

To: Hayley Thomas and Ceri Hills

From: Emily Buckingham

Company: Waipā District Council and Waikato Regional Council

SLR Consulting New Zealand

cc: Bryan Daly, LINZ

Date: 27 August 2025

Project No. 880.V11547.00001

**RE: Addendum to Tokanui Consent Applications
Culvert & Stream Design and Contaminated Land Update**

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1.0 Introduction

In November 2024, Toitū Te Whenua Land Information New Zealand (LINZ) lodged resource consent applications to Waipā District Council and Waikato Regional Council for the demolition and remediation of the former Tokanui Hospital site, 149 Te Mawhai Road, Tokanui (WDC references LU/0231/24 & LU/0232/24, WRC reference APP146952). For convenience these are referred to as the Remediation Application and the Landfill Upgrade Application.

The applications were limited notified in May and submissions closed on 23 July 2025.

Since the applications were lodged, various work has continued in preparation for the primary site works, including surveying, weed and vegetation clearance, and detailed design. Through this work, some additional/updated information has become available, which LINZ now seeks to include as an addendum to the applications.

2.0 Culvert & Stream Design

Undertaking some (permitted) weed clearance around the inlet and outlet of culvert 3 has allowed for surveying of culvert 3 and surrounding ground levels to refine the culvert design. Additionally, the design of the culvert and new stream section has been advanced further to construction drawing stage with the input of engineers and ecologists. LINZ seeks to incorporate the attached replacement plans into the Landfill Upgrade Application (**Attachment A**), which include revised plans for LF010, LF300-LF390, and additional plans LF312, LF313, LF361 and LF362 showing the detailed design of the culvert and stream bed.

2.1 Key changes

The key changes to the proposed plans for the culvert and stream alignment portion of the Landfill Upgrade works are summarised as follows:

Stream alignment

- Length of proposed stream channel extended – greater curve around wider toe bund for Area A1 (LF310) to give a gentle meander (based on further site investigations). New stream length is approximately 105m.

Earthworks

- Area of earthworks will remain the same (4,800m²), however cut and fill will change as follows (LF341):

Original plans	Revised plans
1. Total cut to fill of subgrade 1.1 Cut = 4,800m ³ 1.2 Fill = 2,400m ³ 1.3 Balance = 2,400m ³	1. Total cut to fill of subgrade 1.1 Cut = 8,000m ³ 1.2 Fill = 1,800m ³ 1.3 Balance = 6,500m ³
2. Clay cap (650mm) = 450m ³	2. Clay cap (650mm) = 550m ³
3. Topsoil respread (150mm) = 700m ³	3. Topsoil respread (150mm) = 800m ³

The increase in cut volume to 8,000m³ is due to the extended stream channel, and thus earthworks extending further north and west than previously. This has been done to reduce the amount of “cut” earthworks required into the existing landfill area, significantly reducing the amount of refuse that has to be transferred from this area into the existing landfill area A1/B/C.

- Farm Road batter change from 1:4 to 1:2.5 slope (LF321)
- Toe bund batter change from 1:3 slope to 1:2.5 slope (LF321)
- Stream batter slope also changed from 1:4 to 1:2.5 as sides of bank are slightly steeper on Rev B plans (i.e., -33.3% revised to -40%) (LF321).

Vegetation clearance & planting

- Greater area of proposed planting on western side of stream following works (LF310)
- Additional areas of grassing along Farm Road track and culvert inlet (LF310)
- Greater area of provisional vegetation clearance around Landfill Area H/A2 & Culvert inlet (LF311).

Culvert design

- The existing culvert has been surveyed to have a diameter of 1,200mm rather than 1,350mm and this has been amended on the revised plans (refer Sheet LF300). The replacement culvert is still proposed at 1,350mm diameter but this will be embedded into the stream bed by 340mm, retaining the same capacity of the existing culvert to pass water.
- Gabion and reno mattress rock walls have been added on the base and sides of the culvert outlet, with a central gabion providing energy dissipation and hence scour/erosion protection, while the outlet includes a permanent pond which will provide a resting place for fish (see Figure 1). Original plans did not show any revetment structures.
- Gabions and riprap have been added either side of culvert inlet (terrace structure) and on base for erosion protection, while the inlet includes a permanent pond which will provide a resting place for fish (see Figure 2). Original plans did not show any revetment structures.



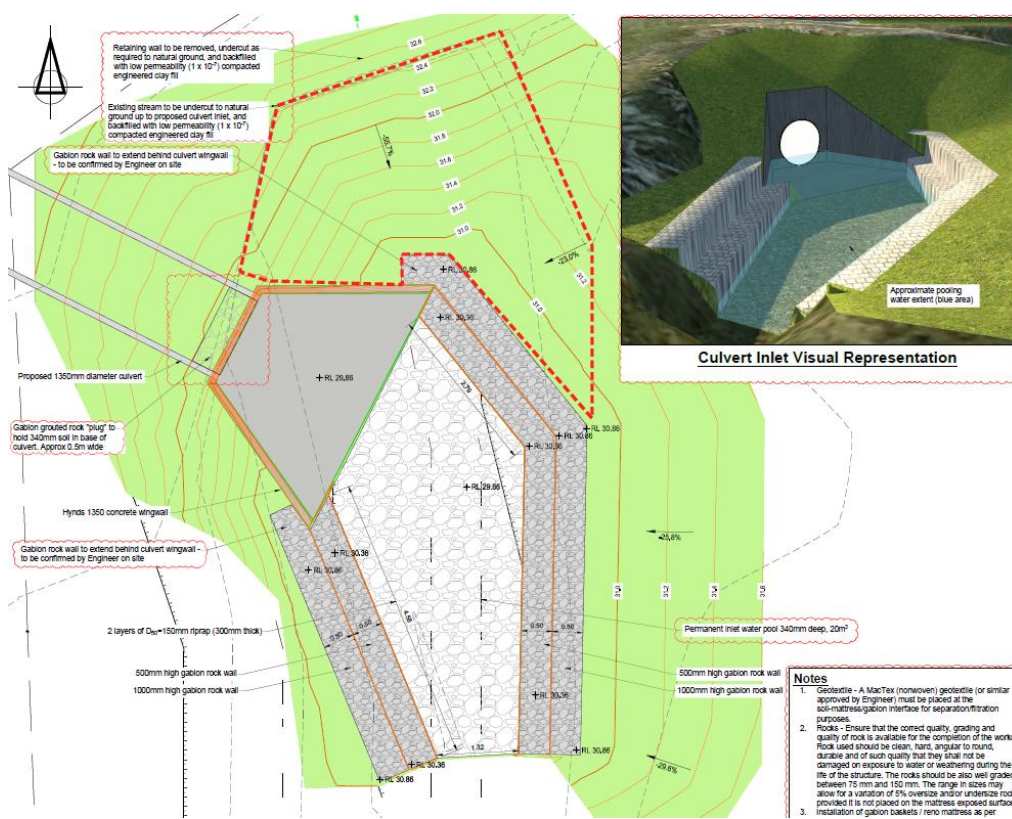


Figure 1. Proposed gabion rock walls at new culvert inlet, with permanent water pool

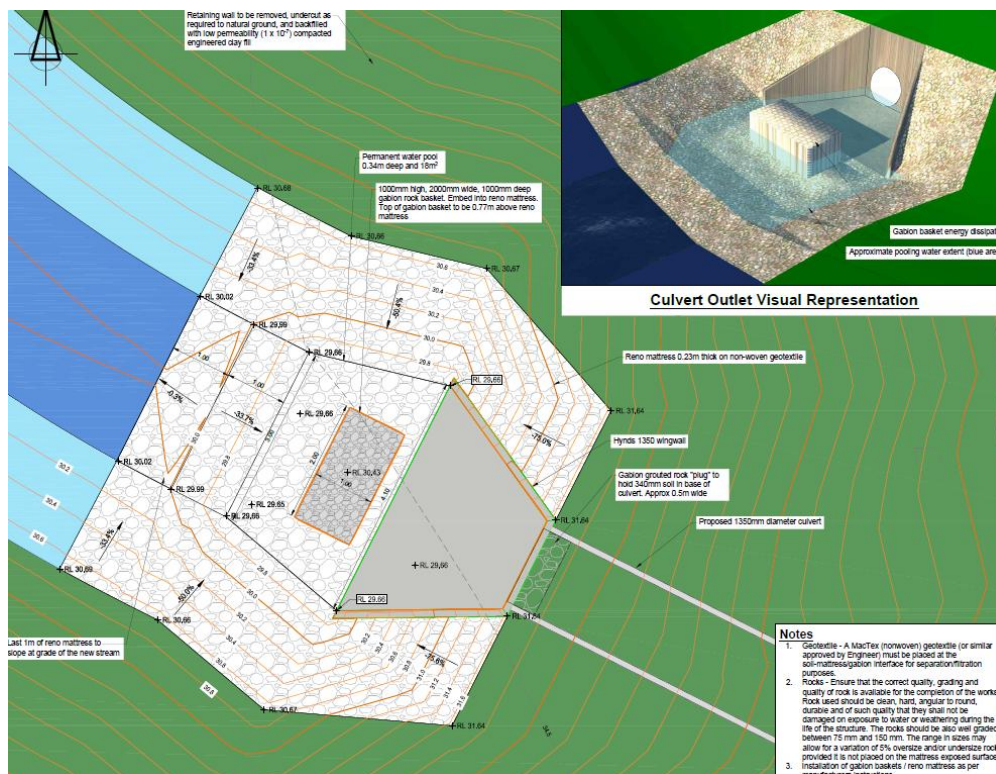


Figure 2. Proposed reno mattress and gabion rock walls at new culvert outlet, with permanent water pool

2.2 Consenting implications

Waipā District Plan

The application sought consent under Rule 4.4.1.4(a) of the Waipā District Plan as a Discretionary Activity for earthworks exceeding 1,000m³ in total volume and therefore not compliant with Performance Standard 4.4.2.75. This rule remains applicable and the proposed changes in earthworks volume do not trigger consent under any other rule in the Waipā District Plan.

The application also sought consent under Rule 26.4.1.3 for earthworks and vegetation clearance within 23m of Wharekōrino Stream. This rule remains applicable and the proposed changes in the total area of vegetation clearance does not trigger consent under any other rule in the Waipā District Plan.

Waikato Regional Plan

The application sought consent under Rule 5.1.4.13 and Rule 5.1.4.15 as a Discretionary Activity for works undertaken within Wharekōrino Stream and in a high-risk erosion area, including soil disturbance and vegetation clearance during removal of material from Disposal Area A2 and removal/replacement of Culvert 3. The proposed changes to the culvert and stream alignment works, including increased areas of vegetation clearance, remain captured by these rules and do not trigger additional consent aspects under any other rule in the Waikato Regional Plan.

The proposed gabion baskets are defined as an *Erosion Control Structure* in the Waikato Regional Plan (WRP) and meet the permitted activity requirements of Rule 4.2.15.1 (refer **Attachment B**). The design change to the culvert will therefore not require any additional consents or change the activity status of the original application.

Summary

The proposed amendments to the culvert and stream alignments works do not trigger any additional resource consents under the Waipā District Plan nor Waikato Regional Plan, and do not affect the status of consents sought. We consider that the revised plans are in general accordance with the plans submitted.

Copies of revised plans have been provided to AgResearch and the affected parties form has been re-signed (**Attachment C**).

2.3 Aquatic habitat and fish passage

At the time of lodgement, a consent condition was proposed (Condition I32 in Appendix P to the Landfill Upgrade Application) requiring the final design plans for replacement culvert 3 and the new stream section to be reviewed by an ecologist to consider whether the recommendations of the Ecological Impact Assessment with regards to habitat provision and fish passage had been met.

LINZ has now advanced this process and has been working towards final design with the input of an ecologist. Additional plans LF312, LF313, LF361 and LF362 now show the detailed design of the culvert and stream bed. **Attachments D and E** contain memos from Fraser Thomas Limited and SLR assessing the provision of aquatic habitat and fish passage. This includes an assessment by SLR of the culvert design for Culvert 3 against the New Zealand Fish Passage Guidelines (2024).



In summary, the amended culvert and stream design will contain a number of features to promote and likely improve fish passage in Wharekōrino Stream. This includes the addition of a gentle meander, naturalisation using pools, rocks and logs, riparian planting, resting pools at the culvert inlet and outlet. These design features, as well as the culvert embedment (25%), will ensure fish passage along the realigned stream and through Culvert 3 are possible under most conditions, except during certain storm events of short duration.

3.0 Contaminated Land

Preparatory work has begun onsite to clear undergrowth and vegetation (not including any vegetation that requires consent to remove) to facilitate surveys and eventual undergrowth service removal. During this work, two additional HAIL sites were identified, being a toilet block and a historic bowling green.

In line with the methodology applied for the remediation of the remainder of the former Tokanui hospital site, comprehensive testing was undertaken to delineate the extent of soil contamination needing to be removed in order to achieve the site-specific remedial standards. Additional Remedial Action Plans have been prepared accordingly. Fraser Thomas Limited has prepared an addendum memo (**Attachment F**) which sets out all of the details.

The additional contaminated material is proposed to be disposed of either at the onsite landfill or at an approved offsite disposal facility, just as the other contaminated material, as set out in the Remediation Application. The landfill design in the Landfill Upgrade Application allows for such contingencies in material volume, and does not need to be modified.

We are informing the councils of this change for completeness, while noting that the nature of the Remediation Application is essentially unchanged with the same plan / NES-Contaminated Soils rules relevant, and our assessment of contaminated land effects and statutory analysis remains the same. The proposed management plans (e.g. Erosion and Sediment Control Plan; Demolition, Deconstruction & Remediation Management Plan) will apply to the entire site including these two new areas. The only change to the scope of the proposal is the two additional Remedial Action Plan sheets.

4.0 Boron discharges

An additional assessment of the estimated likely reduction of boron discharges from the landfill to Wharekōrino Stream as a result of the landfill upgrade works has been undertaken (**Attachment G**). This assessment was undertaken in response to questions raised by mana whenua during a site meeting, however, is also useful to understand the positive effects of the proposed landfill upgrade works on water quality in Wharekōrino Stream.

The current discharges of boron are estimated to be in the range of 5,787-11,260m³/yr, representing 0.29% of average stream flows. This assessment found that boron discharges to the Wharekōrino Stream should significantly reduce by an estimated 72-92% as a result of proposed improved landfill capping and groundwater diversion from the landfill.

It may take between one month to an estimated 7 years for the landfill upgrade and repair works to be reflected in corresponding reductions in boron concentrations reaching the stream.

5.0 Closure

We consider that this addendum information is appropriate to introduce at this stage of the process as it is in general accordance with the original proposal, but provides an updated, more accurate understanding of the proposal.



We anticipate that Council will circulate the notified parties of the information provided in this addendum.

We are happy to discuss the additional information further.

Regards,

SLR Consulting New Zealand



Emily Buckingham
Principal Consultant - Planning

Mark Ashby
Technical Director - Planning

Attachments:

- A – Updated Plans
- B – Additional Rules Assessment
- C – AgResearch Affected Parties Approval
- D – Fish Passage Memo (Fraser Thomas Ltd)
- E – Fish Passage Evaluation (SLR)
- F – Additional Structures Memo (Fraser Thomas Ltd)
- G – Boron Discharge Assessment (Fraser Thomas Ltd)



Attachment A – Updated Plans



Attachment B – Additional Rules Assessment

Rule	Compliance
Definitions	
<u>Culvert:</u> Channel or conduit carrying water across or under a road, canal etc	
<u>Gradient Control Structure:</u> A structure within the bed of a river or stream that establishes a stable channel width and bed level at its location and does not cause upstream ponding.	
4.2 River and Lake Bed Structures	
4.2.15.1 <u>Permitted Activity Rule – Erosion Control Structures</u> Unless controlled by <u>Rule 4.2.5.1</u> the use, erection, reconstruction, placement, alteration or extension of a: 1. revetment or erosion control <u>structure</u>, and 2. associated <u>bed</u> disturbance, and 3. necessary deposition of construction material, and 4. any <u>discharge</u> of sediment associated with construction activities in, on or over the <u>bed</u> of a <u>lake</u> or <u>river</u> , for the purposes of erosion control are permitted activities subject to the following conditions: a. The <u>structure</u> and the floodway in the immediate vicinity of the <u>structure</u> shall be maintained clear of debris. b. The <u>structure</u> shall not decrease the cross sectional area of the <u>river</u>. c. For any stretch of <u>river</u> or <u>lake</u> bank measuring up to one bank kilometre in length, the combined length or erosion control structures shall not exceed 50 metres in length. d. The <u>structure</u> shall not be constructed of, or contain, vehicle bodies or demolition rubble other than clean concrete, placed such that there is no visible steel in the finished work. e. The construction works shall comply with the suspended solids <u>discharge</u> standards as set out in <u>Section 4.2.21</u>. f. All construction materials and equipment shall be removed from the <u>river</u> or <u>lake bed</u> and the <u>floodplain</u> on the completion of that activity. g. No contaminants (including, but not limited to, oil, hydraulic fluids, petrol, diesel, other fuels, paint or solvents, but excluding sediment) shall be discharged to <u>water</u> from the activity. h. Where the weight of the <u>structure</u> is insufficient to keep it in place it shall be anchored to the <u>bed</u> and bank of the <u>river</u>.	Complies The gabion baskets are a revetment/ erosion control structure. a. Will comply. b. Will comply – it is a new channel & is not reducing width of existing channel. c. Will comply – length of gabion baskets not greater than 50m. d. Will comply. e. Will comply. f. Will comply. g. Will comply – contaminant discharges related to other activity already provided for by other rules. h. Will comply.



i. The <u>structure</u> shall be maintained in a <u>structurally sound</u> condition at all times. j. The owner of the <u>structure</u> shall inform the Waikato Regional Council in writing of the location of the <u>structure</u> at least 10 works days prior to work commencing. k. The <u>structure</u> shall not be located in a <u>water body</u> identified as a Natural State water body in the Water Management Class Maps. l. The activity shall not disturb any archaeological site or <u>waahi tapu</u> as identified at the date of notification of this Plan, in any district plan, in the NZ Archaeological Association's Site Recording Scheme, or by the Historic Places Trust except where Historic Places Trust approval has been obtained. m. In the event of any <u>waahi tapu</u> that is not subject to condition l) being identified by the Waikato Regional Council to the person undertaking the use, erection, reconstruction, placement, extension or alteration, the activity shall cease insofar as it may affect the <u>waahi tapu</u>. The activity shall not be recommenced without the approval of the Waikato Regional Council. n. Any erosion occurring as a result of the <u>structure</u> shall be remedied as soon as practicable. o. This rule shall not apply to activities located in, on, under or over the <u>bed</u> of a <u>river</u> or <u>lake</u> that is a <u>Significant Geothermal Feature</u>. p. The <u>structure</u> shall provide for the safe passage of fish both upstream and downstream. q. The <u>structure</u> shall be constructed against the eroding stream or <u>lake</u> bank and be physically attached to it.	i. Will comply. j. Will comply. k. Will comply – stream isn't a Natural State Waterbody. l. Will comply – HNZPT approval obtained. m. Will comply. n. Will comply. o. Will comply – stream is not a Significant Geothermal Feature. p. Will comply. q. Will comply.
4.2.15.2 Controlled Activity rule – Erosion Control Structures Unless controlled by <u>Rule 4.2.5.1</u> and <u>Rule 4.2.15.1</u> the use, erection, reconstruction, placement, alteration or extension of a: 1. revetment or erosion control <u>structure</u> not exceeding 200 metres combined length per kilometre, and 2. associated <u>bed</u> disturbance, and 3. necessary deposition of construction material, and 4. any <u>discharge</u> of sediment associated with construction activities in, on or over the <u>bed</u> of a <u>lake</u> or <u>river</u>, for the purposes of erosion control are controlled activities (requiring resource consents) subject to the following standards and terms: a. The <u>structure</u> and the floodway in the immediate vicinity of the <u>structure</u> shall be maintained clear of obstructions. b. The <u>structure</u> shall not be constructed of, or contain,	N/A Complies with permitted activity rule



vehicle bodies or demolition rubble other than clean concrete placed such that there is no visible steel in the finished work. c. All construction materials and equipment shall be removed from the <u>river</u> or <u>lake bed</u> and the <u>floodplain</u> on the completion of that activity. d. No contaminants (including, but not limited to, oil, hydraulic fluids, petrol, diesel, other fuels, paint or solvents, but excluding sediment) shall be discharged to <u>water</u> from the activity. e. Where the weight of the <u>structure</u> is insufficient to keep it in place it shall be anchored to the <u>bed</u> and bank of the <u>river</u>. f. The <u>structure</u> shall be maintained in a <u>structurally sound</u> condition at all times. g. The <u>structure</u> shall not be located in a <u>water body</u> identified as a Natural State water body in the Water Management Class Maps of this Plan. h. The activity shall not disturb any archaeological site or <u>waahi tapu</u> as identified at the date of notification of this Plan, in any district plan, in the NZ Archaeological Association's Site Recording Scheme, or by the Historic Places Trust except where Historic Places Trust approval has been obtained. i. Any erosion occurring as a result of the <u>structure</u> shall be remedied as soon as practicable. j. This rule shall not apply to activities located in, on, under or over the <u>bed</u> of a <u>river</u> or <u>lake</u> that is a Significant Geothermal Feature.	
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Attachment C – AgResearch Affected Parties Form



Attachment D – Fish Passage Memo (Fraser Thomas Ltd)



Attachment E – Fish Passage Evaluation (SLR)



Attachment F – Additional Structures Memo (Fraser Thomas Ltd)



Attachment G – Boron Discharge Assessment (Fraser Thomas Ltd)

