
Subject AB Lime Limited Resource Consent Application Roadmap for Hearing
Project AB Lime Landfill Resource Consent
Date April 21, 2021

1. Introduction

The purpose of this document is to provide a roadmap of the application that sets out the process that has been followed from the point of lodgment on 29 May 2020 until this hearing to assist in understanding what is applied for as part of this proposal and how the project has evolved.

Further detail can be found in the application documents, responses to the Section 92 requests and evidence filed on behalf of the applicant.

2. Reasons for the Application

The overarching objective to future proof the landfill so that it is well positioned to accept waste from a wider range of locations and in a majority of circumstances¹. There are two main reasons that have precipitated this application:

1. The primary reason for making the application is because the landfill is getting close to the 100,000 tonne limit². The waste acceptance data for 2020 has now been collated and shows that AB Lime accepted 91,254 tonnes of waste last year. A breakdown of the latest waste data is provided in Mr Smith's evidence at paragraph [28] and further analysis is attached to **Attachment B** to Mr Starke's evidence. If waste receipt at the landfill continues on its current trajectory AB Lime will not be able to accept all of the waste that it is requested to receive.
1. The secondary reason for making the application is to provide a process for accepting waste during emergency situations waste. AB Lime has been faced with a number of circumstances in recent years where governmental organisations sought to dispose of large waste volumes at short notice and quickly, in particular the *Mycoplasma Bovis* and *Bonamia Ostreae* outbreaks. These situations have revealed a need for a framework to be in place for when emergency waste situations occur in the future. With a better framework in place AB Lime will be able to better respond to such events and provide better protection to the community, including immediate neighbours, in these scenarios³.

¹ Evidence of Mr McCone at paragraph [11]

² Ibid at [13].

³ Ibid at [70].

3. Application Structure

The current landfill operates under a suite of consents granted in 2003. This application seeks to vary some of those consent, seeks new consents that will usurp some of the existing consents and in some cases no changes are required to the existing consents.

a) Existing consents not changing with this proposal

Table 1 below summarises the existing consents that AB Lime are not changing as part of this proposal. The reasons for this are twofold:

- Primarily, the landfill footprint, final area and capacity of the landfill are not changing as part of this proposal so there is no need for additional takes or discharges of groundwater.
- Secondly, stormwater design does not need to change as the final area requiring stormwater management remains the same.

Table 1 Existing Consent Summary

<i>Existing Consents</i>	
Consent remaining the same	Explanation
Discharge permit AUTH 201347 <ul style="list-style-type: none"> - To discharge stormwater from an area not exceeding 33 hectares; and - To discharge up to 40 cubic metres per day of groundwater 	<ul style="list-style-type: none"> ▪ The original stormwater design remains appropriate for the site. Increased waste volumes do not alter stormwater generation.⁴
Water Permit AUTH 201348 <ul style="list-style-type: none"> - To take up to 40 cubic metres per day of groundwater 	<ul style="list-style-type: none"> ▪ The landfill footprint, final area and capacity of the landfill are not changing so there is no need for additional take of groundwater.
Water Permit AUTH 201349 <ul style="list-style-type: none"> - To dam and divert surface water 	<ul style="list-style-type: none"> ▪ There is no additional dam and/or diversion of surface water required as the footprint of the landfill is not changing.
Water Permit AUTH 201350 <ul style="list-style-type: none"> - To take up to 500 cubic metres per day of surface water 	<ul style="list-style-type: none"> ▪ A pumping station adjacent to the pond outlet pumps water to the lime processing plant. This is not affected by the landfill operation.
Schedule 1 - General Conditions (applicable to AUTH 201347 - AUTH 201350).	<ul style="list-style-type: none"> ▪ The existing Schedule 1 – General conditions will remain attached to these consents⁵.

b) Consents applied for, but now withdrawn.

⁴ AB Lime Limited Resource Consent Application AEE (29 May 2020) at Section 8.5.

⁵ Evidence of Mr McCone at paragraph [27].

The application included a new discharge permit for the discharge of leachate and contaminated stormwater that may enter groundwater or be discharged onto or into land (leachate leakage). The original reason for the application was to provide for the continuation of the activity under existing consent AUTH-201346-V3. Table 2 identifies the consent and condition formally withdrawn from this proposal.

Table 2 Withdrawal of consent originally applied for as part of application

<i>Withdrawal of application for consent and associated condition</i>	
Consent and condition withdrawn	Explanation
Discharge permit <ul style="list-style-type: none"> - To discharge up to 26 cubic metres per day of leachate and contaminated stormwater onto or into land in circumstances that may result in contaminants entering groundwater (leachate leakage) 	<ul style="list-style-type: none"> ▪ This activity and the discharge condition associated with it has the sole purpose of providing a contingency measure for the consent holder in relation to leachate leakage.⁶ ▪ This type of contingency condition is no longer considered best practice and is withdrawn from the application⁷.
Associated condition <ul style="list-style-type: none"> - The discharge of leachate onto, or into, land (leachate leakage) is authorised only on those areas of the site identified as the landfill footprint, the leachate treatment pond and stormwater retention pond, as shown on drawing number IZ000400-1000-NG-DRG-1002 attached to this consent' 	

c) New consents applied for as part of this proposal

The following consents required as part of this application are summarised in Table 3.

The latest iteration of consent conditions provided in Mr McCone's evidence at **Attachment A** clearly identify the proposed consent conditions tied to each permit that forms part of this proposal.

Table 3 New consent summary

<i>New Consents</i>	
Activities requiring consent as part of this proposal	Explanation
<ul style="list-style-type: none"> ▪ Discharge permit to deposit solid waste onto or into land 	<ul style="list-style-type: none"> ▪ This consent allows AB Lime to discharge waste within the landfill footprint. The proposed

⁶ Ibid at [37].

⁷ Ibid at [38]-[39].

	conditions attached to this permit provides requirements for leachate containment, landfill capping, waste acceptance and monitoring of the landfill.
<ul style="list-style-type: none"> Discharge permit for the discharge of leachate onto or into land within the landfill footprint 	<ul style="list-style-type: none"> This consent allows for the discharge of leachate within the landfill footprint for the purposes of leachate reticulation. The proposed conditions attached to this permit includes provisions for the design of leachate systems, as well as monitoring and reporting requirements.
<ul style="list-style-type: none"> Land use permit for the drilling of any bore or well 	<ul style="list-style-type: none"> This consent allows AB Lime to drill any additional bores or wells. The proposed conditions attached to this permit provides requirements for AB Lime to install additional downgradient groundwater monitoring wells. It also sets out the baseline and monitoring requirements for all wells.
<ul style="list-style-type: none"> Discharge permit for the discharge of contaminants into air from combustion processes where combustible refuse matter is flared 	<ul style="list-style-type: none"> This consent allows for the discharge of contaminants into the air from the landfill. The proposed conditions attached to this permit provides requirements for landfill gas systems and monitoring.
<ul style="list-style-type: none"> Discharge permit for the discharge of contaminants into air from refuse disposal facilities receiving greater than 100,000 m³/year of uncompacted solid waste 	<ul style="list-style-type: none"> This consent also allows for the discharge of contaminants into the air from the landfill. The proposed conditions attached to this permit include provisions for odour, dust, complaint management, and monitoring.
<ul style="list-style-type: none"> Discharge permit for the use of masking agents to disguise odour 	<ul style="list-style-type: none"> This consent allows AB Lime to use masking agents to disguise odour when exposing existing landfill material.

A new **Schedule 1 – General Conditions** is proposed for imposition on the suite of new consents. The new Schedule results in higher compliance standards than currently required under the existing suite of consents.⁸

The permit for the drilling of any bore or well is a controlled activity and the remainder of the permits applied for hold a discretionary activity status. Overall, the activity status of the proposal is **discretionary**⁹.

d) S 127 variation of existing limeworks consent

⁸ Ibid at [43]-[45]

⁹ Ibid at [42].

A variation to the existing limeworks consent AUTH-205861-01-V1 is also sought as part of this proposal, as identified in Table 4.

Table 4 Variation of Limeworks Consent

<i>Variation of Limeworks consent (Changes in Pink)</i>	
Consent and condition to be varied	Explanation
Discharge permit AUTH-205861-01-V1 - To discharge contaminants to air from limeworks	<ul style="list-style-type: none"> ▪ As a part of this reconsenting process AB Lime is proposing to vary the air discharge consent for the lime kilns. Based on the stack testing results, AB Lime is proposing to reduce the consented mass emission rate of SO₂ from 10 kg/hr. to 2 kg/hr.
Condition 5: 5. a) The Sulphur content of coal burned in the dryers shall not exceed 0.5% by weight. b) The combined Sulphur dioxide discharge ate shall not exceed 2 kilograms per hour	

4. Management Plan Structure

The management plans that form part of this proposal are set out in Figure 1.

A comprehensive suite of management plans has been created as part of this proposal to manage the ongoing operation of the landfill and associated effects of operating the landfill to ensure compliance with the proposed performance standards in the conditions. The premise of the management plan structure is to provide an adaptive management plan framework that can appropriately avoid, remedy, or mitigate the potential and actual effects of the landfill at all levels of operation. The management plan structure is an accepted tool for large scale activities and provides clear guidance and processes for both consent holders and regulatory authorities¹⁰.

¹⁰ Ibid at [88].

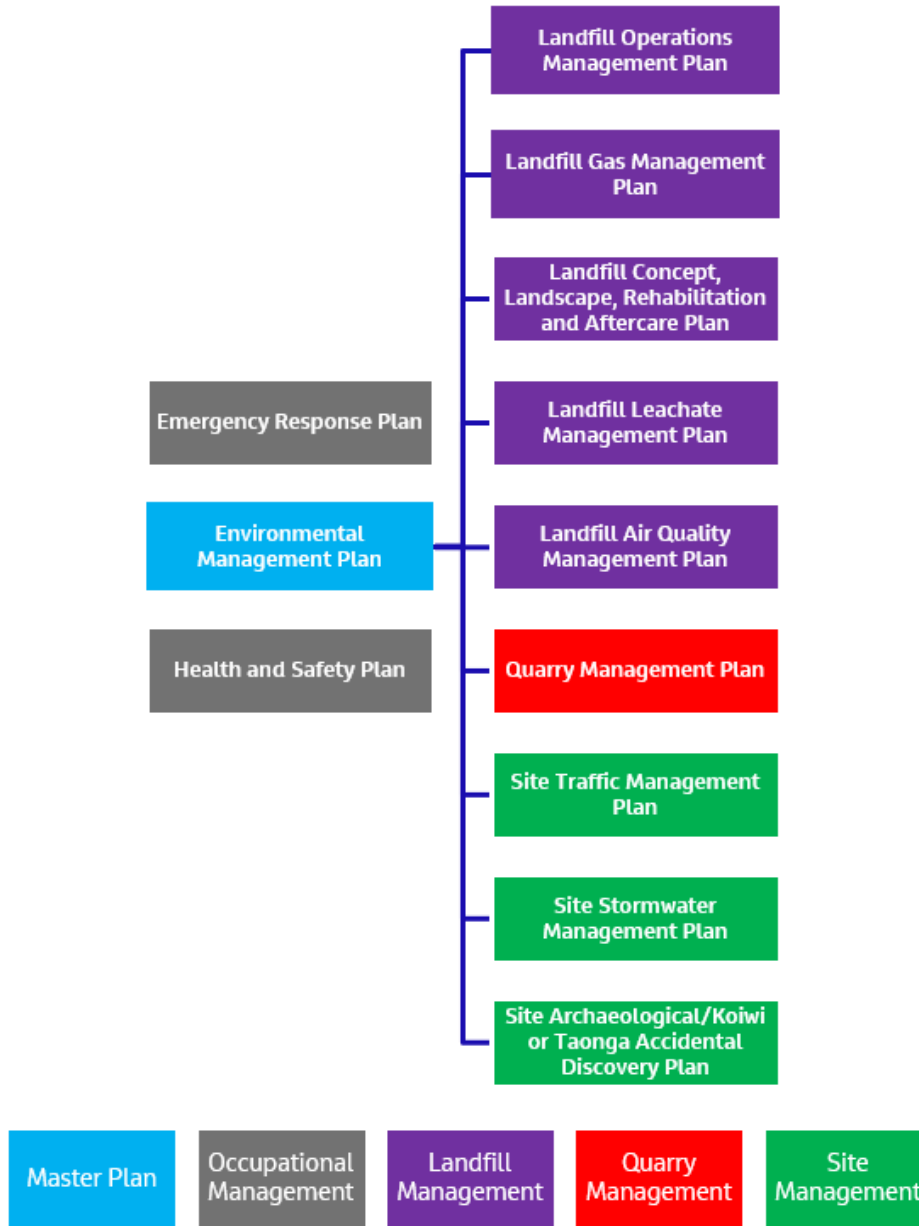


Figure 1. Management plan framework

Each management plan has a series of objectives that align with best practice relevant to their topic.

The Environmental Management Plan is proposed to be the overarching document to manage the operation of the landfill and quarry. Some management plans are inextricably linked to site wide operations. They are clearly identified.

5. Section 92(1) Process

Four s92(1) requests formed part of the application process, these are summarised in Table 5.

Table 5. Summary of the s92(1) requests

Section 92(1) Request/Response Number	Date Received/Responded	Summary
Environment Southland Section 92(1) Request 1	Received 23 July 2020	Further information requested included: <ul style="list-style-type: none"> • Landfill air quality and odour • Landfill engineering • Leachate collection and management • Landfill gas management • Geotechnical and seismic engineering
AB Lime Section 92(1) Response 1	Responded 2 September 2020	The response addressed the requests for information mentioned above.
Environment Southland Section 92(1) Request 2	Received 5 October 2020	<p>The request confirmed the following topics were adequately addressed in AB Lime's response to request 1:</p> <ul style="list-style-type: none"> • Landfill capacity and lifespan • Site traffic • Groundwater quality • Environmental management <p>The following items were partially addressed in AB Lime's Response 1, with the peer reviewer requesting more information in relation to the following:</p> <ul style="list-style-type: none"> • Landfill operations • Landfill leachate • Site stormwater • Monitoring • Landfill rehabilitation and aftercare • Landfill gas • Waste acceptance • Air quality

AB Lime Section 92(1) Response 2	Responded 23 October 2020	The response addressed the requests for information mentioned above.
Environment Southland Section 92(1) Request 3	Received 17 November 2020	<p>The following items were confirmed as being adequately addressed by AB Lime's Response 2:</p> <ul style="list-style-type: none"> • Site stormwater • Landfill rehabilitation and aftercare <p>The following items were partially addressed by AB Lime's response 2, with the peer reviewer requesting more information/additional conditions of consent for some responses:</p> <ul style="list-style-type: none"> • Landfill operations • Landfill gas • Landfill leachate • Monitoring
AB Lime Section 92(1) Response 3	Responded 24 November 2020	The response addressed the requests for information mentioned above.
Environment Southland Section 92(1) Request 4	Received 19 March 2021	This Section 92(1) requested that a supplementary assessment of the environmental effects of the proposed activities in accordance with accepted case law and practices be provided, particularly relating to the exercise of consents beyond 2038.
AB Lime Section 92(1) Response 4	Responded 25 March 2021	The response addressed the request for information mentioned above.

6. Changes to Conditions and associated Management Plans

Further changes have been made to the application since AB Lime's Response 3 above and s42A Officer's Report. All changes have either been a result of further Section 92(1) queries, matters raised in the section 42A Report or due to recommendations made from site operations.

- Further updates to proposed conditions of consent;
- Updates to Landfill Operations Management Plan;

- Updates to Landfill Air Quality Management Plan;
- Updates to Landfill Gas Management Plan;
- Updates to Site Archaeological/Koiwi or Taonga Accidental Discovery Plan; and
- Updates to Minor changes to drawings referenced in the consent conditions

For ease of reference, all changes to the management plans have been highlighted yellow in management plans (including changes made through the entire s 92(1) process)¹¹.

6.1 Proposed Conditions of Consent

A full set of the proposed conditions of consent are annexed as **Attachment A** to Mr McCone's evidence.

Table 6 below identifies the relevant proposed additions and deletions to consent conditions as the result of responding to the s42A process.

Table 6 Additions and deletions to consent conditions from s42A process

Condition relates to	Proposed Addition (Pink) / Deletion (Strikethrough)	Reason for Change
Provision for receipt Aluminium Dross Waste (ADW)	Aluminium dross waste (AWD) and material contaminated with this waste may be accepted into the landfill provided that the concentrations of aluminium and fluoride do not exceed the leachability limits or screening concentrations set out in Table 1 of "Module 2: Hazardous Waste Guidelines, Landfill Waste Acceptance Criteria and Landfill classification, May 2004". The leachability limits shall be established using SPLP testing, with concentrations not to exceed a SPLP test result of 40g/m³ of Aluminium and 200 g/m³ of Fluoride. The material that may be accepted includes gravels and soils that have been contaminated with dross.	The s42A report identified concerns with the potential acceptance of Aluminium Dross Waste (ADW) ¹² . Accepting ADW in its concentrated form does not meet Guidelines or the standards in the proposed condition of consent ¹³ . AB Lime cannot accept ADW in this form. The s42A report has assessed

¹¹ Please note that referencing of newly added conditions of consent and consent numbers has not occurred for management plans since the s 92(1) and s 42A process. The management plans must be certified prior to giving effect to any new consent so these can be aligned if/when the final condition set is finalised.

¹² Section 42A Officer's Report: Hearing of resource consent application by AB Lime, Report of Michael Durand at 3.3.3.

¹³ Evidence of Mrs Smith at paragraphs [23]-[31].

Condition relates to	Proposed Addition (Pink) / Deletion (Strikethrough)	Reason for Change
	<p>The consent holder shall:</p> <ul style="list-style-type: none"> i. Record the date, source, volume, and nature of the material received; ii. Notify the Southland Regional Council within 7 days of the material being accepted, and provide details of the source and volume of the material; iii. Keep a record of monitoring data that confirms the contamination level of the material; and iv. Record the location where the material is placed within the landfill. <p>The information recorded shall be made available to the consent authority or its representative on request.</p>	<p>something that is not part of the application.¹⁴</p> <p>Irrespective of the erroneous view put forward in the s42A report, to provide closure on this issue AB Lime are formally withdrawing this aspect of the application so that materials contaminated with ADW cannot be accepted.¹⁵</p>
<p>Clarification that a framework for accepting emergency waste does not change the type of waste accepted at the landfill.</p>	<p>1. Where, during landfill operations, the Consent Holder is required to accept waste by a Government Agency as a crisis or emergency response, the following protocol shall apply:</p> <ul style="list-style-type: none"> a) All crisis response waste acceptance shall trigger the protocol identified in the Crisis/Emergency Response chapter of the Landfill Operations Management Plan b) The consent holder shall notify the Southland Regional Council Compliance Manager of this waste acceptance within 24 hours. c) A management response in line with the criteria identified within the Crisis/Emergency Response chapter of the Landfill Operations Management Plan shall be made available to the Southland 	<ul style="list-style-type: none"> ▪ This proposal does not seek to broaden the types of waste that can be received by AB Lime¹⁶. ▪ To remove all doubt on this issue an additional wording has been provided to the emergency/crisis waste condition¹⁷.

¹⁴ Ibid.

¹⁵ Evidence of Mr McCone at paragraph [82].

¹⁶ Ibid at [76].

¹⁷ Ibid at [24].

Condition relates to	Proposed Addition (Pink) / Deletion (Strikethrough)	Reason for Change
	<p>Regional Council within 3 days of notification of condition (17)(b), above.</p> <p>d) All likely affected neighbours (as provided in the Landfill Operations Management Plan), Te Rūnanga o Awarua and Waihōpai Rūnaka (via Te Ao Marama Inc.) and Hokonui Rūnanga are to be notified of the crisis/emergency waste stream prior to acceptance on site, or as soon as practicable.</p> <p>e) Mitigation measures for crisis/emergency waste shall follow the guidelines identified in the Crisis/Emergency Response chapter of the Landfill Operations Management Plan.</p> <p>2. All waste accepted under a crisis or emergency response must meet the waste criteria stipulated in this consent.</p> <p><i>Advice Note (i):</i> There may be instances when the consent holder is required to accept waste under the direction of a Government Agency. Where that occurs the provisions of the relevant legislation will apply and may override the conditions of this consent.</p>	
<p>Clarification that any new waste stream must meet performance criteria identified in the consent</p>	<p>Prior to the acceptance of any Special Waste the consent holder shall apply the special waste acceptance criteria to determine the methods that need to be employed to manage the receipt and disposal of the Special Waste.</p> <p>If an application is received for a Special Waste product that has not been disposed of at the landfill previously, the consent holder shall provide the proposed waste acceptance criteria to the Independent Peer Reviewer(s) for acceptance and Southland Regional Council for certification prior to accepting any of the waste.</p> <p><i>Advice note (i):</i> The acceptance process has been assigned to the independent peer reviewer(s). This</p>	

Condition relates to	Proposed Addition (Pink) / Deletion (Strikethrough)	Reason for Change
	<p><i>waste criteria are then submitted to Southland Regional Council for final certification. The Southland Regional Council remains the authority for making a final decision on the certification of the document.</i></p> <p><i><u>Advice Note (ii):</u> The independent peer review process remains separate to the management plan acceptance/certification process. This certified waste acceptance criteria may be incorporated into the relevant management plan(s) without going through the process specified in Schedule 1 – General Conditions 13-16 to stop unnecessary duplication of the acceptance and certification process.</i></p>	
Clarification that there will be an annual review of waste acceptance criteria and prohibited items	An annual review of waste acceptance criteria and prohibited items shall be undertaken and the findings reported to Southland Regional Council.	The purpose of this condition is to ensure that the landfill continues to accept waste in line with best practice, particularly as information and standards evolve in relation to acceptable contaminants.

6.2 Landfill Operations Management Plan

The changes to the Landfill Operations Management Plan (LOMP) are summarised in Table 7 below. The changes are found in **Attachment A** of Mr Starke's evidence.

Table 7. Changes to the LOMP¹⁸

Section of the LOMP	Summary of the Change	Reason for Change
Section 6.1 Waste Acceptance criteria in response to an emergency	'Removal of the phrase relaxation of consent conditions with regards to the nuisance to	There is agreement with the s42A report that the statement does not belong in the management plan ¹⁹ .

¹⁸ References to Aluminium Dross Waste management have also been deleted.

¹⁹ Evidence of Mr McCone at paragraphs [97]-[98].

	neighbours and the general public'	
Section 5.3.3 – Elutriation criteria	The elutriation criteria have been updated.	EHS Support recommended the change in the Section 92(1) received on 17 November 2020.
Section 14	The drawing number referenced has been changed from IZ000400-1000-NG-DRG-6000 to IZ000400-1000-NG-DRG-1008.	Drawing IZ000400-1000-NG-DRG-6000 was referred to in error and the new drawing reference provides the correct drawing.

6.3 Landfill Air Quality Management Plan

The changes to the Landfill Air Quality Management Plan (LAQMP) have been summarised in Table 8 below. The changes are found in **Attachment B** of Mr van Kekem's evidence.

Table 8. Changes to the LAQMP²⁰

Section	Summary of the Change	Reason for the Change
Table 1	The H ₂ S boundary concentrations have been changed from 20 ppb to 200 ppb.	The H ₂ S limits were incorrectly stated in the (LAQMP) and the changes reflect the correct limits
Section 10.5	The minimum H ₂ S detection limit for the continuous monitors has been changed from 10 ppb to 100 ppb.	
Section 10.5	The automated alarms limit has been changed from 20 ppb (0.02 ppm) to 200 ppb (0.2 ppm).	

6.4 Landfill Gas Management Plan

The changes to the Landfill Gas Management Plan (LGMP) are summarised in Table 9 below. The changes are found in **Attachment I** of Mr Starke's evidence.

²⁰ References to Aluminium Dross Waste management have also been deleted.

Table 9. Changes to LGMP

Section	Summary of the Change	Reason for the Change
Section 7	The update added in the minimum level of information for the gas monitoring reports.	It has been updated to reflect the recommendation of EHS Support raised in the Section 92(1) received on the 17 November 2020

6.5 Site Archaeological/Koiwi or Taonga Accidental Discovery Plan

The Site Archaeological/Koiwi or Taonga Accidental Discovery Plan (SAKTADP) has been updated based on the submissions received from Te Ao Marama Inc. and Hokonui Rūnanga. The updates are summarised in Table 10 below. The changes are found in **Attachment F** of Mr McCone's evidence.

Table 10. Changes to the SAKTADP

Section	Summary of the Change	Reason for the Change
Section 2.1	To reflect changes requested to consent conditions by Te Ao Marama and Hokonui Rūnanga an additional objective to the SAKTADP management plan has been added.	To ensure there is an objective in the SAKTADP that protocols are followed in the event of an accidental discovery.
Section 2.2	To reflect changes made to consent conditions as requested by Hokonui Rūnanga the management plan is updated to include Hokonui Rūnanga in the event of a kōiwi accidental discovery.	This was updated in response to Hokonui Rūnanga submission which requested that Hokonui Rūnanga be advised on the discovery of kōiwi
Section 2.2	To reflect changes made to consent conditions as requested by Te Ao Marama and Hokonui Rūnanga the management plan is updated was updated to include Te Rūnanga o Awarua, Waihōpai Rūnaka and Te Rūnanga o Hokonui in the event of any human remains, kōiwi or	This was again in response to the submission from Hokonui Rūnanga which requested that they be notified on the discovery of artifacts.

	archaeological items are discovered.	
Section 3.1	This was updated to include Hokonui Rūnanga.	This was updated in response to Hokonui Rūnanga submission

6.6 Consent Drawings

Six drawings are referred to in the proposed consent conditions. Some of these have been updated since they were last issued in May 2020, the updates are described in Table 11.

Table 11. Changes to the consent drawings

Section	Summary of the Change	Reason for the Change
IZ000400-1000-NG-DRG-1002 ²¹	The specific location and areas for Area 17, 18 and 19 have been updated. The boundary lines for Area 14 and 15 have also been changed to red.	These areas have been changed due to recent design ²² . Areas 14 and 15 are currently in development rather than being part of the future development, the red line reflects this.
IZ000400-1000-NG-DRG-1008 ²³	The specific location and areas for Area 17, 18 and 19 have been updated. The boundary lines for Area 14 and 15 have also been changed to red.	The areas have been changed due to recent design ²⁴ . Areas 14 and 15 are currently in development rather than being part of the future development, the red line reflects this.

Ryan McCone

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²¹ Refer to the LOMP as Attachment A in the evidence of Mr Starke for updated

²² The overall landfill footprint remains the same.

²³ Refer to the Attachment B in the evidence of Mr Baker for updated drawing

²⁴ The overall landfill footprint remains the same.