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Section 42A Report

Section 42A of the Resource Management Act 1991

Date: 16 August 2021

To: Bruce Halligan
Acting Consents Manager

From: Stephen West, Principal Consents Officer

IRIS ID: APP-20202357

Subject: ***Section 42A Report – Resource Consent Application considered under Delegated Authority***

1. The Application

1.1 The proposed activity

Applicant: Alliance Group Limited

Application: To discharge combustion contaminants and odour to air from meat processing and hide salting operations

Site address or location: 18-30 McQueen Avenue, Maitava and 50 Selbourne Street, Maitava

Legal description: Lots 1 & 2 DP 12431, Lot 1 DP 12500, Sections 1-3 Block VII TN OF Maitava, Part Section 4 Block VII TN OF Maitava, Lot 1 DP 5255, Lots 3-7 DP 5255, Part Sections 6 & 7 Block VII TN OF Maitava, Lot 1 DP 8137, Lots 1 & 2 DP 9633, Section 10 Block VII TN OF Maitava, Part Section 28 Block XIII TN OF Maitava

Map co-ordinates: 1,281,349E 4,876,433N NZTM

The proposal

Alliance Group Limited has applied for a resource consent to discharge contaminants and odour to air from its meat processing plant at Maitava. The plant is a beef animal processing facility.

The plant has three operational coal or lignite-fired boilers (9.4MW main boiler, 0.923 MW hide plant boiler and 0.16 MW office boiler), and a back-up coal-fired 3.8MW boiler. The hide plant boiler stack is sited approximately 2 km northeast of the main plant boiler stack. Key combustion contaminant emissions are fine particulate (PM₁₀ and PM_{2.5}), sulphur dioxide (SO₂) and nitrogen dioxide (NO₂).

The applicant proposes to upgrade the main boiler within three years, either installing a bag-house filter or replacing the boiler with a new biomass-fired boiler. Following discussion with the submitters the applicant

has also committed to ceasing the use of coal in the main boiler within 5 years, and in the Hide Plant boiler within 15 years.

The key sources of odour emissions from the plant are associated with the waste systems, such as decanting of wastewater treatment solids, storage and disturbance of compostable solids, and storage and load-out of renderable solids (rendering occurs at the Lorneville site). A series of modifications are proposed as mitigation.

The emission of contaminants to air from the meat processing plant is a **discretionary activity** under Rule 5.5.2 of the Regional Air Plan.

1.2 Description of the affected environment

The applicant's plant is sited on the right (west bank) of the Maitai River at Maitai township. There is an industrial site (a former paper mill) on the opposite bank, but otherwise the surrounding land use is largely residential or commercial. State Highway 1 and the Main South railway line run along the western side of the applicant's property.

The township contains 747 dwellings and has a population of 1,629 people. The nearest dwellings to the applicant's plant are 110 m to the west, 200 m to the south and 300 m north east. Maitai School is about 300 metres southwest of the plant. Due to the proximity of residences, the surrounding area is sensitive to emissions to air from applicant's plant.

The Maitai River is a statutory acknowledgement area under the Ngāi Tahu Claims Settlement Act, which means that there is an acknowledged traditional, historic, cultural and spiritual association with the river for Ngāi Tahu. The Maitai Falls, adjacent to the plant, had a local significance, particularly for mahinga kai¹ and is part of a Maitai Reserve²

The topography of the area is flat to the west, with a higher terrace on the opposite side of the river to the east.

1. The following chart indicates wind strength and direction in Maitai:

¹ Source: Schedule 42 of the Ngāi Tahu Claims Settlement Act

² Maitai reserves are areas where the tangata whenua manage all non-commercial fishing by making bylaws. The bylaws must apply equally to all individuals. maitai reserves may only be applied for over traditional fishing grounds and must be areas of special significance to the tangata whenua. Generally there is no commercial fishing within maitai reserves. Source: <https://www.gdc.govt.nz/assets/Files/Freshwater-Plan/R13-MFish-FAQ-maitai-105.pdf>

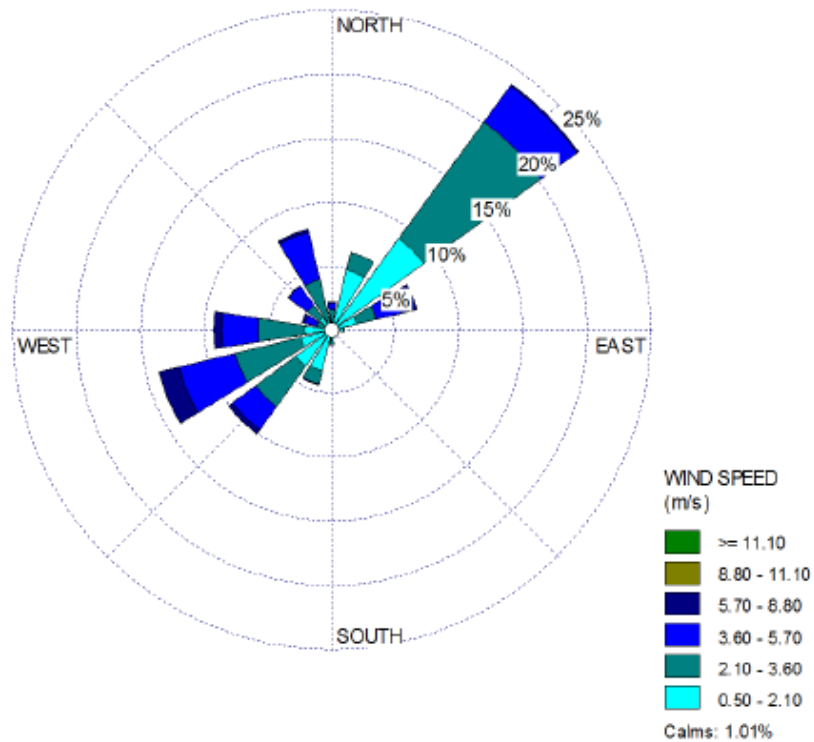
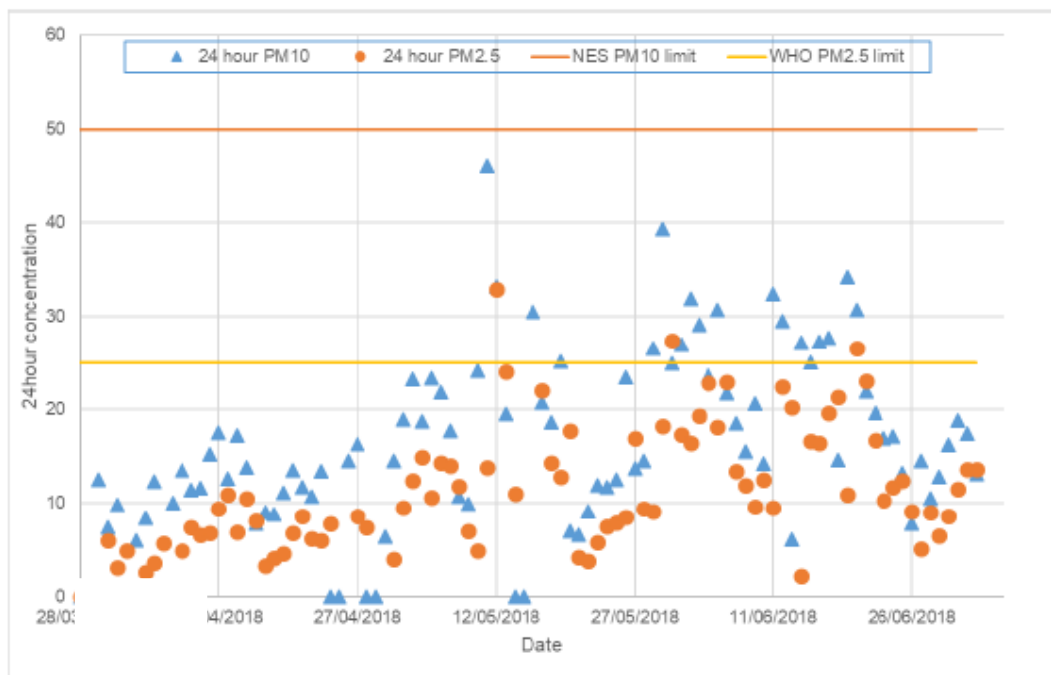


Figure 3: Mataura wind rose (April – July 2018).

There are elevated concentrations of inhalable fine particulate in air in the Mataura township. The ambient PM₁₀ concentrations comply with the National Environmental Standards, but the very fine particulate PM_{2.5} concentrations sometimes breach the World Health Organisation guidelines. Concentrations tend to be higher on cold, calm winter days, and this is likely to be associated with home heating emissions.



Southern Boundary Monitoring station 24-hour average PM₁₀ and PM_{2.5} concentrations.

Ambient concentrations of sulphur dioxide (SO₂) in the township are estimated to be as follows:

- 120 µg/m³, 1-hour average
- 30 µg/m³, 24-hour average
- 5 µg/m³, annual average

Background concentrations of nitrogen dioxide (NO₂) in the township are estimated as:

- 58 µg/m³, 1-hour average
- 38 µg/m³, 24-hour average
- 13 µg/m³, annual average

1.3 Planning framework

Resource consents are required under Rule 5.5.2 of the Regional Air Plan

The discharge is a **discretionary** activity.

Under Section 104B the Council may grant or refuse consent for a **discretionary activity**, and if it grants the application, may impose conditions under Section 108 of the RMA.

1.4 Notification and written approvals

A decision was made to publicly notify the application on 1 December 2020. 103 submissions were received. 101 submissions were in support and 2 opposed the application. Three of the submitters wished to be heard.

99 of the supporting submissions were identical, with another utilising the same text with a short additional comment.

The submissions are summarised as follows:

Submitter	Oppose/ Support	Issues/comments <i>Decision/Changes sought</i>	To be Heard?
Hokonui Rūnanga Inc	Oppose	<ul style="list-style-type: none"> • Adverse effects on amenity and health of whanau • Concern about odour discharges • Supportive of biofuel burner option • Opposed to long-term coal use • Opposed to 35 year period sought by applicant <p style="text-align: center;"><i>Use of biofuel burner instead of coal Review of odour mitigation within 2 years Consent duration not exceeding 25 years</i></p>	Initially Yes, but since withdrawn
Ministry for Education	Oppose	<ul style="list-style-type: none"> • Adverse effects on amenity and health on school staff and students • Concern about odour discharges • Opposed to 35 year period sought by applicant <p style="text-align: center;"><i>Implementation of odour mitigations within 12 months Consent duration not exceeding 20 years</i></p>	Initially Yes, but since withdrawn
McDonald, Trevor Claude	Support	<ul style="list-style-type: none"> • Applicant/Council(?) concerned about CO₂ emissions but not about ash and smog from burning wood and coal in township • Electrostatic precipitator technology could be fitted to smoke stack – should be considered as an alternative. 	Initially Yes, but since withdrawn

Submitter	Oppose/ Support	Issues/comments <i>Decision/Changes sought</i>	To be Heard?
		<ul style="list-style-type: none"> Long term hydrogen technology could be fitted that would outperform coal and wood systems, and have no CO₂ emissions. 	
Affleck, Rex William Andrew, Kelvin Anwar, Ricky Bloxham, Petra Bond, Lyndon Boogerd, Frank Hubregt Boogerd-Te lindert, Cindy Brown - Herbie R & Jacqueline A Brown, Kerrilyn Frances Butel, Peter G. Cartwright, Kerry Michael Cleland, Tony Colina, Russell Davis, Shaun Denham, Andrew Edward Duthie, Shania Fairclough, Linley Federated Farmers of New Zealand (Southland Province) Fiveash, Kevin Frazer, Alex Frazer, Grace Halbert, Mackenzie Hamill, Blair Hamilton - Noel & Ralph Hargest, Peter James Heehau, Tevita S. Henderson, Karen Hiri, Hinewai Hitchens, Paul Hollows, Deborah Marie	Support	<ul style="list-style-type: none"> The Mataura meatworks plant is a vital part of Southland's agricultural sector. Plant is also a vital component of the local and regional economy, employing 500 people and contributing \$164 million per year to the economy, and about \$30 million in wages and salaries. Application proposes significant investment to upgrade its boilers within three years and odour management within one year. <p style="text-align: right;"><i>Grant the application</i></p> <p style="text-align: center;"><i>The consent period should be 35 years to ensure security and stability for the company, employees and community.</i></p>	

Submitter	Oppose/ Support	Issues/comments <i>Decision/Changes sought</i>	To be Heard?
Hollows, Thomas Allen Illupane, Visio Instone, Suzanne Gail Jamieson, Jill Johnston, Kathryn (Kate) Johnston, Tony Johnstone, Katrina Joy Karena, Christine Karera, Richard Katon, Margaret Keach, Adilyn Keach, Harlyn Keach, Paityn Keach, Zayln Keen - K J & Z M King, Tony Peter Kubala, John Landreth, James Selwyn Lansdell, Helen Marie Lister, Mark James Love, Nicholas Lynch, Kerry McBurney, Corinne McCandless, Katie McDonald, Brendon McKee, Jessica McNeill Distribution Limited Monaghan, Steven T Muir, Bathan Pow Napier, Anna New Zealand Meat Workers Union - Mataura Sub Branch Newton, Russell Graeme			

Submitter	Oppose/ Support	Issues/comments <i>Decision/Changes sought</i>	To be Heard?
Ngu, Tere Nurhayati O'Connell, Kevin Patterson, Kaye Pavitt, Alice Perkins, Harvey David Phillipson, Gloria Pohatu, Wendy Prattley, Allan Qasevakatini, Livia Ramage, Fona Ramage, Shannon-Lee Rollinson, Wayne Schroder, Shaun Shallish, Dion Shirley, Nathan Smith, Adam Smith, Elizabeth Jane Spiers, Sam Sullivan, Seamus Thomas Kerry Svensson, Heather Tayles, Gavin Cyril Turuariki, Achsin Tutty, Colin Robert Tuulau, Tisi Vass, Trevor Vass, Wayne Vettters, Jennifer Vettters, Robert Bruce Vettters, Sky Vettters, Wesley Vincent, Graham Wallace, Brodie White, Trevor Shane Wilson, Baylee Wilson, Brooke Windle, John Kevin			

Submitter	Oppose/ Support	Issues/comments <i>Decision/Changes sought</i>	To be Heard?
Gardyne, Hugh Donald	Support	<ul style="list-style-type: none"> • The Mataura meatworks plant is a vital part of Southland’s agricultural sector. • Plant is also a vital component of the local and regional economy, employing 500 people and contributing \$164 million per year to the economy, and about \$30 million in wages and salaries. • Application proposes significant investment to upgrade its boilers within three years and odour management within one year. • Technology & waste management systems are substantially improved and will continue to during the term of the consent. <p style="text-align: right;"><i>Grant the application</i></p> <p style="text-align: center;"><i>The consent period should be 35 years to ensure security and stability for the company, employees and community.</i></p>	No

As none of the submitters wish to be heard, the matter can be decided without a hearing. That said, the applicant and submitters still retain rights of appeal.

Part of the applicant’s agreement with Hokonui Rūnanga Inc and the Ministry for Education involved phase-out of the use of coal in the main boiler, the back-up boiler and the hide plant boiler.

1.5 Effects on the environment

The effects of the discharges to air on the environment include:

- Health effects, particularly due to the boiler emissions cumulatively with background air quality
- Amenity value effects, particularly due to odour emissions
- Economic and social effects
- Effects on cultural and spiritual values

Economic and social effects

The discharges are associated with the operation of the applicant’s meat processing plant at Mataura. Section 5 of the application refers to the economic and social benefits of the operation of the applicant’s plant. These include:

- The plant employs 500 people during the peak of the processing season.
- The plant pays out \$22 million each year in wages and salaries and spends a further \$12.3 million for goods and services in the Southland region.
- The plant contributes to the critical mass of Gore District, which benefits the residents and businesses of the district in terms of economies of scale, competition, resource utilisation and provision of services.
- The operation of the plant helps minimise transport costs (and associated greenhouse gas emissions) as alternatives would require trucking cattle further for processing.

Effects on cultural and spiritual values

The site is adjacent to the Mataura River, a Mataitai Reserve and the Mataura Falls, so the discharge can impact on air quality in areas with recognised cultural, historic, traditional and spiritual values. I note that Section 3.2.1 of Te Tangi a Tauria identifies that discharges to air can impact on cultural well-being, and that there is a “lack of understanding of effects on cultural well-being, hinengaro (mind), wairua (spirit), mauri (life force), tinana (body) from increased levels of air pollution”. Part (b) of Policy TW.4 of the Regional Policy Statement states that “only tangata whenua can identify their relationship and that of their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga”. Hokonui Rūnanga made a submission identifying potential effects on cultural values and on the health and wellbeing of whanau members and the wider community.

Combustion emissions

Existing coal-fired boilers

The applicant has modelled the effect of contaminant emissions from the plant. The following plots from the application show the PM₁₀ and PM_{2.5} 24-hour average ground level concentrations as a result of the coal-fired boiler emissions.

Please note that these plots do not include background concentrations.

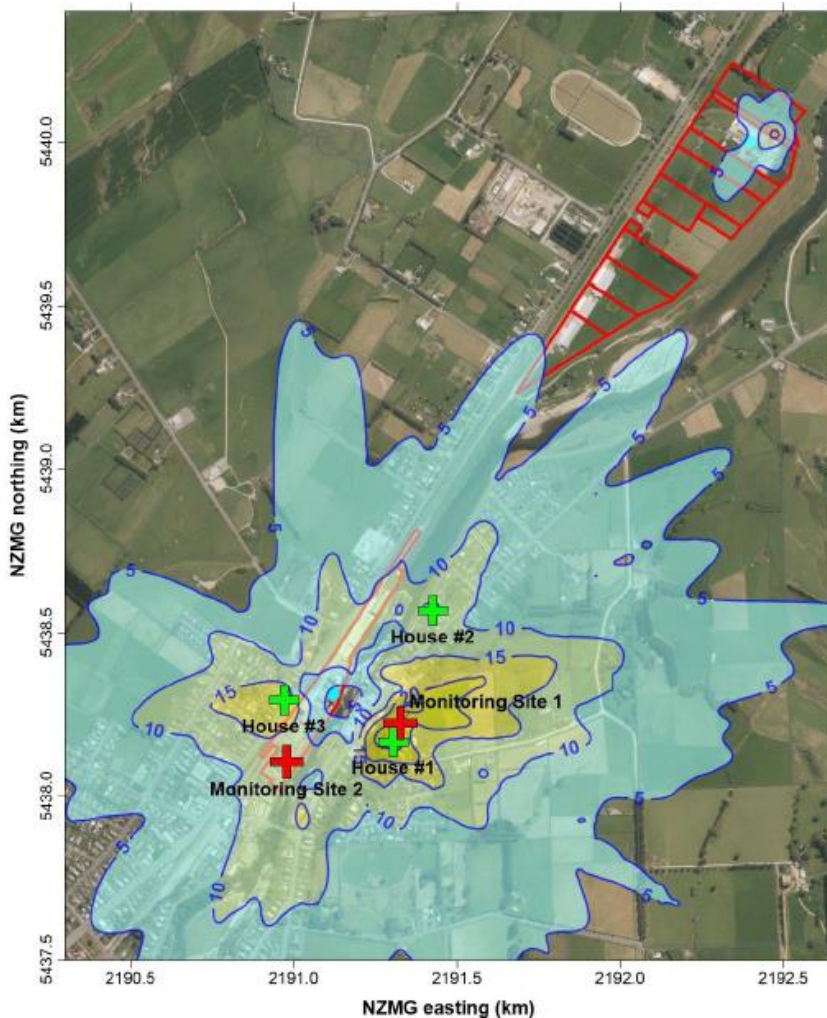


Figure 8: Predicted maximum 24-hour average PM₁₀ ground level concentrations (µg/m³), excluding background concentrations. CFB 2 at 64% MCR, CFB 3 at 40 % MCR.

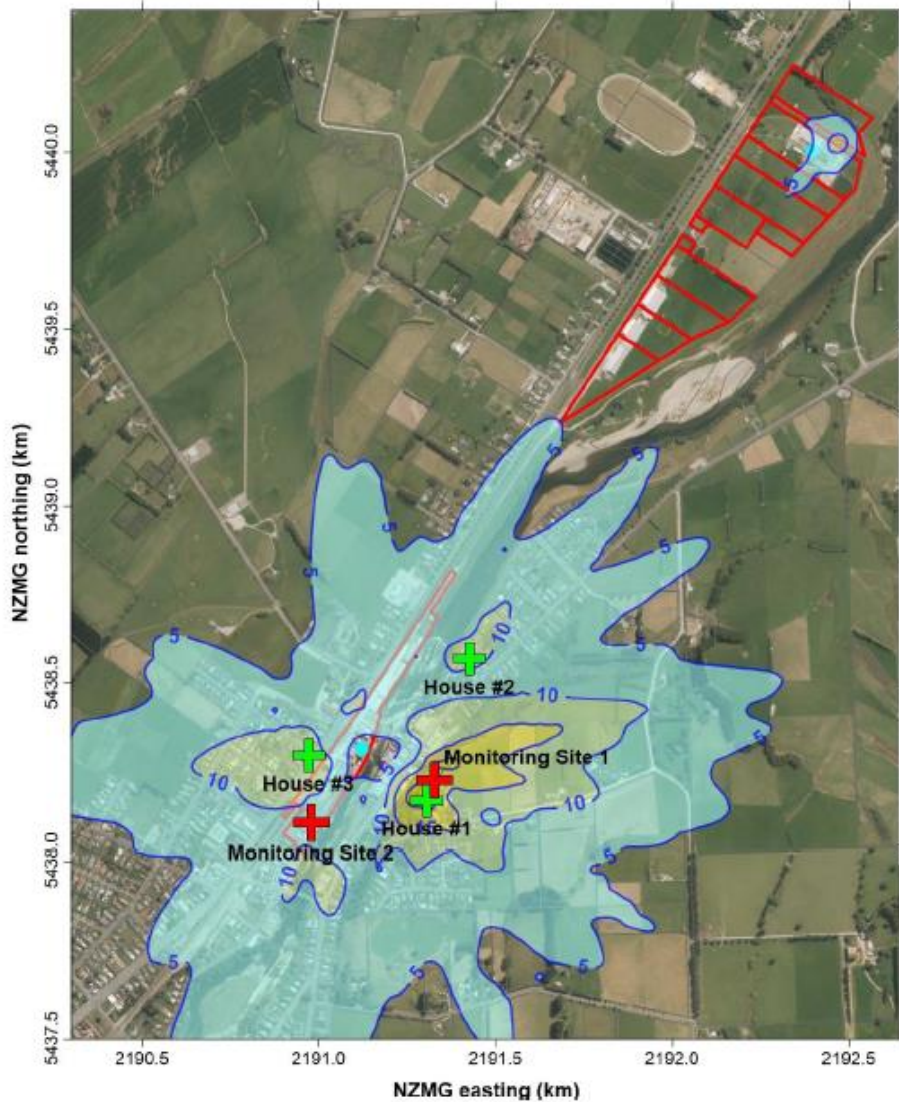


Figure 10: Predicted maximum 24-hour average PM_{2.5} ground level concentrations (µg/m³), excluding background concentrations. CFB 2 at 64% MCR, CFB 3 at 40% MCR.

Based on modelling, the cumulative effect of the background air quality and the emissions from the applicant's existing coal-fired boilers will result in 24-hour and annual concentrations of inhalable particulate (PM₁₀ and PM_{2.5}) that approach or exceed health-based guidelines and standards. The maximum cumulative ambient concentrations offsite are expected to be at the southern boundary of the applicant's site:

- 44 µg/m³ 24-hour average PM₁₀ concentration (88% of the NES-Air Quality)
- 15 µg/m³ annual average PM₁₀ concentration (75% of the Ambient Air Quality Guidelines)
- 32 µg/m³ 24-hour average PM_{2.5} concentration (**128% of the WHO guidelines**)
- 9 µg/m³ annual average PM_{2.5} concentration (90% of the WHO guidelines)

The fine particulate concentrations at the most affected dwelling ('House 1') may be up to:

- 42 µg/m³ 24-hour average PM₁₀ concentration (84% of the NES-Air Quality)
- 31 µg/m³ 24-hour average PM_{2.5} concentration (**124% of the WHO guidelines**)

Predicted sulphur dioxide and nitrogen dioxide cumulative concentrations comply with the NES-Air Quality and Ambient Air Quality Guidelines. The effect of sulphur dioxide and nitrogen dioxide emissions on human health, animals and vegetation should therefore be no more than minor.

Mitigation options

Appendix B of the application is a report by Golder Associates that models the effects of the two future options for the main boiler: coal-fired boiler with a baghouse filter and biomass-fired boiler.

Coal-fired boiler with baghouse filtration

Modelling indicates that the cumulative effect of the discharge from the coal-fired boiler with a baghouse filter and background concentrations at the southern boundary of the applicant's site may be up to:

15 µg/m ³ 24-hour average PM ₁₀ concentration	(30% of the NES-Air Quality)
12 µg/m ³ annual average PM ₁₀ concentration	(60% of the Ambient Air Quality Guidelines)
9 µg/m ³ 24-hour average PM _{2.5} concentration	(36% of the WHO guidelines)
7 µg/m ³ annual average PM _{2.5} concentration	(70% of the WHO guidelines)

The fine particulate concentrations at 'House 1' may be up to:

16 µg/m ³ 24-hour average PM ₁₀ concentration	(32% of the NES-Air Quality)
10 µg/m ³ 24-hour average PM _{2.5} concentration	(40% of the WHO guidelines)

Biomass-fired boiler

Modelling indicates that the cumulative effect of the discharge from the biomass-fired boiler and background concentrations at the southern boundary of the applicant's site may be up to:

15 µg/m ³ 24-hour average PM ₁₀ concentration	(30% of the NES-Air Quality)
12 µg/m ³ annual average PM ₁₀ concentration	(60% of the Ambient Air Quality Guidelines)
9 µg/m ³ 24-hour average PM _{2.5} concentration	(36% of the WHO guidelines)
7 µg/m ³ annual average PM _{2.5} concentration	(70% of the WHO guidelines)

The fine particulate concentrations at 'House 1' may be up to:

17 µg/m ³ 24-hour average PM ₁₀ concentration	(34% of the NES-Air Quality)
11 µg/m ³ 24-hour average PM _{2.5} concentration	(44% of the WHO guidelines)

Odour emissions

Appendix C of the application is a report by Golder Associates (NZ) Ltd to assess odour emissions from the site and their effects on the environment.

The report refers to a "sharp DAF solids" odour from the discharge of centrate from the decanter to the wastewater drain, and that the odour was recognisable at the southern boundary of the site. DAF is "dissolved air filtration", which is part of the wastewater treatment process.

Screened solids from the wastewater system are stored for a week or more, then augured into a truck for transfer to an offsite composting facility. The report indicates that this may result in strong odour emissions.

The renderable by-products loadout bin also has the potential to cause "unpleasant" odours.

The Golder Associates report stated that adverse effects on the environment due to odour emissions beyond the site boundary “may still be more than minor”.

The report included recommendations for mitigations, such as reducing storage times for the compostable solids and concluded that, with suitable mitigations, offsite odour effects would be minor.

Technical review

We obtained a technical review of the applicant’s AEE from John Iseli of Specialist Environmental Services Ltd. Mr Iseli largely agrees with the air quality assessment that Golder Associates (NZ) Ltd provided for the applicant, but he did not consider that odour effects could be regarded as minor until the proposed mitigations had been implemented. He also recommended that the proposed odour mitigations be implemented within one year.

Mr Iseli considers that the existing boiler makes a significant contribution to ground level concentrations of PM₁₀ and PM_{2.5} in the township. The proposed future options (either coal-fired boiler with baghouse filter or biomass-fired boiler) will significantly reduce PM₁₀ and PM_{2.5} concentrations. Given the significance of the PM_{2.5} exceedance of the WHO guideline, Mr Iseli considers that a shorter timeframe for upgrading the boiler plant may be appropriate.

Adverse effects that have been disregarded

The effects of emissions on climate change have been disregarded in accordance with s104E of the Resource Management Act.

2. Statutory Considerations

Section 104 of the Act sets out the matters to be considered when assessing an application for a resource consent. Section 104(1) of the Resource Management Act, 1991, states:

- (1) *When considering an application for a resource consent and any submission received, the consent authority must, subject to Part 2, have regard to:*
 - (a) *any actual and potential effects on the environment of allowing the activity; and*
 - (b) *any relevant provisions of –*
 - (i) *a national environmental standard;*
 - (ii) *other regulations;*
 - (iii) *a national policy statement;*
 - (v) *a regional or proposed regional policy statement;*
 - (vi) *a plan or proposed plan; and*
 - (c) *any other matter the consent authority considers relevant and reasonably necessary to determine the application.*

Those matters which relevant for this application are discussed in the following sections.

2.1 Part 2 of the Resource Management Act 1991

This application is consistent with the purpose and the principles of the Act, as set out in Section 5. The proposal allows for beneficial social and economic well-being, but upgrades and improvements are necessary

to safeguard the life-supporting capacity of air and to avoid, remedy or mitigate adverse effects on the environment.

Of the matters of national importance outlined in Section 6 of the Act, Section 6(e), the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga, is relevant to consideration of effects due to the air quality effects at the nearby Mataura River, mataitai reserve and the Mataura Falls.

With regard to Section 7 of the Act, (a), kaitiakitanga, (c), the maintenance and enhancement of amenity values and (f), the maintenance and enhancement of the quality of the environment are relevant to the proposal.

With regard to Section 8 of the Act, the proposed activity is not inconsistent with the principles of the Treaty of Waitangi. I note that the applicant consulted with Hokonui Rūnanga prior to lodging the application, that that Hokonui Rūnanga and Te Rūnanga o Ngai Tahu were both served notice of the application, and that Hokonui Rūnanga made a submission.

2.2 Actual and potential effects (Section 104(1)(a))

The actual and potential effects of the proposed activity were considered earlier of this report. Recommended conditions of consent will ensure that any adverse effects are avoided, remedied or mitigated.

2.3 Relevant provisions of National Environmental Standards and other regulations (Section 104(1)(b)(i) and (ii))

The Resource Management (National Environmental Standards [for Air Quality]) Regulations 2004 apply ambient air quality limits within an airshed. The standards are as follows:

Contaminant	Threshold concentration	Number of exceedances allowed
Carbon monoxide	10 milligrams per cubic metre expressed as a running 8-hour mean	1 in a 12-month period
Nitrogen dioxide	200 micrograms per cubic metre expressed as a 1-hour mean	9 in a 12-month period
Ozone	150 micrograms per cubic metre expressed as a 1-hour mean	None
PM ₁₀	50 micrograms per cubic metre expressed as a 24-hour mean	1 in a 12-month period
Sulphur dioxide	350 micrograms per cubic metre expressed as a 1-hour mean	9 in a 12-month period
	570 micrograms per cubic metre expressed as a 1-hour mean	None

The standards above are limits that apply to the cumulative effect of all emissions, including consented and permitted activities, and are intended to protect people's health. The standards apply in an airshed, in open

air, in places where people may be exposed to the contaminant (excluding the site where the consented emission occurs). The Mataura township area is not currently part of a designated polluted airshed, but is part of the broader Southland airshed (essentially the Southland region minus the gazetted airsheds at Gore and Invercargill).

For the application, the contaminant of greatest concern is fine particulate, PM₁₀. The cumulative effect of current emissions is estimated to reach 42 µg/m³, 24-hour average, which is 84% of the PM₁₀ concentration Limit under the standards at the most affected residential site. The proposed upgrades (either baghouse filtration or biomass boiler) are expected to reduce that to 16-17 µg/m³, 24-hour average, which is about 32-34% of the standard.

Regulation 17 does not prevent approval of the application because the site is not within a gazetted polluted airshed, the discharge is an existing activity, and the applicant is proposing mitigations that will reduce particulate emissions.

Conditions are proposed to control sulphur dioxide emissions. Based on modelling, the proposal is not expected to cause an exceedance of the sulphur dioxide standards, so approval of the application would not contravene Regulation 21.

2.4 Relevant provisions of national policy statements (Section 104(1)(b)(iii))

Not applicable.

2.5 Relevant provisions of the New Zealand Coastal Policy Statement (Section 104(1)(b)(iv))

Not applicable.

2.6 Relevant provisions of the Southland Regional Policy Statement 2017 (Section 104(1)(b)(v))

The following provisions of the Regional Policy Statement are of particular relevance to this application:

- | | |
|----------------|--|
| Objective TW.4 | Wāhi tapu, wāhi taonga and sites of significance are appropriately managed and protected. |
| Policy TW.3 | Take iwi management plans into account within local authority resource management decision making processes. |
| Policy TW.4 | When making resource management decisions, ensure that local authority functions and powers are exercised in a manner that:
(a) recognises and provides for: <ul style="list-style-type: none">(i) traditional Māori uses and practices relating to natural resources (e.g. mātaihai, kaitiakitanga, manaakitanga, matauranga, rāhui, wāhi tapu, taonga raranga);(ii) the ahi kā (manawhenua) relationship of tangata whenua with and their role as kaitiaki of natural resources;(iii) mahinga kai and access to areas of natural resources used for customary purposes;(iv) mauri and wairua of natural resources;(v) places, sites and areas with significant spiritual or cultural historic heritage value to tangata whenua; |

- (vi) Māori environmental health and cultural wellbeing.
- (b) recognises that only tangata whenua can identify their relationship and that of their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga.

- Objective AQ.1 Enable the discharge of contaminants into air while managing the adverse effects of those contaminants on human health and wellbeing, and the environment.
- Policy AQ.1 Avoid, remedy or mitigate the adverse effects of discharges of contaminants to air on human health, cultural and amenity values and the environment.
- Policy AQ.3 Improve areas with poor air quality, focusing in particular on reducing the adverse effects of activities that discharge particulate matter.
- Policy AQ.5 Promote and facilitate the adoption of the best practicable option to improve air quality.

Comment

In terms of Objective TW.4 and Policy TW.4, I note that the Maitai River, a mataitai reserve and the Maitai Falls are within the area affected by the emissions from the plant. The applicant consulted with Hokonui Rūnanga, and the rūnanga made a submission on the application.

The provisions of Te Tangi a Tauria are discussed below in accordance with Policy TW.3

The proposed mitigations to combustion and odour emissions are consistent with Policies AQ1, AQ3 and AQ5.

2.7 Relevant provisions of the relevant regional plan objectives, policies and rules (Section 104(1)(b)(vi))

Regional Air Plan

The following provisions from the Stage 2 section of the Regional Air Plan are relevant to the proposal:

- Policy 4.3.4 Promote the enhancement of ambient air quality in areas where it has been degraded.
- Objective 5.2.1 To avoid, remedy or mitigate any adverse effects upon the environment (including the health of people and communities and amenity values) from the discharges of contaminants into air from industrial or trade premises.
- Objective 5.2.2 To ensure that Maori cultural and traditional beliefs are recognised and provided for when dealing with discharges of contaminants into air from industrial or trade premises.
- Policy 5.3.1 Protect the environment from adverse effects from the discharge of contaminants into air from industrial or trade premises.
- Policy 5.3.2 Require the upgrading or change in process of existing industrial and trade processes where they are having significant adverse effects on ambient air quality.
- Policy 5.3.5 Recognise Maori cultural and traditional values with regard to the air environment and ensure that these are taken into account with regard to discharges to air from industrial or trade premises.

Comment

The proposed mitigations of combustion and odorous emissions are critical to compliance with Objective 5.2.1 and Policies 4.3.4, 5.3.1 and 5.3.2. Based on the submission by Hokonui Runanga, I consider that they are also necessary with regard to Objective 5.2.2 and Policy 5.3.5.

I have omitted Policy 4.3.1, which requires consideration of 1994 ambient air quality guidelines, because those guidelines have been superseded by both new guidelines and new standards. I have also omitted Objective 5.2.4 and Policy 5.3.3, because consideration of the effects of greenhouse gas emissions cannot be made due to s104E of the Resource Management Act.

2.8 Any other matters considered relevant and reasonably necessary to determine the application (Section 104(1)(c))

Te Tangi a Tauira 2008

I consider that the provisions of Te Tangi a Tauira, the Iwi Management Plan for Southland, are relevant and reasonably necessary to the determination of the application.

The policies relevant to this application are:

- Policy 3.2.1.3 Encourage existing activities that emit contaminants to air to evaluate, and where practical implement new technologies to reduce adverse effects on air quality
- Policy 3.2.1.9 Discourage and prevent discharges to air that will have impacts on cultural well-being and community health
- Policy 3.2.1.10 Ensure that discharges of contaminants into the air such as dust, smoke and odour do not affect the amenity values of areas which are of cultural and historical significance to iwi.
- Policy 3.2.1.12 Engage Ngāi Tahu ki Murihiku early in the consenting and permitting process for activities whereby there is discharge to air, particularly..... activities causing offensive odours. Discharges must not cause objectionable or offensive odour to the extent that it causes adverse effects beyond the boundaries of the consent holder's property.
- Policy 3.2.1.13 Advocate for robust consent conditions with a maximum twenty-five years. Changes to consent conditions must be notified to affected parties and all consent conditions monitored routinely

Comment

The proposed mitigations are consistent with Policy 3.2.1.3.

With regard to Policy 3.2.1.10 the emissions from the plant affect air quality along part of the Mataura River and a mataitai reserve in the area of the Mataura Falls. However the mitigations to be implemented should reduce that effect.

The applicant has amended the proposal to a 25-year consent period which complies with Policy 3.2.1.13.

PM_{2.5} guidelines

The applicant's air quality consultant, Golder Associates (NZ) Ltd and the Council's reviewer have both had regard to guidelines proposed by the Ministry for the Environment and by the World Health Organisation for PM_{2.5} concentrations in ambient air. PM_{2.5} is finer than PM₁₀. The 24 hour average guideline is 25µg/m³.

As discussed earlier, the highest cumulative effect at the most affected dwelling site is estimated to be 32 µg/m³ 24-hour average, which is 128% of the guidelines.

However, the proposed mitigations (baghouse filter or biomass boiler) is expected to result in peak cumulative effects at the same dwelling site of 10-11 µg/m³ 24-hour average, which is 40-44% of the guidelines.

2.9 Value of investment of the existing consent holder if an application affected by Section 124 (Section 104(2A))

Section 12.2.5 of the application refers to the value of the plant as being \$225 million, and that much of that value could not be recovered if the plant was downsized or closed.

2.10 Section 105 matters relevant to discharge or coastal permits

The nature of the discharge (emission of odour and combustion contaminants such as particulate) and the sensitivity of the receiving environment (residential and commercial properties, an area with high cultural and traditional values) have been discussed.

The applicant has chosen to continue with the existing operation, subject to mitigations of the combustion and odour emissions. Two main options are available for the combustion emissions, baghouse filtration or biomass-fueled boiler. The applicant also considered a multi-cyclone system or using an electrode boiler. However the multi-cyclone system would not reduce contaminant emissions as much as the proposed options, and the operating costs of the electrode boiler were considered to be prohibitive.

2.11 Section 104E applications relating to discharge of greenhouse gases

Section 104E of the Resource Management Act states as follows:

“When considering an application for a discharge permit or coastal permit to do something that would otherwise contravene section [15](#) or section [15B](#) relating to the discharge into air of greenhouse gases, a consent authority must not have regard to the effects of such a discharge on climate change, except to the extent that the use and development of renewable energy enables a reduction in the discharge into air of greenhouse gases, either—

- (a) in absolute terms; or
- (b) relative to the use and development of non-renewable energy.”

Comment

This provision prevents consideration of the effect of greenhouse gas emissions, such as CO₂, from the applicant's plant on climate change when deciding the application and its conditions.

Section 104E will be repealed on 31 December 2021. Obviously the discharge will continue to emit greenhouse gases beyond that date, but because s104E applies to the consideration of the application that cannot be factored into the resource consent decision.

3. Recommendations

3.1 Whether to grant

The proposal is for the discharge of contaminants to air from an important local industry that has positive economic and social effects. The discharge is existing but the applicant is proposing major upgrades to reduce contaminants emitted by the boilers within 3 years, and a series of changes to mitigate odour emissions within 1 year. The applicant has also agreed to cease burning coal in the main boiler and the back-up boiler within 5 years. I also note that the applicant has reduced the requested consent duration to 25 years.

The proposal was technically reviewed for Environment Southland by Specialist Environmental Services Limited. The reviewer, Mr Iseli, considers that the mitigations proposed by the applicant are appropriate and are expected to reduce the adverse effects from the applicant's operation.

Mr Iseli considers that it may be appropriate for the boiler to be required in less than 3 years given the significance of boiler emissions to ambient air particulate concentrations in the township. Fine particulate in ambient air is of concern because of effects on people's health.

However the applicant considers that it needs that timeframe for the upgrade given the scale of investment and the stages of development that would be required:

- Complete detailed design work for the upgrade;
- Obtain building consent and a landuse consent from the District Council for the upgrade;
- Run a tendering process for supplying and installing the upgrade;
- Obtain board approval for the tender;
- Construction and shipping of the new boiler equipment to site;
- Installation of the new boiler equipment; and
- Commissioning of the new boiler equipment.

The applicant has also pointed out that, as a result of recent Government initiatives to invest in decarbonising industry (which the applicant is part of) increasing demand on potential suppliers affects their ability to respond. Also, sourcing key equipment internationally currently involves longer and more uncertain lead times than in the past.

I consider it appropriate to accept the proposed timeframe for reduction of the boiler emissions. While I am concerned about air quality effects, I note that this is an existing operation and that I have no reason to doubt the necessity of the proposed period. I assume that the installation and commissioning will also have to fit in with the applicant's operations. Taking a pragmatic point of view, if a shorter timeframe was imposed the decision would probably be appealed and delay the upgrade, wiping out any potential gain while the matter waited for a hearing and decision from the Environment Court.

There is a gap between the reductions to combustion contaminant emissions and the cessation of coal burning at the main boiler. However the applicant has stated that it is committed to improvement of the discharge within 3 years, and will be required to do so by conditions.

The odour mitigations, such as altering waste storage and treating or combusting odorous gases, are to be implemented within 1 year. The applicant is then to follow-up with an odour diary program and a review by a suitably qualified person to confirm the effectiveness of the mitigations to reduce odour effects.

I note that the great majority of submissions supported the application, pointing out the importance of the operation to the local economy and community, and the investment proposed in upgrades. I also note that the applicant has reached agreement with the submitters that had originally wished to be heard. I understand that the reduced consent period and switch away from the use of coal helped address the concerns of the submitters.

As mentioned, the discharge has the potential to affect areas with cultural and spiritual values. I consider that the applicant's consultation with Hokonui Rūnanga prior lodging the application, and to resolve their concerns following the receipt of submissions, has been important in addressing that effect.

The significant value of the applicant's operation is a further factor that supports approval of the application.

As stated above, the effects of greenhouse gas emissions from the plant cannot be considered under s104E.

Overall, I recommend, that for the above reasons, the application be granted pursuant to Sections 104, 104B and 108 of the Resource Management Act 1991, subject to the conditions attached.

3.2 Term of consent

The applicant had originally requested a consent duration of 35 years but, following consultation with the submitters, has since reduced that to a term of 25 years.

I support the 25 year term for the following reasons:

- The importance of the applicant's operation to the local economy and community
- The long term nature of the applicant's operation at Maitara
- The term is consistent with Policy 3.2.1.13 of Te Tangi a Tauria
- The upgrades will require significant investment (\$5-8.8 million) so the term provides certainty for that investment.
- There is reasonable certainty around the effects of the discharge. I note that the applicant's air quality consultant and the Council's reviewer are largely in agreement about the effects on the environment and the mitigations.



Stephen West
Principal Consents Officer

Attached:

Resource Consent Decision APP-20202357

Discharge Permit Air AUTH-20202357