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 FIONA SMITH

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BRIEF OF EVIDENCE OF FIONA SMITH

Introduction

1. My name is Fiona Kay Smith. I am the Compliance and Environment Manager at AB Lime. I am responsible for overseeing and managing the environmental and monitoring compliance of all sites and functions at the AB Lime landfill.

2. My responsibilities also include the research and development of systems and processes to improve AB Lime's environmental impact, including the oversight, development and compliance of AB Lime landfill, gas and wastewater construction projects.

3. I have been in this role since 2010.

4. I hold a BSc in Environmental Science (1996) and MSc in Soil Science (1999) from Lincoln University. I also have certificates in Nutrient Management and Greenhouse gas emissions from Massey University (2019).

5. The purpose of this evidence is to describe the nature of the AB Lime landfill and discuss management procedures that are relevant to my role. In this evidence I set out:

    (a) What a Class 1 landfill is;

    (b) The nature of the waste we accept and how we manage it, including:

        (i) Municipal waste;

        (ii) Special waste;

        (iii) Odorous waste;

        (iv) Hazardous waste;

        (v) Excluded waste; and

        (vi) Emergency waste.

    (c) Key management processes at the landfill including:

(i) Processes for accepting special, odorous wastes; and

(ii) Compliance, monitoring and reporting.

(d) Proposed improvements to manage effects, including:

(i) New monitoring equipment for odour;

(ii) Lessons from *Mycoplasma Bovis* and *Bonamia Ostreae* outbreaks;

(iii) Improved procedures for managing air quality complaints;

(iv) Final capping; and

(v) Management plans proposed.

(e) Addressing submissions; and

(f) The Officer's s 42A report.

Class 1 Landfill

6. The term Class A and Class 1 landfills are used interchangeably. Waste Management Institute New Zealand (WasteMINZ) defines a Class 1 landfill as a municipal solid waste landfill that is able to accept municipal solid waste, construction and demolition waste, some industrial wastes, and contaminated soils. Class 1 landfills often use managed fill and clean fill materials as daily cover.

7. Class 1 landfills require a detailed assessment to ensure appropriate siting. With the main objective being to achieve a high level of containment. They also require engineered environmental protection by the way of a liner, leachate collection system, and an appropriate cap. Landfill gas management is also a requirement for Class 1 landfills, along with a rigorous monitoring, reporting regimes, and operational controls.

8. Monitoring of accepted materials is required, as is monitoring of sediment runoff, surface water and ground water quality, leachate quality and quantity, and landfill gas.

9. AB Lime operates as a Class 1 landfill.

Nature of Waste

10. Waste is extremely variable. There are several different streams of waste that we accept at the AB Lime landfill. In this section I outline the nature of the waste streams we accept at the landfill.

Municipal Waste

11. Municipal Waste is any non-hazardous solid waste from household, commercial, and industrial sources. It also has no 'free liquid' component. We receive this waste from approved transport operators who bring waste from bin and skip collection, and from waste transfer stations.

12. The waste trucks come over the weighbridge to record their check-in weight and then drive directly to the landfill. Here they unload into the municipal waste bunker (refer to **Attachment A**), then drive back down to the weighbridge to record a check-out weight.

13. Every 50 loads (approximately once a week), a waste inspection is done by one of the landfill operators (AB Lime employee) as a spot check on waste integrity, and to ensure acceptable waste is being received. These inspections are part of the waste monitoring requirements on site.

14. Once the waste load is in the bunker a visual check of the rubbish is made to ensure waste acceptance compliance, then it is loaded onto our dump truck for disposal at the working face. Once placed at the working face the waste is compacted in-situ. At the end of the day daily cover is placed over the working face.

Special Waste

15. An additional approval process applies to waste types that cannot be freely accepted for disposal and are restricted because of their nature, properties or composition. These wastes are referred to as "special wastes". Special wastes include difficult or discretionary waste. Hazardous waste is dealt with separately in paragraphs [23]-[36].

16. Special Wastes includes putrescible waste from commercial or industrial sources, such as produce, fish or animal waste, sludge, septage, mud trap and grease trap waste, as well as odorous green waste and woody waste. Special Wastes must go through an application and appraisal process.

17. The proposed conditions of consent identify that Special Wastes cannot contain free liquid[1] and cannot be offensively odorous[2]. These wastes must come in covered, sealed bins and require a Special Waste Permit to be issued prior to acceptance that outlines any additional requirements.

18. Under the existing consent we appraise special waste on a case by case basis using Schedule 2[3].

19. Test results are required before a Special Waste Permit is issued to a contaminated waste, and where a potentially odorous waste is being assessed, offsite pre-treatment such as lime stabilisation and the use of deodorising products is recommended.

Odorous Waste

20. All waste has odour. Whether a waste is offensive or objectionable can vary between people and is covered in detail in Mr Van Kekem's evidence[4]. We consider odorous waste to have the potential to be very unpleasant and immediately pungent upon arrival.

21. These wastes are generally limited to putrescible waste streams identified above, which fall into the special waste category.

22. Odorous waste must come in on a Special Waste Permit and is not accepted as part of the municipal waste stream.

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[1] Refer to condition 16 of discharge permit for solid waste onto or into land in Attachment A of Mr McCone's evidence
[2] Refer to condition 4 of discharge permit to discharge contaminants into air from combustion processes where combustible refuse matter is flared in Attachment A of Mr McCone's evidence
[3] Schedule 2 of the existing consent is derived from New South Wales Environment Protection Authority Environmental Guidelines: Assessment, classification and management of liquid and non-liquid wastes (NSW EPA, 1999), and the Ministry for the Environment: Hazardous Waste Guidelines (MfE, 2004)
[4] Evidence of Mr Van Kekem at paragraph [16]

Hazardous Waste

23. Under the current consent, medical waste, asbestos contaminated waste, acceptable methamphetamine contaminated waste and acceptable aluminium dross contaminated materials are provided for as accepted hazardous waste streams at the AB Lime landfill.

24. The volume and concentrations of this waste accepted have been very minimal (less than 10 tonnes of methamphetamine contaminated material and less than 9000 tonnes of aluminium dross contaminated material) since the landfill began operating. Aluminium dross contaminated material and methamphetamine contaminated materials must meet concentration criteria[5] prior to acceptance.

25. Methamphetamine contaminated materials are generally limited to household furnishings, and test results are reviewed and approved prior to a Special Waste Permit being issued. Burial certifications are often requested. These wastes are easily handled at the landfill, with PPE provided for Landfill Operators, and arrive in bulk skip bins.

26. Aluminium dross contaminated material has been accepted on two occasions in the form of contaminated gravels. One under Environment Court Order, and the other from illegal dumping on an Invercargill City Council property. These waste were required to be diluted by clean gravels off site. Any material contaminated with Aluminium dross waste needs to meet consented acceptance levels for aluminium and fluoride (Module 2: Hazardous Waste Guidelines, Landfill Waste Acceptance Criteria and Landfill classification (MfE, 2004)).

27. For the material dumped on the Invercargill City Council property we obtained a variation to our existing consent to enable this material to be disposed of. The variation to the existing consent is annexed as **Attachment B**. Only materials contaminated with Aluminium Dross Waste (ADW) is accepted at the landfill and even then, testing is required to ensure levels of aluminium and fluoride meet the Module 2: Hazardous Waste Guidelines, Landfill Waste Acceptance Criteria and

[5] Refer to condition 22 and 22A of and Schedule 2 of the existing consent (AUTH-201346-V3) at Section 9 of the AEE document

Landfill classification (MfE, 2004). To be clear, material such as that stored at the Mataura Mill could not be received by AB Lime.

28. I note that Mr Durand, the s 42A author on this application was the Environment Southland consents manager when we obtained the variation, and I corresponded with him directly regarding the application. What was proposed in this application was consistent with the varied conditions that were the outcome of the variation process. As a result I was mildly surprised when the s 42A report raised such significant concerns about ADW. As was the case with the variation "pure" or concentrated forms of this waste cannot be accepted under any circumstances, as it would not meet the condition of consent. Also, it is classified as a hazardous waste and cannot be accepted.

29. ADW emits ammonia gas when wet, so disposal of this product requires careful management while ensuring good dust management measures are taken.

30. The landfill is closed to other operators while this waste is disposed of. Specific PPE is required to ensure the health and safety of Landfill Operators due to potential ammonia gas. This waste is ideally contained in bags prior to arrival for ease of placement and disposal at the landfill site.

31. Given the issues surrounding ADW we have decided to remove this from the application so there is complete clarity about whether AB Lime is receiving this product.

32. With the exception of identified consented hazardous waste streams, (now medical waste, asbestos waste and methamphetamine contaminated waste) no hazardous waste is accepted at the landfill.

33. Where there is uncertainty around accepting a potentially contaminated waste, Environment Southland is contacted for clarification. A recent query (November 2020) regarding accepting empty 1 tonne bags that had contained Aluminium Dross Waste was referred to Environment Southland as it was unclear how this contaminated waste (the bag) could undergo the required testing for aluminium and fluoride levels

detailed in our current consents. Approval was sought and given by Environment Southland to accept these bags.

34. As identified in paragraph [13] random inspections of loads occur to check for hazardous materials in municipal waste loads. It is acknowledged as part of our current consents that small amounts of hazardous waste are part of the municipal waste stream. For example, there is incidental acceptance of waste such as household batteries and smoke detectors that are included in municipal waste loads. Education is the primary tool that can be used to reduce the risk of receiving these incidental hazardous items.

35. Acceptance criteria for contaminants is important as contaminants eventually find their way into the landfill leachate. Comprehensive leachate analysis is completed twice yearly for over 200 potential contaminants that are not just found in special wastes, but accumulate in municipal wastes as well.

36. Leachate analysis shows many things about a landfill, but is an important tool in determining potential trends in contaminants. We regularly talk to laboratories to enquire about specific emerging contaminant testing.

Excluded Waste

37. To date non-complying waste that is excluded from the AB Lime landfill includes car bodies, white wares, and unsorted demolition waste. We require that all items that can be recycled be removed from demolition waste before disposal is accepted.

38. Prohibited waste includes bulk liquid waste, hot materials, hazardous wastes (including flammable and radioactive wastes) and contaminated materials (like soils and sludges) unless they meet the specified criteria identified under the existing consent conditions[6] on the matter. These

[6] Refer to conditions 18 to 23 of the existing consent (AUTH-201346-V3) at Section 9 of the AEE document

criteria are carried through to this proposal and are clarified further in Mr Starke's evidence[7].

Emergency Waste

39. We have had two key instances of accepting large scale 'emergency waste'. The first is related to the *Mycoplasma Bovis* outbreak affecting Southland's agricultural industry and the other is the *Bonamia Ostreae* outbreak affecting Southland's aquaculture industry.

40. The biosecurity response to both the infected oyster beds and the *Mycoplasma Bovis* infected cattle resulted in a massive increase of waste received to the landfill over a short period of time. In order to be able to bury this waste, an adequate supply of cover material and more benign municipal waste is essential.

41. While AB Lime was the best place for both of these wastes, the quantity and the speed of waste arriving at the landfill was unexpected. The Ministry for Primary Industries (MPI), who controlled the disposal of both wastes, appeared to have the expectation that the landfill could easily take any amount of waste, the quicker the better – which was not correct.

42. Too much waste came in too quickly and without the necessary preparation (cattle). This created an operational problem in regard to odour control.

43. We have learnt that it is necessary for the landfill to set acceptance parameters and a clear process for emergency wastes of any type, with the availability of benign waste and cover being an important factor.

44. Preparation of emergency waste, or pre-treatment of waste prior to disposal is critical for emergency waste acceptance.

45. Another example of an emergency waste scenario was the recent flood clean up waste received at the landfill. Normal acceptance criteria was followed prior to disposal. That means that the waste needed to be

[7] Evidence of Mr Starke at paragraph [22] to [32]

sorted offsite to remove white ware, gas cylinders and other non-compliment waste before arriving at the landfill. We had to have a number of conversations with the organisations completing the clean up work to ensure that the waste met the waste acceptance criteria. This waste was not regarded as a Special Waste as it only included municipal sourced non-contaminated waste and used sandbags. An enquiry regarding large round baled waterlogged silage was not accepted due to odour concerns.

Key Management Processes at the Landfill

Processes for accepting Special, Odorous and Hazardous waste

46. Above, in paragraphs [10]-[45] I have outlined the nature of waste we accept. It is important go into further detail around how we manage these waste streams in more detail

47. Special, odorous and acceptable hazardous wastes are only accepted with a Special Waste Permit. For Southland sourced waste, these are completed online at the WasteNet website[8]. Out of region Special Waste Permits are prepared by AB Lime for waste not from Southland.

48. Before a Special Waste Permit is issued the waste needs to meet the Class 1 landfill acceptance criteria. This is relatively simple for animal by-products and expired food stuffs, but contaminated materials and sludges require a suite of testing by an accredited lab. Screening or toxicity characteristic leaching procedure results are checked against Schedule 2 of the existing consent before permits are issued. The proposed Class 1 landfill waste acceptance criteria are identified in the evidence of Mr Starke[9]. Non-compliant waste is refused.

49. All Special Waste Permits require authorised landfill users to access the landfill, and drivers must be inducted to site before disposal. Special Wastes are generally accepted between 10am and 4pm Monday to Saturday, though times may vary with prior arrangement.

[8] WasteNet Southland is a shared solid waste service for the Gore District Council, Invercargill City Council and Southland District Council. Formed in the early 2000's, their mission is to co-ordinate the effective and efficient delivery of waste services to the councils.
[9] Evidence of Mr Starke at paragraph [22] to [32]

We require at least 2 days' notice for disposal of Special Wastes and can restrict the time period for the permit. Generally we have a location within the working face that is prepared to receive the Special Waste scheduled to arrive.

50. We have the right to refuse waste at any time, including waste that does not match the permit description, if it is not contained correctly or covered, or is offensively odorous. We have had instances where we have excluded certain parties from disposing waste at our landfill because of constant breaches of their permit requirements.

51. From time to time we face practical difficulties on this front. Occasionally odorous loads turn up on site, without meeting the clearly specified criteria. Whilst we have a process to follow and have no qualms in putting contractors on notice, we also feel that on these occasions there is a moral duty to accept these wastes.

52. If they are turned away there is nowhere else acceptable for their disposal and they are likely to come back in a worse state or be dumped illegally elsewhere. We have to make instantaneous decisions and have to consider the wider effects on the community of letting this waste leave our site.

53. An internal system of reporting waste that is becoming a concern at the tip face has recently been implemented. This allows quick identification of potential problematic waste. These reports result in a phone call and email to the waste carrier and permit holder to remind them of our acceptance conditions. This gives them the opportunity to correct issues at their end.

54. I do not believe there is an easy resolution to this problem, but we continue to control what we can, and educate and inform our clients of their responsibilities. In cases where clients have repeatedly failed to comply with the terms of the Special Waste Permits we have declined to accept any further waste from them.

55. Odorous wastes require pre-treatment before arrival[10], or are mixed with lime to stabilise the waste and control odour once on site. Lime stabilisation must be pre-arranged before the issuing of a special waste permit and pre-treatment of waste must already be occurring.

56. If an offensively odorous waste arrives at site, we will use on-site lime to stabilise the waste if the decision is made to not turn it away. This stabilisation of waste is charged back to the waste owner and a follow up investigation is made to determine how the load made it to site in that condition. Special Wastes are buried immediately, and the location and elevation are recorded. A record of Special Wastes and their locations are reported to the Southland Regional Council each year. Burial certificates are provided if requested.

57. I think it would be fair to say that there is a lot more planning and control that goes into landfilling than most people realise. The days of just tipping stuff into a hole are long gone!

58. A three dimensional filling plan is being developed for the site, (currently Area 15) as shown in **Attachment C,** that will help future thinking in regard to special waste placement. This is an important development because it helps identify suitable locations for special waste (such as near a gas well) and allows for better overall planning and managing of Special Waste to reduce the potential for adverse effects.

Compliance, Monitoring and Reporting

59. Another key aspect of landfill management processes I oversee as part of my role is compliance, monitoring and reporting.

60. I oversee the monitoring programme at the site, with most of the monitoring completed by our Environmental Field Officer who has an Environmental Management Degree.

[10] Examples of pre-treatment include mixing with lime or an alternate chemical odour suppressant, mixing the material with a bulking agent (such as sawdust), slitting the stomachs of deceased animals, and (if necessary), refrigerate the material prior/during delivery to slow the decomposition process.

61. The site has continuous monitoring for some water quality parameters, leachate dissolved oxygen, gas composition, gas flow and combustion temperature at the flare and kiln, as well as the weather station and mill data. The field officer completes a variety of water sampling/monitoring throughout the year, some weekly or monthly while others are quarterly or yearly, depending on various consent condition requirements.

62. A gas detector is used for gas well composition and line monitoring, and perimeter bore testing. A methane detector is used for landfill capping inspections.

63. Additionally, there are five monitoring reports and a quarry report that are submitted to Environment Southland and the Independent Peer Reviewer each year. In 2020, compliance was recorded against all our parameters apart from some minor issues with the groundwater monitoring (both of which were unrelated to the landfill activity). One of these was to do with surface water interference with a shallow groundwater bore close to the dairy farm, and another was due to groundwater bores being dry and no sample was able to be taken.

64. My role is to review the datasets and to determine how any anomalies may have been caused. Monitoring identifies a potential issue and we immediately undertake an investigation to determine what may have caused the result. This includes a review of operations, additional testing of the site or any contributing water if applicable.

65. The outcome of these follow up investigations are reported to Environment Southland. If necessary we will revise our operational procedures if we conclude that those have contributed to the issue that has been identified.

66. We also do additional surface water testing over the wider AB Lime site (that are not consent requirements) to help with overall management and operation of the site. This includes surface water and tile drainage testing on the dairy farm in nine locations.

67. We are constantly reviewing and revising our procedure to ensure they are robust and carried out proficiently by suitably qualified people.

Proposed Improvements

68. As part of this proposal, there are several improvements that will impact my role in a positive manner.

Reducing the working face

69. The limiting of the working face to 1000 m² provides additional control on Special Waste placement and as identified previously the three-dimensional filling plan will assist with management of this working face and we can use drone survey data to better plan waste placement.

70. This change will greatly improve the streamlining of our waste acceptance and allow us to control day to day operations in a more systematic manner compared to current operations.

New Monitoring Equipment for Odour

71. Another important change that forms part of this proposal is that we are currently exploring new monitoring equipment to detect Hydrogen Sulphide (H_2S) levels on site. Hydrogen sulphide is the one of the "smelly" components of landfill gas. Three boundary sensors are currently being quoted for installation, and another at the leachate tank. These sensors detect very low levels of H_2S and will be set to alarm at thresholds that would indicate that fugitive emissions from the landfill are increasing at the boundary.

72. As such the sensors will act as a "scouts" that will enable us to detect the direction and source of the odour. This provides us with an important new tool to respond to any potential odour issue far quicker than we currently can. In essence, we can then take steps to nip any odour problem in the bud before it may cause any adverse effects beyond the site boundary.

73. This will prompt us to undertake operational and equipment checks on site to prevent nuisance odour beyond our boundary and implement our staged odour mitigation plan as discussed in Mr Van Kekem's evidence[11].

[11] Evidence of Mr Van Kekem at paragraph [59]-[78]

74. So far as I am aware this would be the first time that equipment of this nature would be installed in New Zealand. It has taken me a considerable period of time and research to source this equipment and the associated infrastructure to support its installation.

Improved Surface Gas Emissions Monitoring

75. As part of this proposal, we recognise that we will have to comply with the National Environmental Standards for Air Quality (NES-AQ) prior to giving effect to this consent[12]. In reality, this will impose a tenfold decrease in allowable surface methane discharge at the landfill. The methodology for meeting this standard is identified in Mr Starke's evidence[13].

76. This is quite a big change for our operations and we are already beginning to take steps to meet this standard. We have begun carrying out at least a monthly walkover of the intermediate and permanent capping completing a 25m x 25 m grid using a GasTec low level hydrocarbon gas detector that records results in parts per million. This data is uploaded into a new Geographic Information System (GIS) platform and presents readings in a traffic light styled reporting system as provided in **Attachment D**.

77. The resulting maps are a quick way to identify any areas that need attention due to the possible development of capping cracks or imperfect seals around wellheads.

78. Implementing this technology allows us to assess compliance with the NES-AQ standards in real time and provides us with a valuable tool to improve responsiveness to managing fugitive emissions by allowing us to identify any emerging hot spots quickly.

Further Groundwater Monitoring

[12] Refer to condition 1 of discharge permit to discharge contaminants into air from refuse disposal facilities receiving greater than 100,000 m^3/year of uncompacted solid waste in Attachment A of Mr McCone's evidence
[13] Evidence of Mr Starke at paragraphs [115]-[129]

79. Mr Baker has identified in his evidence (and we have put forward a condition as part of this proposal[14]) that two additional groundwater monitoring bores shall be installed[15].

80. These additional wells will provide an extra layer of monitoring protection and allow me and my team to adapt and react to any trigger level exceedances more quickly.

81. We have already identified two possible locations for these bores and this will be one of my first priorities if this proposal is granted.

Improved Procedures for Managing Air Quality Complaints

82. A more streamlined procedure has been developed for dealing with air quality complaints – dust or odour – to validate and investigate the potential source of the complaint in the proposed Landfill Air Quality Management Plan (LAQMP).

83. A checklist of steps to consistently investigate a complaint each time has been developed, including response and filing the complaint on a register. This register will be provided to Environment Southland and Southland District Council annually, or upon request.

84. A validated investigation will instigate mitigation levels for the source of the odour, with the offer of participation in an odour diary program. If the investigations of an odour complaint indicate that discharges are causing offensive and objectionable effects neighbours will be provided an odour diary record sheet to continue for a minimum period of three weeks (pending participant approval). Direct feedback can be used to investigate odour sources and implement appropriate controls[16].

85. The purpose of these changes is to provide greater certainty for everybody about the process required if odour complaints are received. I am of course hopeful that with the various changes and the H_2S monitoring that odour complaints will largely be a thing of the past.

[14] Refer to condition 2 of land use permit for drilling of bores or wells in Attachment A of Mr McCone's evidence
[15] Evidence of Mr Baker at paragraphs [85]-[88]
[16] Refer to LAQMP Section 11

Management Plans Proposed

86. A new series of adaptive management plans have been developed to provide a clear framework for the effective environmental management of the landfill and quarry. These are living documents that evolve with changes to site operations and industry guidance to adapt with and reflect best practice. The current consents require management plans to a certain level of detail, however, the management plan framework put forward as part of this proposal is a positive step change in environmental management for the site.

87. Under the proposed management plan framework, we will have an Environmental Management Plan and eight sub-management plans related to landfill operations (some being applicable site wide).

88. The key, for me and my team, is that this approach provides us with greater flexibility to manage the 'how' as required by conditions of consent. As best practices and standards move on we can adapt and change with it.

89. We have made a commitment to operate the landfill in accordance with best practice. Our current consents, whilst adequate, currently are very rigid in the methods that we can use to meet the standards our current consents require.

90. This new framework will allow us to implement improvements in technology more easily. As technology improves, so does the range and ability of the monitoring equipment. I continually explore new technologies to ensure more accurate and efficient data capture.

91. Developments in individual wellhead composition and flow, greater sensitivity to sulphide detection, volatile organic compound sampling and leachate evaporation are all recent technologies I have been exploring.

92. The service and calibration of the equipment on site is done by third party instrument technicians.

93. These plans will be reviewed annually by myself and the General Manager and focus on environmental compliance and improvement. It will help me and my team focus on each element of landfill environmental management with clarity.

Addressing Submissions

94. In the following paragraphs I address the concerns raised in the submissions that are related to my role.

Mr R. G Hamilton

95. Mr Hamilton identified in his submission that he is opposed to leachate leakage. Under the existing consent AB Lime have approval to discharge 26m³/day of leachate onto the landfill footprint, including to the leachate tank and stormwater pond as leachate leakage. There has been no recorded leachate leakage (such as spillages at the leachate tank) at the landfill to date and this part of the existing consent is not utilised.

96. AB Lime recognise that leachate leakage should not be permitted as a contingency measure, as this is not in line with best practice. We recognise the risk to groundwater of such a practice is too high and we have withdrawn leachate leakage consent as part of this proposal[17].

Mr and Mrs Sinclair

97. Mr and Mrs Sinclair in their submission identify a concern regarding the potential for water contamination if leachate in stormwater enters natural springs.

98. As identified above, in paragraph [96] we have withdrawn leachate leakage consent as part of this proposal. The withdrawal of this activity provides a higher level of environmental certainty for leachate management, both for us and neighbours.

99. Under the proposed conditions this facility will no longer exist and all leachate needs to be contained and disposed of. This avoids the risks associated with leachate discharge within the site.

[17] Evidence of Mr McCone at paragraphs [34]-[39]

100. We will however continue to monitor site stormwater continually for indicators of leachate to ensure that there are no inadvertent leakage events occurring. Stormwater will also continue to be managed and monitored in line with existing consents.

Mr S.B Johnston and Ms T. K Cavanagh

101. Mr Johnston and Ms Cavanagh identify in their submission that they have concerns with the complaints process. They attach a list of complaints they have made to me since 2018.

102. Concerns from Ms Cavanagh around odour are generally reported to me either by phone call or text. Some of the calls are not identified as formal complaints, but rather addressed as an odour observation, or an informal query.

103. It is very hard to do anything about the odour if it is reported after the fact, so notification as soon as the odour is detected is helpful. I expect this process to change as part of this proposal with the introduction of our H_2S boundary monitoring.

104. All complaints and queries are investigated and written up by either me or the Environmental Field Officer. This report includes a summary of the investigation including a record of the date and time of when the odour occurred, climatic conditions and map, operational conditions, a review of waste types into the landfill, confirmation (or not) of the flare being operational at that time, and the use of the deodorising system on site. Any actions taken are also recorded.

105. The last contact from Ms Cavanagh was on January 6th 2021 regarding odour from the evening before. This instance occurred when the flare was down for maintenance during the day and could not be started due to a delay of essential parts from Hamilton.

106. In this instance it was possible to run the kiln on landfill gas once I was aware of the issue. While we stock a lot of replacement parts for the flare, the component that was delayed was not on site. This was the first time we used the kiln as backup to the flare and it worked well.

107. However, the process was new to the staff on site and the kiln could have been actioned sooner. In this case Ms Cavanagh requested to be contacted should the flare be down for a long period of time and made her phone number to be available to staff to contact her.

108. It is my understanding as part of this proposal we will be required to install a back-up flare under the NES-AQ standards. This will provide another layer of protection to prevent a scenario like this occurring again.

Section 42A Report

109. In the following paragraphs I address the Section 42A report as it relates to my role including addressing waste acceptance criteria and aluminium dross waste.

Waste acceptance criteria

110. The s 42A report identifies that the proposal allows new unidentified forms of waste to be received[18].

111. I would like to highlight that waste acceptance criteria provided for in Schedule 2 of the proposed conditions of consent derives from Appendix D of the Technical Guidelines for Disposal to Land (WasteMINZ, 2018) and is applicable to all waste we accept.

112. They provide the baseline from which we accept all waste. There is no way under the proposed conditions of consent that we can accept new 'types' of special or hazardous waste that we cannot accept under the existing consent.

113. 'Emergency waste' is not so much a waste type as a circumstance that gives rise to a need to dispose of waste at the Landfill. All 'emergency waste' must comply with the same waste acceptance criteria.

114. As discussed earlier[19] natural hazard flood clean up waste was received at the landfill recently. Normal acceptance criteria was

[18] *Section 42A Officer's Report: Hearing of resource consent application by AB Lime,* Report of Michael Durand.
[19] Refer to paragraph [45] of this evidence.

followed prior to disposal and part of that waste stream was rejected due to odour concerns[20]. If a similar situation occurs under this proposed consent the same processes will be followed.

115. For me and my team the difference this consent provides (for us and other stakeholders) is a bit more forward planning to enable us to be prepared to respond to these scenarios if things unfold quickly (which they tend to do).

Aluminium Dross Waste

116. I have clarified in paragraphs [26]-[28] how the aluminium dross waste stream arose. The variation to the existing consent condition in 2017 set very clear standards on what type of material contaminated with aluminium dross was acceptable.

117. 'Pure' aluminium dross cannot be accepted. The s 42A report assesses aluminium dross in forms that would never meet the criteria in the condition of the existing consent or as proposed in this application. The proposed condition is a carryover from the existing consent condition.

118. The issue has been resolved beyond all doubt now that the proposed condition has been removed as part of this proposal[21]. AB Lime will not accept any aluminium dross waste in any form.

Conclusion

119. In this evidence I have identified in detail the waste accepted at the AB Lime landfill. This is not changing as part of this proposal and we don't intend to take on any new waste streams that do not comply with the proposed conditions of consent or are hazardous.

120. I am excited about my team having adaptability in 'how to' meet the clearly specified criteria in the condition. I see this proposal as a positive step change for the environmental management of the landfill and we can implement and evolve with technology as it advances.

[20] Refer to paragraph [45] of this evidence
[21] Evidence of Mr McCone at paragraphs [78]-[82]

Under the management plan approach we can adapt to environmental advancements and respond better to environmental challenges.

121. This proposal will move to align us with modern standards, which for our team is quite an upgrade from the existing consents. The work associated with meeting the NES-AQ alone is significant.

122. Importantly, we are already taking giant strides in the right direction to meet these modern standards.

123. I believe that this proposal, if granted, will be a great environmental improvement on the current consent.

Date: 24 April 2021

Fiona Smith