

**BEFORE THE COMMISSIONER
APPOINTED BY ENVIRONMENT SOUTHLAND**

In the Matter of applications for resource consent to operate a landfill (APP20202200, APP-205862-01-V2)

Between **A B LIME LIMITED**

Applicant

BRIEF OF EVIDENCE OF RYAN MCCONE

**GALLAWAY COOK ALLAN
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BRIEF OF EVIDENCE OF RYAN MCCONE

Introduction

1. My name is Ryan James McCone. I am an Environmental Planner at Jacobs New Zealand Limited. I have been in this role since June 2019.
2. I am responsible for undertaking the process to obtain the relevant statutory approvals as the consultant planner for AB Lime. I have led the development of the Assessment of Effects on the Environment (AEE).
3. I am a member of the Resource Management Law Association (RMLA) and have two years' experience in the field of resource management planning in New Zealand. I graduated in 2010, and again in 2014. I hold the qualifications of a Bachelor of Laws awarded with Honours and a Bachelor of Commerce from the University of Canterbury. I have produced an honours dissertation on tradable water rights under the Resource Management Act 1991 (RMA) framework. From 2006-2008 I was a recipient of the Prime Minister's Scholarship.
4. In 2012, I completed the Legal Professionals Course through the Institute of Professional Legal Studies. I am being admitted to the bar as a Barrister and Solicitor of the High Court of New Zealand in July 2021.
5. In my role as an environmental planner I have been involved in consenting critical infrastructure projects across New Zealand for wastewater, stormwater, renewable energy, key State Highway 1 projects, as well as this solid waste disposal facility.
6. The purpose of this evidence is to describe the Resource Management Act 1991 (RMA) statutory approvals required as part of this resource consent application for the AB Lime landfill and discuss relevant planning instruments that govern this application. In this evidence I cover:
 - (a) The s 42A Officer's Report, including providing a response on:
 - i. Objectives of the proposal;

- ii. The structure of the application;
 - iii. The existing environment;
 - iv. Emergency waste and waste streams;
 - v. The proposed conditions of consent and the management plan framework;
 - vi. The s 92(1) RMA process; and
 - vii. The bond.
- (b) The surrender of existing consents, commencement, lapse and term of consent;
 - (c) Further clarification of the existing environment;
 - (d) Potential effects and how they are addressed through consent conditions and the adaptive management plan framework;
 - (e) An assessment of the relevant statutory considerations under the RMA and the associated statutory policy and planning instruments;
 - (f) The submissions made on the application that raise or are relevant to planning matters; and
 - (g) The pre-hearing meeting.
7. In preparing for this hearing I have visited the AB Lime landfill.
8. Acknowledging that this is not a case before the Environment Court, I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2014. This evidence has been prepared in accordance with it and I agree to comply with it. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

Officer's s 42A Report

- 9. I would like to begin my evidence by directly addressing the Officer's s 42A Report.

10. In the following paragraphs of my evidence I cover these matters:
- (i) Objectives of the proposal;
 - (ii) The structure of the application;
 - (iii) The existing environment;
 - (iv) Emergency waste and waste streams;
 - (v) The proposed conditions of consent and the management plan framework;
 - (vi) The s 92(1) RMA process; and
 - (vii) The bond.

(i) Objectives of the proposal

11. The overarching objective of this proposal, as identified in the Application is 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. Following the s 42A Report it is clear that this needs further clarification.
12. A 'roadmap' of this proposal has been prepared and filed with this evidence as a standalone document. This document is intended to provide a simple and clear summary of the application². The detail behind this roadmap is fleshed out in the paragraphs below, including the strategic context for the application from the point of lodgement until this hearing.
13. The primary reason for making the application is because the landfill is getting close to its 100,000 tonne limit³. To ensure it can continue to accept waste, as required, AB Lime consider that it is necessary to

¹ *AB Lime Limited Landfill Resource Consent Application AEE*, (29 May 2020), Executive Summary at Page vii.

² *AB Lime Limited Landfill Resource Consent Application Roadmap*, (21st April, 2021)

³ The application was lodged in May 2020. We now have a clear picture of 2020 acceptance data. Tonnage for 2020 totalled 91,255 tonnes and for the twelve month period from April 2020 to March 2021 this figure is 95,238. Updated projections for waste acceptance are presented in the evidence of Mr Starke.

remove the limit so that it does not find itself in the position of being unable to accept waste. This will allow AB Lime to accept a larger volume of waste and respond to the needs of the community as necessary.

14. There is a very real danger if the limit remains that AB Lime will not be able to respond to the needs of the community and accept waste in the majority of circumstances as detailed in the evidence of Mr Smith⁴. What is apparent from Mr Smith's evidence is that the need for landfill facilities can arise in unexpected circumstances. The *Mycoplasma Bovis*, *Bonamia Ostreae*, flood recovery and aluminium dross contaminated waste all being examples to date. These events arise on top of the normal municipal waste streams that AB Lime receives.
15. However, a 'majority of circumstances' does not equate to unfettered waste streams.
16. The secondary reason for this proposal is to provide a process within the resource consent(s) for accepting emergency waste. AB Lime has had considerable education through 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 scenarios.
17. In my opinion, the conditions of consent put forward as part of this proposal are appropriate in achieving these objectives. They specify the performance criteria to be met as part of this proposal and are consistent with meeting Class 1 Landfill waste acceptance criteria, as identified in the evidence of Mr Starke⁵. Subordinate to these conditions of consent, the draft management plans provide AB Lime with a valuable tool to manage the 'how to' of meeting the stipulated performance criteria in the conditions of consent.

⁴ Evidence of Mr Smith at paragraph [29].

⁵ Evidence of Mr Starke at paragraph [22].

18. The management plans take an effects-based approach to environmental controls. This approach is consistent with that of many modern landfills throughout the country.
19. The s 42A Report has stipulated that a key element of the proposal is to accept new forms of waste including emergency waste⁶. Unfortunately that reveals a misunderstanding of the application, which taints a substantial proportion of the s 42A Report.
20. As identified in paragraphs [63]-[74] this application does not seek to change the types of waste that AB Lime can receive. The waste acceptance criteria that apply to the current consent will continue to apply moving forward. The conditions of consent stipulate that AB Lime cannot accept hazardous waste is also unchanged as a result of this application. Whether waste is received in an emergency or not, all waste acceptance is governed by the waste acceptance criteria stipulated in the proposed consent conditions annexed as **Attachment A**.
21. Additional to the conditions of consent, AB Lime is a Class 1 Landfill and this provides clear direction on waste acceptance criteria, as identified in the evidence of Mr Starke⁷.
22. To put matters simply, if a waste stream comes to AB Lime in an emergency scenario and it does not meet the (proposed) conditions of consent and Class 1 landfill guidelines, it cannot be accepted.
23. Culled cows and oysters were both acceptable waste streams under the existing conditions of consent and Class 1 Landfill Guidelines.
24. This proposal does not seek to broaden the types of waste that can be received by AB Lime. To remove all doubt on this issue additional wording has been provided to the proposed emergency/crisis waste condition of consent put forward with this proposal:

⁶ *Section 42A Officer's Report: Hearing of resource consent application by AB Lime, Report of Michael Durand at 3.3.1.*

⁷ Evidence of Mr Starke at paragraph [22]

'All waste accepted under a crisis or emergency response must meet the waste acceptance criteria stipulated in this consent'⁸

(ii) Structure of the application

25. An amalgamation of new and existing regional resource consents will be relied upon to authorise landfilling activities. In the following paragraphs I identify:

- (a) Existing consents that will continue to be exercised;
- (b) Withdrawal of the consent for the activity of leachate leakage (originally applied for as part of this proposal);
- (c) New consents applied for as part of this proposal;
- (d) A note on the Schedule 1 – General Conditions covering new consents; and
- (e) S127 variation to the existing limeworks consent.

(a) Continuing existing consents relied on

26. Existing consents that will continue to be exercised relate to surface water and groundwater activities associated with the landfill. These are not changing as part of the proposal primarily because the landfill footprint, final area and capacity of the landfill are not changing.

27. These existing take and discharge consents have a further 17 years before they expire (until 2038). Increased waste volumes do not alter stormwater generation⁹ so do not require additional controls as part of this proposal.

28. The s 42A Report has identified alignment of consent expiry dates as potential concern¹⁰. Surface water and groundwater activities expire in

⁸ Refer to condition 19 of discharge permit for solid waste onto or into land in **Attachment A**.

⁹ *AB Lime Limited Resource Consent Application AEE*, (29 May 2020) at Section 8.5.

¹⁰ *Section 42A Officer's Report: Hearing of resource consent application by AB Lime*, Report of Michael Durand at 2.3.

2038, whilst the duration sought for consents associated with this proposal is 25 years.

29. In my opinion, there is no functional barrier to separating out the expiry date of these consents. The water take and discharge consents are linked to the entire site (including quarrying activities) and the area of the landfill is not changing, nor is there more stormwater generation with increased waste acceptance. To me it makes sense that these consents remain aligned with quarrying operations and do not affect this proposal because the landfill footprint, capacity and final area remain consistent.
30. The existing consents not changing as part of this proposal are:
- (a) **Discharge Permit AUTH 201347** – To discharge stormwater from an area not exceeding 33 ha; and up to 40 cubic metres per day of groundwater;
 - (b) **Water Permit AUTH 201348** – To take up to 40 cubic metres per day of groundwater;
 - (c) **Water Permit AUTH 201349** – To dam and divert surface water; and
 - (d) **Water Permit AUTH 201350** – To take up to 500 cubic metres per day of surface water.
 - (e) The existing **Schedule 1 – General Conditions** will remain attached to the consents that are not being changed as part of this proposal¹¹.
31. There is no application to take or discharge water as part of this proposal. The consents identified in paragraph [30] therefore form part of the existing environment against which the effects of this proposal are to be assessed, to the point of their expiry.
32. Initially, administrative updates to these *existing* consents formed part of this proposal. As part of these administrative changes the drawing numbers and title blocks for drawings related to these existing consents

¹¹ Refer to paragraphs [43]-[45] of this evidence.

were provisionally updated to modernise the drawings. The s 42A Report identifies that these changes could be construed as varying these consents¹².

33. For simplicity, and in order to avoid any confusion, all administrative changes (including drawing updates) for AUTH 201347 - AUTH 201350 are formally withdrawn from this proposal. No changes whatsoever will occur to the existing consents (and the Schedule 1 – General Conditions tied to these consents).

(b) Withdrawal of consent for leachate leakage

34. Initially, as part of this proposal a new discharge permit was sought for the discharge of leachate and contaminated stormwater that may enter groundwater or be discharged onto or into land (leachate leakage).
35. The original reason for the application was to provide for the continuation of the following activity permitted by *existing* consent AUTH-201346-V3:

Purpose for which permit is granted: *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).*

36. The associated condition related to this activity was also carried over as part of this proposal:

'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'

37. This activity and the discharge condition associated with it has the sole purpose of providing a contingency measure for the consent of leachate to be discharged within the landfill footprint, to the leachate tank or to the stormwater retention pond.

¹² *Section 42A Officer's Report: Hearing of resource consent application by AB Lime, Report of Michael Durand at 2.5.1*

38. This type of contingency condition is no longer considered best practice and as such AB Lime do not wish to pursue this consent.
39. As such, the Applicant confirms that the consent applied for and the associated condition are formally withdrawn from the application and no longer form part of AB Lime's proposal. This is reflected by the fact the activity and conditions do not form part of the proposed conditions of consent provided in **Attachment A**.

(c) New consents applied for to Southland Regional Council

40. The following new consents are sought as part of this proposal¹³:
- (a) A new discharge permit to deposit solid waste onto or into land.;
 - (b) A new discharge permit for the discharge of leachate onto or into land within the landfill footprint for the purposes of leachate recirculation;
 - (c) A new land use permit for the drilling of any bore or well, which is required for the proposed additional monitoring bores;
 - (d) A new discharge permit for the discharge of contaminants into air from combustion processes where combustible refuse matter is flared;
 - (e) A new discharge permit for the discharge of contaminants into air from refuse disposal facilities receiving greater than 100,000 m³/year¹⁴ of uncompacted solid waste; and
 - (f) A new discharge permit for the use of masking agents to disguise odour.
41. The latest iteration of consent conditions are provided in **Attachment A**. This document clearly identifies the proposed consent conditions that

¹³ *AB Lime Limited Landfill Resource Consent Application AEE*, (29 May 2020), RMA Form 9 at pages [2]-[3]. (NB: discharge permit for leachate leakage is since withdrawn)

¹⁴ Please note this unit measure of 100,000 m³ is different compared to the 100,000 tonne limit placed on the existing consent. The current waste density based on the acceptance data and current volume in the landfill is 0.94 t/m³ (refer to ¹⁴ *AB Lime Limited Landfill Resource Consent Application, Appendix 0* (29 May 2020) at Section 2.1.

are tied to each permit applied for as part of this proposal. In my opinion, this clarifies the matters raised in Section 2.5.1 of the s 42A Report.

42. I agree with the s 42A Report assessment of the activity status of the new consents sought as part of this proposal. The permit for the drilling of any bore or well is a controlled activity. The remainder of the permits applied for hold a discretionary activity status. In an instance where consents are bundled the most stringent activity status is applied. Overall, the activity status of the proposal is **discretionary**.

(d) Schedule 1 – General Conditions

43. A new Schedule 1 – General Conditions, which applies to all new consents sought is provided as part of this proposal (also found in **Attachment A**).
44. The s 42A Report has expressed concern in regard to Schedule 1 – General Conditions. A new Schedule 1 – General Conditions is sought with this proposal in relation to the new consents sought and is provided for in the proposed conditions of consent in **Attachment A**. The *existing* Schedule 1 – General Conditions under the current consents will remain attached to the consents that are not being changed as part of this proposal.
45. In my opinion the *new* Schedule 1 – General Conditions results in compliance to a level above and beyond the *existing* Schedule 1. Therefore, the requirements in the new Schedule 1 overwhelmingly satisfy the requirements of the old Schedule 1. In my opinion, there are no conditions in the new proposed schedule that will create conflict with the existing schedule. The new Schedule is intended to provide a higher level of performance and clarity for the consent holder, the Independent Peer Reviewer(s) and the Southland Regional Council.

(e) Variation to existing consent

46. A variation to the existing limeworks consent is also sought as part of this proposal, as follows:

(a) A variation to existing consent AUTH-205861-01-V1 to change conditions of the limeworks air discharge consent.

47. The purpose of this variation is to reduce the amount of sulphur dioxide emissions consented from the lime kilns based on stack testing emissions data. The reasons for this variation are covered in the evidence of Mr Van Kekem¹⁵.

(e) Conclusion

48. The latest iteration of consent conditions provided an **Attachment A** to this evidence clearly delineates the conditions related to each permit.

49. The content of these proposed conditions remains fundamentally the same from the s 92(1) RMA process¹⁶ but the version in **Attachment A** is considered to provide greater clarity. In paragraphs [83]-[100] I assess the content of these proposed conditions. Irrespective of the structure that these conditions take I conclude that they are appropriate to ensure that adverse effects are no more than minor.

(iii) The existing environment

50. This proposal is an application for a suite of new consents for a 25 year duration¹⁷. The nature of the existing environment until the point of 2038 (expiry of existing consents) is clear. The existing suite of resource consents form an integral part of this existing environment.

51. The situation beyond the expiry of existing consents has been convoluted in my opinion. In the further Section 92(1) RMA request made by the processing planner¹⁸ the suggestion was made that following the expiry of existing consents, in 2038, existing consents will not form part of the environment and the effects and their significance in total, as if the landfill's activities were not part of the environment, are

¹⁵ Evidence of Mr Van Kekem at paragraph [125]

¹⁶ Changes to the proposed conditions of consent from the s 42A Officer's report are clearly highlighted in **Attachment A**.

¹⁷ An exception to this is the variation of the limeworks consent. The expiry of the limeworks air discharge consent remains 30 September 2040.

¹⁸ *Further information request – Section 92(1) of the Resource Management Act 1991 – APP 20202200, APP-205861-01, (19th March, 2021).*

not presented or assessed¹⁹. The same issue is raised in the s 42A Report²⁰.

52. I understand that the case law relied upon by the s 42A Report is distinguishable. The post-landfilling environment beyond 2038 must be considered through a different lens compared to proposals where the existing environment can be returned to normalcy with relative ease. The legal position on this matter will be addressed in legal submissions at the hearing.
53. The environment beyond 2038 will unavoidably include the legacy effects of past lawful activities for this landfill. The reality is that there will be ongoing landfill gas, leachate, capping, and stormwater management required regardless of whether the landfill continues to receive waste. Mismanagement of these elements of the closed landfill has the potential to cause significant adverse effects. Furthermore, these effects will endure for a period of at least 30-50 years²¹. The legacy effects of the landfill post closure are covered in detail in the evidence of Mr Starke²².
54. Because of the significance of these legacy effects it would be entirely false to assess this proposal against an environment as if such consents were not part of the environment. Effects from landfill gas, leachate, capping and stormwater are enduring post-closure period whether waste is being accepted or not.
55. The s 42A Report has asserted that this post-2038 environment should be considered as a 'from scratch' assessment²³. This infers that beyond 2038 the environment would be devoid of legacy effects. In my opinion, this is a fanciful approach. That environment will not exist. An environment without ongoing management of legacy effects is likely to be a poor one as groundwater contamination, fugitive gas emissions

¹⁹ Ibid.

²⁰ *Section 42A Officer's Report: Hearing of resource consent application by AB Lime*, Report of Michael Durand at 3.2.2.

²¹ *Enduring Effects Post AB Lime Landfill Closure Memorandum*, (22nd March 2021).

²² Mr Starke's evidence at [143]-[163]

²³ *Section 42A Officer's Report: Hearing of resource consent application by AB Lime*, Report of Michael Durand at 3.2.1.

(including odour discharges) will likely arise if ongoing management measures are not in place.

56. Given my assessment above related to legacy effects, I consider there is a marginal difference in effects between the pre-2038 and post-2038 period. The marginal difference relates to effects caused by traffic movements, which sit within the scope of the Southland District Council, and effects arising from the ongoing operations.
57. The s 42A Report places considerable weight on the period post-2038 in making the recommendation²⁴. In my view, this has not accurately assessed the existing environment for the post-2038 period which has resulted in the conclusions regarding the magnitude of effects also being wrong. This error is compounded by the misunderstandings regarding additional waste streams²⁵.
58. Understanding the different 'environments' is an important consideration for understanding why the assessment of effects on the environment put forward in this proposal remain appropriate beyond 2038.
59. But, I also consider that the assessment of effects provided by the technical experts remains appropriate for the entire 25 year duration sought because the proposed conditions will ensure that adverse effects are no more than minor.
60. The proposed conditions of consent provide the appropriate performance criteria for the operation of the landfill. Importantly, during the robust s 92(1) RMA process almost all technical matters relating to this proposal were either closed out or appropriately conditioned, such that the Council's technical reviewers were able to advise that the proposal would not have more than minor adverse effects²⁶.
61. Additionally, in my opinion, the proposed conditions are equivalent to those that would be promoted if this proposal was for a new landfill. Mr Starke and Mr Van Kekem identify the relevance of the proposed

²⁴ *Section 42A Officer's Report: Hearing of resource consent application by AB Lime*, Report of Michael Durand at 3.2.2.

²⁵ As discussed at paragraphs [63]-[74].

²⁶ The matters explained in paragraphs [116]-[124] being the exception.

conditions of consent for assessing the key potential adverse effects. In my opinion, even if the landfill was a greenfield site the conditions are appropriate to ensure that the adverse effects are no more than minor for the entire 25 year duration proposed.

62. Despite the opinion put forward in the preceding paragraphs, if the Commissioner finds himself in agreement with the s 42A Report's view on the existing environment post-2038, I consider that a granting of consent until 2038, to match the expiry of existing consents, would be an appropriate secondary course of action, rather than maintaining the status quo, which is an inferior environmental outcome based on the evidence.

(iv) Emergency Waste and New Waste Streams

(a) Emergency Waste

63. Emergency waste is not a different category of waste. Emergency waste is effectively waste that is received in an emergency response scenario, where there is a requirement to act and respond with haste and/or heightened importance to respond to the needs of the community.
64. This includes waste resulting from natural hazard events, biosecurity operations, or otherwise unforeseen events. All emergency waste 'streams' must meet the waste acceptance criteria identified in the proposed conditions of consent clarified in paragraph [24]. This proposal places emphasis on how emergency waste is to be processed once it enters the AB Lime site.
65. The s 42A Report stipulates the following:
- 'the application is to change the type of waste to be received and to manage any effect of that through a management plan regime'²⁷*
66. This is a clear misunderstanding of the proposal. As stated in paragraph [16]-[24] of this evidence the secondary objective of this proposal is to provide a robust process to follow when waste is accepted in an

²⁷ Section 42A Officer's Report: Hearing of resource consent application by AB Lime, Report of Michael Durand at 3.3.1.

emergency scenario. The Application has not sought to '*change the type of waste to be received*'.

67. Mr and Mrs Smith in their evidence clearly highlight the need for a robust process to be in place for accepting waste in these circumstances²⁸. The *Mycoplasma Bovis* and *Bonamia Ostreae* events are a relevant example of the need to have an element of control over this process.
68. These were both acceptable waste streams, however, the rate at which events unfolded were rapid and there was very little preparation time or established processes to react to the evolving outbreaks. This gave rise to operational challenges and issues that affected the surrounding community in a way that was not acceptable.
69. Furthermore, the receiving and disposal of emergency waste will often occur under the instruction of Government Ministries, Crown Agencies and local government.
70. AB Lime have taken a proactive approach to this issue and have developed a management framework which ensures that waste materials are disposed in an environmentally safe manner. In taking this waste, AB Lime are providing a vital community service, as well as helping ensure the social and economic recovery from emergency events. This approach is needed given how rapidly these situations can occur and the need to act quickly to protect both public health and New Zealand's primary sector.
71. AB Lime view the establishment of a process to be incorporated into the proposed consent conditions as important to provide clear performance standards, and clearly articulate how to manage the acceptance process in the future. The intention is to provide certainty for all parties regarding this process.
72. Breaking it down further, the proposed condition of consent around emergency management triggers a requirement for a swift response

²⁸ Evidence of Mr Smith at paragraphs [56]-[58]; Mrs Smith's evidence at paragraph [43].

process for AB Lime²⁹. The Landfill Operations Management Plan (LOMP) and the Landfill Air Quality Management Plan (LAQMP) become the two mechanisms to manage the process of this waste acceptance from arrival to burial.

73. The relevant sections of these management plans³⁰ are appropriate to provide protocols and mitigation measures to be adaptable and flexible in rapidly changing situations. The objective of this methodology is to provide AB Lime (and other stakeholders) with a framework that provides them with adaptability and flexibility, but also greater control over what is possible when these situations occur.
74. In my opinion, this emergency process has been misunderstood by the s 42A Report and this has been clarified by the addition to the proposed consent condition identified in paragraph [24] above. In my opinion, the proposed process is an appropriate response to this issue which has clearly been the source of issues historically.

(b) New waste streams

75. Additional to the misunderstanding of the emergency waste acceptance process condition, the s 42A report makes assertions with respect to the acceptance of new types of waste streams to be accepted, including that of aluminium dross³¹, remedial waste and new waste streams³².
76. I would like to re-iterate that no additional waste 'types' form part of this proposal. To provide absolute clarity on this matter the following consent condition is proposed to provide certainty on the matter³³:

'Prior to the acceptance of any Special Waste the consent holder shall apply the Special Waste acceptance criteria to determine the

²⁹ Refer to condition 19 of discharge permit for solid waste onto or into land in **Attachment A**.

³⁰ LOMP at Section 6.1; LAQMP at Section 6.

³¹ *Section 42A Officer's Report: Hearing of resource consent application by AB Lime*, Report of Michael Durand at 3.3.3.

³² Ibid at 3.3.2.

³³ Refer to condition 14 of discharge permit for solid waste onto or into land in **Attachment A**.

methods that need to be employed to manage the receipt and disposal of the Special Waste.

'If an application is received for a 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 for acceptance and the Southland Regional Council for certification prior to accepting any of the waste'.

77. Therefore, if AB Lime wish to accept a waste stream in an emergency waste response, or otherwise, that has not previously been accepted they must go through a rigorous review process.

(c) Aluminium Dross Waste and Remedial Waste

78. Aluminium Dross Waste (ADW) acceptance to date is covered in detail in the evidence of Mrs Smith³⁴. Based on the stringent criteria for accepting aluminium dross waste that was carried over as part of this proposal from the existing consent, the conclusion I make is that the s 42A Report has assessed aluminium dross waste in a way that has not been applied for and for a waste product that could not comply with the proposed conditions of consent, or Class 1 Landfill Guidelines as a hazardous substance.
79. The context around the previous s 127 variation to accept aluminium dross to very diluted concentrations is explained in the evidence of Mrs Smith³⁵.
80. It is clear to me that under the criteria put forward in this proposal that aluminium dross cannot be accepted in its 'pure' form. The proposed conditions of consent provide clarity on this matter which appears to have been missed in the s 42A Report.
81. Irrespective of this fact, AB Lime want to resolve this issue with finality. Whilst the effects of accepting low concentrations of aluminium dross waste are acceptable, AB Lime have decided that complete clarity is preferable. The circumstances that gave rise to the variation appear to

³⁴ Mrs Smith's evidence at paragraphs [26]-[31].

³⁵ Ibid at [28].

no longer exist and as such the capacity to receive this waste type is no longer considered necessary to serve the community's needs.

82. Any reference to aluminium dross waste in the proposed conditions of consent is formally withdrawn as part of this proposal. As such this has been deleted from the proposed conditions in **Attachment A**.

(v) Proposed conditions of consent and management plan structure

83. The latest iteration of consent conditions have been are provided in **Attachment A**.
84. As identified in paragraph [40] there are six new activities requiring resource consent that form part of this proposal.
85. The conditions of consent set the performance criteria for standards to be achieved at the landfill.
86. In my opinion, the resource consent conditions provided with this proposal provide certainty in managing effects. Mr Starke and Mr Van Kekem assess how these conditions of consent as performance criteria appropriately govern the avoidance, remediation and mitigation of adverse effects at the landfill.
87. Additionally, by the end of the s 92(1) RMA process, nearly all technical experts had been either in agreement or agreed that outstanding matters could be appropriately conditioned³⁶. An exhaustive s 92(1) process was undertaken in several stages over a 7-month period. Enough certainty was provided in the technical review process that a limited notification decision was made by Environment Southland.
88. A layer below the proposed conditions of consent, 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

³⁶ The exception to this is the EHS Support review of landfill gas technical review, which I have covered in paragraphs [116]-[124] of this evidence.

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 activities³⁷ and provides clear guidance and processes for both consent holders and regulatory authorities.

89. The proposed conditions of consent provide an appropriate certification sequence to ensure management methods achieve compliance with the identified performance criteria. Review of the management plans is delegated to a suitably qualified and experienced person(s) in areas where the Regional Council may not hold the in-house expertise to manage internally. Importantly, the Regional Council has the ability to determine whether or not the nominated person does have the requisite qualifications and experience.
90. The certification of these management plans rests with the Regional Council, ensuring that the ultimate decision-making responsibility is not delegated to a third party.
91. Each management plan has a series of objectives that align with best practice at managing particular aspects of the landfill. Each significant area of operation or effects at the landfill has been provided a management plan (refer to **Attachment B**) to ensure that effects relating to a particular area of operations are effectively controlled.
92. The Environmental Management Plan is proposed to be the overarching document to manage the operation of the landfill and quarry.
93. The most important part of this adaptive management framework are the monitoring and reporting conditions. They set environmental standards to be met and the management plans provide flexibility and adaptability in the methodology for achieving these standards. This allows a framework to provide for innovations in technology and advancement in

³⁷ Examples of the successful use of the management plan structure include large Waka Kotahi projects such as the Auckland Harbour Bridge and the Christchurch Northern Corridor. Management plans are also accepted tool for Class 1 landfills such as Kate Valley Landfill and Auckland Regional Landfill.

best practice. This is particularly pertinent for landfills where the best methods to manage effects are constantly evolving.

94. I note that the s 42A Report has not found issue with the proposed certification and approval process³⁸ for the management plans that have formed part of this proposal.
95. In the s 42A Report, there are concerns with elements of the LAQMP and its synchronisation with the LOMP³⁹. The s 42A Report has correctly identified that a management plan can never be superior to a resource consent condition. However, Mr Van Kekem has detailed his evidence the appropriateness of the air discharge proposed conditions as the ultimate performance criteria that form part of the proposed consent⁴⁰.
96. The s 42A report has found a minor fault with the content of the management plan and not the performance criteria. The management plan provides the 'how to' for achieving the performance criteria. I would like to re-iterate the management plans submitted for this proposal, while comprehensive, they are subordinate to the performance criteria identified in the proposed conditions of consent in **Attachment A**.
97. It is unfortunate wording that the terminology of '*relaxation of the consent conditions with regards to the nuisance to neighbours and the general public*' has been used in the LOMP. An updated version has been provided as part of this application in **Attachment A** of Mr Starke's evidence.
98. I agree with the s 42A Report that the statement does not belong in the management plan. However, I strongly disagree with the overarching opinion that the efficacy of the management plans is compromised. The robust conditions of consent proposed set clear performance criteria to ensure adverse effects are minor. The approval and certification process for the management plan framework is also sufficiently robust to ensure

³⁸ *Section 42A Officer's Report: Hearing of resource consent application by AB Lime*, Report of Michael Durand at 3.4.3

³⁹ *Ibid* at 3.4.4.

⁴⁰ Evidence of Mr Van Kekem at paragraphs [49]-[51].

that the operational methods employed at the site achieve ongoing compliance with the conditions.

99. In my opinion, the fact that the proposal was limited notified and the relevant peer reviewers have been (largely) in agreement over technical matters adds considerable weight to the fact that the proposed framework is appropriate for ensuring adverse effects of the proposal are no more than minor.
100. Additionally, the proposed conditions of consent require that all management plans be certified prior to giving effect to any new consents associated with this proposal⁴¹.

(vi) The s 92(1) RMA process

101. A tabulation of the extensive s 92(1) process and timelines has been identified in the roadmap that has been filed with this evidence. I consider this process to be important in providing context.
102. I appreciate that the processing officer was not privy to this process and was not instructed by the Southland Regional Council until 2021. However, in comparing this to the s 92(1) timeline provided for in the roadmap this assessment appears to have missed key elements of the s 92(1) process⁴².
103. This indicates to me there may not be a level of appreciation in the s 42A report regarding the technical matters discussed and the outcomes reached from this process.

(vii) The bond

104. The s 42A Report has identified that the bond proposed does not cover the performance of the landfill beyond the expiry of consents as allowed for in s 108A⁴³ of the RMA.

⁴¹ Refer to condition 8 of Schedule 1 – General Conditions in **Attachment A**.

⁴² *Section 42A Officer's Report: Hearing of resource consent application by AB Lime*, Report of Michael Durand at 2.7, Table 1.

⁴³ *Ibid* at 4.3.

105. A key aspect of assessing this is the fact that the landfill footprint, final area, and capacity of the landfill are not changing from current operations.
106. The Schedule 1 – General Conditions tied to the existing consents, not changing as part of this proposal (AUTH-201347 - AUTH-201350), provides for the continuation of the existing bond until the point of their expiry in 2038. The above points need to be considered in assessing the bond.
107. Secondly on this matter, I highlight this is the only instance where the s 42A Report places emphasis on ongoing discharge of leachate and landfill gas (whether consented or not)⁴⁴.
108. In my opinion, this contradicts the previous views articulated on the existing environment, where the s 42A report assesses the application must be subject to a ‘from scratch’ assessment⁴⁵.

Surrender of Existing Consents, Commencement, Lapse and Term of Consent

109. I have set out above a summary of the resource consent applications relevant to the Southland Regional Council in paragraph [40].
110. AB Lime will not surrender existing consents associated with landfill operations until they are operationally ready to give effect to the new consents. This is to ensure that the new conditions are all being complied with. Under the proposed conditions (and in line with s 125 of the RMA) AB Lime will have five years from the granting of these consents to exercise them before they will lapse.
111. Initially, a consent term of 35 years was put forward as part of the application. However, opposing submissions of Hokonui Rūnanga and Te Ao Marama Incorporated on behalf of Te Rūnanga o Awarua and Waihōpai Rūnaka, contended a consent duration of 17 years was more appropriate. A response to these submissions is provided in paragraphs [213]-[219].

⁴⁴ Ibid.

⁴⁵ Ibid at 3.2.1

112. AB Lime has proposed a reduced consent term of 25 years to align the duration with the principles outlined in the Ngāi Tahu Ki Murihiku Resource and Environmental Iwi Management Plan 2008.
113. In my opinion, limiting the duration of the consent to a short-term period is not the best way to address whatever uncertainty there may be in regard to adverse effects for this proposal. Over the lifetime of the landfill, the effects of the landfill are not likely to change, therefore, a range of adaptive management, monitoring/reporting conditions is a more appropriate toolbox for this proposal compared to limiting the consent duration.
114. A further benefit of this approach is that, in my opinion, the adaptive management framework provides flexibility to improve operations and effects management at the landfill through an iterative process, as technology and management practises evolve.
115. Additionally, s 104(2A) of the RMA stipulates that when considering an application affected by s 124, the consent authority must have regard to the value of the investment of the existing consent holder. In my opinion, this provides additional weight to a longer duration given the significant investment that AB Lime are undertaking to improve the environmental management of the landfill as a result of this consent process.

The Existing Environment

116. A comprehensive discussion of the existing environment in light of the s 42A Report has been provided in paragraphs [50]-[62].
117. Through the s 92(1) RMA process there has been an additional matter raised in relation to the existing environment, relating to the applicability of the NES-AQ. I formally deal with as part of this evidence below.
118. The Southland Regional Council engaged Riley Consultants Limited to conduct a peer review of landfill operations. The landfill gas component of this peer review was subsequently subcontracted out to EHS Support.
119. EHS Support asserted that current operations under existing consents were non-compliant with the landfill gas emission provisions of the

Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (NES-AQ)⁴⁶.

120. Importantly, the existing consents were granted in 2003 and pre-date the implementation of the NES-AQ. Under Section 43B(6) and Section 43B(6A) of the RMA discharge permits that are granted before the date on which a relevant national environmental standard is notified prevail.
121. EHS Support provided multiple comments and information requests in regard to current operations and their compliance with standards that do not currently need to be met under existing consents and this is highlighted in AB Lime's final s 92(1) response provided as **Attachment C**. Two legal opinions from AB Lime's legal counsel (also in **Attachment C**) and Environment Southland's legal counsel (**Attachment D**) were sought on this matter. Both confirmed the view that the current consents prevail over the NES-AQ.
122. AB Lime has consistently understood that there must be demonstration of compliance with NES-AQ regulations when exercising any new consent related with this proposal. It is clear that EHS Support had reservations about future operations related to this proposal.
123. To dispel any concerns with future operations AB Lime has proposed a condition precedent⁴⁷ requiring compliance with the landfill greenhouse gas regulations of the NES-AQ prior to giving effect to any new consent. Meeting this standard is dealt with in detail in Mr Starke's evidence⁴⁸.
124. If this matter is set to one side, it is my view that all technical matters related to this proposal are agreed upon or are appropriately conditioned through the proposed consent conditions.

Potential Effects and how they are Addressed

125. As identified in paragraph [42] the status of this proposal is to be considered as a whole as a discretionary activity.

⁴⁶ Technical Review of Further RMA Section 92(1) Responses for application APP-20202200, APP_205862-01-v2, Appendix A (17 November 2020).

⁴⁷ Refer to paragraph [158] and **Attachment A**.

⁴⁸ Mr Starke's evidence at [115]-[129]

126. Mr Starke, Mr Van Kekem and Mr Baker, on behalf of AB Lime, have assessed potential effects that they are qualified to address. I have summarised the conclusions of these experts with respect to this proposal in the following paragraphs, as well as identifying the positive effects associated with the proposal.

Positive Effects

127. The AEE has assessed the potential positive effects of the proposal and identifies a number of benefits, both economic and environmental, that will arise from this proposal⁴⁹. A useful tabulated summary of positive effects of this proposal are identified in **Attachment E**. The environmental outcomes that would be achieved in regard to this proposal, in my opinion, are significant. I highlight the key aspects of environmental benefits identified in **Attachment E** below.

128. The conversion of landfill gas to energy to power the lime kilns has begun⁵⁰. This reduces coal consumption and has considerable benefits for ambient air quality beyond the boundary of the site as identified in Mr Van Kekem's evidence⁵¹. Mr Van Kekem highlights the significant improvements includes a large reduction in peak off-site concentration of SO₂, and result in landfill gas conversion producing a proposed reduction in the consented mass emission rates, which will result in a net improvement of air quality surrounding the site (including the nearest receptors)⁵².

129. As set out in the evidence of Mr Smith, AB Lime is close to reaching its maximum waste limits under the existing consents⁵³, which presents a risk that AB Lime would not be able to accept waste if and when required. Particularly in unanticipated circumstances such as natural disaster recovery, or a future situation similar to *Mycoplasma Bovis* disease where a large volume of dead animals was required to be disposed of in a relatively short time⁵⁴. Having a centralised facility that is able to

⁴⁹ *AB Lime Limited Resource Consent Application AEE*, (29 May 2020) at section 8.1

⁵⁰ Evidence of Mr Smith at paragraph [21].

⁵¹ Evidence of Mr Van Kekem at paragraph [97].

⁵² *Ibid* at [129]-[133].

⁵³ Evidence of Mr Smith at paragraph [28].

⁵⁴ *Ibid* at [105].

accommodate waste avoids the need for rushed solutions or inappropriate disposal of waste.

130. If granted, this proposal will bring landfill operations into line with the 2021 regulatory framework including the NES-AQ. This requires a tenfold decrease in surface gas emissions related to methane, a greenhouse gas, as well as requiring improved flaring of gas. This is a significant improvement on current operations and has created a domino effect on improving landfill operations and incited changes to minimise the working face, improve capping and cover standards, remediate oversteep working faces, as well as enhanced filling plans and formalising the requirement for a back-up flare.
131. A proposed condition has been implemented to aid the reduction of leachate generation. This will provide a superior environmental outcome, irrespective of the tonnage of waste received. This has also been a reason for significant changes proposed to landfill operations.
132. Waste acceptance criteria has been tightened further and provides additional certainty on what can be accepted into the landfill. This provides additional comfort as regulations and standards evolve in regard to our understanding of hazardous waste.
133. In my opinion, adherence to improved standards will provide positive environmental outcomes as the planning framework and conditions to be applied to the current proposal are more stringent and robust when compared to the existing resource consents.
134. The management plan framework also provides significant benefits for managing the 'how to' at the landfill. These are also clearly highlighted in **Attachment E**.
135. Overall, I am of the opinion that the proposed conditions of consent and associated management plans provide a better environmental outcome than existing consents, even beyond the expiry of the current consents in 2038.

Air Quality Effects

136. Mr Van Kekem has discussed in detail the sources of air discharge and the potential of air discharge effects arising from the proposal.
137. Mr Van Kekem explains the key proposed consent condition that site based activities will not result in the production of offensive or objectionable nuisance odour, or particulate effects beyond the boundary of the site owned by AB Lime⁵⁵. The LAQMP provides the 'how to' in meeting this criteria⁵⁶.
138. Mr Van Kekem identifies that the LAQMP provides controls and mitigation measures with a strong emphasis on prevention and point source management, as well as an improved monitoring and maintenance regime. Specific triggers are identified to pre-empt effects from occurring beyond the site boundary.
139. Furthermore, a staged mitigation approach is introduced to provide a high level control for each potential source of nuisance on site including odour mitigation responses for transport of waste to site; waste deposition handling and compaction at the working face; special waste (including emergency waste); leachate; and capping management⁵⁷.
140. To ensure there is no discharge of offensive and objectionable odour or particulate matter beyond the land owned or covenanted by the consent holder, Mr Van Kekem has recommended a suite of preventative odour controls and measures including real-time automated monitoring of hydrogen sulphide (H₂S) before the boundary of the site, which is a key indicator of odour. I rely on these measures in reaching the view that the odour effects will be appropriately managed.
141. Mr Van Kekem also provides a detailed analysis of risk of the potential adverse health effects. Mr Van Kekem proposes that the controls provided in the LAQMP are designed to eliminate the potential for discharge of air pollutants at the source. This management, in conjunction with the large separation distances, means there is a

⁵⁵ Evidence of Mr Van Kekem at paragraph [59]-[60].

⁵⁶ Ibid at [59]-[78].

⁵⁷ LAQMP at Section 4.2.

negligible potential for off-site concentrations of hazardous air pollutants to exceed health based ambient air quality criteria⁵⁸.

142. It is my opinion, that the proposed conditions of consent that are put forward for managing the potential effects of air discharge activities from the landfilling are suitably appropriate and will ensure that adverse effects are avoided or mitigated.
143. The practice for meeting these performance standards are closely interlinked with the objectives and methodologies put forward in the LAQMP.

Effects on Groundwater

144. Effects on groundwater are considered in the context of the receiving environment related to the landfill. The assessment of effects on groundwater investigates groundwater quality pre and post-landfill. Mr Baker identifies that pre-landfill a comprehensive investigation was undertaken to characterise groundwater quality, which is a useful baseline against which to assess the effects of the landfill operation to date. The comparison of pre and post landfill data showed that overall the landfill is having very little, if any effect on groundwater quality moving beyond the boundary of the site⁵⁹.
145. Mr Baker identifies that upgradient monitoring data indicates exceedances in trigger levels for the concentrations of nitrate, phosphorous, sulphate and zinc. These are likely the result of surrounding agricultural land use and are in fact higher concentrations than observed downgradient of the landfill⁶⁰.
146. Mr Baker contends that current management practices onsite are effective in managing groundwater quality, and in general the concentrations observed are compliant with current trigger levels⁶¹.

⁵⁸ Evidence of Mr Van Kekem at paragraph [137].

⁵⁹ Evidence of Mr Baker at paragraph [80]-[81].

⁶⁰ Ibid at [83]

⁶¹ Ibid at [84]

147. To ensure that groundwater quality continues to be monitored effectively, as part of the proposed conditions of consent, two further down-gradient monitoring wells are to be installed at the site, either close to or on the southern boundary to give greater confidence in measuring potential offsite discharges.
148. It is my opinion, that the proposed conditions of consent that are put forward for managing the potential effects of groundwater are suitable. Additional groundwater monitoring wells will increase the ongoing monitoring to ensure any change in leachate indicators is identified quickly.

Addressing Adverse Effects from Landfill Operations

149. Mr Starke in his evidence has identified how the proposed changes to landfill operations will manage potential adverse effects.
150. Firstly, Mr Starke identifies that the relationship between waste tonnage and adverse effects is not linear⁶². Mr Starke in his evidence identifies that it is the nature of the waste that is a better indicator of potential adverse effects and how the waste is managed.
151. Mr Starke identifies the waste acceptance criteria in the conditions of consent that set an environmental bottom line for this proposal. This ensures that the types of waste accepted at the landfill are appropriate.
152. The suite of management plans provide the 'how' to manage acceptable waste streams. Mr Starke identifies the significant improvements put forward in the management plan structure compared to the existing Landfill Management Plan (LMP), including:
- (a) The Landfill Leachate Management Plan (LLMP) is a new addition and a much improved document in terms of describing the procedures for the managing and monitoring of leachate at the landfill⁶³;

⁶² Evidence of Mr Starke at paragraphs [79]

⁶³ Evidence of Mr Starke at paragraphs [86]

- (b) The Landfill Gas Management Plan (LGMP) has several objectives in the new conditions of consent to manage the capture, extraction and flaring of landfill gas at all levels of operation. The LGMP is a much improved document compared to the existing LMP in terms of describing the procedures for the management and the monitoring of landfill gas⁶⁴.
- (c) The LOMP is a much improved document on the existing LMP providing improved procedures for meeting the performance criteria stipulated in the consent conditions, as well as the objectives of the management plan. Improvements include:
 - (i) Waste acceptance criteria;
 - (ii) The management of hazardous waste streams;
 - (iii) Special waste disposal;
 - (iv) Managing the reduced open working face;
 - (v) Managing oversteep faces;
 - (vi) A detailed Area 15 filling plan; and
 - (vii) Improved daily, temporary and permanent capping and methodologies.

153. Mr Starke clarifies how improving these procedures will have improved environmental outcomes and reduces the potential for adverse effects from leachate, landfill gas, exposed waste and the cap⁶⁵.

154. It is my opinion that the planning framework put forward including the proposed conditions of consent and the adaptive management plan structure that forms an integral part of this proposal is the most appropriate mechanism for addressing adverse effects and provides a

⁶⁴ Ibid at [96]-[97]

⁶⁵ Ibid at [82]-[84] and [96]-[101]

far superior environmental outcome than provided for under the existing framework.

Statutory Planning Assessment

155. The relevant planning documents are set out in the AEE. The key planning documents relevant to the consideration of these consents include:

- (a) Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (NES-AQ);
- (b) The Southland Regional Policy Statement 2017;
- (c) The Regional Water Plan 2010;
- (d) The Proposed Southland Water and Land Plan;
- (e) The Regional Air Plan 2016; and
- (f) The Ngāi Tahu Murihiku Natural Resource and Environmental Iwi Management Plan 2008.

156. In the following sections I provide a summary of my conclusions on the relevance of the identified planning instruments based on my understanding of these instruments, my understanding of the proposal and the potential effects associated with it.

Resource Management (National Environmental Standards for Air Quality) Regulations 2004

157. Mr Van Kekem has identified in his evidence how the proposal meets ambient air standards⁶⁶. A key part of this proposal in meeting these ambient air standards is the ability to use landfill gas to power the traditionally coal-fired kilns, reducing the level of SO₂, a known contaminant of concern. Mr Van Kekem highlights the significant improvements includes a large reduction in peak off-site concentration of SO₂, and result in landfill gas conversion producing a proposed reduction in the consented mass emission rates, which will result in a

⁶⁶ Evidence of Mr Van Kekem at paragraphs [187].

net improvement of air quality surrounding the site (including the nearest receptors)⁶⁷. Additionally, this is in line with the New Zealand government directive to eliminate coal combustion in New Zealand⁶⁸.

158. I have already acknowledged in this evidence this application means that the AB Lime landfill will be required to achieve compliance with the NES-AQ regulations with respect to the control of greenhouse gas emissions at landfills. To ensure that this is achieved prior to waste volumes being increased, AB Lime has volunteered the following condition precedent to be satisfied prior to giving effect to any consent associated with this proposal⁶⁹:

'Prior to the exercise of this consent, the consent holder shall provide to the consent authority, for certification, a report from a suitably qualified professional demonstrating that the operation of the landfill complies with the control of greenhouse gas emissions at landfills provisions of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004.'

159. The biggest change from what is currently consented is the requirement to meet Regulation 26(2)(a) of the NES-AQ that stipulates the discharge of surface methane emissions has a limit of 5,000 parts per million (ppm), compared to the 50,000 ppm currently consented. The language used in Regulation 26(2)(a) does not provide a methodology to meet this standard. Mr Starke in his evidence details what is required to meet these regulations on the basis of best practice and the methodologies implemented by other Class 1 landfills around New Zealand⁷⁰. Mr Starke and Mrs Smith also identify that AB Lime are taking progressive steps to meet this standard⁷¹.

⁶⁷ Ibid at [133].

⁶⁸ Ibid at [134]

⁶⁹ Refer to proposed Condition 1 of air discharge permit for discharging contaminants to air from refuse disposal facilities receiving greater than 100,000 m³/ year of uncompacted solid waste in **Attachment A**.

⁷⁰ Evidence of Mr Starke at paragraphs [117]-[129]

⁷¹ Evidence of Mr Starke at paragraphs [123]-[129]; Evidence of Mrs Smith at paragraphs [75]-[78]

160. In my opinion, based on Mr Starke's evidence and the provision of the condition precedent, the requirement to meet greenhouse gas emission regulations relating to landfills in the NES-AQ represents a significant improvement in environmental standards relative to the existing consents.

The Regional Policy Statement

161. The Regional Policy Statement (RPS) became operative on 9 October 2017. The hierarchy of planning instruments dictates that the RPS sits above the relevant regional district and regional plans and they are to give effect to the RPS.

162. There is a clear directive to reduce waste in the RPS⁷². However, there is also recognition that landfills need to continue to be available. The RPS continues to provide for the operation of solid waste disposal facilities within limits. Objectives and Policies of relevance include Objective WASTE.2 and Policy WASTE.8, which I examine in further detail:

Objective WASTE.2 – Avoid, mitigate, or where appropriate remedy adverse effects

Avoid, mitigate, or where appropriate remedy the adverse environmental effects of solid waste storage, disposal, processing, handling and transportation.

163. The principle of this objective is clearly trying to limit improper disposal, whether that is through ensuring waste streams are appropriate for the design of the relevant facility, or by ensuring that the discharges of solid waste outside of these approved facilities is limited. The reasoning for this Objective is stated as:

'improper storage, disposal, processing or handling of solid waste can result in significant adverse effects on the environment and remedying them can be difficult. The improper disposal of solid waste can be either the discharge of specific types of waste to

⁷² Objective WASTE.1, Regional Policy Statement 2017.

landfills or cleanfills that are not designed to handle them, and discharges of solid waste outside of landfills and cleanfills⁷³

164. In my opinion, it can be readily inferred that the AB Lime landfill, as the Southland Regional Landfill (and a Class 1 landfill) is the primary location considered for appropriate disposal. Consequently, securing a long-term Class 1 Landfill within the Region is necessary to achieve this objective.

165. ***Policy WASTE.8 – Efficient use of landfills***

Encourage the efficient use of existing landfills over the establishment of new landfills.

166. The explanation of this policy identifies that the efficient use of existing landfills should occur before a new one is established. Using existing landfills efficiently assists to limit the impact and geographical extent of any adverse environmental effects associated with landfills across the Region⁷⁴.

167. The RPS provides clear direction on the utilisation of existing landfills. Of importance, is the specific desire to limit the geographical extent of any adverse effects associated with landfills across the region.

168. In my opinion, Policy Waste.8 clearly connects to Objective WASTE.2, given existing landfills will have the on-site infrastructure to manage and mitigate any effects arising from leachate or gas emissions. This approach makes best use of these existing sites' infrastructure and avoids the need for costly investment (both money and time) to establish new sites. In my opinion, this Policy also supports a longer term consent being granted as it provides long term certainty regarding the ongoing operation of AB Lime, and therefore, creates less pressure for alternative sites to be considered as the AB Lime consent get closer to expiry.

The Proposed Southland Water and Land Plan

⁷³ Reasoning of Objective WASTE.2, Regional Policy Statement 2017.

⁷⁴ Reasoning of Policy WASTE.8, Regional Policy Statement 2017.

169. I acknowledge that the Regional Water Plan remains relevant to this proposal and the provisions are set out in Section 10.3 of the AEE document. However, the Proposed Southland Water and Land Plan (PSWLP) provides a more recent planning instrument for land and water issues and is more relevant to this proposal. For this reason I focus my attention on the PSWLP.

170. The main issue that arises from this proposal relevant under the PSLWP is the potential for leachate to detrimentally impact on water quality and the impacts this could have the receiving environment. When considering these issues the most relevant objectives and policies are identified are summarised below:⁷⁵

171. **Objective 8**

a) The quality of groundwater that meets both the Drinking Water Standards for New Zealand 2005 (revised 2008) and any freshwater objectives, including for connected surface water bodies, established under Freshwater Management Unit processes is maintained;

172. Mr Baker has identified in his evidence that there has been very little, if any, effect on groundwater quality moving beyond the boundary of the site. Concentrations of leachate indicators in groundwater are compliant with the New Zealand Drinking Water Standards (2008) so the risk to downgradient groundwater users is negligible⁷⁶.

173. **Policy 41 – Matching monitoring to risk**

Consider the risk of adverse environmental effects occurring and their likely magnitude when determining requirements for auditing and supply of monitoring information on resource consents.

174. Mr Baker also identifies as part of this proposal that the most appropriate mechanism to match monitoring to risk is to install two downgradient monitoring wells at the site, either close to or on the southern boundary

⁷⁵ Evidence of Mr Baker at paragraphs [84]

⁷⁶ Ibid at [62], in relation to Objective 8 of the Proposed Southland Water and Land Plan.

to give greater confidence that groundwater quality is not being affected beyond the site of the boundary⁷⁷.

175. Based on Mr Baker's evidence, downgradient groundwater and its users are unlikely to be affected⁷⁸.
176. The Solid Waste provisions of the PSLWP should provide further particularisation of the provisions of the RPS. Policy 35 is of relevance here:

Policy 35 – Discharge waste and cleanfill appropriately

Ensure that sites used for the discharge of contaminants as waste or cleanfill are appropriate.

This policy in the PSLWP does not provide any further reasoning or context around solid waste management above what is provided in the RPS. In my opinion, clearer direction is provided for in the RPS. In its current state, the PSLWP is incomplete (as it goes through the appeals process). In my opinion, because of the clearer direction of the RPS and the potentially incomplete status of the PSLWP further weight should be given to the RPS provisions. Importantly, the PSLWP provides some rules on the matter pertaining to solid waste disposal but they set up a discretionary framework with little objective and/or policy support to guide decision making.

Southland Regional Air Plan

177. The most relevant provisions of the Southland Regional Air Plan (SRAP) which relate to this application address:
- (a) Objectionable and offensive effects of odour; and
 - (b) Hazardous air pollutants and ambient air quality (including landfill gas and the use of masking agents); and

⁷⁷ Evidence of Mr Baker at paragraphs [85]

⁷⁸ Ibid at [62].

178. I turn these issues now. The objectives and policies of Stage 2 of the Regional Air Plan were not considered in part of the original application as an oversight. They are included in my evidence below.

Odour

179. The relevant provisions relating to objectionable and offensive effects are set out below:

Objective 7.2.1

To protect the health of people and communities from any adverse effects from odour discharges.

Objective 7.2.2

To protect areas of cultural and amenity value from any adverse effects from odour discharges.

Policy 7.3.1

Avoid remedy or mitigate the impact on the health of people and communities from offensive and objectionable odours.

Policy 7.3.2

Avoid remedy, or mitigate the impact of offensive or objectionable odours on areas of cultural or amenity value.

180. What constitutes offensive and objectionable is not defined in the Regional Air Plan. The method for assessing 'offensive or objectionable' odour involves undertaking an assessment of the FIDOL factors in accordance with the Ministry for the Environment (MfE) good practice guidelines.

181. This methodology has been implemented by Mr Van Kekem in his assessment of the potential odour effects as part of this proposal⁷⁹ and the implementation of the proposed mitigation measures identified in the LAQMP⁸⁰.

⁷⁹ Evidence of Mr Van Kekem at paragraphs [16].

⁸⁰ LAQMP at Section 4.2.

182. The relevant consent condition put forward as part of this proposal requires that there be no offensive and objectionable odours at receivers on land not owned by AB Lime⁸¹.
183. How this is achieved is stipulated in the LAQMP, where a staged mitigation approach is implemented including the introduction of on-site trigger points, such as H₂S monitoring. Mr Van Kekem highlights that exceedance of these trigger points 'mandate the requirement to increase the mitigation/management practices to a higher level.'⁸²
184. The proposed control measures identified in this proposal to control odour are consistent with industry standards and good practice guidelines⁸³. Therefore, the mechanisms put forward are appropriate to achieve the purpose of Policy 7.3.1 and 7.3.2 are appropriate.
185. With respect to Objective 7.2.1 there is a focus on protecting the health of people. The location of the AB Lime landfill in a relatively sparsely populated rural location, adjacent to the State Highway. It is not recognised as possessing any particularly high cultural or amenity values.
186. Mr Van Kekem highlights this fact with regard to special waste (likely source of odour) that '*the potential for off-site concentrations of hazardous air pollutants to exceed health based ambient air quality criteria is negligible*'⁸⁴. This is achieved by a combination of good location and the proposed mitigation methods.
187. With respect to Objective 7.2.2 the nature of the receiving environment is of importance. The surrounding land-uses include the highway and rural uses including dairy farming. These activities affect the amenity of the surrounding area such that it cannot be said to have high amenity values in an orthodox sense. Although I accept that the residents in the area will likely appreciate the area they live in.

⁸¹ Refer to proposed Condition 4 of air discharge permit for discharging contaminants to air from refuse disposal facilities receiving greater than 100,000 m³/ year of uncompacted solid waste in **Attachment A**

⁸² Above, n 79, at [59].

⁸³ Ibid at [62].

⁸⁴ Ibid at [137].

188. In my opinion, this proposal is appropriately conditioned to achieve the outcomes identified in the above objectives and policies of the SRAP.

Hazardous Air Pollutants

189. Concerns were raised by submitters in regard to the environmental, human health effects of landfill gas, and the use of odour neutralising spray to disguise odour.

(a) Greenhouse gases

190. **Objective 5.2.3**

To protect the environment from the discharge of ozone depleting substances into air

Objective 5.2.4

Avoid, remedy or mitigate adverse effects from the discharge of greenhouse gases into air

Policy 5.3.3

Promote the reduction of discharges into air of greenhouse gases and ozone depleting substances

191. There is a directive in these provisions to protect the environment and reduce ozone depleting substances / greenhouse gases. The key substance in relation to this proposal is methane.
192. In the hierarchy of planning instruments the NES-AQ sits above the Regional Air Plan. The discussion related to greenhouse gas emissions at the landfill has been discussed in detail in paragraphs [157]-[160]. I consider that this proposal, which must comply with the NES-AQ will promote the reduction of fugitive greenhouse gas, specifically methane.
193. Whilst compliance with the NES-AQ stipulates alignment with the SRAP, it is the factor of improvement that is particularly relevant for this proposal. The surface methane emissions under this proposal must improve by a factor of ten as compared to the existing consent (5% to 0.5%).

194. A required tenfold improvement is an environmentally beneficial outcome that directly aligns with these policies. A requirement to meet this standard will achieve the positive outcomes sought in Objective 5.2.3, Objective 5.2.4 and Policy 5.3.3.

(b) Hazardous air pollutants and ambient air quality

195. There are also provisions of relevance in regard to hazardous air pollutants and their potential to affect health, people, the communities and the environment. The provisions of relevance include:

Objective 5.2.1

To avoid, remedy or mitigate any adverse effects upon the environment (including the health of people and communities and amenity values) from the discharges of contaminants into air from industrial or trade premises.

Policy 5.3.1

Protect the environment from adverse effects from the discharge of contaminants into air from industrial or trade premises.

Policy 5.3.2

Require the upgrading or change in process of existing industrial and trade processes where they are having significant adverse effects on ambient air quality.

196. Mr Van Kekem is of the view that hazardous pollutants from landfill gas and the use of masking agents will not be at concentrations that are an issue for people in the community and environment surrounding the landfill⁸⁵.

197. Mr Van Kekem has also demonstrated that the proposed activities will comply with the NES-AQ ambient air quality standards⁸⁶. As stated, in the hierarchy of planning instruments the NES-AQ sits above the SRAP.

⁸⁵ Ibid at [144] and [157]

⁸⁶ Ibid at [187]

By meeting these standards the proposal is in line with the provisions of the SRAP.

198. It is described in Mr Van Kekem's evidence the granting and exercise of the proposed new consents will secure significant improvements and the quality of air discharge from the site. Additionally, there is a significant environmental benefit associated with landfill gas conversion to power the lime kilns.
199. This gives rise to a net improvement of air quality surrounding the site (including the nearest receptors)⁸⁷.
200. Therefore, the outcomes sought by Objective 5.2.1, Policy 5.3.1 and Policy 5.3.2 are achieved through this proposal and there is complete alignment with the SRAP.

Conclusion

201. In my opinion, the proposal achieves the objectives and policies of the Regional Air Plan. The proposed conditions of consent and management plan framework proposed by Mr Van Kekem in the LAQMP ensures that potential adverse effects of air quality are appropriately managed for all activities associated with this proposal. In many instances, the environmental outcomes of this proposal improve on existing operations and align with the outcomes sought under the relevant provisions of the SRAP.

Other Planning Documents

202. I consider that the planning documents I have covered contain the most relevant provisions when considering this proposal. I have reviewed the other planning documents listed in paragraph [155] of this evidence, as well as analysing them under the AEE.
203. The Ngai Tahu Ki Murihiku Resource and Environmental Iwi Management Plan 2008 is considered in further detail under paragraphs [213]-[216].

⁸⁷ Ibid at [133]

204. In my opinion, there are no provisions in these documents that would prevent consents being granted in accordance with the latest iteration of conditions that have been provided as part of this proposal.

Section 105 and Section 107 of the RMA

205. The landfill is ideally located in a sparsely populated area, which is synonymous with intensive rural farming.

206. The effects of the discharge to air and the sensitivity of the receiving environment for groundwater has been discussed in the evidence of Mr Van Kekem and Mr Baker respectively. Because this is a new consent for an established landfill where the footprint is not changing, there is no practicable alternative location or method of discharging to air or to land.

207. Performance criteria proposed will ensure that potential adverse effects are managed within the site boundary.

208. In my opinion, there are no barriers to granting the consents sought for the 25 year duration under sections 105 or 107 of the RMA.

Part 2 of the RMA

209. Part 2 of the RMA is well known to the Commissioner. Unless there is invalidity, incompleteness or uncertainty of meaning in the statutory planning documents, there is no need to look at Part 2 of the RMA.

210. Therefore, many of the Part 2 issues of relevance are directly addressed by the planning instruments that have already been identified in this evidence.

211. In my opinion, the key outstanding Part 2 matters of importance remain:

- (a) The extent to which the need for solid waste disposal as regionally critical infrastructure is a reasonably foreseeable need for future generations;
- (b) In relation to section 7(b) the removal of a waste acceptance limit for an existing landfill is considered efficient land use and is preferable to establishing a new landfill at an alternative location;

- (c) In relation to section 7(ba) this proposal will utilise landfill gas for energy conversion to power the lime kilns, creating a positive overall effect on air quality⁸⁸;
- (d) In relation to section 7(i) the proposed changes to bring this proposal into line with NES-AQ standards applicable to this proposal will improve greenhouse gas emissions associated with the landfill. Also, the adaptive management framework allows for adoption of new technology and the evolution of landfill operations in line with best practice; and
- (e) In relation to section 6(e) section 7(a), section 7(aa) and section 8 there are no significant issues in respect of the proposal in regard to tangata whenua as described in paragraphs [213]-[216] of this evidence.

212. In conclusion, in my opinion, there is alignment of this proposal with Part 2 of the RMA to grant the consents for the 25 year duration sought.

Submissions Relevant to Planning Matters

Hokonui Rūnanga and Te Ao Marama Incorporated on behalf of Te Rūnanga o Awarua and Waihōpai Rūnaka

213. The submissions provided by Hokonui Rūnanga and Te Ao Marama Incorporated on behalf of Te Rūnanga o Awarua and Waihōpai Rūnaka are relevant to planning matters.

(a) Consent duration

214. The first part of the submission of both of these parties relates to consent duration. Initially, a consent term of 35 years was put forward as part of the application. However, opposing submissions of Hokonui Rūnanga and Te Ao Marama Incorporated contended a consent duration of 17 years was more appropriate. AB Lime has proposed a reduced consent term of 25 years to align the duration with the principles outlined in the Ngai Tahu Ki Murihiku Resource and Environmental Iwi Management Plan 2008.

⁸⁸ Mr Van Kekem's evidence at [133]-[134]

215. The Ngai Tahu Ki Murihiku Resource and Environmental Iwi Management Plan 2008 provides the following commentary around consent duration.

“Ngai Tahu ki Murihiku do not believe we should be granting consents for activities where we do not know what the effects may be over the long term. Anything over 25 years is essentially making decisions for the next generation. We also need to ensure that consent duration recognises and provides for changes in technology, thus allowing us to continually improve the way we do things.”

216. In my opinion, alignment of the duration of this consent sought in line with the Iwi Management Plan is appropriate..

(b) Proposed Conditions of Consent and Updates to Management Plan

217. Both Hokonui Rūnanga and Te Ao Marama Inc. expressed a desire to be notified when AB Lime accepts waste under the proposed emergency waste consent condition. This proposed condition has been updated to reflect these wishes⁸⁹.

218. Hokonui Rūnanga expressed a desire to be included in accidental discovery conditions as an affected party. This proposed condition has been updated to reflect these wishes⁹⁰.

219. As a flow on effect of these updates to consent conditions, Hokonui Rūnanga expressed a desire for these changes to also be reflected in the Site Archaeological/Koiwi or Taonga Accidental Discovery Plan (SAKTPD). This management plan has been updated and the latest iteration of the SAKTPD has been circulated with this evidence and is attached as **Attachment F**.

Mr Hamilton

220. Mr Hamilton identified in his submission that leachate leakage is unacceptable. Leachate leakage is consented under the existing permit for 26m³/day within the landfill footprint, including the stormwater pond

⁸⁹ Refer to Condition 19 of discharge permit for solid waste onto or into land and Condition 5 of discharge to air in **Attachment A**.

⁹⁰ Ibid at Schedule 1 – General Conditions Condition 33, 35.

and leachate tank. This activity has never been carried out as part of the existing consent and as identified in paragraphs [34]-[39] of this evidence this activity is withdrawn as part of this proposal.

221. In my opinion, the removal of this activity is another reason why this proposal provides a superior environmental outcome compared to the existing consent.

Mr and Mrs Sinclair

222. Mr and Mrs Sinclair in their submission raise the issue that toxicity of the leaching through stormwater into natural springs of our waterways will be increased. As identified in paragraphs [34]-[39] the permit for leachate leakage has been withdrawn. Mr Baker in his evidence identifies that leachate caused by the landfilling operations is having little, if any effect on the groundwater quality of surrounding waterbodies⁹¹. Stormwater from the site is also carefully managed under the existing consents and will continue to be monitored to ensure stormwater discharges do not give rise to adverse environmental effects.
223. Mr and Mrs Sinclair in their submission raise the issue why hasn't the gas emissions been reduced from 5% to 0.5% now. There is no requirement under the current consent to meet the 0.5% surface emission methane threshold as the current consent predates the NES-AQ. AB Lime are already taking steps to meet the 0.5% surface emission threshold. The granting of the consents will secure this improvement as a condition.

Mr and Mrs McKerchar

224. Mr and Mrs McKerchar in their submission raise the issue that during the establishment of the landfill an Environmental Impact Report was undertaken and given to all those affected parties. Historical documentation that we hold does not show an Environmental Impact Report, however, a comprehensive Assessment of Effects on the Environment (AEE) was provided as part of the original application.

Prehearing Meeting

⁹¹ Evidence of Mr Baker at paragraphs [84].

225. As part of the prehearing meeting I was requested to identify information to submitters in regard to the volume and capacity of the landfill. With the audited volumes of 2020 waste tonnages now available I point submitters to **Attachment B** of Mr Starke's evidence for an updated assessment of the volume and capacity of the landfill.

Conclusion

226. Overall, I have assessed this proposal of the AB Lime landfill against the provisions of the relevant planning documents. Collectively, the consents sought are a discretionary activity.

227. I began my assessment by directly addressing the Officer's s 42A Report. The roadmap filed with this evidence provides an overview of this resource consent application from the point of lodgement until the hearing. I have reached the following conclusions when assessing the proposal in light of this report:

- (i) The objectives of the proposal are clearly defined. AB Lime are reaching the ceiling of their tonnage limit under the existing consent. The primary reason for the proposal is to remove this 100,000 tonnage limit. A secondary reason is to provide a framework for AB Lime and stakeholders to follow when emergency situations occur. No new waste streams form part of this proposal. In my opinion, additional conditions of consent put forward provide closure to this matter.
- (ii) The structure of this application, as identified in this evidence (and the roadmap filed with this evidence) identifies as part of this proposal:
 - The four existing consents not changing;
 - The six *new* consents sought;
 - The withdrawal of an application for one particular activity originally provided for as part of this

application as a carryover from the existing consent (leachate leakage);

- The role of the Schedule 1 – General Conditions (*new and existing*);
- The one consent being varied; and
- For simplicity, the proposed conditions of consent are clearly linked to the six activities requiring resource consents in **Attachment A**.

- (iii) The s 42A report places considerable weight on the period post-2038 in making its recommendation. The difficulties of assessing the existing environment post-2038 'from scratch' have been clearly highlighted, particularly given the considerable legacy effects with regard to landfill gas, leachate, stormwater and capping that must continue to be managed for at least a 30-50 year period post closure. The s 42A report has not accurately assessed the existing environment for the post 2038 period which has resulted in the conclusions regarding the magnitude of effects also being wrong. This error is compounded by his misunderstanding regarding additional waste streams.
- (iv) No new waste streams form part of this proposal and have been wrongly assessed in the s 42A report. Emergency waste refers to a framework rather than a 'type' of waste. Aluminium dross will not be accepted in its pure form, as suggested. Irrespective of this misinterpretation in the s 42A report any reference to aluminium dross waste is removed from the proposed conditions of consent.
- (v) The proposed conditions of consent and the management plan framework are appropriate for this proposal. The proposed conditions of consent set the relevant performance criteria and the management plans provide the 'how to' to achieve these standards. **Attachment E** provides the

considerable positive environmental outcomes that are achieved by adopting this approach. In my opinion even if the landfill was a greenfield site the conditions are appropriate to ensure that the adverse effects are no more than minor for the entire 25 year duration proposed

- (vi) In comparing the s 92(1) timeline provided for in the roadmap filed with this evidence to the s 42A, the s 42A report appears to have missed key elements of the s 92(1) process. This indicates to me there may not be a level of appreciation in the s 42A report regarding the technical matters discussed and the outcomes reached from this process.
- (vii) As identified the landfill footprint, final area and capacity of the landfill are not changing from current operations and existing bond remains tied to the consents not changing as part of this proposal. As such, I consider these points require due consideration in assessing the bond.

228. When considering the proposal and the consents sought of particular relevance are the planning provisions which relate to:

- (a) The NES-AQ in so far as:
 - (i) The proposal will meet landfill emission greenhouse gas regulations; and
 - (ii) The proposal meets ambient air quality guidelines and identifies a net improvement on air quality surrounding the site with the conversion of landfill gas to power the kilns.
- (b) The RPS in so far as:
 - (i) The objectives and policies envisage the continuation of existing landfills as important for reducing the environmental impact of a landfill at a greenfield site. This proposal is for the continuation of an existing Class 1 landfill facility; and

- (ii) The need for appropriate waste solid waste disposal. AB Lime as a Class 1 landfill facility has appropriate landfill gas liner, landfill gas capture and extraction, leachate management and capping in place.
- (c) The PSWLP in so far as:
 - (i) The objectives and policies which provide clear direction on how the effects of the proposal are to be managed. Mr Baker's evidence highlights the very low risk to off-site groundwater and off-site groundwater users.
- (d) There is no further reasoning or context around solid waste management above what is provided in the RPS. In my opinion, clearer direction is provided for in the RPS. Because more direction is provided in the RPS it is my opinion that further weight should be given to the RPS provisions. The PSLWP provides some rules on the matter but they set up a discretionary framework with little objective and/or policy support to guide decision making. The SRAP in so far as:
 - (i) The objectives and policies envisage a reduction in greenhouse gas emissions. The proposal identifies a significantly improved environmental outcome through a tenfold increase in regulatory standards for discharge of methane.
 - (ii) The objectives and policies provide clear direction on how the effects of odour are to be managed. The conditions of consent set the objectionable and offensive criteria and the management plan provides appropriate mitigation.
 - (iii) The objectives and policies envisage a reduction in air pollutants that may affect the health of people, as well as the environment. The proposal meets ambient air quality guidelines and identifies a net improvement on air quality surrounding the site with the conversion of landfill gas to power the kilns.

229. In my view the proposal aligns with the planning provisions to support granting the consents sought. The positive environmental outcomes compared to the existing consents, in my opinion, are significant. Southland are much better off with this consent than without it.
230. Overall, I am of the opinion that the conditions are appropriate to ensure that the adverse effects are no more than minor for the entire 25 year duration proposed.

Date: 28 April 2021

Ryan McCone