

ATTACHMENTS FOR THE EVIDENCE OF RYAN MCCONE

**ATTACHMENT A. LATEST VERSION OF PROPOSED CONDITIONS OF
CONSENT**

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
ENVIRONMENT SOUTHLAND		
<p>Discharge Permit</p> <ul style="list-style-type: none"> ▪ Solid waste onto or into land <p>Expiry Date: 25 years from giving effect to this consent being the date on which the consent holder surrenders [old consents].</p>		
<i>General Conditions</i>		
1.	This consent is subject to the general conditions listed in Schedule 1 – General Conditions. Where there may be differences, or apparent conflict, between the general conditions and the conditions below, the conditions below shall prevail.	
<i>Limit Conditions</i>		
2.	The discharge of waste is authorised only on the areas of the site identified as the landfill footprint, as shown on drawing number IZ000400-1000-NG-DRG-1002 attached to this consent.	
<i>Design Conditions</i>		
3.	<p>a) The leachate containment and leachate collection system for the base of the landfill, and any side slopes with a slope less than 2H:1V, shall consist of the following as a minimum, from bottom to top:</p> <ul style="list-style-type: none"> ▪ a groundwater underdrainage system; ▪ a minimum of 600 millimetres of compacted soil with a permeability coefficient (k) not exceeding 1×10^{-9} metres per second; ▪ a 1.5 millimetre high density polyethylene (HDPE) flexible membrane liner; 	

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	<ul style="list-style-type: none"> ▪ a 300 millimetre minimum liner protection/leachate collection layer of granular material with a permeability coefficient (k) of not less than 1×10^{-3} metres per second. <p>or</p> <ul style="list-style-type: none"> ▪ a groundwater underdrainage system; ▪ a minimum of 300 millimetres of compacted soil with a permeability coefficient (k) not exceeding 1×10^{-9} metres per second; ▪ a geosynthetic clay liner (GCL), with a minimum thickness of 5 millimetres, a permeability coefficient (k) not exceeding 5×10^{-11} metres per second; ▪ a 1.5 millimetre high density polyethylene (HDPE) flexible membrane liner; ▪ a 300 millimetre minimum liner protection/leachate collection layer of granular material. <p>or</p> <ul style="list-style-type: none"> ▪ a groundwater underdrainage system; ▪ a minimum of 600 millimetres of compacted soil with a permeability coefficient (k) not exceeding 1×10^{-8} metres per second; ▪ a geosynthetic clay liner (GCL), with a minimum thickness of 5 millimetres, a permeability coefficient (k) not exceeding 5×10^{-11} metres per second; ▪ a 1.5 millimetre high density polyethylene (HDPE) flexible membrane liner; ▪ a 300 millimetre minimum liner protection/leachate collection layer of granular material. <p>b) An alternative to the above minimum specifications may be proposed and included in the Landfill Operations Management Plan subject to being confirmed as equivalent to the above by the Independent management plan reviewer(s) and certified by the Council.</p>	

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4.	<p>a) The leachate containment system for the side slopes of the landfill, with a slope of 2H:1V or greater shall consist of the following as a minimum, from bottom to top:</p> <ul style="list-style-type: none"> ▪ a groundwater underdrainage system where required by the Landfill Operations Management Plan; ▪ a geosynthetic clay liner, with a minimum thickness of 5 millimetres, a permeability coefficient (k) of not exceeding 5×10^{-11} metres per second and sufficient internal shear strength to maintain a stable configuration on slopes; ▪ a 2.0 millimetre HDPE flexible membrane liner; and ▪ a 300 millimetre minimum liner protection layer of soil or clay or granular material. <p>b) An alternative to the above minimum specifications may be proposed and included in the Landfill Operations Management Plan subject to being confirmed as equivalent to the above by the Independent management plan reviewer(s) and certified by the Council.</p> <p><i>Advice note:</i> A groundwater underdrainage system may be required where karstic features are intercepted in the side walls</p>	
5.	<p>The consent holder shall prepare landfill side slopes, to ensure a smooth surface appropriate for the placement of geosynthetic liner materials. This shall include the smoothing of rough surfaces, sealing of solution features or compaction of slopes to an appropriate bearing capacity.</p>	
6.	<p>The leachate collection system shall be designed to maintain a leachate head of less than 300 millimetres on the base liner and side liner, as provided for in the Landfill Leachate Management Plan.</p>	
7.	<p>a) Final cover and capping shall be constructed to the following minimum specification, from bottom to top, as each stage of the landfill is completed:</p>	

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	<ul style="list-style-type: none"> ▪ 300 millimetres intermediate cover/regulating layer of compacted soil; ▪ 600 millimetres of compacted clay, overburden, or soil material, with a permeability coefficient (k) not exceeding 1×10^{-7} metres per second; ▪ 300 millimetres of compacted soil (growth layer); ▪ 150 millimetres of topsoil. <p>or</p> <ul style="list-style-type: none"> ▪ 300 millimetres intermediate cover/regulating layer of compacted soil; ▪ a geosynthetic clay liner (GCL) with a permeability coefficient (k) not exceeding 1×10^{-7} metres per second; ▪ 300 millimetres of compacted soil (growth layer). ▪ 150 millimetres of topsoil. <p>b) An alternative to the above minimum specifications may be proposed and included in the Landfill Operations Management Plan subject to being confirmed as equivalent to the above by the Independent management plan reviewer(s) and certified by the Council.</p>	
8.	The consent holder shall construct surface water control measures on the finished landfill surface so as to minimise erosion of the final cover.	
9.	<p>The HDPE component of composite lining systems may be replaced with an alternative material, following acceptance in writing by the Southland Regional Council, where an alternative material is demonstrated to provide equivalent, or superior, performance in terms of:</p> <ul style="list-style-type: none"> ▪ puncture resistance ▪ resistance to chemical degradation; ▪ hydraulic containment; 	

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	<ul style="list-style-type: none"> ▪ physical strength and deformation characteristics under service and seismic loads; ▪ welding and general installation; ▪ expected service life. 	
10.	Liner components comprising synthetic or geo-synthetic materials shall be constructed in accordance with the manufacturer's recommended quality assurance/quality control procedures.	
11.	<p>The containment system for the stormwater pond shall consist of the following, from bottom to top:</p> <ul style="list-style-type: none"> ▪ a proof rolled base surface; ▪ a minimum of 300 millimetres of compacted clay (constructed in two uniform lifts) with a permeability coefficient (k) of not more than 1×10^{-9} metres per second; ▪ a protection layer on the base and sides of the compacted clay liner to minimise degradation, desiccation, and damage due to wave action. 	
12.	The landfill gas collection and leachate recirculation systems shall be designed to prevent puncture of the landfill liner by system components. In particular, any vertical wells or pipes installed for the collection of landfill gas, or re-injection of leachate into the landfill, shall terminate at a height above the base or side liner that will ensure that pipes, or wells, will not puncture the liner as a result of refuse settlement, or incorporate other appropriate design features that allow for expected settlement.	
13.	<p>a) Following a construction trial, a Final Capping Specification and Quality Control Standard will be produced and provided to the Independent Peer Reviewer(s) for acceptance and Southland Regional Council for certification.</p> <p>b) Any subsequent change to these specifications and standards must follow the same acceptance and certification process identified in Condition (13)(a).</p>	This condition of consent provides certainty to the peer reviewer that the specifications of the final cap are acceptable.

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	<p><i>Advice note (i): The acceptance process has been assigned to the independent peer reviewer(s). This specification is then submitted to Southland Regional Council for final certification. The Southland Regional Council remains the authority for making a final decision on the certification of the document.</i></p> <p><i>Advice Note (ii): The independent peer review process remains separate to the management plan acceptance/certification process. This certified specification may be incorporated into the relevant management plan(s) without going through the process specified in Schedule 1 – General Conditions (13)-(16) to stop unnecessary duplication of the acceptance and certification process.</i></p>	
Operational Conditions		
14.	<p>Prior to the acceptance of any Special Waste the consent holder shall apply the Special Waste Acceptance Criteria to determine the methods that need to be employed to manage the receipt and disposal of the Special Waste.</p> <p>If an application is received for a Special Waste product that has not been disposed of at the landfill previously, the consent holder shall provide the proposed waste acceptance criteria to the Independent Peer Reviewer(s) for acceptance and Southland Regional Council for certification prior to accepting any of the waste.</p> <p><i>Advice note (i): The acceptance process has been assigned to the independent peer reviewer(s). This waste criteria is then submitted to Southland Regional Council for final certification. The Southland Regional Council remains the authority for making a final decision on the certification of the document.</i></p> <p><i>Advice Note (ii): The independent peer review process remains separate to the management plan acceptance/certification process. This certified specification may be incorporated into the relevant management plan(s) without going through the process specified in Schedule 1 – General Conditions (13)-(16) to stop unnecessary duplication of the acceptance and certification process.</i></p>	<p>This condition proposed and included as the response to the EHS peer review relates to Special Waste acceptance. This condition addresses the issues raised in the s 42A report about Special Waste acceptance.</p>

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15.	An annual review of waste acceptance criteria and prohibited items shall be undertaken and the findings reported to Southland Regional Council.	The purpose of this condition is to ensure that the landfill continues to accept waste in line with best practice, particularly as information and standards evolve in relation to acceptable contaminants.
16.	No bulk liquid waste shall be accepted for disposal. The definition of liquid waste shall be any waste that contains free liquid on arrival at the landfill, or has a solids content of less than 20 percent, except such waste that passes the USEPA Paint Filter Liquids Test (EPA Method 9095A).	
17.	Medical wastes shall be accepted only in accordance with NZS 4304:2002 " Health Care Waste Management" or subsequent amendments.	
18.	Asbestos wastes shall be accepted only in accordance with the Health and Safety in Employment (Asbestos) Regulations 2016, or subsequent amendments.	
19.	<p>1. Where, during landfill operations, the Consent Holder is required to accept waste by a Government Agency as a crisis or emergency response, the following protocol shall apply:</p> <ul style="list-style-type: none"> a) All crisis response waste acceptance shall trigger the protocol identified in the Crisis/Emergency Response chapter of the Landfill Operations Management Plan and Landfill Air Quality Management Plan. b) The consent holder shall notify the Southland Regional Council Compliance Manager of this waste acceptance within 24 hours. c) A management response in line with the criteria identified within the Crisis/Emergency Response chapter of the Landfill Operations Management Plan and Landfill Air Quality Management Plan shall be made available to the Southland Regional Council within 3 days of notification of Condition (5)(b), above. d) All likely affected neighbours (as provided in the Landfill Operations Management Plan), Te Rūnanga o Awarua and Waihōpai Rūnaka (via Te Ao Marama Inc.) and 	Refer to the evidence of Mr McCone for an explanation.

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	<p>Hokonui Rūnanga are to be notified of the crisis/emergency waste stream prior to acceptance on site, or as soon as practicable.</p> <p>e) Mitigation measures for crisis/emergency waste shall follow the guidelines identified in the Crisis/Emergency Response chapter of the Landfill Operations Management Plan and Landfill Air Quality Management Plan.</p> <p>2. All waste accepted under a crisis or emergency response must meet the waste criteria stipulated in this consent.</p> <p>Advice Note (i): There may be instances when the consent holder is required to accept waste under the direction of a Government Agency. Where that occurs the provisions of the relevant legislation will apply and may override the conditions of this consent.</p>	
20.	<p>For other than minor amounts of offal, the consent holder shall:</p> <ul style="list-style-type: none"> ▪ require all offal to be disposed of to be pre-booked by the waste generator or transporter, and only be accepted in discrete loads; ▪ record information on the source of the offal, including the origin of the animals; ▪ record information on the cause of death of the animals from which the offal is sourced; ▪ dispose of the offal in accordance with the Landfill Operations Management Plan; ▪ cover each load of offal immediately following deposition; and ▪ record the location of each pit used for the disposal of offal. 	
21.	<p>Material contaminated with methamphetamine and/or chemicals associated with the manufacture of methamphetamine may be accepted into the landfill provided that the level of contamination does not exceed 100 µgm/cm², based on an average by weight per individual household lot. The material that may be accepted includes wall linings (including gib board), soft furnishing (e.g. Curtains, carpets), furniture, bedding, clothing and whiteware. Actual stocks of chemicals used in, or leftover from, methamphetamine manufacture are also excluded from this condition.</p>	

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	<p>The consent holder shall:</p> <ul style="list-style-type: none"> i. Record the date, source, volume, and nature of the material received; ii. Keep a record of monitoring data that confirms the contamination level of the material; and iii. Record the location where the material is placed within the landfill in 3 dimensions. 	
	<p>Aluminium dross waste (ADW) and material contaminated with this waste may be accepted into the landfill provided that the concentrations of aluminium and fluoride do not exceed the leachability limits or screening concentrations set out in Table 1 of "Module 2: Hazardous Waste Guidelines, Landfill Waste Acceptance Criteria and Landfill classification, May 2004". The leachability limits shall be established using SPLP testing, with concentrations not to exceed a SPLP test result of 40g/m³ of Aluminium and 200 g/m³ of Fluoride. The material that may be accepted includes gravels and soils that have been contaminated with dross.</p> <p>The consent holder shall:</p> <ul style="list-style-type: none"> i. Record the date, source, volume, and nature of the material received; ii. Notify the Southland Regional Council within 7 days of the material being accepted, and provide details of the source and volume of the material; iii. Keep a record of monitoring data that confirms the contamination level of the material; and iv. Record the location where the material is placed within the landfill. 	<p>The s 42A report identified concerns with the potential acceptance of Aluminium Dross Waste (ADW)¹. Accepting ADW in its concentrated form does not meet Class A landfill guideline waste acceptance criteria or the standards in the proposed condition of consent.</p> <p>AB Lime cannot accept ADW in this form. The s 42A report has assessed something that is not part of the application.</p> <p>Irrespective of the erroneous view put forward in the s 42A report, to provide closure on this issue AB Lime are formally withdrawing this aspect of the application so that materials contaminated with ADW cannot be accepted.</p>

¹ Section 42A Officer's Report: Hearing of resource consent application by AB Lime, Report of Michael Durand at 3.3.3.

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	<p>The information recorded shall be made available to the consent authority or its representative on request.</p>	
22.	<p>With the exception of medical wastes and asbestos wastes, no hazardous waste shall be accepted for disposal at the landfill. The definition of "hazardous waste" shall be:</p> <ul style="list-style-type: none"> i. Wastes which are defined as either radioactive, explosive, flammable, oxidising, or corrosive, in terms of the HSNO regulations, or capable, by any means after disposal, of yielding another material, for example, leachate, which possesses any of the above characteristics; ii. Wastes which exhibit the characteristics of toxicity and eco-toxicity which following testing using the USEPA Toxicity Characteristic Leaching Procedure (TCLP) result in leachable concentrations of contaminants in excess of the leachable concentration limits listed in Schedule 2; and iii. Wastes which exhibit the characteristics of toxicity and eco-toxicity with total concentrations in excess of the total concentration limits listed in Schedule 2. <p>Where leachable concentration or total concentration limits do not exist in Schedule 2 for a substance for which a disposal request is made, the leachable limit, following testing using the USEPA TCLP shall be set at the lesser of:</p> <ul style="list-style-type: none"> ▪ NZS 9201 Trade Waste Bylaw limits; or ▪ 100 times the New Zealand water quality standards to which all drinking-water supplies must comply as per the Drinking Water Standards for New Zealand 2005 (revised 2018); or ▪ 1000 times the Default Guideline Values in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality, August 2018. <p>The definition of "hazardous waste" shall not include small quantities of waste products containing potentially hazardous components that are not likely to have adverse effects on the environment, such as can reasonably be expected to be contained in the municipal waste stream.</p>	

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	<p>To minimise the potential for hazardous waste to be disposed of at the landfill the following measures shall be taken:</p> <ul style="list-style-type: none"> ▪ use of a waste manifest/disposal agreement system to authorise landfill loads/users and document waste acceptance; ▪ notice shall be clearly positioned at the landfill entrance to identify the hazardous wastes which are unacceptable at the landfill; and ▪ random inspections of incoming loads, for the presence of hazardous waste, shall be undertaken, at the average rate of at least one inspection per 50 loads. 	
23.	<p>The lateral extent of the landfill working face shall be kept to a practical minimum. The extent of the area between load tipping and load spreading shall be minimised at all times.</p>	
24.	<p>a) At the end of each working day, all refuse placed in the working face area shall be covered with soil or equivalent material. Cover shall be applied at the end of each day to a depth of approximately 150 millimetres in accordance with the Landfill Operations Management Plan.</p> <p>b) An alternative to the above minimum specifications may be proposed and included in the Landfill Operations Management Plan subject to being confirmed as equivalent to the above by the Independent management plan reviewer(s) and certified by the Council.</p>	
<i>Monitoring and Reporting</i>		
25.	<p>The consent holder shall maintain, a record of the quantities and types of waste accepted at the landfill, including the location (in three dimensions) of:</p> <ul style="list-style-type: none"> ▪ treated hazardous wastes; ▪ special wastes (as listed in the Landfill Operations Management Plan); and ▪ Emergency response waste 	

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	A copy of this record shall be forwarded to the Southland Regional Council annually, unless otherwise agreed in writing by the Southland Regional Council.	
26.	The consent holder shall immediately notify the Southland Regional Council if any vehicle(s) is turned away from the landfill with waste that does not comply with the waste acceptance criteria detailed in Conditions (14)-(18), (20)-(22). This notification shall include the vehicle registration number and source of the waste (if known).	
27.	<p>The consent holder shall monitor water quality in existing groundwater monitoring wells SKM104, SKM201, SKM202, SKM203 and SKM204, as indicated on drawing number IZ000400-1000-NG-DRG-1008 attached to this consent.</p> <p>To this end the consent holder shall monitor water level every month, and water quality for the following parameters four times a year:</p> <ul style="list-style-type: none"> pH (field and laboratory) Conductivity (field and laboratory) Turbidity Chloride Total Ammoniacal Nitrogen COD Soluble Iron Soluble Manganese Soluble Aluminium Soluble Arsenic Soluble Cadmium Soluble Chromium 	

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	<p>Soluble Copper</p> <p>Soluble Nickel</p> <p>Soluble Lead</p> <p>Soluble Zinc</p> <p>Total hardness</p> <p>Alkalinity</p> <p>Potassium</p> <p>Sulphate</p> <p>Sodium</p> <p>Magnesium</p> <p>Calcium</p> <p>Bicarbonate</p> <p>Total Phenols</p> <p>Volatile Acids</p> <p>Dissolved Reactive Phosphorus</p> <p>Total Organic Carbon</p> <p>Total Kjeldahl Nitrogen</p> <p>Nitrate Nitrogen</p> <p>The consent holder shall monitor for the following parameters once every year, to coincide with summer groundwater minimum:</p> <p>Volatile Organic Compounds</p> <p>Semi-volatile Organic Compounds</p>	

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	<p>Sampling shall be undertaken under protocols approved in writing by the Southland Regional Council, including on site filtration and preservation of samples for soluble metals analysis. An ion balance to APHA criteria shall be provided for the anions and cations.</p> <p>The results of such monitoring shall be reported in writing to the Southland Regional Council within two months of sampling.</p>	
28.	<p>The consent holder shall undertake a formal inspection of the landfill cap following significant storm events (greater than 50 percent AEP at a duration of less than one day), and at least every six months. The inspection shall check for:</p> <ul style="list-style-type: none"> Vegetation die-off; Cracking of the cap surface; Subsidence and erosion; Leachate break-out through the cap; Refuse protruding through the cap. <p>Any defects noticed during the inspection shall be remedied immediately.</p> <p>A report on the inspection, and details of any remedial actions undertaken as a result, shall be forwarded to the Southland Regional Council within two months of each inspection.</p>	
29.	<p>The Southland Regional Council, after consultation with the consent holder, may commence a review of Conditions (14)-(18), (20)-(22) of this consent within six months of the publication of any change in the national definition of hazardous wastes, or the publication of new national policies, regulations, standards or guidelines on landfill waste acceptance or the treatment and/or disposal of wastes with hazardous properties.</p>	

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	Costs relating to the above review shall be borne by the consent holder.	
30.	<p>The Southland Regional Council, after consultation with the consent holder, may commence a review of the conditions of this consent at two yearly intervals from the anniversary date of this consent or within six months after cessation of landfilling operations at the site, in order to ensure that:</p> <ul style="list-style-type: none"> i. refuse acceptance criteria and discharge areas and practices are appropriate to avoid or reduce adverse effects on the environment; and ii. leachate, groundwater and surface water management systems and management practices are appropriate to avoid or reduce adverse effects on the environment; and iii. an appropriate effects monitoring programme is being undertaken. <p>Costs relating to the above reviews shall be borne by the consent holder.</p>	
<p>Discharge Permit</p> <ul style="list-style-type: none"> ▪ For the discharge of 200 m³ per day of leachate onto or into land within the landfill footprint for the purposes of leachate recirculation <p>Expiry Date: 25 years from giving effect to this consent being the date on which the consent holder surrenders [old consents].</p>		
<p>General Conditions</p>		
1.	This consent is subject to the general conditions listed in Schedule 1 – General Conditions. Where there may be differences, or apparent conflict, between the general conditions and the conditions below, the conditions below shall prevail.	
<p>Limit Conditions</p>		
2.	Any recirculation, or re-injection of the landfill's leachate onto, or into, the refuse mass shall be via surface spraying onto intermediate cover, or injection directly into the refuse mass using dedicated leachate injection trenches, wells, or horizontal pipes.	

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3.	The volume of leachate discharged into the landfill shall be such that the leachate head on the base liner shall not exceed 300 millimetres. <i>This level shall be managed in accordance with the Landfill Leachate Management Plan.</i>	Performance criteria remains the same, however, the management plan process is utilised to manage the leachate level.
<i>Design Conditions</i>		
4.	The design and operation of any re-injection system shall ensure that leachate re-injection does not result in overland flow of leachate or leachate seepage, or breakout, on surface or side slopes of the landfill.	
5.	Leachate in the collection pond shall be maintained in an aerobic condition, indicated by positive dissolved oxygen concentrations measured in accordance with Condition (11)	
<i>Monitoring and Reporting</i>		
6.	The consent holder shall monitor the volume of leachate withdrawn from the landfill and record this volume on a daily basis. This record shall be reported in writing to the Southland Regional Council by 1 May each year, unless otherwise agreed in writing by the Southland Regional Council.	
7.	<p>The consent holder shall monitor the dissolved oxygen levels in the leachate storage pond on a daily basis and at the inflow of the leachate pond, Site 11, as shown on drawing number IZ000400-1000-NG-DRG-1008 attached to this consent, twice a year for the following parameters:</p> <p>Dissolved oxygen pH (field and laboratory) Conductivity (field and laboratory) Temperature Suspended Solids</p>	

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	Alkalinity Bicarbonate BOD5 COD Dissolved Reactive Phosphorus Chloride Sulphate Total Ammoniacal Nitrogen Nitrate Nitrogen Total Kjeldahl Nitrogen Total Organic Carbon Volatile Organic Compounds Semi-volatile Organic Compounds Total Phenols Volatile Acids Total Hardness Sodium Magnesium Calcium Potassium Total Aluminium Total Arsenic Total Boron	

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	<p>Total Cadmium Total Chromium Total Cobalt Total Copper Total Iron Total Lead Total Manganese Total Nickel Total Zinc</p> <p>Sampling shall be undertaken in accordance with protocols approved in writing by the Southland Regional Council. An ion balance to APHA criteria shall be provided for the anions and cations.</p> <p>The results of leachate monitoring shall be reported in writing to the Southland Regional Council within two months of sampling.</p>	
8.	<p>The consent holder shall maintain a record of the daily discharge of leachate onto, or into, the landfill (the actual volumes, period of hours over which leachate was discharged and discharge locations), which shall be made available to the Southland Regional Council at all reasonable times. These records shall be forwarded to the Southland Regional Council by 1 May each year.</p>	
9.	<p>The consent holder shall maintain a weekly record of the level of leachate in the landfill in accordance with the Landfill Leachate Management Plan, which shall be made available to the Southland Regional Council on request. These records shall be forwarded to the Southland Regional Council by 1 May each year.</p>	<p>This allows flexibility for the consent holder to measure leachate, whether this be by piezometers, pressure sensor or dip stick testing.</p>
10.	<p>Reduction of leachate:</p>	

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	<p>The Consent Holder shall implement the measures identified in the Landfill Operations Management Plan (LOMP) to mitigate against water infiltration into the landfill. If leachate quantities have shown a continued upward trend over the first three years of giving effect to this consent, the consent holder shall review the procedures identified in the LOMP and provide revised procedures in the LOMP for acceptance and re-certification in accordance with Schedule 1 – General Conditions (13)-(16).</p>	
11.	<p>The dissolved oxygen concentration in the leachate collection pond shall be measured between 8.00 am and 10.00 am on at least two days per week to demonstrate compliance with Condition (5).</p>	
<p>Land Use Permit</p> <ul style="list-style-type: none"> ▪ Drilling of bores or wells <p>Expiry Date: 25 years from giving effect to this consent being the date on which the consent holder surrenders [old consents].</p>		
<p>General Conditions</p>		
1.	<p>This consent is subject to the general conditions listed in Schedule 1 – General Conditions. Where there may be differences, or apparent conflict, between the general conditions and the conditions below, the conditions below shall prevail.</p>	
<p>Monitoring and Reporting</p>		
2.	<p>The consent holder shall install two new downgradient groundwater monitoring wells, in accordance with the Landfill Operations Management Plan.</p>	
3.	<p>The consent holder shall conduct a rising head test, or other test(s) as agreed in writing by the Southland Regional Council (within 6 months), to demonstrate that any new groundwater monitoring well is working and assess the hydraulic conductivity of the in-situ ground. A water sample shall be taken from the well and tested for turbidity to determine whether the well is clean enough to provide samples of dissolved constituents. The results of these tests shall be</p>	

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	forwarded to the Southland Regional Council with the first set of monitoring results from the well.	
4.	<p>The consent holder shall establish baseline groundwater quality for each new groundwater monitoring well, monitored in accordance with Condition (3) of this consent, after a minimum of four groundwater sampling events.</p> <p>Following the establishment of baseline groundwater quality, the consent holder may reduce the frequency of monitoring for those parameters requiring monitoring from four times a year to twice a year, (to coincide with expected groundwater level maximum and minimum) with the agreement of the Southland Regional Council.</p>	
5.	<p>The consent holder shall, monitor water quality in any new groundwater monitoring well(s), installed in accordance with Condition (4) of this consent.</p> <p>To this end the consent holder shall monitor water level every month, and water quality for the following parameters four times a year:</p> <ul style="list-style-type: none"> pH (field and laboratory) Conductivity (field and laboratory) Turbidity Chloride Total Ammoniacal Nitrogen COD Soluble Iron Soluble Manganese Soluble Aluminium Soluble Arsenic 	

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	<p>Soluble Cadmium</p> <p>Soluble Chromium</p> <p>Soluble Copper</p> <p>Soluble Nickel</p> <p>Soluble Lead</p> <p>Soluble Zinc</p> <p>Total hardness</p> <p>Alkalinity</p> <p>Potassium</p> <p>Sulphate</p> <p>Sodium</p> <p>Magnesium</p> <p>Calcium</p> <p>Bicarbonate</p> <p>Total Phenols</p> <p>Volatile Acids</p> <p>Dissolved Reactive Phosphorus</p> <p>Total Organic Carbon</p> <p>Total Kjeldahl Nitrogen</p> <p>Nitrate Nitrogen</p> <p>The consent holder shall monitor for the following parameters once every year, to coincide with summer groundwater minimum:</p> <p>Volatile Organic Compounds</p>	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<p>Semi-volatile Organic Compounds</p> <p>Sampling shall be undertaken under protocols approved in writing by the Southland Regional Council, including on site filtration and preservation of samples for soluble metals analysis. An ion balance to APHA criteria shall be provided for the anions and cations.</p> <p>The results of such monitoring shall be reported in writing to the Southland Regional Council within two months of sampling.</p>	
6.	<p>The consent holder shall develop trigger levels for each parameter within each new groundwater monitoring well downgradient of the landfill, to identify significant changes in background groundwater quality for these wells. The consent holder shall within six months of the completion of each such well submit interim trigger levels to the Southland Regional Council. Trigger levels shall be finalised after a minimum of four sampling rounds over at least one year. The consent holder shall incorporate a clear process into the Landfill Operations Management Plan for managing the exceedance of trigger levels that should be put forward for acceptance of the Independent Peer Reviewer(s) and certification of the Southland Regional Council in accordance with Schedule 1 – General Conditions (13)-(16).</p>	
7.	<p>If any groundwater monitoring well is destroyed the consent holder shall replace it with a new well, in the same general location.</p>	
<p>Discharge Permit</p> <ul style="list-style-type: none"> ▪ To discharge contaminants into air from combustion processes where combustible refuse matter is flared <p>Expiry Date: 25 years from giving effect to this consent being the date on which the consent holder surrenders [old consents].</p>		
<p>General Conditions</p>		

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
1.	This consent is subject to the general conditions listed in Schedule 1 – General Conditions. Where there may be differences, or apparent conflict, between the general conditions and the conditions below, the conditions below shall prevail.	
2.	The discharge into air shall only be contaminants, including particulate matter, odour, combustion products and landfill gas, from a landfill as described in the application documents. The consent does not authorise the burning of solid waste at the site.	
<i>Odour and Dust Nuisance</i>		
3.	<p>The discharge shall not cause odour or particulate matter that has an objectionable or offensive effect beyond the boundary of the land owned, or covenanted, by the Consent Holder, as determined by the Southland Regional Council (Manager of Compliance). The determination of an offensive or objectionable effect shall take into account the FIDOL factors and be made based on the guidance provided in Section 4.1.1 and Table 6 of the Ministry for the Environment Good Practice Guide for Assessing and Managing Odour (2016) or Section 4.2.1 and Table 8 of the Ministry for Environment Good Practice Guide for Assessing Dust (2016).</p> <p><i>Advice Note: To help the Consent Holder in the management of complaints in accordance with this condition it is requested that all complaints received by the Southland Regional Council are passed on to the Consent Holder and where applicable a copy of the FIDOL assessment. An updated map of the boundary shall be kept in the Landfill Air Quality Management Plan for reference for the Southland Regional Council.</i></p>	
<i>Landfill Gas</i>		
4.	A landfill gas extraction system shall be installed and operated in accordance with the details supplied in the original consent application. The gas combustion system shall destroy at least 98% of non-methane organic compounds burned.	
5.	There shall be no visible emissions, excluding water vapour, light, or heat haze, from any landfill gas flare.	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
6.	Each gas extraction well shall be connected to the main gas extraction system within 12 months of placing wastes within the radius of influence of that well. Passive flares shall burn gas discharged from wells prior to connection to the gas extraction system. These temporary flares shall each have a continuous automatic ignition system, a flame arrestor, and a backflow prevention device.	
7.	The enclosed principal landfill gas flare or other utilisation system shall have: <ul style="list-style-type: none"> a) A flame arrestor and backflow prevention device; b) A continuous automatic ignition system; c) An automatic isolation system to prevent the discharge of unburned landfill gas; d) Sampling ports of appropriate design for emission testing, including safe access to the sampling ports; e) A minimum combustion temperature of 750 degrees Celsius and a residence time in the combustion zone of at least 0.5 seconds; f) A permanent temperature indicator with visual readout at ground level. 	
8.	<ul style="list-style-type: none"> a) The concentration of methane measured in monitoring probes outside the landfill footprint shall not exceed 1.25% by volume. b) The concentration of methane measured at the surface of landfill areas with intermediate or permanent capping shall not exceed 0.5% by volume. 	
Monitoring		
9.	A walk-over site inspection of the landfill shall be undertaken at least every week. Any evidence of possible landfill gas leaks, including odour, surface cracks, gas bubbles or vegetation damage, shall be investigated and appropriate remedial action shall be undertaken as soon as practicable.	
10.	a) Methane concentrations shall be measured and recorded at least once each month in accordance with the Landfill Gas Management Plan at the filled boundary located outside the landfill footprint, but within the consent holder's property, to demonstrate compliance with Condition (8)(a).	Reference to management plan made as this figure is likely to change as the landfill extends so the whole landfill area can be serviced.

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<p>b) Methane concentrations shall be measured and recorded at least once each month at the surface of the landfill to demonstrate compliance with Condition (8)(b).</p> <p><i>Advice Note: The filled boundary is the area of the landfill footprint that is occupied with waste at any given time.</i></p>	
11.	<p>Landfill gas shall be monitored at least once each month at each gas extraction well head and at each temporary flare station. The following parameters shall be measured or calculated and recorded:</p> <ul style="list-style-type: none"> a) gas flow rate; b) gas composition (% methane, % oxygen, % carbon dioxide, % nitrogen, ppm carbon monoxide); c) gas temperature; d) gas pressure; and e) hydrogen sulphide concentration. 	The percentage of nitrogen is a calculation, not a recorded parameter
12.	<p>Once a permanent landfill gas flare or other utilisation system is established, landfill gas shall be monitored. The following parameters shall be measured or calculated and recorded at the following frequencies:</p> <ul style="list-style-type: none"> a) Continuous monitoring: <ul style="list-style-type: none"> i. gas flow rate; ii. gas composition (% methane, % oxygen, % carbon dioxide, % nitrogen) iii. gas temperature; and iv. gas pressure b) Weekly monitoring: <ul style="list-style-type: none"> i. gas composition (ppm carbon monoxide). 	The percentage of nitrogen is a calculation, not a recorded parameter
13.	<p>The landfill gas shall be monitored for the following parameters:</p> <ul style="list-style-type: none"> a) hydrogen sulphide concentration shall be monitored at a frequency not less than once each month 	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	b) concentration of total non-methane organic compounds (NMOCs) shall be monitored annually.	
Reporting		
14.	A record of all monitoring undertaken in accordance with the conditions of this consent and a summary of the monitoring results shall be provided to Southland Regional Council annually.	Referring to the regulatory authority as Southland Regional Council for consistency
Discharge Permit		
<ul style="list-style-type: none"> ▪ To discharge of contaminants into air from refuse disposal facilities receiving greater than 100,000 m³/ year of uncompacted solid waste 		
Expiry Date: 25 years from giving effect to this consent being the date on which the consent holder surrenders [old consents].		
General Conditions		
1.	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.	
2.	This consent is subject to the general conditions listed in Schedule 1 – General Conditions. Where there may be differences, or apparent conflict, between the general conditions and the conditions below, the conditions below shall prevail.	
3.	The discharge into air shall only be contaminants, including particulate matter, odour, combustion products and landfill gas, from a landfill as described in the application documents. The consent does not authorise the burning of solid waste at the site.	
Odour and Dust Nuisance		
4.	The discharge shall not cause odour or particulate matter that has an objectionable or offensive effect beyond the boundary of the land owned, or covenanted, by the Consent	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<p>Holder, as determined by the Southland Regional Council (Manager of Compliance). The determination of an offensive or objectionable effect shall take into account the FIDOL factors and be made based on the guidance provided in Section 4.1.1 and Table 6 of the Ministry for the Environment Good Practice Guide for Assessing and Managing Odour (2016) or Section 4.2.1 and Table 8 of the Ministry for Environment Good Practice Guide for Assessing Dust (2016).</p> <p><i>Advice Note: To help the Consent Holder in the management of complaints in accordance with this condition it is requested that all complaints received by the Southland Regional Council are passed on to the Consent Holder and where applicable a copy of the FIDOL assessment. An updated map of the boundary shall be kept in the Landfill Air Quality Management Plan for reference for the Southland Regional Council.</i></p>	
5.	<p>1. Where, during landfill operations, the Consent Holder is required to accept waste by a Government Agency as a crisis or emergency response, the following protocol shall apply:</p> <ul style="list-style-type: none"> f) All crisis response waste acceptance shall trigger the protocol identified in the Crisis/Emergency Response chapter of the Landfill Operations Management Plan and Landfill Air Quality Management Plan g) The consent holder shall notify the Southland Regional Council Compliance Manager of this waste acceptance within 24 hours. h) A management response in line with the criteria identified within the Crisis/Emergency Response chapter of the Landfill Operations Management Plan and Landfill Air Quality Management Plan shall be made available to the Southland Regional Council within 3 days of notification of Condition (5)(b), above. i) All likely affected neighbours (as provided in the Landfill Operations Management Plan), Te Rūnanga o Awarua and Waihōpai Rūnaka (via Te Ao Marama Inc.) and Hokonui Rūnanga are to be notified of the crisis/emergency waste stream prior to acceptance on site, or as soon as practicable. j) Mitigation measures for crisis/emergency waste shall follow the guidelines identified in the Crisis/Emergency Response chapter of the Landfill Operations Management Plan and Landfill Air Quality Management Plan. 	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<p>2. All waste accepted under a crisis or emergency response must meet the waste criteria stipulated in this consent.</p> <p><i>Advice Note (i): There may be instances when the consent holder is required to accept waste under the direction of a Government Agency. Where that occurs the provisions of the relevant legislation will apply and may override the conditions of this consent.</i></p>	
Odour		
6.	<p>To ensure compliance with Condition (4), odorous special wastes shall only be accepted by prior arrangement. The following mitigation measures shall be undertaken to minimise odorous emissions from these special wastes:</p> <ul style="list-style-type: none"> a) odorous wastes shall be covered immediately by at least 150mm of soil or overburden material; b) highly odorous loads likely to cause a breach of Condition (4) shall only be accepted if the waste material has been pre-treated with odour suppressing chemicals or are received in airtight disposable containers; c) the delivery of odorous loads shall be planned to occur in accordance with the Landfill Air Quality Management Plan, while allowing sufficient time for thorough covering prior to daily closure of the landfill; and d) odour suppressing chemicals and lime shall be applied, as required. 	Weather is so variable at the site that on occasion odorous loads would be more suitable at different times of the day
Dust		
7.	The site entrance, roading to the lime storage areas and the truck access road shall be sealed as near as practical to the landfill. These sealed road surfaces shall be cleaned by mechanical sweeper, as necessary to minimise dust emissions.	
8.	A wheel wash shall be used by all vehicles leaving the landfill site that have travelled on unsealed or potentially dusty surfaces.	
9.	Water shall be applied to unsealed internal roads and other potentially dusty surfaces, as necessary to minimise dust emissions.	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
10.	Exposed soil surfaces shall be planted in grass as soon as possible after construction. Soil stockpiles that are kept for longer than 6 months shall be planted in grass.	
11.	Maximum vehicle speed limits shall be set and enforced within the landfill site to minimise dust emissions.	
12.	<p>Dusty special wastes shall only be accepted by prior arrangement. The following mitigation measures shall be undertaken to minimise dust emissions from these special wastes:</p> <ul style="list-style-type: none"> a) dusty wastes shall be dampened or enclosed in bags prior to delivery to the landfill, or controlled by water spray at the landfill; or b) emissions from potentially dusty loads tipped at the workface shall be controlled by applying water or immediately covering the waste material. 	
Monitoring		
13.	<p>An on-site meteorological monitoring station shall be established and operated. The following parameters shall be measured and recorded at least once each hour:</p> <ul style="list-style-type: none"> a) Wind velocity and direction; b) Barometric pressure; c) Rainfall; and d) Temperature. 	
Complaints		
14.	<p>A record of any complaints relating to odour or dust shall be kept, and shall include:</p> <ul style="list-style-type: none"> a) the location where the effect was detected by the complainant; b) the date and time when the effect was detected; c) a description of the wind speed and wind direction when the effect was detected by the complainant; d) the most likely cause of the effect detected; and 	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<p>e) Advise the complainant of any corrective action undertaken by the consent holder in accordance with any relevant Management Plan or condition to avoid, remedy or mitigate the effect detected by the complainant within 10 working days.</p> <p>A record of all complaints received shall be kept by the consent holder in a complaint register, be available for inspection on request, and shall be provided to Southland Regional Council annually for the period 1 May to 30 April each year.</p> <p><i>Advice Note:</i> To help the Consent Holder in the management of complaints in accordance with this condition it is requested that all complaints received by the Southland Regional Council are passed on to the Consent Holder and where applicable a copy of the FIDOL assessment.</p>	
15.	<p>The Consent Holder is to document a procedure for responding to a validated complaint or determination of a breach of Condition (4) by Southland Regional Council in the Landfill Air Quality Management Plan.</p> <p><i>Advice note:</i> Such procedures may include measures such as an odour diary survey and/or liaising with the established Community Liaison Committee.</p>	
Reporting		
16.	A record of all monitoring undertaken in accordance with the conditions of this consent and a summary of the monitoring results shall be provided to Southland Regional Council annually.	Referring to the regulatory authority as Southland Regional Council for consistency
Discharge Permit		
<ul style="list-style-type: none"> ▪ To use masking agents to disguise odour 		
<p>Expiry Date: 25 years from giving effect to this consent being the date on which the consent holder surrenders [old consents].</p>		
General Conditions		

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
1.	This consent is subject to the general conditions listed in Schedule 1 – General Conditions. Where there may be differences, or apparent conflict, between the general conditions and the conditions below, the conditions below shall prevail.	
<i>Odour</i>		
2.	Where exposure of existing landfill material is necessary, this shall occur for the minimum practicable time and odour spray or lime shall be applied, as required in accordance with the Landfill Air Quality Management Plan.	
<p>Discharge Permit AUTH-205861-01-V1</p> <p>Discharge permit to discharge contaminants to air from a lime works.</p> <p>The site to which this land use consent applies is:</p> <p>Part Section 71 and Sections 70, 75, 77 and 78, Block VIII, Winton Hundred</p> <p>Expiry date: 30 September 2040</p>		
<i>Schedule of Conditions</i>		
1.	<p>The discharge to air shall only be contaminants from the following processes:</p> <ul style="list-style-type: none"> ▪ The quarrying of limestone using excavators and a surface miner at a rate of up to 500 tonnes per hour; ▪ The operation of two coal and/or landfill gas fired rotary lime dryers with a combined drying rate of approximately 120 tonnes per hour of crushed limestone; ▪ Crushing and screening of limestone; ▪ Blending, transporting and storage of lime and fertiliser products; and 	Insertion of new date

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<ul style="list-style-type: none"> ▪ Associated on-site processes. <p>The processes and the site are those described in the application and assessment of effects dated 14 October 2008, except where amended by the application dated 23 November 2018 and 29 May 2020.</p>	
2.	There shall be no discharge of particulate matter beyond the boundary of the property on which consent is exercised that is offensive or objectionable to the extent that it causes an adverse effect on the environment.	
<i>Coal and/or Landfill Gas Fired Lime Dryers</i>		
3.	Discharges from the lime dryers shall be treated by cyclonic separator and wet scrubber before discharge above the roof of the processing building.	
4.	The combined coal burning rate in the two dryers shall not exceed 2,800 kilograms per hour.	
5.	<ul style="list-style-type: none"> a) The sulphur content of coal burned in the dryers shall not exceed 0.5% by weight. b) The combined sulphur dioxide discharge rate shall not exceed 2 kilograms per hour. 	Based on the stack testing results AB Lime propose to reduce the proposed sulphur dioxide emission rate limit to a maximum of 2kg/hr.
6.	The tonnage of coal burned per month, the type of coal and sulphur content, and the daily operating hours of the dryer shall be recorded. This information for the previous calendar year shall be provided to the Consent Authority by 31 January each year.	
<i>Dust Control</i>		
7.	<p>All practicable measures shall be undertaken to minimise the discharge of fugitive dust, including but not limited to:</p> <ul style="list-style-type: none"> a) Using water sprays to dampen yard areas, internal roadways, material stockpiles and loaded trucks during dry, windy conditions, as necessary; b) Maintaining established tree shelter around the boundary of the property; 	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<ul style="list-style-type: none"> c) Undertaking processing activities within an enclosed building vented to a water scrubber; d) Storing processed lime product under cover; e) Using a truck wheel wash; and f) Regular sweeping of material in the despatch area g) On-site vehicle speeds shall be restricted to not more than 20 kilometres per hour. A sign, capable of being read at a distance of five metres, shall be erected at the site entrance to inform all visitors of this requirement. h) To minimise emissions of dust from truckloads of product leaving the premises, loads shall be either covered, or dampened by water spray, prior to despatch. 	
Reporting		
8.	<p>A record of all complaints made to the consent holder relating to the exercise of this consent shall be maintained, and shall include:</p> <ul style="list-style-type: none"> a) The location where the particulate matter was detected by the complainant; b) A description of the wind speed and wind direction and rainfall if any, when the particulate matter was detected by the complainant; c) The most likely cause of the particulate matter detected; and d) Any corrective action undertaken by the consent holder to avoid, remedy or mitigate the particulate matter detected by the complainant. <p>The record of complaints for the previous calendar year shall be provided to the Consent Authority by 31 January each year.</p>	
Dust Management Plan		
9.	The consent holder shall prepare and implement a Dust Management Plan (DMP).	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<ul style="list-style-type: none"> a) The DMP shall be prepared and provided to the Consent Authority within three months of the commencement of this consent and within one month of any subsequent amendment to the plan. b) The DMP shall be reviewed annually. c) The DMP and any revisions shall include all measures necessary to achieve compliance with the conditions of this consent. d) The DMP shall include, but not be limited to: <ul style="list-style-type: none"> i. A description of the dust sources on site; ii. The methods to be used for controlling dust at each source; iii. A description of monitoring requirements; iv. A system of training for employees and contractors to make them aware of the requirements of the DMP; and v. Identifying staff responsible for implementing and reviewing the DMP e) The DMP shall include details of the steps to be taken to correct any non-compliances identified. If/when the Plan is amended, a copy of the amended version (or amended sections) shall be sent to the Consent Authority as soon as practicable following amendment. 	
Review of Consent		
10.	<p>The Consent Authority may, during the period of 1 February to 30 September each year, serve notice of intention to review the conditions of this consent for the purpose of:</p> <ul style="list-style-type: none"> a) Dealing with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; b) Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; c) Requiring the adoption of measures to reduce adverse effects of particulate matter or sulphur dioxide; 	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<ul style="list-style-type: none"> d) Requiring emission testing of discharges from the lime dryers or the wet scrubber serving the processing building; e) Requiring or amending conditions for monitoring of dust emissions and dust effects; f) Ensuring the conditions of this consent are consistent with any National Environmental Standards Regulations, relevant plans and/or the Environment Southland Regional Policy Statement. 	
<p>Schedule 1 – General Conditions</p>		
<p>The granting of consents [xx] –[xx] is subject to the following general conditions, which shall apply to each individual consent:</p>		
<p>1.</p>	<p>The consent holder has 5 years from the granting of these consents to give effect to the consents in accordance with S.125 of the Act. The surrender of existing consents will occur at the time these consents are given effect to.</p>	<p>Based on comments provided by the peer reviewer, clarification has been provided that the existing resource consents will be surrendered once new consents are given effect to.</p>
<p>2.</p>	<p>Except as required by subsequent conditions, the development and operation of the solid waste disposal facility and associated operations shall be carried out generally in accordance with the Application Documentation listed below and submitted on 29 May 2020 and subsequent information submitted on 2 September 2020 and 23 October 2020. Where there is any conflict between the application and the conditions, the conditions of consent shall prevail:</p> <ul style="list-style-type: none"> ▪ AB Lime Limited Assessment of Effects, main document, and appendices, dated 29 May 2020, prepared by Jacobs New Zealand and subsequent information provided on 2 September 2020 and 23 October 2020; <p>The consent holder may use an alternative design or methodology to that proposed in the above documents if:</p> <ul style="list-style-type: none"> a) the adverse effect of the activity will be the same or less than the previously specified design or methodology; and 	<p>Changes have been made to re-instate the ability to implement an alternative methodology that is approved by Southland Regional Council</p>

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<p>b) the alternative design or methodology is approved in writing by the Southland Regional Council, who may require an independent review of the alternative by an appropriately qualified person before giving that approval. The cost of any such review shall be borne by the consent holder.</p> <p>Or</p> <p>The alternative methodology has been incorporated into the relevant management plan(s) and has been approved and certified following the process identified in Schedule 1 – General Conditions (13)-(16).</p>	
Management Plans		
3.	The solid waste disposal facility and associated operations shall operate in accordance with an Environmental Management Plan (EMP) for the duration of this consent.	
4.	<p>The Environmental Management Plan shall incorporate or refer to the following management plans, each of which is described in later conditions of this consent:</p> <ul style="list-style-type: none"> a) Landfill Operations Management Plan; b) Landfill Gas Management Plan; c) Landfill Concept, Landscape, Rehabilitation and Aftercare Plan; d) Landfill Leachate Management Plan; e) Landfill Air Quality Management Plan; f) Quarry Management Plan g) Site Traffic Management Plan h) Site Stormwater Management Plan i) Site Archaeological/Koiwi or Taonga Accidental Discovery Plan 	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<p>In the event of an inconsistency between the management plans and a condition of this consent, these conditions shall prevail.</p> <p>Advice Note (i): For completeness all sub-management plans are identified in Condition (4). The sub-management plans relevant to these consents include the Landfill Operations Management Plan, the Landfill Gas Management Plan, the Landfill Concept, Landscape, Rehabilitation and Aftercare Plan, the Landfill Leachate Management Plan, the Landfill Air Quality Plan, the Site Stormwater Management Plan and the Site Archaeological/Koiwi or Taonga Accidental Discovery Plan.</p> <p>Advice Note (ii): The objectives for each sub-management plan relevant to this consent are identified in consent Conditions (21)-(28). There are also other objectives within these sub-management plans not relevant to these consents that are managed by the District Authority.</p>	
Appointment of Management Plan Reviewer(s)		
5.	<p>Prior to the exercise of this resource consent the Consent Holder shall confirm the appointment of independent, suitably qualified and experienced person(s) to review the management plans required by this consent and provide information to the Southland Regional Council to demonstrate that the proposed reviewer(s) is independent, suitably qualified and experienced.</p> <p>Advice Note: If the Southland Regional Council does not approve the person(s) proposed by the Consent Holder, reasons must be provided in writing to indicate why the person(s) is not considered to be suitable.</p>	
6.	<p>Acceptance of the plans shall not proceed until the Southland Regional Council confirms in writing that the Independent management plan reviewer(s) meets these requirements.</p>	
7.	<p>The independent management plan reviewer(s) may be changed at any stage during operations, however, the new reviewer(s) must be confirmed as being appropriate by the Southland Regional Council in accordance with Condition (5).</p>	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
Acceptance and Certification Process		
8.	Prior to the exercise of this consent all management plans are to be submitted to the independent management plan reviewer(s) for acceptance.	
9.	<p>Once a management plan is submitted to the independent management plan reviewer(s) they may:</p> <ul style="list-style-type: none"> i. Accept the contents of the management plan; or ii. Make recommendations to the consent holder on the suitability of the contents of the management plan(s) in addressing the relevant conditions of consent. The consent holder shall make every reasonable effort to address the recommendations to the satisfaction of the independent management plan reviewer(s). <p><i>Advice note (i): In the case of substantial disagreement between the consent holder and the independent management plan reviewer(s) in addressing recommendations the Southland Regional Council as certifier of the management plans shall make the final determination on an outstanding matter. Any costs incurred in determining this outcome shall be borne by the Consent Holder.</i></p>	
10.	<p>Once the Environmental Management Plan and sub management plans have been reviewed by the independent management plan reviewer(s), in accordance with Condition (9) the plan shall be provided to the Southland Regional Council for certification.</p> <p><i>Advice note: The acceptance process has been assigned to the independent management plan reviewer(s). The plan is then submitted to Southland Regional Council for final certification. The Southland Regional Council remains the authority for making a final decision on the certification of the document. The role of the independent management plan reviewer(s) is to provide technical guidance, recommendations, and their acceptance of these documents, where otherwise the Southland Regional Council may not have the internal expertise to carry out this function.</i></p>	
11.	Southland Regional Council shall be requested, no less than 10 working days of the receipt of the management plan, to confirm to the consent holder that the plan is either certified or	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	declined. If no response is received, certification is deemed to have been given as set out in Condition (16)	
12.	<p>a) This resource consent and a copy of the Southland Regional Council certified versions of all the management plans required by this consent shall be kept on site at all times, and the consent holder shall ensure all personnel are made aware of each plan's contents.</p> <p>b) The Southland Regional Council may, in May of each year, instruct the independent management plan reviewer(s) to review any management plan to ensure that management practices result in compliance with the conditions of these consents. Costs relating to the above review shall be borne by the Consent Holder.</p>	
Management Plan Amendment Process		
13.	<p>The consent holder may make amendments to the final management plans that may change how any adverse effect is managed at any time subject to the acceptance of the independent management plan reviewer(s) and certification of Southland Regional Council.</p> <p><i>Advice Note (i): All material changes to a management plan must be appropriately addressed through the mechanisms provided by these consent conditions. Any adjustment that is not material to the performance of these conditions of consent may be made at any time with the approval of the Southland Regional Council (i.e. changes in personnel, minor drafting corrections).</i></p> <p><i>Advice note (ii): The independent peer review process remains separate to the management plan acceptance/certification process. Any standard approved through the independent peer review process may be incorporated into the relevant management plan(s) without going through the process specified in Schedule 1 – General Conditions (13)-(16) to stop unnecessary duplication of the acceptance and certification process.</i></p>	
14.	All amendments shall be consistent with the objectives and performance requirements of the management plan and these consent conditions.	
15.	a) In event of an amendment to a management plan under Condition (13), the consent holder must submit the amendment to Southland Regional Council for certification 10	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<p>working days before the commencement of the relevant works. Certification shall confirm that the amendment is in accordance with Condition (2) and meets the objectives and performance requirements of the management plan.</p> <p>b) Southland Regional Council shall be requested, no later than 10 working days of the receipt of the amendment, to confirm to the consent holder that the amendment is either certified or declined. If no response is received, approval is deemed to have been given as set out in Condition (16).</p> <p>c) Should Southland Regional Council decline to certify the amendment or request the incorporation of changes to the amendment the consent holder may then resubmit a revised amendment to the management plan(s) following the procedures set out in Condition (15)(a)-(b)</p>	
16.	<p>If no confirmation of the Plan's suitability is received from Southland Regional Council within 20 working days of submission of any plan or other information provided for certification, the submitted information shall be deemed to have been approved.</p>	
<i>Independent Peer Review Process</i>		
17.	<p>Within one month of giving effect to this resource consent the Consent Holder shall confirm the appointment of independent peer reviewer(s), suitably qualified and experienced person(s) to review the matters specified in Condition (20). The consent holder shall provide information to demonstrate that the proposed certifier(s) is independent, suitably qualified, and experienced.</p> <p>Advice Note (i): If the Southland Regional Council does not approve the person(s) proposed by the Consent Holder, reasons must be provided in writing to indicate why the person(s) is not considered to be suitable.</p>	
18.	<p>The Independent Peer Review process shall not proceed until the Southland Regional Council confirms in writing that the Independent Peer Reviewer(s) meets these requirements.</p>	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
19.	The Independent Peer Reviewer(s) may be changed at any stage during operations, however, the new Independent Peer Reviewer(s) must be confirmed as being appropriate by the Southland Regional Council in accordance with Condition (16).	
20.	<p>i. The consent holder shall engage, at its own cost in accordance with Conditions (17)-(19), an Independent Peer Reviewer(s), to review the design, construction, operation, maintenance and monitoring of the landfill and to assess whether or not the work is undertaken by appropriately qualified personnel in accordance with good practice.</p> <p>ii. The Independent Peer Reviewer shall report to the Southland Regional Council by 1 May each year on the following matters:</p> <ul style="list-style-type: none"> ▪ site preparation, including hydrogeological and geotechnical issues; ▪ liner, leachate collection and stormwater system detailed design (including calculations), construction and quality control and use of on-site materials; ▪ landfill operations management; ▪ water control, including groundwater, stormwater, and leachate management; ▪ waste acceptance; ▪ cover material used; ▪ landfill gas management; ▪ monitoring, modelling and records; ▪ site rehabilitation. <p>Preparation of each annual report shall include at least one site inspection.</p> <p>iii. The Consent Holder shall provide information to the Independent Peer Reviewer three months prior to the construction of the following aspects of an area:</p> <ul style="list-style-type: none"> ▪ base liner construction of an area; ▪ construction of gas well installation for an area; ▪ stormwater infrastructure for an area; and 	The changes proposed are to align the Independent Peer Review Process more with what is happening on the ground at the moment.

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<ul style="list-style-type: none"> ▪ permanent capping of an area <p>The Independent Peer Reviewer shall provide a report on these matters to the Southland Regional Council at least one month prior to the identified construction activities.</p> <p><i>Advice Note: The construction of the above aspects of an area is an iterative process. There may be significant time lags between each aspect of an area and there is no expectation that these should be bundled together.</i></p> <ul style="list-style-type: none"> iv. The Consent Holder shall provide to the Independent Peer Reviewer as-built construction of the base liner prior to the disposal of refuse on an area. The Independent Peer Reviewer shall report on as-built construction of the base liner prior to the disposal of refuse on an area. v. In addition, the Independent Peer Reviewer may report, in writing, to the Southland Regional Council on any matter that he/she considers should be brought to the attention of the Council in respect of the landfill and its operation. vi. Where the Independent Peer Reviewer does not have the expertise in any of the areas required to report on, as detailed above, he/she may, with the agreement of the consent holder and the Southland Regional Council, engage the services of an appropriate expert to report on the relevant issue. The report shall form part of the review provided by the Independent Peer Reviewer, as required by this condition. vii. A Terms of Reference, to guide and direct the Independent Peer Reviewer, shall be established, in consultation with the Southland Regional Council. 	
21.	<ul style="list-style-type: none"> i. Following independent peer review (as per Condition (20) of this Schedule), all peer review reports shall be provided to the Southland Regional Council for certification in accordance with the Terms of Reference outlined in Condition (20). 	The 15 day window is provided to allow time for the Consent Holder to have certainty that the construction of an aspect of an area can proceed at least 5 working days before work will commence.

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<ul style="list-style-type: none"> ii. Southland Regional Council shall be requested, no less than 10 working days of the receipt of an Independent Peer Review report, to confirm to the Consent Holder that the report is either certified or declined. iii. If no confirmation of the report's suitability is received from Southland Regional Council within 15 working days of submission of any report or other information provided for certification, the submitted information shall be deemed to have been approved. <p><i>Advice Note: The independent peer review process remains separate to the management plan acceptance/certification process. Any reports certified by the Southland Regional Council through Conditions (20)-(21) may be incorporated into the relevant management plan(s) without going through the process specified in Conditions (13)-(16) to stop unnecessary duplication of the certification process.</i></p>	
22.	<p>The overall purpose of the Environmental Management Plan (EMP) is to provide details of the practices and procedures to operate the landfill in compliance with the conditions of consent. The EMP shall comply with the relevant consent conditions and achieve the following objectives:</p> <ul style="list-style-type: none"> i. To operate in full compliance with the resource consent requirements and demonstrate this through reporting procedures to Consent Authorities. ii. To liaise with neighbours and the local community, including iwi representatives, regarding landfill operations that could affect these parties iii. To provide a safe working environment for people on the site. iv. To maintain an independent review process for the design, construction, operation, and aftercare of the landfill to confirm the work is undertaken by appropriately qualified personnel in accordance with good practice v. To identify operational responsibilities, the management structure and staffing vi. To facilitate the effective training of staff: vii. To facilitate accurate record keeping 	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<ul style="list-style-type: none"> viii. To maintain community involvement including details of complaints procedures ix. To appropriately manage site access, fencing and security x. To manage site infrastructure and site amenities 	
<i>Landfill Operations Management Plan</i>		
23.	<p>The consent holder shall prepare and maintain a Landfill Operations Management Plan (LOMP). The LOMP shall describe the operations of the landfill, including demonstrating how compliance with the relevant conditions of this consent will be achieved. The plan shall also achieve the following objectives:</p> <ul style="list-style-type: none"> i. To utilise an effective cover system to maintain quality site rehabilitation, while minimising long term leachate generation ii. To limit face access, thus enabling the size of the active area to be minimised. iii. To minimise stockpiling, both within and outside the footprint. iv. To outline Waste Acceptance Criteria and Procedures: <ul style="list-style-type: none"> ▪ To protect the receiving environment; ▪ To protect the health and safety of people; ▪ To maintain that all waste received is compatible with the land filling operation; ▪ To maintain that all waste landfilled complies with 'Waste Acceptance Criteria' outlined in the relevant consent conditions. v. To outline crisis response and emergency waste acceptance procedures: <ul style="list-style-type: none"> ▪ To manage the identification of all special waste; ▪ To pre-arrange the disposal of special waste; ▪ To have in place measures and appropriate provisions for disposal of each special waste load are in place before the waste arrives at the landfill. 	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<ul style="list-style-type: none"> vi. The placing of refuse and daily cover: <ul style="list-style-type: none"> ▪ To achieve a minimum in-situ refuse density of 0.8; ▪ To maintain a working face that is as small as possible; ▪ To cover all refuse daily; ▪ To manage special waste planning; ▪ To record the location of special waste by survey; vii. The effective capping of the landfill: <ul style="list-style-type: none"> ▪ To minimise ingress of rainwater into the landfill ▪ To minimise erosion and cracking of the cap through design, planting, and maintenance 	
Landfill Gas Management Plan		
24.	<p>The consent holder shall prepare and maintain a Landfill Gas Management Plan (LGMP). The LGMP shall describe gas management for the landfill, including demonstrating how compliance with the relevant conditions of this consent will be achieved. The plan shall also achieve the following objectives:</p> <ul style="list-style-type: none"> i. To provide active LFG extraction throughout the active and post-closure phases ii. To manage the maintenance of methane concentrations at the nearest site boundary not owned by the Consent Holder iii. To provide for the treatment of recovered landfill gas by flaring in accordance with the NESAQ iv. To manage surface emission concentrations above the area of the landfill surface for all future cells that contain permanent capping and temporary capping are maintained at less than 5000 ppm methane. 	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<p><u>Maintenance:</u></p> <ul style="list-style-type: none"> v. To provide for maintenance of the landfill gas collection system 	
<i>Landfill Concept, Landscape, Rehabilitation and Aftercare Plan</i>		
25.	<p>The consent holder shall prepare and maintain a Landfill Concept, Landscape, Rehabilitation and Aftercare Plan (LCLRAP). The LCLRAP shall describe the landscaping, rehabilitation, and aftercare of the landfill, including demonstrating how compliance with the relevant conditions of this consent will be achieved. The plan shall also achieve the following objectives:</p> <p><u>Aftercare:</u></p> <ul style="list-style-type: none"> i. Aftercare operation and maintenance of leachate management systems ii. Aftercare operation and maintenance of landfill gas management systems iii. Ongoing monitoring including groundwater, surface water, landfill gas and site capping iv. Management of stormwater v. Capping and revegetation vi. Post settlement final contours vii. Responsibilities for aftercare viii. Land ownership and liability for contamination 	
<i>Landfill Leachate Management Plan</i>		
26.	<p>The consent holder shall prepare and maintain a Landfill Leachate Management Plan (LLMP). The LLMP shall describe the management of leachate for the landfill, including demonstrating how compliance with the relevant conditions of this consent will be achieved. The plan shall also achieve the following objectives:</p>	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<ul style="list-style-type: none"> i. To provide a robust, effective leachate drainage system with ready access for cleaning and rehabilitation ii. To control stormwater and moisture ingress into the landfill such that the site is able to be operated as to provide effective waste stabilisation, while avoiding excessive leachate generation. iii. To facilitate gravity drainage of leachate from the landfill iv. To minimise liner penetrations v. To manage the removal of leachate from site for treatment to be undertaken safely in accordance with the Code of Practice for Hazardous and Liquid Waste vi. To provide continued compliance with the requirements of any Trade Waste Permit(s) <p><u>Maintenance:</u></p> <ul style="list-style-type: none"> vii. To provide for the maintenance of the leachate collection system viii. To provide for the maintenance of the leachate storage tank 	
Landfill Air Quality Management Plan		
27.	<p>The consent holder shall prepare and maintain a Landfill Air Quality Management Plan (LAQMP). The LAQMP shall describe the air quality management for the landfill, including demonstrating how compliance with the relevant conditions of this consent will be achieved. The plan shall also achieve the following objectives:</p> <ul style="list-style-type: none"> i. To control odours so that there shall be no objectionable and offensive effect of odours beyond the boundary of the land owned, or covenanted, by the Consent Holder ii. To manage the disposal of odorous loads - to take place when effective mitigation measures are in place. iii. To manage effective daily cover of at least 150 mm of soil or equivalent alternative material; 	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<ul style="list-style-type: none"> iv. To keep the working face as small as practicable; v. To limit excavation into old areas of refuse as far as practicable; vi. To minimise water ingress to the working face; <p><u>Dust:</u></p> <ul style="list-style-type: none"> vii. To control dust so that there shall be no objectionable and offensive effect of dust beyond the boundary of the land owned or covenanted by the Consent Holder. viii. To minimise the extent of unvegetated areas ix. To enforce vehicle speed limits on site; x. To keep unsealed road surfaces and working areas moist where potential for dust emissions beyond the boundary of the land owned or covenanted by the Consent Holder exists. 	
Site Stormwater Management Plan		
28.	<p>The consent holder shall prepare and maintain a Site Stormwater Management Plan (SSMP). The SSMP shall describe the stormwater management for the site, including demonstrating how compliance with the relevant conditions of this consent will be achieved. The plan shall also achieve the following objectives:</p> <ul style="list-style-type: none"> i. To enable comprehensive stormwater control, with all catchment runoff routed via a sedimentation system. ii. To divert as much stormwater as possible away from the active face of the landfill so that operational leachate volumes are minimised iii. To provide effective drainage of the final surface of the landfill so that scour of the cap is minimised and long-term seepage into the landfill is minimised. iv. To keep all stormwater runoff from landfill activities within the AB Lime catchment, to maximise runoff available for other purposes, and minimise environmental impacts on the receiving environment 	Under the erosion and sediment control not all stormwater uphill from roads , the weighbridge or wheel wash are routed via the sedimentation system (change to majority)

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<p><u>Erosion and Sediment:</u></p> <ul style="list-style-type: none"> i. To enable comprehensive sediment control, with a majority of catchment runoff routed via a sedimentation system ii. To control silt runoff from the site iii. To detain flows from runoff so that deposition of transported sediment can occur through settlement iv. To maintain the site stormwater capture, conveyance, detention, and treatment devices so that they perform as designed. 	
<p><i>Site Archaeological/Koiwi or Taonga Accidental Discovery Plan</i></p>		
<p>29.</p>	<p>The consent holder shall prepare and maintain a Site Archaeological/Koiwi or Taonga Accidental Discovery Plan (SAKTDP). The SAKTDP shall describe the accidental discovery protocols for the site, including demonstrating how compliance with the relevant conditions of this consent will be achieved. The plan shall also achieve the following objectives:</p> <ul style="list-style-type: none"> i. To ensure familiarity with accidental discovery protocols; ii. Protocols are followed in the event of an accidental discovery. 	
<p><i>Monitoring of Management Plans</i></p>		
<p>30.</p>	<p>The Environmental Management Plan and sub-management plans (where applicable) shall include monitoring with respect to surface water, groundwater, leachate, landfill gas and nuisance. Each monitoring element shall include:</p> <ul style="list-style-type: none"> i. Monitoring locations; ii. Monitoring parameters; iii. Monitoring frequency; iv. Detection limits; v. Reporting; and 	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	vi. Trigger levels (for each monitoring location) for implementing contingency/remedial actions.	
Operational Conditions		
31.	A geological map of the base grade of the landfill shall be prepared and upgraded in the Landfill Operations Management Plan from time to time as the base grade is exposed. The geological mapping shall include detailed logging of the location, extent and nature of fractures, fracture zones, Karst features and other defects.	
32.	All investigations, design, supervision of construction, operation, monitoring and after-care shall be undertaken by suitably qualified personnel experienced in such works, or works of a similar nature, and to the satisfaction of the Southland Regional Council.	
33.	The consent holder shall submit a revised Landfill Concept, Landscape, Rehabilitation and Aftercare Plan to the Southland Regional Council at least twenty-four months prior to planned landfill operations ceasing on this site. The revised plan shall be prepared after consultation with the owners of adjacent properties and the Southland District Council and Te Rūnanga o Awarua and Waihōpai Rūnaka and Hokonui Rūnanga .	
34.	The consent holder shall retain an appropriately experienced person to supervise the operation of the landfill. That person shall compile an annual report on the operation of the landfill, including: <ul style="list-style-type: none"> ▪ the status of landfilling operations on the site and work completed during the preceding year; ▪ the results of environmental monitoring; ▪ any difficulties which have arisen in the preceding year and measures taken to address those difficulties; and ▪ activities proposed for the next year of the landfill operation. This report shall be forwarded to the Southland Regional Council by 1 May, unless otherwise agreed in writing with the Southland Regional Council.	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
35.	<p>In the event that any human remains, Koiwi, or archaeological items are discovered, the works in that area of the site shall cease immediately and the Police, Tangata Whenua (Te Rūnanga o Awarua and Waihōpai Rūnaka and Hokonui Rūnanga), and/or Heritage New Zealand Pouhere Taonga, and also the Southland Regional Council, shall be notified as soon as practicable. Works may recommence with the written approval of the Southland Regional Council. Such approval shall be given after the Southland Regional Council has considered:</p> <ul style="list-style-type: none"> i. Tangata Whenua interests and values; ii. the consent holder's interests; iii. any archaeological or scientific evidence; and iv. any requirements of the Police. 	
36.	<p>All water quality sample analyses required shall be undertaken using standard methods as detailed in the "Standard Methods For The Examination Of Water And Waste Water, 1998" 20th edition by A.P.H.A. and A.W.W.A. and W.E.F. or by some other method approved in advance in writing by the Southland Regional Council.</p>	
37.	<p>Prior to the commencement of any solid waste disposal activities commencing on the site, the consent holder shall be required to enter into a bond, as described in Sections 108 and 109 of the Resource Management Act 1991 with surety of \$945,000.00 plus GST. This bond shall be held jointly by the Southland District Council and Southland Regional Council.</p> <p>The Southland Regional Council may call on a proportion of this bond sufficient to address the following matters:</p> <ul style="list-style-type: none"> ▪ Secure compliance with all the conditions of this consent, and to enable any adverse effects on the environment resulting from the consent holder's activities, to be avoided, remedied, or mitigated. ▪ Secure the completion of landscaping and planting works required by the conditions of this resource consent and their ongoing maintenance. 	

Condition Number	Proposed Consent Conditions (Additional changes from the last s 92 process in purple and further changes resulting from the officer's s 42A report in pink)	Comment
	<ul style="list-style-type: none"> ▪ Secure the completion of rehabilitation and closure of the site in accordance with the Landfill Concept, Landscape, Rehabilitation and Aftercare Plan required by Condition (33). <p>All costs relating to the formulation and registration against the relevant certificates of title, of this bond shall be borne by the consent holder.</p> <p>This bond shall be released upon the completion of rehabilitation and closure of the site to the satisfaction of the Southland District Council.</p>	
38.	<p>The Southland Regional Council may review the conditions of these consents in the event of the transfer of these consents, for the purposes of:</p> <ul style="list-style-type: none"> i. ensuring the adequacy of the consents in terms of protecting the environment; and/or ii. ensuring that the new consent holder can comply with the intent and specific requirements of the conditions; and/or iii. reviewing the bond requirements. 	
39.	<p>The Southland Regional Council may review the conditions of these consents in the event of any new government regulation, policy, standard, or guideline in respect of landfill design, operation, monitoring, aftercare, or discharges, within 6 months of it coming into effect.</p>	
40.	<p>The consent holder may apply to change or cancel any condition of these consents</p>	<p>Suggested deletion. Consent holder can follow provisions of RMA or subsequent Acts to review and amend conditions of consent.</p>
41.	<p>The consent holder shall pay to the Southland Regional Council any administrative charge fixed in accordance with section 36 of the Resource Management Act 1991, or any charge prescribed in accordance with regulations made under section 360 of the Resource Management Act 1991.</p>	

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ATTACHMENT 1. Schedule 2

Schedule 2 is relevant to Condition 22 of the Solid Waste to Land Discharge Permit.

Appendix D Class 1 Landfill Waste Acceptance Criteria

For Class 1 landfills, leachability testing should be completed to provide assurance that waste materials meet the following recommended waste acceptance criteria. The waste acceptance criteria leachability limits represent maximum values which should not be exceeded and should be viewed as a minimum treatment specification for a landfill.

If the following limits are exceeded by a leachate extract of the waste with respect to any of the listed constituents, then the material is not suitable for disposal to the facility.

Table D-1 Class 1 Waste Acceptance Criteria for Inorganic and Organic Elements³

Contaminant of concern	Unit	Maximum allowable TCLP concentration
Arsenic	mg/L	5
Barium	mg/L	100
Benzene	mg/L	0.5
Cadmium	mg/L	1
Carbon Tetrachloride	mg/L	0.5
Chlordane	mg/L	0.03
Chlorobenzene	mg/L	100
Chloroform	mg/L	6
Chromium	mg/L	5
Endrin	mg/L	0.02
m-Cresol	mg/L	200
o-Cresol	mg/L	200
p-Cresol	mg/L	200
Total cresol	mg/L	200
1,4-Dichlorobenzene	mg/L	7.5
1,2-Dichloroethane	mg/L	0.5
1,1-Dichloroethylene	mg/L	0.7
2,4-Dinitrotoluene	mg/L	0.13
2,4-Dichlorophenoxyacetic acid	mg/L	10
Heptachlor	mg/L	0.008
Hexachloro – 1,3-butadiene	mg/L	0.5
Hexachlorobenzene	mg/L	0.13
Hexachloroethane	mg/L	3
Lead	mg/L	5
Lindane	mg/L	0.4

³ US EPA Chapter 40 CFR

Contaminant of concern	Unit	Maximum allowable TCLP concentration
Mercury	mg/L	0.2
Methoxychlor	mg/L	10
Methyl ethyl ketone	mg/L	200
Nitrobenzene	mg/L	2
Pentachlorophenol	mg/L	100
Pyridine	mg/L	5
Selenium	mg/L	1
Silver	mg/L	5
Tetrachloroethylene	mg/L	0.7
Toxaphene	mg/L	0.5
Trichloroethylene	mg/L	0.7
2,4,5-Trichlorophenol	mg/L	400
2,4,5-Trichlorophenoxypropionic acid	mg/L	1
2,4,6-Trichlorophenol	mg/L	2
Vinyl chloride	mg/L	0.2
Sulfides	ppm	50
Cyanides	ppm	50
Total halogenated compounds	ppm	1,000
Total synthetic non-halogenated compounds	ppm	10,000
Polychlorinated biphenyls	ppm	50

Table D-2 Class 1 Waste Acceptance Criteria for Inorganic and Organic Elements⁴

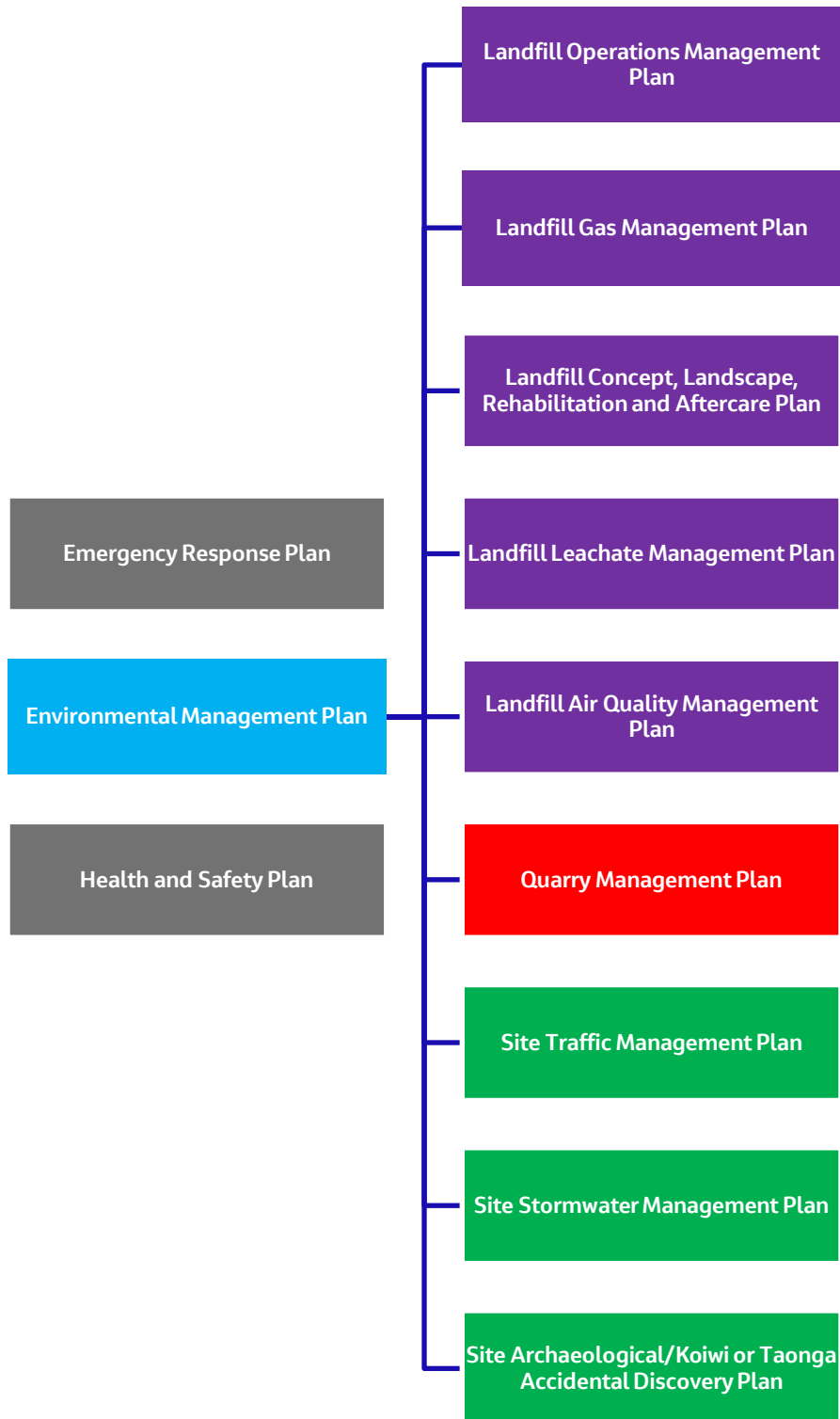
Contaminant of concern	Unit	Maximum allowable TCLP concentration
Aluminium	ppm	40
Aniline	ppm	0.2
Antimony	ppm	0.6
Beryllium	ppm	10
Boron	ppm	20
Bromodichloromethane	ppm	1
Bromoform	ppm	10
Carbon disulphide	ppm	3
2 Chlorophenol	ppm	0.05
Copper	ppm	5.0
1,2 Dibromo-3-chloropropane	ppm	0.2
Dibromochloromethane	ppm	10

⁴ Module 2: Hazardous Waste Guidelines MfE 2004

Contaminant of concern	Unit	Maximum allowable TCLP concentration
1,2 Dichlorobenzene	ppm	0.2
1,2 Dichloroethene	ppm	10
Dichloromethane	ppm	2
2,4 Dichlorophenol	ppm	0.05
1,2 Dichloropropane	ppm	1
1,3 Dichloropropene	ppm	2
Diethylphthalate	ppm	100
Dimethylphthalate	ppm	400
Ethyl benzene	ppm	50
Fluoride	ppm	200
Lithium	ppm	20
Molybdenum	ppm	10
Naphthalene	ppm	10
Nickel	ppm	10
Phenol	ppm	40
1,1,2,2 Tetrachloroethane	ppm	50
Tin	ppm	1000
Toluene	ppm	100
Tributyltin oxide (TBTO)	ppm	3
1,1,1 Trichloroethane	ppm	200
1,1,2 Trichloroethane	ppm	500
Vanadium	ppm	2.0
Xylene (m,o,p)	ppm	100
Zinc	ppm	10.0

ATTACHMENT B. MANAGEMENT PLAN FIGURE STRUCTURE

Table 3: Proposed Management Plan Framework



Key:



**ATTACHMENT C. AB LIME S 92(1) RESPONSE AND LEGAL ADVICE
NOTE**

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Subject	AB Lime Limited Response to Peer Review s 92 Response	Project Name	AB Lime Limited Landfill Resource Consent Application
Attention	Bruce Halligan – Environment Southland	Project No.	IZ000400
From	Ryan McCone		
Date	18 November 2020		
Copies to	Steve Smith, Fiona Smith, Bridget Irving, Andrew Henderson, Charlie Watts		

1. Introduction

The purpose of this memorandum is to provide a formal response on behalf of the Applicant (AB Lime Limited) to the further technical review of Section 92(1) of the Resource Management Act request for further information received on 17 November 2020.

This formal response is broken up into two distinct sections:

- The peer review response provided by RILEY Consultants; and
- The peer review response provided by EHS Support.

The peer reviews are considered in turn below.

2. RILEY Consultants Peer Review

RILEY Consultants have conducted a peer review in regard to a majority of the answers the Applicant has provided as part of the s 92 notice. A large proportion of the peer review comments indicate that no further information is required. Each of the questions, which require further consideration are answered in turn below:

Q2.65 Response partially accepted – corrections requested to Landfill Leachate Technical Memo.

The landfill leachate memorandum has been amended and a new version has been provided¹.

Q2.66 Response not accepted – new consent condition proposed

The proposed consent condition by the Peer Reviewer states:

“The Applicant shall implement the measures identified in the Landfill Operations Management Plan (LOMP) and related technical reports in an effort to mitigate against water infiltration into the landfill and will continue to monitor annual leachate quantities produced. If leachate quantities have shown a continued upward trend over the next three years, the Applicant will carry out a review of the LOMP at

¹ The updated AB Lime Landfill Leachate Technical Memorandum is provided separately.

that point to identify practices requiring change or addition, then provide these to Environment Southland for review and approval prior to updating the LOMP accordingly."

The Applicant agrees in principle to the imposition of this consent condition. However, as the consent condition is currently worded there is inherent uncertainty. The Applicant proposes that the wording of this condition is refined between Environment Southland and the Applicant to provide ongoing certainty for both parties.

Q2.67 Response partially accepted – further information requested

Q2.67a For further clarification relating to the original question, please confirm what design elements have been incorporated or will be incorporated to enable cleaning (rodding, jetting, CCTV access points) of the leachate pipelines.

The leachate clean-out pipes have been designed so that they are located on (and terminating above) the eastern side slopes. By having the leachate cleanout pipes located above the eastern side slopes, they are easily accessible for future cleaning. The leachate pipes are 150 mm in diameter and are therefore considered large enough to be able to clean.

The photo below should assist in closing out this query:



Figure 21 Leachate clean-out pipes extended up the eastern side wall of the landfill (dated 01 August 2019).

It is considered that any further issues relating to this query can be finalised in a discussion between the Peer Reviewer, the Applicant and Environment Southland.

Q2.74 Response partially accepted – amended consent conditions proposed

In principle the Applicant accepts the response provided by the Peer Reviewer. The Applicant is currently looking at options to utilise landfill gas monitoring bores for dual purposes and expects progress to be made on this prior to giving effect to any new consent. The Applicant believes the appropriateness of the number and location of monitoring wells can be discussed and closed out between the Peer Reviewer, the Applicant and Environment Southland without the need for varying the condition of consent.

Q2.90 Response accepted – no further information requested, proposed condition amendment.

The proposed consent condition by the Peer Reviewer states that the following may be incorporated into proposed condition 10:

"During trial of the final cap layer the need for drainage layer shall be considered. Evidence with regard its necessity and design should be supplied to Environment Southland and the Independent Peer Reviewer."

Once again, the Applicant agrees in principle to the imposition of this consent condition. However, as the consent condition is currently worded there is inherent uncertainty. The Applicant proposes that the wording of this addition to condition 10 is refined between Environment Southland and the Applicant to a higher level that provides ongoing certainty for all parties:

"Following the construction trial a Final Capping Specification and Quality Control Standard will be produced and provided to the Independent Peer Reviewer for certification and Environment Southland for approval"

It is hoped that any construction trial will predate giving effect to any new consent. The Applicant proposes that the necessity of this condition (if the trial is conducted prior to giving effect of this consent) and/or the wording of this condition is refined between Environment Southland and the Applicant to provide ongoing certainty for both parties.

2.1 Conclusion

The Applicant considers that the requests provided by the Peer Reviewer are entirely reasonable and intend all requests to be acted on, as identified in the responses above. It is the view of the Applicant that there are no technical matters outstanding in relation to this peer review that are substantial in nature. Subsequently, the remainder of the issues can be addressed between the parties by appropriately worded conditions of consent and/or updates to the relevant management plans.

3. EHS Peer Review

EHS Support has undertaken a technical peer review of the Section 92(1) responses for items 2.16 to 2.26 inclusive, as well as items 2.36 to 2.58 inclusive.

3.1 Items 2.16-2.20

3.1.1 AB Lime Landfill Operations Management Plan

The Peer Reviewer has stated the following:

"EHS Support notes that none of the management plans supplied outlined staff responsibilities and training. The LOMP, as well as all subsequent plans (i.e Health and Safety Plan [HASP], Emergency Response Plan, Landfill Gas Management Plan, Landfill Leachate Management Plan and the Site Stormwater Management Plan), should be updated to include a section on staff responsibilities, minimum training requirements and management structure."

The Peer Reviewer has clearly misunderstood the management plan structure provided by the Applicant as part of the application. The Environmental Management Plan is the overarching document, which all other management plans (including the Landfill Operations Management Plan) sit under (refer to Section 1.2 of the original application). The Draft Environmental Management Plan is provided as Appendix P to the original application.

In regard to the Peer Reviewer's comment, we note that the Draft Environmental Management Plan as the overarching management plan document includes the matters that the Peer Reviewer identified as absent, being:

- Roles and responsibilities – these are addressed in Section 1.3 of the Plan;
- Management structure – this is addressed in Section 1.4; and
- Training – this is addressed under Section 3.4.

Furthermore, we note that these matters are included within two of the Objectives of the Management Plan and are in turn codified into proposed condition 21. These Objectives are as follows:

- *Objective v – To identify operational responsibilities, the management structure and staffing*
- *Objective vi - To facilitate the effective training of staff*

Given that these matters are already included in the Draft Environmental Management Plan provided with the application, potentially EHS support has not considered the whole context of the management plan structure or reviewed them as part of the Peer Review.

3.1.2 Recommended consent condition associated with Waste Acceptance Criteria and Prohibited Material

a) Waste Acceptance Criteria

EHS Support recommends that Section 5 of the LOMP should be revised to reflect the following recommendations:

It is recommended that the elutriation criteria are set to be the lower of:

- *100 times NZ Drinking water criteria, as this would take into carcinogenicity or development/reproductive toxicity of compounds to humans, or*
- *Criteria specified within the most recent Hazardous Substances (Storage and Disposal of Persistent Organic Pollutants) Notice*

The Applicant agrees to updating Section 5.3 to acknowledge these additional standards. The Applicant would like to reiterate however, that control for such waste acceptance, despite any stringent criteria for waste acceptance, is imperfect. The acceptance of such waste is incidental and, as identified in the previous s 92 response, AB Lime will not be able to exert full control with certainty until such measures are legislated to create standards for people, businesses and communities to adhere to before creating contaminants associated with specific waste.

The following conditions of consent are proposed by EHS Support:

- *The Landfill Operations Management Plan shall be updated in accordance with Schedule X and submitted to Environment Southland for approval by 30 June 2021;*
- *Any updated or changes to the Landfill Operations Management Plan shall be submitted to Environment Southland for written approval before they become operational.*

These conditions are viewed as problematic by the Applicant. A robust certification process is already provided for in considerable detail under conditions 5-20 of the proposed Schedule of Conditions provided in the original application. Once again, it is clear that EHS Support has not considered the whole context of the proposed resource consent conditions, and in this instance is providing piecemeal

certification and review conditions for management plans that overlap what is already thoroughly provided for.

The Applicant wishes to work with Environment Southland to ensure this certification and review process is as clear and certain as possible.

As noted above, the Applicant has no objections to updating Section 5 of the LOMP. The Applicant will update the Waste Acceptance criteria sections of the management plan prior to certification, in line with the certification process that is finalised in conjunction with Environment Southland.

Furthermore, EHS Support proposes the following consent conditions:

- *An annual review of the waste acceptance criteria and prohibited items shall be undertaken and the findings of the review shall be submitted to Environment Southland by June 30 each year.*
- *All new waste acceptance criteria must be submitted to Environment Southland for written approval before the waste is accepted.*

The Applicant in principle agrees to the implementation of these consent conditions. However, the Applicant contends that the process for acceptance needs refinement with Environment Southland to align with the certification process outlined in proposed conditions 5-20 in the schedule of conditions.

3.1.3 Gas Collection System

EHS has provided the following comments on the gas collection system:

EHS Support has reviewed the most recent information (2018 to 2020) on the performance of the gas collection system, landfill cap and the landfill flare. It is clear from reviewing the annual monitoring reports 4 and 5 from 2020 as well as the AB Lime Landfill Gas Flare Monitoring Report that the current operation of landfill gas collection and flaring does not comply with the National Environmental Standards (NES) for Air Quality Regulations 26 and 27. In particular:

- *No back up flare has been installed.*
- *The temperature of the flare does periodically drop below 750 degrees Celcius (and 600 degrees Celcius for short periods of time).*
- *ISM data provided within the AB Lime Landfill Annual Monitoring Report 5-2020 indicates that surface emissions from part of the landfill exceed 5,000 ppmv.*

The Applicant has clearly stated that the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 do not apply to current operations, in line with S43B(6) and S43B(6A) of the Resource Management Act 1991, which clearly state the relationship between National Environmental Standards and resource consents. The Applicant has also clearly identified they intend to (and indeed understand that they must) comply with the NES regulations with respect to the new air discharge permit applied for (refer to answer provided to 2.37 in section 92 Response to Environment Southland 2.0).

A legal opinion confirming the law on this matter is appended as Appendix A. The Applicant's legal opinion contends that any reference to current non-compliance with NES regulations is ultra vires.

EHS Support also assert:

The applicant's consultant has indicated that the NES (Air Quality) requirement does not apply to the application, because:

- a) *The National Environmental Standards for Air Quality Regulation 2004 was gazetted after the consent 201351 was granted, and*
- b) *The applicant's consultant is not applying for a new air discharge consent*

The assessment by the Peer Reviewer in (a) is correct. The current air discharge consent was granted in June 2003. The assessment in (b) is incorrect. The applicant is applying for a new air discharge consent to replace the current AUTH-201351. This is made clear in the application as lodged. The applicant has continued to assert from the outset that the consent holder will not surrender existing consents associated with landfill operations until the new consents are given effect to (refer to Appendix A).

EHS Support continues:

The applicant's consultant is incorrect on two counts:

- 1) *The original resource consent condition for consent 201351 required the flare to operate at a minimum temperature above 750°C (i.e. the original consent condition was compliant with regulation 27(2f) of the NES (Air Quality) 2004).*

The memorandum was issued by Environment Southland on 16 December 2010 (after the NES (Air Quality) 2004 was gazetted. The memorandum does not appear to revoke or change consent condition 18(e) but appears to state no enforcement action would take place. In 2010 Environment Southland would not have been able to legally alter a consent to allow an activity prohibited by the NES (Air Quality).

- 2) *In Section 12.1 (page 9 of the Resource Consent Application) the applicant has applied for a new air discharge permit to replace air discharge permit AUTH-201351.*

The only part of resource consent 201351 which would overrule the NES (Air Quality) is the fact that condition 20(b) allows that the maximum emission at the surface of the landfill areas with intermediate or final cover shall not exceed 5.0% percent by volume. The applicant has in fact applied to change that condition to bring it in line with Regulation 26 (2a).

The Applicant has consistently contended they are applying for a new air discharge consent and in this regard directs the Council's attention to section B(v) of Form 9 which is located at the beginning of the Application documents. This clearly identifies that the following consent is sought from Environment Southland:

Discharge Permit for:

The discharge of contaminants into air from combustion processes where combustible refuse matter is flared as a discretionary activity under Rule 5.5.2(2)(c) of the Regional Air Plan, pursuant to section 15(1)(c) of the Resource Management Act 1991. Consent is required as a discretionary activity.

The Peer Reviewer has obviously confused current operations (existing resource consent) with future operations (this application). Under current operations of the landfill as stated consistently by the Applicant, the resource consent predates the NES, and therefore **the NES does not apply**, because of the reasons aforementioned and provided for in the legal opinion provided in Appendix A. It is clear that the current consent conditions operate independently of any NES requirements.

The memorandum referred to by the Peer Reviewer records an agreement reached between Environment Southland and the Applicant regarding the operation of the temperature of the flare. As stated in the legal opinion in Appendix A, 'any failure to comply with this is a compliance matter pursuant to the existing consent. It does not go to the appropriateness of the conditions being proposed under the new consent.'

In regard to this application, the Applicant has consistently and clearly stated they understand that they will need to comply with NES standards when the new consent is given effect to..

3.1.4 Recommended consent conditions associated with gas collection system and gas management plan

EHS Support has recommended the following conditions of consent. They are considered in further detail below:

- *The radius of influence investigation to determine optimal location of gas extraction wells is undertaken within 12 months of granting this consent*

The Applicant contends that this condition of consent is not related to any offsite effects. Waste is too heterogeneous to narrow down to an 'optimal location'. The Applicant contends that the necessity of this consent condition can be discussed between the Peer Reviewer, the Applicant and Environment Southland.

- *The detail design review is undertaken on the gas collection system and blower sizing to verify that there is sufficient capacity in the gas collection system. This information should be reviewed and approved by a suitably qualified/chartered professional engineer with experience in landfill gas collection system design appointed by Environment Southland.*

As identified, the current design is consented with no identifiable compliance issues having been raised by the council. The Applicant contends that for the purposes of this application, this matter is appropriately managed through compliance with NES, as this sets the applicable performance standards. As stated, the new consent must comply with s 26(2)(a) of the NES, which states that any discharge of gas from the surface of the landfill does not exceed 5000 parts per million parts of air. This is considered to be conclusive of the matter.

- *Conduct an inspection of the gas collection system and well heads using infra-red thermography to identify any leakage from the gas extraction wellheads or above ground landfill gas header pipework by 30 June 2021.*

See answer provided directly above.

- *Ensure that a backup flare design in accordance with the NES (Air Quality) regulation 27 (3) is installed at the site before 30 June 2021.*
- *The principal flare must be operated at all times, unless it has malfunctioned or is shut down for maintenance.*
- *The backup flare must be operated if, and only if, the principal flare is not operating.*

The Applicant understands that this new application must comply with the regulations provided in the NES when it is given effect to. The Applicant understands that all NES standards will automatically apply to the new consent. It is considered that these proposed conditions of consent are unnecessary duplication and could cause inconsistencies, particularly if the legislation is amended or updated.

- *An updated Landfill Gas Management Plan must be submitted and approved in writing by Environment Southland before 30 June 2021.*

The Applicant has already outlined a robust approval and certification process for all management plans under the schedule of conditions (5-20). It is considered these proposed conditions appropriately address the condition provided by the Peer Reviewer.

Proposed resource consent conditions for the Land Discharge Consent:

- *The filling rate of solid waste onto or into land shall be limited to 100,000 tonnes of solid waste per annum until an independent, suitably qualified and experienced/chartered engineer has certified that AB Lime has demonstrated that for a period of at least one year they are able to operate the gas collection system in full compliance with the NES (Air Quality) Regulations 26 and 27 and the Landfill Gas Management Plan. The LGMP must be submitted by the reviewer and approved by Environment Southland before the cap of waste accepted is removed.*

The Applicant understands that that this new application must comply with the regulations provided in the NES when it is given effect to. The Applicant understands that all NES standards will automatically apply to the new consent. It is considered that this condition of consent is unnecessary duplication and could cause inconsistencies, particularly if the legislation is amended or updated.

The Applicant has already outlined a robust approval and certification process for all management plans under the schedule of conditions (5-20). It is considered these proposed conditions appropriately address the process for reviewing and certifying any version of the Landfill Gas Management Plan, including those provided after the inception of any new consent.

3.1.5 Landfill Capping and Surface Emissions

Again, EHS Support raise several concerns about current operations not complying with NES regulations:

Surface ISM results presented within the Annual 2020 Monitoring Report 5 indicates that surface emissions from the landfill are consistently higher than the 5,000 ppm v/v limit within the NES (Air Quality) Regulation 26 (2a). However, as the information within the annual report lacks vital details (such as a plan showing the location of exceedances, where temporary and final cover are located, meteorological conditions at the time of monitoring and the estimated total area where surface emissions are likely to exceed 5,000 ppm (v/v) it is impossible to determine if the landfill is designed and operated in such a way that it could comply with the NES (Air Quality) Regulations 26 (2a).

The level of information provided within the Annual Monitoring Report is insufficient in many cases to determine compliance or non-compliance with the NES (Air Quality) Regulations 26 and 27. The protocols and recommendations within the SKM landfill gas monitoring plan of the Jacobs Gas Monitoring plan do not contain suitable recommendations on what information should be required to be reported to Environment Southland. The Landfill Gas Monitoring Plan should be updated to require the minimum level of information that should be reported in the gas monitoring reports; minimum information should include:

- *Site plan where monitoring was undertaken;*
- *Time and date of monitoring;*
- *Meteorological conditions when monitoring was undertaken (including weather conditions and barometric pressure);*
- *Copy of raw data;*
- *Calibration certificates for instruments used and details of gas bump tests undertaken on the day of monitoring to verify instrument was functioning correctly; and*
- *Report of visual inspection of the cap, gas extraction or monitoring well (as applicable).*

The Applicant does agree that the Landfill Gas Management Plan should be updated to include the minimum level of information that should be reported. The Applicant will update the information in the Landfill Gas Management Plan to include this information prior to certification.

For the reasons outlined above, which do not need to be repeated ad nauseum, the Applicant contends NES issues raised by the Peer Reviewer are not relevant considerations (refer to Appendix A). The Applicant has repeatedly acknowledged that this application and any future consents granted as part of it must comply with NES regulations.

Any reservations the Peer Reviewer has over existing operations and compliance with standards that do not currently need to be met, are *ultra vires* (refer to Appendix A).

3.1.6 Landfill Gas Migration/Boundary Gas Monitoring

3.1.7 Recommended consent conditions associated with landfill gas migration and boundary monitoring

EHS support has recommended the following conditions of consent. They are considered in further detail below:

The following resource consent conditions should be included in the air discharge consent:

- *The spacing and number of landfill gas monitoring bores shall be reviewed annually by an independent reviewer. The design and location of the landfill gas monitoring probes shall be approved in writing by Environment Southland prior to the probes being installed.*

The Applicant contends that the proposed condition of consent is of relevance only if landfill gas migration is considered to be a risk to off-site sensitive receptors. The Applicant contends that the risk is low. However, should this remain a concern to the Council, as an alternative solution the Applicant proposes a landfill gas offsite migration risk assessment to determine whether the risk of landfill gas migration is tangible:

'(a) Within 12 months after giving effect to this consent, the consent holder will undertake a landfill gas offsite migration risk assessment to determine the risk of landfill gas migration to offsite sensitive receptors. As part of this assessment the consent holder shall provide a recommendation on the necessity of the requirement for additional landfill gas monitoring probes and, if necessary, the location and spacing of such probes, and the appropriate timing of future reviews should they be considered necessary.

(b) The conclusions of the assessment provided in (a) shall be provided to the Independent Peer Reviewer(s) for certification and Environment Southland for approval.

The following resource consent condition should be included in the discharge to land consent

- *A Construction Quality Assurance Plan prepared by a suitably qualified and experienced engineer which meets the requirements of Victoria EPA (2015) Best practice environmental Management for siting, design, operation, and rehabilitation of landfills shall be submitted and approved in writing by Environment Southland before any increase in filling rate occurs.*

The Applicant considers that the current process identified for Construction Quality Assurance is appropriate. As identified, AB Lime currently produce a Technical Specification, Quality Assurance and Quality Control (QA/QC) Standard prior to the construction of each area, and a Completion Report post the construction of each area. These three documents are reviewed by the Independent Peer

Reviewer and issued for approval to Environment Southland. The Applicant contends that it is not the responsibility of the landfill to comply with guidelines from another jurisdiction when there is a process in place that already appropriately manages these issues, and does not understand why the Victoria EPA guidelines are promoted in this instance.

It is considered that this is a procedural matter that can be concluded through discussions between Environment Southland, the Peer Reviewer and the Applicant.

3.2 Conclusion

Overall, having considered the EHS Support Peer Reviewer's commentary in regard to current and future operations and the applicability of the NESAQ, the Applicant reiterates its earlier view that the Peer Reviewer entirely misses the mark and incorrectly asserts that the NESAQ applies to the existing resource consent. Quite clearly it cannot. The air discharge consent predates the NES, and the RMA clearly bars the applicability of the NES to consents granted prior to it coming into force. We have appended an opinion from the Applicant's legal counsel confirming this view.

As previously stated, the Applicant does not need to comply with NES requirements for current operations. The granted consent prevails. Therefore, it is the view of the Applicant that any reservations and/or comments the Peer Reviewer has over current operations and their compliance with standards that do not currently need to be met, are *ultra vires*. This matter becomes solely a compliance issue for the Applicant for any new consent. The Applicant has consistently understood that there must be demonstration of compliance with NES regulations when exercising any new consent. It is the view of the Applicant that any technical concerns raised by the Peer Reviewer regarding current operations and the NES standards need to be set to one side by the regulatory authority. Quite clearly, the applicant is applying for a new air discharge permit. The applicant understands the implications of the NES applying to this new air discharge permit. It is the view of the Applicant that any technical concerns raised by the Peer Reviewer regarding current operations and the NES standards need to be set to one side by the regulatory authority. Quite clearly, the applicant is applying for a new air discharge permit. The applicant understands the implications of the NES applying to this new air discharge permit.

It is also concerning that in some instances, it appears the Peer Reviewer has missed integral parts of the application, including the proposed management plan structure and the contents of the Environmental Management Plan. Also, it appears the Peer Reviewer has either overlooked or misunderstood the robust process put forward by the Applicant in regard to certification and the submission of all management plans under the proposed schedule of conditions.

In regard to other matters raised by the Peer Reviewer, the Applicant considers that the requests provided by the Peer Reviewer are generally reasonable and intend all requests to be acted on, as identified in the responses above.

The Applicant concludes that there are no technical matters outstanding in relation to this peer review that are substantial in nature. Subsequently, the remainder of the issues can be addressed between the parties by appropriately worded conditions of consent and/or updates to the relevant management plans. The Applicant therefore believes that Environment Southland can make a determination on notification with certainty knowing that all relevant technical issues have been closed out or can be conditioned appropriately.

Ryan McCone

LLB(Hons)/BCom, Environmental Planner



Appendix A: Gallaway Cook Allan Legal Advice – NES Air Quality

22 November 2020



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Dear Directors

NES ADVICE

You have requested our advice regarding the applicability of the National Environmental Standard for Air Quality Regulations 2004 to the application by AB Lime for a new consent to remove the volume cap on the Landfill near Winton.

We understand that there may be confusion regarding the relevance of the NESAQ to the existing landfill consents v. the proposed suite of new consents sought to enable the 100,000 tonne cap to be lifted.

BACKGROUND

1. AB Lime currently hold a suite of consents from Southland District Council and Southland Regional Council to operate a landfill at 10-20 Kings Bend, Winton (the Landfill). The Landfill has been operational since 2004. This suite of consents limits the scale of activity by capping the volume of waste received by the landfill at 100,000 tonnes per annum.
2. AB Lime are seeking a full suite of new consents to replace those that currently authorize the operation of the Landfill. This suite would not be subject to any annual volume cap.
3. With respect to air discharges, there are currently two permits held by AB Lime:
 - (a) AUTH-201351 – to discharge contaminants to the air from a Landfill. This consent was granted in June 2003 and amended in 2010; and
 - (b) AUTH-20586201 – To discharge contaminants to air from a Limeworks. This consent was also obtained in June 2003.
4. AB Lime is seeking a new consent to discharge contaminants to the air from a Landfill. This consent will replace AUTH-201351.
5. AB Lime is seeking to vary the conditions of AUTH-20586201 to ensure cumulative effects associated with Landfill air discharge and Limeworks air discharge are appropriately managed.

6. The National Environmental Standard for Air Quality Regulations 2004 came into effect on 8 October 2004.

MATTERS RAISED IN PEER REVIEW REPORT

From page 8 of the EHA Support Peer Review memo dated 16 November 2020 the Gas Collection System is discussed. At the conclusion of the discussion the peer reviewer indicates that the proposed new air discharge consents should not be entertained until AB Lime demonstrate they are complying with the NESAQ. The peer review report also makes a number of other observations which we discuss below.

The NES was gazetted after AUTH-201351 was granted.	This is correct. Auth-201351 was granted in June 2003. The NES was gazetted in October 2004.
The applicant is not seeking a new air discharge consent	<p>This is incorrect. The applicant is seeking a new air discharge consent as part of the suite of consents being applied for that will enable more than 100,000 tonnes of material to be disposed of at the Landfill. This new consent will replace AUTH-201351.</p> <p>If the new suite of consents is not granted the applicant will continue to operate pursuant to AUTH-201351.</p>
AUTH-201351 Condition 18(e) includes a requirement to operate the flare at 750C	This is correct. However, the Council effectively authorised an amendment to this condition (pursuant to the memorandum dated 16 December in 2010). Further to that, any failure to comply with this is a compliance matter pursuant to the existing consent. It does not go to the appropriateness of the conditions being proposed under the new consent.
The only part of Auth-201351 that would overrule the NES related to condition 20(e)	This is incorrect. Pursuant to section 43B(6) the consent prevails over the NES. The fact that the consent and the NES may have equivalent standards in some respects does not alter the operation of section 43B(6). This is discussed further below.

WHICH REGIME PREVAILS CURRENTLY?

In this case there is an inconsistency between the consent conditions in AUTH-201351 and the NESAQ. The Act addresses this potential scenario at section 43B(6) which states:

S43B

(6) *The following permits and consents prevail over a national environmental standard:*

(a) *a coastal, water, or discharge permit*

(b) *a land use consent granted in relation to a regional rule.*

(6A) *Subsection (6) applies –*

(a) *if those permits or consents are granted before the date on which a relevant environmental standard is notified in the Gazette:*

(b) *until a review of the conditions of the permit of consent under Section 128(1)(ba) results in some or all of the standard prevailing over the permit or consent.*

AUTH-201351 has not been reviewed pursuant to section 128(1)(ba) and as such the NESAQ does not prevail over the conditions of AUTH-201351. Whilst the peer reviewer identifies a number of areas of concern none of these demonstrate any failure by AB Lime to comply with the conditions of AUTH-201351 (as altered by the 2010 Memorandum).

AUTH-201351 establishes the existing environment against which the proposed new suite of consents must be assessed.

WHICH REGIME PREVAILS FOR THE NEW CONSENTS

As set out in the Application at page 9-10 and Page 13 new consents are being sought to manage discharges to air from the Landfill if/when the landfill is receiving more than 100,000 tonnes of waste per year. The existing resource consents will be surrendered at the time the new suite of consents are to be exercised. The new consents will manage the entire landfilling operation.

Because these new consents are being sought since the NESAQ has come into force the NESAQ applies. We understand that conditions are being volunteered that are consistent with the requirements of the NESAQ.

AB Lime acknowledges that if it made an application on the same terms as AUTH-205351 today it would not be accepted. That is not what is proposed. The new consents being applied for are in line with the requirements of the NESAQ and as such AB Lime will need to undertake any necessary steps to upgrade the existing operations to ensure compliance with the new consent conditions prior to the exercise of the new consents¹.

To put it another way, consent is not being sought to maintain the status quo. AB Lime will continue to operate under the existing consent whilst any upgrade works are completed. They will be unable to expand their operations to receive more than 100,000 tonnes until such time as the conditions of the new suite of consents are met and the existing consents are surrendered. Further the applicant has proposed a condition requiring that compliance with the conditions of the new air discharge consent be demonstrated prior to the exercise of the new consents.

¹ The proposed new condition was set out at Row 28 of App B Review of Applicants Proposed Draft Resource Consent Conditions filed with the most recent response to request for further information.

However, it is also important to note that at this point in time AB Lime are only obliged to comply with the conditions of the existing consents. This does not require compliance with the NESAQ because the consent conditions currently prevail by virtue of section 43B(6). Therefore the peer reviewers suggestion that the new consents not be considered until compliance with the NESAQ is demonstrated is *ultra vires*.

CONCLUSION

In our view, the peer reviewer is, in part, concerned with the wrong question. Their assessment should be focused on whether the proposed suite of conditions in the new consent meet the requirements of the NESAQ, not whether existing operations occurring pursuant to the existing consent meet the NESAQ. That is not a relevant consideration in light of section 43B(6).

Regardless, in light of the conditions being offered by AB Lime it will be possible to confirm prior to the exercise of the new consent (and the increase in volume) that compliance with the conditions (and the NESAQ) is being achieved.

Yours faithfully

GALLAWAY COOK ALLAN



Bridget Irving

Partner (Dunedin)

Email: bridget.irving@gallowaycookallan.co.nz

**ATTACHMENT D. ENVIRONMENT SOUTHLAND'S NES LEGAL ADVICE
NOTE**

MEMORANDUM OF ADVICE

Date: 1 December 2020
To: Bruce Halligan (Environment Southland)
From: Mike Doesburg and Emmalene Lake

AB LIME RESOURCE CONSENT APPLICATION – NATIONAL ENVIRONMENTAL STANDARDS FOR AIR QUALITY ISSUE**Background and summary**

1. AB Lime currently hold a suite of consents that authorise the operation of a landfill near Winton. These consents include an air discharge permit granted in 2003 (amended in 2010), that expires in 2038.
2. The air discharge permit was granted before the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (**NESAQ**) were gazetted or came into effect. The existing landfill currently does not comply with Regulations 26 and 27 of the NESAQ relating to landfill gas collection and flaring.
3. AB Lime has applied for new consents, including to remove the annual volume cap on the existing landfill and to ultimately replace the existing air discharge permit. The peer reviewer engaged by Environment Southland to assess the application has raised questions in relation to the appropriateness of the existing air discharge permit, on the basis that it does not comply with the NESAQ.
4. AB Lime have provided a legal letter from Gallaway Cook Allan addressing this issue. You have asked us to review the letter and provide our opinion on the issue.
5. In short, we agree with the letter from Gallaway Cook Allan. Our advice is provided below.

Advice*Existing consent*

6. In summary, Gallaway Cook Allan's letter concludes that the existing air discharge permit was granted prior to the gazettal of the NESAQ and therefore prevails over the NESAQ, pursuant to section 43B(6) of the Act.
7. Section 43B(6A) provides that where a discharge permit is granted before the date on which a relevant NES is gazetted, it prevails over the NES unless and until there is a review of the conditions of the permit under section 128(1)(ba) of the Act.
8. The existing consent was granted in June 2003. The NESAQ was gazetted on 9 September 2004. Accordingly, section 43B(6) applies.¹
9. The conditions of the existing air discharge permit have not been reviewed in accordance with section 128(1)(ba), so that permit continues to prevail over the NESAQ. Accordingly, in our opinion, the current landfill operation must comply with the conditions of existing air discharge permit, but does not need to comply with the NESAQ generally.

¹ The Gallaway Cook Allan letter notes that the NESAQ took effect on 8 October 2004. While that is correct, it is not the relevant timeframe under section 43B. However, this minor error is of no importance.

Future consent

10. The new consent being sought by AB Lime includes a replacement air discharge permit. We understand that the intention is that the replacement air discharge permit would not commence until the landfill operation exceeds its current volume cap. At that time, the existing air discharge permit would be surrendered.
11. The replacement air discharge permit will not prevail over the NESAQ. Once the existing air discharge permit is surrendered, AB Lime will be required to comply with the NESAQ. We understand that AB Lime recognises this and has proposed conditions for the replacement air discharge permit that will ensure the NESAQ is complied with before that permit commences and on an ongoing basis.

Relevance of concerns raised by peer reviewer

12. For the reasons above, we consider that the peer reviewer's concerns about AB Lime's current compliance with the NESAQ is not a relevant consideration for the Council under section 95 of the Act for notification nor under section 104 in terms of the merits of the application.
13. However, the Council may wish to consider the information raised by the peer reviewer in terms of whether it wishes to undertake a review of the existing consent under section 128 of the Act.

Conclusion

14. We agree with Gallaway Cook Allan's letter in relation to the relevance of the peer reviewer's concerns. For the reasons above, AB Lime's current non-compliance with the NESAQ does not preclude the current consent application from continuing to be processed for notification and assessment on its merits.
15. Please contact us if you would like to discuss this further.

Wynn Williams

ATTACHMENT E. POSITIVE OUTCOMES

1. Introduction

The purpose of this document is to provide a tabulated form of the positive environmental outcomes associated with this proposal, particularly when compared to the existing consent.

Improvements are summarised in Table 1 below.

Table 1 Proposed environmental benefit, improvement and comparison with status quo

Proposed Environmental Benefit	Improvement	Comparison to status quo	Reference in Proposal/Evidence
1. Withdrawal of consent for the activity of leachate leakage	<ul style="list-style-type: none"> Under the current consent there is provision for the discharge of 26m³/day of leachate leakage and contaminated stormwater 	<ul style="list-style-type: none"> This contingency measure is no longer environmentally appropriate in 2021. This proposal will remove this activity permitted by the existing consent that would otherwise be operative until 2038. 	Mr McCone's evidence paragraph [34]-[39]
2. Application of the NES-AQ standards to this proposal including requirement for the compliance with Regulations 25-27 pertaining to the control of greenhouse gas emissions at landfills.	<ul style="list-style-type: none"> A tenfold improvement for the discharge of methane from the surface of the landfill from 50,000 ppm (existing consent), to 5,000 ppm; The requirement for a back-up flare to be installed. 	<ul style="list-style-type: none"> A tenfold improvement in the allowable discharge of surface methane is a considerable environmental benefit, considering the well-known properties of methane as an ozone depleting substance. This is particularly relevant given New Zealand's commitment to climate change. This proposal will improve the 50,000 ppm discharge permitted by the existing consent that would otherwise be operative until 2038. The requirement of a back-up flare will provide certainty when the principal flare is down. This will improve the efficacy of the flaring of landfill gas and reduce adverse environmental 	Reproduced in proposed Condition 8 of the discharge of contaminants into air from combustion

Proposed Environmental Benefit	Improvement	Comparison to status quo	Reference in Proposal/Evidence
		effects related to the occasions that landfill gas is not flared.	
3. A proposed framework for managing emergency waste	<ul style="list-style-type: none"> ▪ Provide certainty on a process to follow for AB Lime and key stakeholders when an emergency situation requiring a fast response is required for these waste acceptance scenarios. 	<ul style="list-style-type: none"> ▪ This will allow AB Lime to have a response process set into the consent conditions (and management plans) to allow a cohesive response to these situations in the future. A better response framework will provide a minimisation of potential adverse effects. ▪ Creating this framework is understood to be a first for Class 1 landfills in New Zealand and provides certainty for when future scenarios like <i>Mycoplasma Bovis</i> emerge. 	<p>Proposed Condition 19. Discharge Permit - Solid waste onto or into land</p> <p>Proposed Condition 5. Discharge Permit - To discharge of contaminants into air from refuse disposal facilities receiving greater than 100,000 m³/ year of uncompacted solid waste</p>
4. An increase in the depth of the landfill base liner	<ul style="list-style-type: none"> ▪ Landfill compacted soil liner increases from 300 mm to 600 mm to meeting modern standards and guidelines. 	<ul style="list-style-type: none"> ▪ This proposal will improve the depth of the base liner compared to the existing consent providing a reduced chance of leachate contamination to groundwater and surface water, which will otherwise not be a requirement under the existing consent. 	<p>Proposed Condition 3. Discharge Permit - Solid waste onto or into land</p>
5. Improved permanent capping design, as well as more permanent capping	<ul style="list-style-type: none"> ▪ A less permeable permanent cap has been provided with this proposal compared to the existing consent; and 	<ul style="list-style-type: none"> ▪ A less permeable cap will reduce greenhouse gas emissions, reduced fugitive gas emissions (and associated odour problems) and reduce leachate 	<p>Proposed Condition 7. Discharge Permit - Solid waste onto or into land</p>

Proposed Environmental Benefit	Improvement	Comparison to status quo	Reference in Proposal/Evidence
	<ul style="list-style-type: none"> ▪ A larger area of the landfill is set to be permanently capped. 	<p>production through less stormwater ingress.</p>	
<p>6. Removal of diluted contaminated material of Aluminium Dross Waste as an acceptable hazardous waste stream</p>	<ul style="list-style-type: none"> ▪ The acceptance of diluted contaminated material of aluminium dross waste is removed as part of this proposal. 	<ul style="list-style-type: none"> ▪ Aluminium dross waste that meets the criteria can continue to be accepted under the existing consent until the point of expiry in 2038. 	<p>Mr McCone's evidence paragraph [82]</p>
<p>7. Yearly review of waste acceptance criteria</p>	<ul style="list-style-type: none"> ▪ A yearly review of prohibited waste and waste acceptance criteria will allow the landfill to keep in step with modern regulations, particularly on emerging contaminants 	<ul style="list-style-type: none"> ▪ No yearly review of waste acceptance criteria is provided for under the existing consent, which expires in 2038. 	<p>Proposed Condition 15. Discharge Permit - Solid waste onto or into land</p>
<p>8. Any new Special Waste streams require acceptance from Independent Peer Reviewer and certification of Environment Southland</p>	<ul style="list-style-type: none"> ▪ This proposed consent condition ensures any Special Waste stream not previously accepted into the landfill must meet specified Special Waste Acceptance criteria and be approved independently prior to acceptance (NB Special Waste does not equate to unacceptable hazardous waste) 	<ul style="list-style-type: none"> ▪ No independent review for special waste streams is provided for under the existing consent, which expires in 2038. 	<p>Proposed Condition 14. Discharge Permit - Solid waste onto or into land</p>
<p>9. A commitment to leachate reduction</p>	<ul style="list-style-type: none"> ▪ Under the proposed conditions of consent leachate management procedures must be reviewed if there is a continued upward trend in the production of leachate ▪ A review of the leachate management procedures will result in a reduction in leachate volume, reducing the risk of leachate contamination. 	<ul style="list-style-type: none"> ▪ There is no equivalent measure required to manage leachate reduction under the existing consent, which expires in 2038. 	<p>Proposed Condition 26. Schedule 1 – General Conditions</p>

Proposed Environmental Benefit	Improvement	Comparison to status quo	Reference in Proposal/Evidence
<p>10. A reduction of the working face to 1000 m²</p>	<ul style="list-style-type: none"> ▪ There is no current restriction on the open working face. Prior to the lodgment of this proposal the open working face was approximately 3,600 m² 	<ul style="list-style-type: none"> ▪ A smaller working face provided for in the Landfill Operations Management Plan will: <ul style="list-style-type: none"> ▪ Produce less greenhouse gas emissions; ▪ Produce less fugitive gas emissions and provide better odour control; ▪ Provide less stormwater ingress; and ▪ Provide better vermin control ▪ Under the existing consent there is no restriction on the working face until the consent's expiry in 2038. 	<p>Landfill Operation Management Plan (LOMP) Section 7.4.3</p>
<p>11. Remediation of the oversteep faces</p>	<ul style="list-style-type: none"> ▪ Oversteep waste slopes will be reduced under this proposal over time 	<ul style="list-style-type: none"> ▪ Gentler waste slopes of 1(V):3(H) are provided for in the LOMP, whilst no limit is provided for under the existing consent. Gentler waste slopes will: <ul style="list-style-type: none"> ▪ Produce less greenhouse gas emissions; ▪ Produce less fugitive gas emissions and provide better odour control; and ▪ Provide less stormwater ingress and resulting leachate production 	<p>LOMP Section 14.4</p>
<p>12. Better daily, intermediate and temporary cover management</p>	<ul style="list-style-type: none"> ▪ Enhanced daily, temporary and intermediate capping will form part of this proposal 	<ul style="list-style-type: none"> ▪ The LOMP stipulates the following improvements compared to current operations: 	<p>LOMP Section 10</p>

Proposed Environmental Benefit	Improvement	Comparison to status quo	Reference in Proposal/Evidence
		<ul style="list-style-type: none"> ▪ Daily cover maximum allowable time period has been reduced from 4 weeks to 1 week; ▪ Intermediate cover now has a specified limit of 3 months (previously no limit); ▪ The introduction of an additional layer of cover in the way of a temporary capping standard ▪ Landfill cover betterment will provide a greater level of odour control, reduce the potential for landfill gas emissions and reducing rainfall infiltration 	
13. Creation of an area specific filling plan	<ul style="list-style-type: none"> ▪ An Area 15 filling plan has been created to provide the remediation of overstep faces, certainty for the placement of special waste and provides landfill operators with a guide on how to achieve waste placement with a smaller working face 	<ul style="list-style-type: none"> ▪ The LOMP provides an area specific filling plan to achieve many of the new standards set. This will provide cohesion between the standards provided in the LOMP and the operations team to ensure compliance. There is no filling plan identified under the existing LMP. 	LOMP Section 14
14. Conversion of landfill gas to fire the lime kilns	<ul style="list-style-type: none"> ▪ The conversion of landfill gas to power the kilns has begun on site. This will reduce SO₂ limits from the coal powered kilns. 	<ul style="list-style-type: none"> ▪ The use of landfill gas to power the kilns provides a betterment to net site discharges. As the landfill gas volume continues to consolidate, this can be used more often to power the kilns. ▪ Reduction in CO₂ emissions as coal is replaced 	Mr Smith's evidence paragraph [21]
15. Introduction of Hydrogen Sulphide (H ₂ S) monitoring on-site	<ul style="list-style-type: none"> ▪ The introduction of H₂S detection equipment will help AB Lime detect odour issues before they become an 	<ul style="list-style-type: none"> ▪ The H₂S monitoring provided in the Landfill Air Quality Management Plan (LAQMP) is not stipulated under the 	LAQMP Section 10

Proposed Environmental Benefit	Improvement	Comparison to status quo	Reference in Proposal/Evidence
	<p>issue off site. This provides real-time monitoring data for mitigation measures to be implemented</p>	<p>current LMP and is an improvement on site operations. This equipment requires considerable investment and would not be a requirement under the existing consent.</p> <ul style="list-style-type: none"> ▪ The implementation of this equipment is set to be a first for New Zealand landfills and provides a greater element of control on site before odour becomes an issue beyond the boundary. 	
<p>16. The introduction of a Boundary Odour Observations</p>	<ul style="list-style-type: none"> ▪ The introduction of boundary odour monitoring which is based on the current (2016) version of the Ministry for Environment Good Practice Guide for Assessing and Managing Odour 	<ul style="list-style-type: none"> ▪ The boundary odour monitoring provided in the Landfill Air Quality Management Plan (LAQMP) is not stipulated under the current LMP and is an improvement on site operations. 	<p>LAQMP Section 10.4</p>
<p>17. Staged mitigation levels for controlling odour</p>	<ul style="list-style-type: none"> ▪ A mitigation table has been introduced as part of the LAQMP to provide AB Lime with a toolkit to respond to odour issues dependent on their severity on site. 	<ul style="list-style-type: none"> ▪ The mitigation table provided in the Landfill Air Quality Management Plan (LAQMP) is not stipulated under the current LMP and is an improvement on site operations. 	<p>LAQMP Section 4</p>
<p>18. The introduction of a comprehensive management plan framework</p>	<ul style="list-style-type: none"> ▪ The introduction of an overarching Environmental Management Plan and ten sub-management plans provides great clarity for each key aspect of landfill operations. ▪ There is an individual management plan for the following aspects of the landfill, and each is far more 	<ul style="list-style-type: none"> ▪ This management plan framework for managing each aspect of the landfill operations does not exist, nor is it a requirement under the existing consent. Instead the current consent only necessitates: <ul style="list-style-type: none"> ▪ A Landfill Management Plan; ▪ A Landfill Concept, Landscape, Rehabilitation and Aftercare Plan; 	<p>Mr McCone's evidence – Attachment B</p>

Proposed Environmental Benefit	Improvement	Comparison to status quo	Reference in Proposal/Evidence
	<p>comprehensive than under the existing consent:</p> <ul style="list-style-type: none"> ▪ Landfill Operations; ▪ Landfill Gas; ▪ Landfill Concept, Landscape, Rehabilitation and Aftercare; ▪ Landfill Leachate; ▪ Landfill Air Quality; ▪ Site Traffic; ▪ Site Stormwater; ▪ Site Accidental Discovery Protocol 	<ul style="list-style-type: none"> ▪ A Dust Management Plan; and ▪ Environmental Monitoring and Contingency Plan ▪ The above documents have been incorporated, expanded upon and superseded by the proposed management plan framework. 	

**ATTACHMENT F. SITE ARCHAEOLOGICAL KOIWI OR TAONGA
ACCIDENTAL DISCOVERY PLAN**



AB Lime Limited Resource Consent Application

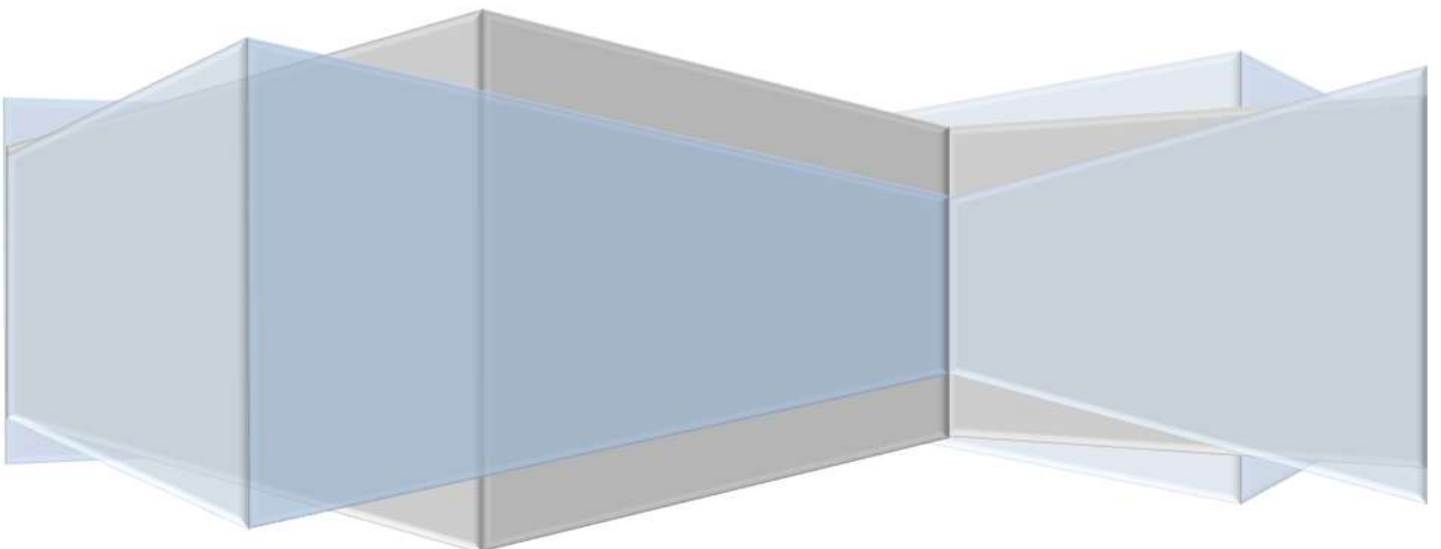
AB Lime Site Archaeological/Koiwi or Taonga Accidental Discovery Plan

IZ000400-LFC-NP-RPT-0003 | 1

07 April 2021

AB Lime Ltd

Draft for Consenting Purposes



AB Lime Limited Resource Consent Application

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Document history and status

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0	29/05/2020	Final Draft for Consenting Purposes	Ryan McCone	Craig Redmond	Andrew Henderson	Vince Pace
1	07/04/2021	Updated with Hokonui and Te Ao Marama Inc information	Donne Wallace-Hunter	Craig Redmond	Andrew Henderson	Vince Pace

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Important note about this report

This report has been prepared by Jacobs for AB Lime Limited (the Client) for the purposes of a Site Archaeological/Koiwi or Taonga Accidental Discovery Plan guiding the management Taonga and artefact discovery at the AB Lime landfill and quarry. Jacobs accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this report (or any part of it) for any other purpose.

In preparing this report, Jacobs has relied upon, and presumed accurate, any information (or confirmation of the absence thereof) provided by the Client and/or from other sources. Except as otherwise stated in the report, Jacobs has not attempted to verify the accuracy or completeness of any such information. If the information is subsequently determined to be false, inaccurate or incomplete then it is possible that our observations and conclusions as expressed in this report may change.

Jacobs derived the data in this report from information sourced from the Client (if any) and/or available in the public domain at the time or times outlined in this report. The passage of time, manifestation of latent conditions or impacts of future events may require further examination of the project and subsequent data analysis, and re-evaluation of the data, findings, observations and conclusions expressed in this report.

Jacobs has prepared this report in accordance with the usual care and thoroughness of the consulting profession, for the sole purpose described above and by reference to applicable standards, guidelines, procedures and practices at the date of issue of this report. For the reasons outlined above, however, no other warranty or guarantee, whether expressed or implied, is made as to the data, observations and findings expressed in this report, to the extent permitted by law.

This report may also describe specific limitations and/or uncertainties which qualify its findings. Accordingly, this report should be read in full and no excerpts are to be taken as representative of the findings unless any such excerpt and the context in which it is intended to be used have been approved by Jacobs in writing.

1. Introduction

1.1 Purpose/Objective of the Site Archaeological/Koiwi or Taonga Accidental Discovery Plan

The purpose of the Site Archaeological/Koiwi or Taonga Accidental Discovery Plan is to manage Taonga and artefact discovery at the AB Lime landfill and quarry in accordance with the corresponding legislative requirements outlined below in Section 2. The Site Archaeological/Koiwi or Taonga Accidental Discovery Plan covers the following matters:

- Taonga or Artefact Discovery Protocol.

1.1.1 Management Plan Structure

The operation of the AB Lime landfill and quarry requires a suite of environmental management and mitigation plans to operate the site. The Environmental Management Plan sets the overall framework for the operation of the site and is supported by a series of sub-management plans focusing on specialist environmental areas to effectively run the landfill and quarry.

The Site Archaeological/Koiwi or Taonga Accidental Discovery Plan is a sub-management plan under this framework that manages Taonga and artefact discovery on site. Figure 1.1 below illustrates the relationship between the Site Archaeological/Koiwi or Taonga Accidental Discovery Plan and the remainder of the AB Lime management plan framework.

This plan has been prepared in accordance with the certification and submission process outlined in Section 1 of the AB Lime Environmental Management Plan.

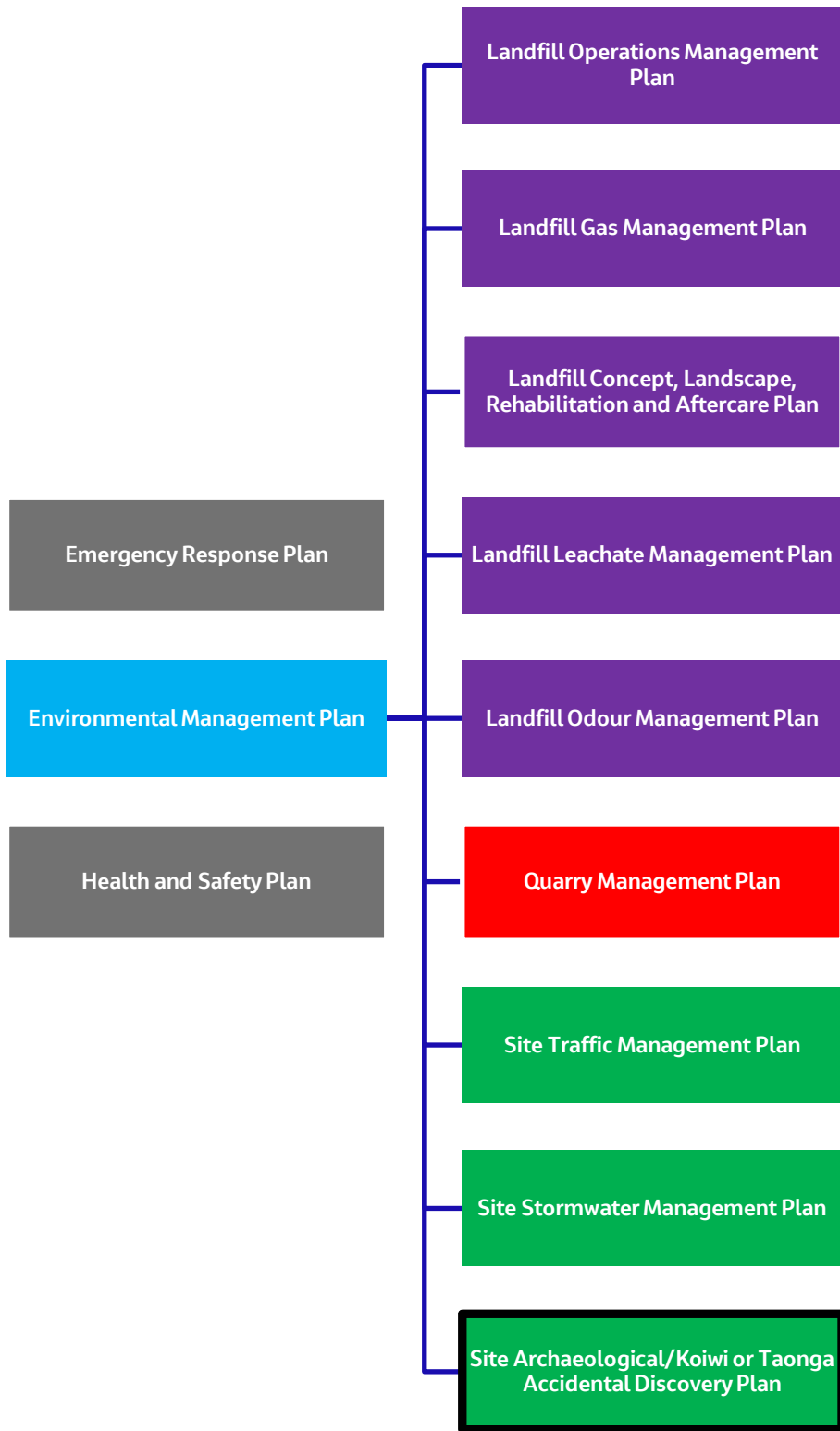


Figure 1 AB Lime Limited Management Plan Structure

Key:



2. Legislative Requirements

Processes and procedures relating to the discovery or disturbance of archaeological or cultural sites are found in the Heritage New Zealand Pouhere Taonga Act 2014, in tandem with Resource Management Act 1991 requirements to protect cultural values. These legislative requirements are reflected in the conditions of the consents under which AB Lime operate. This Site Archaeological/Koiwi or Taonga Accidental Discovery Plan outlines the consent conditions that this plan is designed to assist with implementing and provides the wider framework to assist in implementing these conditions.

2.1 Resource Consent Requirements

Table 1 Relevant Conditions for Consents related to Site Archaeological/Koiwi or Taonga Accidental Discovery Plan

Condition Number	Condition	Reference
Land Use Consent 60/3/02/138/1		
2.19	The consent holder shall prepare and maintain a Site Archaeological/Koiwi or Taonga Accidental Discovery Plan (SAKTDP). The SAKTDP shall describe the accidental discovery protocols for the site, including demonstrating how compliance with the relevant conditions of this consent will be achieved. The plan shall also achieve the following objectives: <ul style="list-style-type: none"> i. To realise familiarity with accidental discovery protocols 	Section 3.1, 3.2
Schedule 1 – General Conditions		
2829.	The consent holder shall prepare and maintain a Site Archaeological/Koiwi or Taonga Accidental Discovery Plan (SAKTDP). The SAKTDP shall describe the accidental discovery protocols for the site, including demonstrating how compliance with the relevant conditions of this consent will be achieved. The plan shall also achieve the following objectives: <ul style="list-style-type: none"> i. To ensure realise familiarity with accidental discovery protocols; ii. Protocols are followed in the event of an accidental discovery. 	Section 3.1, 3.2, 3.3

2.2 Monitoring and Reporting the performance of the Site Archaeological/Koiwi or Taonga Accidental Discovery Plan

Table 2 Monitoring and Reporting Requirements Related to the Site Archaeological/Koiwi or Taonga Accidental Discovery Plan

Condition	Requirement	Relevant Regulatory Authority	Frequency	Date	Responsibility
Land Use Consent 60/3/02/138/1					
2.27	Kōiwi Accidental Discovery: If Kōiwi (human skeletal remains) are discovered, then work shall stop immediately and Te Ao Marama Inc (Ngāi Tahu (Murihiku) Resource Management Consultants) and Hokonui Rūnanga will be advised. They will arrange a site inspection by the appropriate Tangata whenua and their advisers, including	Southland District Council	Upon discovery	N/A	Environmental Manager

Condition	Requirement	Relevant Regulatory Authority	Frequency	Date	Responsibility
	<p>statutory agencies, who will determine whether the discovery is likely to be extensive and whether a thorough site investigation is required. Materials discovered will be handled and removed by iwi responsible for the tikanga appropriate to their removal or preservation.</p> <p><u>Taonga or Artefact Accidental Discovery</u></p> <p>Taonga or artefact material (eg pounamu / greenstone artefacts) other than Kōiwi will be treated in a similar manner so that their importance can be determined, and the environment recorded by qualified archaeologists alongside the appropriate Tangata whenua.</p> <p><u>In-situ (Natural State) Pounamu/Greenstone Accidental Discovery</u></p> <p>Pursuant to the Ngāi Tahu (Pounamu Vesting) Act 1997, all natural state pounamu/greenstone in the Ngāi Tahu tribal area is owned by Te Rūnanga o Ngāi Tahu. The Ngāi Tahu Pounamu Resource Management Plan provides for the following measure:</p> <ul style="list-style-type: none"> ▪ Any in-situ (natural state) pounamu/greenstone accidentally discovered should be reported to the Pounamu Management Officer of Te Rūnanga o Ngāi Tahu as soon as is reasonably practicable. The Pounamu Management Officer of Te Rūnanga o Ngāi Tahu will in turn contact the appropriate Kaitiaki Papatipu Rūnanga. ▪ In the event that the finder considers the pounamu is at immediate risk of loss such as erosion, animal damage to the site or theft, the pounamu/greenstone should be carefully covered over and/or relocated to the nearest safe ground. The find should then be notified immediately to the Pounamu Management Officer. 				

Condition	Requirement	Relevant Regulatory Authority	Frequency	Date	Responsibility
	<p>Contact details for the Pounamu Management Officer are as follows:</p> <p>Ngāi Tahu Pounamu Management Officer PO BOX 13046 Christchurch (03) 366 4344 Email: pounamu@ngaitahu.iwi.nz Website: www.ngaitahu.iwi.nz</p>				
Schedule 1 – General Conditions AUTH 201346, 201347, 201348, 201349, 201350, 201351					
35 36.	<p>In the event that any human remains, Koiwi, or archaeological items are discovered, the works in that area of the site shall cease immediately and the Police, Tangata Whenua (including Te Rūnanga o Awarua, Waihōpai Rūnaka and Te Rūnanga o Hokonui), and/or Heritage New Zealand Pouhere Taonga, and the Southland Regional Council, shall be notified as soon as practicable. Works may recommence with the written approval of the Southland Regional Council. Such approval shall be given after the Southland Regional Council has considered:</p> <ol style="list-style-type: none"> i. Tangata Whenua interests and values; ii. the consent holder’s interests; iii. any archaeological or scientific evidence; and iv. any requirements of the Police. 	Southland Regional Council	Upon discovery	N/A	Environmental Manager

2.2.1 Interaction Between Legislative Requirements and the Site Archaeological/Koiwi or Taonga Accidental Discovery Plan

If there is a conflict between the management plan and the corresponding legislative requirements, including consent conditions, then the legislative requirements must prevail.

3. Site Archaeological/Koiwi or Taonga Accidental Discovery

The consent conditions identified in Section 2 appropriately identify the protocols to be followed on site upon discovery of Taonga or Artefacts. In summary the following protocols should be followed.

3.1 Koiwi (Human Skeletal Remains) Discovery

- If Kōiwi (human skeletal remains) are discovered, then work within 100 metres shall stop immediately and Te Ao Marama Inc (Ngāi Tahu (Murihiku) Resource Management Consultants) and Hokonui Rūnanga will be advised. Also, the Police, and/or Heritage New Zealand Pouhere Taonga, and Environment Southland, shall be notified as soon as practicable;
- Te Ao Marama Inc. and Hokonui Rūnanga will arrange a site inspection by the appropriate Tangata whenua and their advisers, including statutory agencies, who will determine whether the discovery is likely to be extensive and whether a thorough site investigation is required; and
- Materials discovered will be handled and removed by iwi responsible for the tikanga appropriate to their removal or preservation.

3.2 Taonga or Archaeological Artefact Discovery

- Taonga or artefact material (e.g. pounamu / greenstone artefacts) other than Kōiwi will be treated in a similar manner identified in Section 3.1 so that their importance can be determined, and the environment recorded by qualified archaeologists alongside the appropriate Tangata whenua;
- In-situ (Natural State) Pounamu/Greenstone Accidental Discovery Pursuant to the Ngāi Tahu (Pounamu Vesting) Act 1997: All natural state pounamu/greenstone in the Ngāi Tahu tribal area is owned by Te Rūnanga o Ngāi Tahu. The Ngāi Tahu Pounamu Resource Management Plan provides for the following measures;
 - i. Any in-situ (natural state) pounamu/greenstone accidentally discovered should be reported to the Pounamu Management Officer of Te Rūnanga o Ngāi Tahu as soon as is reasonably practicable. The Pounamu Management Officer of Te Rūnanga o Ngāi Tahu will in turn contact the appropriate Kaitiaki Papatipu Rūnanga; and
 - ii. In the event that the finder considers the pounamu is at immediate risk of loss such as erosion, animal damage to the site or theft, the pounamu/greenstone should be carefully covered over and/or relocated to the nearest safe ground. The find should then be notified immediately to the Pounamu Management Officer.

Contact details for the Pounamu Management Officer are as follows:

Ngāi Tahu Pounamu Management Officer

PO BOX 13046

Christchurch

(03) 366 4344

Email: pounamu@ngaitahu.iwi.nz

Website: www.ngaitahu.iwi.nz

3.3 Return to Work

Works may recommence with the written approval of Environment Southland. Such approval shall be given after Environment Southland has considered:

- i. Tangata Whenua interests and values;
- ii. the consent holder's interests;
- iii. any archaeological or scientific evidence; and
- iv. any requirements of the Police.