances. Council holds consent for such works to be undertaken and can be included in annual or isolated programs of works as required or necessary upon request.

With due respect, the substance of our objection could be met in our view by the rewording of item 2 of the Conditions to read:

During the second and subsequent years, the total take of gravel will not be in excess of that accreted from the base level as established from the in 2008 contour model. Provision is expressly included that should the integrity of the flood protection rock armouring, the limitation flood levels over river banks or other deleterious matters be determined by Council's River Management Resource Scientist and or River Engineer, that additional extraction may be authorised above the annual take as determined by calculation from above the 2008 base level. A new base level will then be established on this lowered surface for subsequent years total annual extraction calculation.

Staff Comment:

The Council has no riverbed monitoring data for the reach of the Aorere River from which the proposed gravel extraction is to occur and thus does not have any data or analyses of mean bed level trends in this area. From observations of mean bed level trends in other major rivers in the District, very modest volumes of bed load and sediment transport occurs on the whole. An annual take of up to 2000 cubic metres is considered to be at or beyond the average annual sustainable extraction limit for this river reach, on the basis of site observations and the scant information available. This is why a bed monitoring condition has been imposed in the consent. Should bed loads exceed the initial 2000 cubic metres allowed, there are mechanisms for review of the consent conditions, as noted earlier.

4. SUMMARY

Most of the major river systems in the upper Tasman District have relatively low bed level inputs and transport rates and are, other than in very localised areas, generally degrading. This trend is manifest in our need to rock-protect key areas of riverbank and the Aorere River in this reach is no exception. Excessive extraction decreases local mean bed levels and can undermine existing bank rock protection in the long term. In this case we do not have any firm data on river bed-load and transport rates but believe them to be reasonably modest. Council has tried to be both optimistic regarding available gravel volumes but also acknowledge the lack of data on which to base a more rigorous assessment. Thus a precautionary approach has been chosen with respect to gravel removal.

The objection relates to being able to remove all gravel material above a certain minimum acceptable bed level threshold. Giving the Consent Holder the ability to take all the material that accumulates on the beach could cause downstream problems. The aim of the consent which was issued was to prevent the taking of all the accumulating material, as it is unsustainable to starve the downstream section of the river and the littoral drift system on the coast.

The figure of up to 2,000 cubic meters per annum was chosen as an optimistic expectation of the volume of gravel that can be taken from the beach in consultation with River Scientist and Asset Engineer, Rivers.

If after future monitoring it is shown that gravel take can be greater than 2,000 cubic metres per annum without any adverse effects, the Consent Holder may apply pursuant to section 127 of the Act for a variation to Condition 2 of RM070685.

Therefore we recommend that the Section 357 objection be declined.

5. RECOMMENDATION

That Condition 2 remain unchanged.

Leif Pigott
Consent Planner Natural Resources

Eric Verstappen
Resource Scientist, Rivers and Coast

RESOURCE CONSENT DECISION**Resource Consent Number:** RM070685

Pursuant to Section 104 B of the Resource Management Act 1991 (“the Act”), the Tasman District Council (“the Council”) hereby grants resource consent to:

Lamb Contracting Ltd
(hereinafter referred to as “the Consent Holder”)

Activity authorised by this consent:

Gravel Extraction

Location details:

Address of property: Aorere River Access from Swamp Road, Collingwood
Location co-ordinates: 2479851E 6059617N (New Zealand Map Grid Datum)
See Plan A attached to this consent

Pursuant to Section 108 of the Act, this consent is issued subject to the following conditions:

CONDITIONS**Maximum Volume of Gravel Extraction**

1. No more than 2,000 cubic metres (solid measure) of gravel shall be removed during the first year of the exercising of this consent.
2. During the second year and subsequent years following the exercising of this consent, up to 2,000 cubic metres of gravel may be taken per year if this volume has accumulated above the base level of the beach, as defined by Condition 3.

Monitoring of Gravel Accumulation

3. The Consent Holder shall set up a monitoring programme designed to determine the volume of gravel that may sustainably be extracted annually from above the base level of the beach, and the contours of the area where the extraction is to take place. An annual monitoring report shall be supplied to the Council and no gravel extraction shall occur until this report is reviewed by the Council and accepted. Current and past data and reports shall be made available to the Council at other times if requested.
4. The maximum volume of gravel to be extracted annually (with the exception of the first year, as per Condition 1) shall not exceed the volume determined by the Council’s Co-ordinator Compliance Monitoring following the submission of the annual report referred to in Condition 3, and in no years shall exceed 2,000 cubic metres.

Location of Gravel Extraction

5. Notwithstanding Condition 3, the gravel shall be extracted only from the areas centred on locations marked on Plan A attached to this consent. The exact areas shall be clearly marked out by Council's Co-ordinator Compliance Monitoring or his delegated officer prior to the gravel extraction. Any contractors working on this site shall be made aware of this area, and that no extraction is to occur outside of this defined area.

Keeping of Records

6. The Consent Holder shall record the volumes of material extracted and submit these records to the Council's Co-ordinator Compliance Monitoring annually with the monitoring report referred to in Condition 3. This report shall include a daily record of the gravel extracted.

Gravel Royalties

7. Returns shall be submitted in "solid measure" and a multiplier of 0.80 shall be used to convert "truck measure" to "solid measure".

Advice Note:

The royalty for gravel extracted from this site is \$3.50 per cubic metre as stated in the Schedule of Charges in the Tasman District Council Annual Plan 2007/2008. This fee is likely to change over the life of the consent, in future please contact the Council to determine the current fee.

General Conditions

8. The Consent Holder shall contact Council's Co-ordinator Compliance Monitoring at least 24 hours prior to commencing works for monitoring purposes.
9. The Consent Holder shall only skim off the top of the beaches in the marked areas. Material shall only be removed from beach sections that are more than 300 millimetres above normal water level, and vehicles and machinery shall not be operated within 3.0 metres of natural water.
10. The hours of operation shall be between 7.30 am and 6.00 pm.
11. The Consent Holder shall ensure that no machinery is left in the riverbed overnight and all fuel oils are removed from the site at the end of each day's work.
12. All the extracted gravel shall be moved off-site and there shall be no storage of extracted gravel on the riverbed or on stopbanks.
13. The Consent Holder shall take all practicable measures to limit the discharge of sediment where it may enter water. In particular, the extraction shall be carried out during fine weather periods when the risk sedimentation is least.

14. No contaminants, including but not limited to hydrocarbon fuels, lubricants, or hydraulic fluids shall be stored on-site unless provided with secondary containment. The refuelling or minor maintenance of machinery shall be undertaken in such a manner that should contaminant spillage occur, it is able to be contained and prevented from entering surface water or groundwater.
15. No refuelling or machinery maintenance shall take place in locations where hydrocarbon spills may enter water, either directly or indirectly. All spills shall be immediately contained and controlled by an approved product and shall be removed from the site for appropriate disposal. Any spills shall be immediately reported to the Council's Co-ordinator Compliance Monitoring.
16. The Consent Holder shall provide a copy of this resource consent and associated plans to all persons involved in the activities authorised by this consent.
17. There shall be no objectionable dust arising from this operation. If required, the spraying of water may be undertaken to control any dust.
18. The Consent Holder shall ensure that the site is left in a neat and tidy condition following the completion of each phase of the works.

Review of Consent Conditions

19. Council may, for the duration of this consent, review the conditions of the consent pursuant to Section 128 of the Resource Management Act 1991 to:
 - (a) deal with any adverse effect on the environment that may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) to require compliance with operative rules in the Proposed Tasman Resource Management Plan or its successor; or
 - (c) when relevant national environmental standards have been made under Section 43 of the Resource Management Act 1991.
20. The Council reserves the right stop any gravel extraction if there is found to be adverse effect on river maintenance activities.

Expiry

21. This consent will expire on 7 April 2015.

ADVICE NOTES

1. Officers of the Council may also carry out site visits to monitor compliance with resource consent conditions.
2. The Consent Holder should meet the requirements of the Council with regard to all Building and Health Bylaws, Regulations and Acts. Building consent will be required for these works.

3. Access by the Council or its officers or agents to the property is reserved pursuant to Section 332 of the Resource Management Act.
4. All reporting required by this consent should be made in the first instance to the Council's Co-ordinator Compliance Monitoring.
5. Council draws your attention to the provisions of the Historic Places Act 1993 that require you in the event of discovering an archaeological find (eg, shell, midden, hangi or ovens, garden soils, pit, depressions, occupation evidence, burials, taonga) to cease works immediately, and tangata whenua, the Tasman District Council and the New Zealand Historic Places Trust should be notified within 24 hours. Works may recommence with the written approval of the Council's Environment & Planning Manager, and the New Zealand Historic Places Trust.
6. This resource consent only authorises the activity described above. Any matters or activities not referred to in this consent or covered by the conditions must either:
 - (a) comply with all the criteria of a relevant permitted activity rule in the Proposed Tasman Resource Management Plan (PTRMP);
 - (b) be allowed by the Resource Management Act; or
 - (c) be authorised by a separate resource consent.
7. Plans attached to this consent are (reduced) copies and therefore will not be to scale and may be difficult to read. Originals of the plans referred to are available for viewing at the Richmond office of the Council. Copies of the Council Standards and documents referred to in this consent are available for viewing at the Richmond office of the Council.

REASONS FOR THE DECISION

Background to Proposed Activity

The applicant has applied to extract gravel from a beach in the Lower Aorere River, Golden Bay. The site is accessed off Swamp Road. This site is not monitored as part of the Council's river management programme. The applicant will monitor gravel accumulation on the beach and supply an annual report to the Council as part of this consent.

The duration of this consent is seven years. Monitoring of the gravel resource and approval of the sustainability of the resource is required annually if gravel extraction is to continue on an annual basis.

Proposed Tasman Resource Management Plan ("PTRMP") Area and Rules Affected

Presently, the only proposed or operative regional plan pertaining to the use of river and lake beds at the applicant's site is the Transitional Regional Plan (TRP). Under the provisions of the TRP, consent is required for the proposed activity. The application may be processed on a non-notified basis, provided the effects are no more than minor and all parties considered affected have given consent.

Principal Issues (Actual and Potential Effects on the Environment)

The principal issue(s) associated with the proposed activity involve the actual and potential effects on the environment. For this application these were:

- (a) the potential effect of gravel extraction on the stability of the river channel;
- (b) the potential effect on instream values.

The Council considers that the adverse effects of the activity on the environment will be no more than minor for the following reasons:

- (a) the initial take has been determined by the Council's River Management Resource Scientist and the Council's River Engineer. The consent includes monitoring of the beach level that will be used to determine the sustainable take of gravel off the beach;
- (b) instream values will be protected. The Consent Holder will not be working in the water and any risk of contamination will be minimised.

Relevant Statutory Provisions

In considering this application, the Council has had regard to the matters outlined in Section 104 of the Act. In particular, the Council has had regard to the relevant provisions of the following planning documents:

- (a) the Tasman Regional Policy Statement (TRPS);
- (b) the Transitional Regional Plan (TRP).

The two parts of the TRP that deal with gravel extraction are Chapter 5 and the Second Schedule.

Part II Matters

The Council has taken into account the relevant principles outlined in Sections 6, 7 and 8 of the Act and it is considered that granting this resource consent achieves the purpose of the Act as presented in Section 5.

Notification and Affected Parties

The adverse environmental effects of the activity are considered to be no more than minor. The Council's Resource Consents Manager has, under the authority delegated to him, decided that the provisions of Section 94(2) of the Act have been met and therefore the application has been processed without notification.

Michael Durand

Co-ordinator Natural Resources Consents

Plan A: Showing the Beach that the gravel will be extracted
RM070685, Lamb Contracting Ltd

