

**Lower Waiwhakaiho
Air Discharges
Monitoring Programme
Annual Report
2021-2022**

Technical Report 2022-03



Working with people | caring for Taranaki



Taranaki Regional Council
Private Bag 713
Stratford

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Executive summary

The Lower Waiwhakaiho area of New Plymouth accommodates several industries that include two abrasive blasting operations and an asphalt plant. The companies hold resource consents to allow them to discharge emissions into the air. This report for the period July 2021 to June 2022 describes the monitoring programme implemented by the Taranaki Regional Council (the Council) to assess the companies' environmental performance during the period under review, and the results and environmental effects of the companies' activities in relation to emissions to the air.

Overall, the companies assessed in this Lower Waiwhakaiho Air Discharge Compliance Monitoring Programme demonstrated an overall high level of environmental performance.

The companies monitored during the period under review were Downer EDI Works Ltd, Dialog Fitzroy Ltd, and Katere Surface Coatings Ltd.

The companies hold three resource consents, which include a total of 72 special conditions setting out the requirements that the companies must satisfy.

The Council's monitoring during the year under review included nine inspections and two deposition gauge surveys.

The deposition gauge surveys found that, in relation to dust resulting in deposited particulates, ambient air quality in the area during the year under review was high.

During the year, Downer EDI Works Ltd demonstrated a high level of environmental and administrative performance with their resource consent.

During the year, Dialog Fitzroy Ltd demonstrated a high level of environmental and high administrative performance.

During the year, Katere Surface Coatings Ltd demonstrated a level of environmental performance that required improvement and a good level of administrative performance.

For reference, in the 2021-2022 year, consent holders were found to achieve a high level of environmental performance and compliance for 88% of the consents monitored through the Taranaki tailored monitoring programmes, while for another 10% of the consents, a good level of environmental performance and compliance was achieved.

This report includes recommendations relating to monitoring in the 2022-2023 year, including a recommendation relating to an optional review of consents 4475-3 and 10881-1 in June 2023.

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1 Introduction

1.1 Compliance monitoring programme reports and the Resource Management Act 1991

1.1.1 Introduction

This report is the Annual Report for the period July 2021 to June 2022 by the Taranaki Regional Council (the Council) describing the results of the monitoring programme associated with the air discharge permits held by three industries in the Lower Waiwhakaiho area. The monitoring covers emissions to air from the companies' activities in the Fitzroy area of New Plymouth.

Since 1 October 1991, with the enactment of the *Resource Management Act 1991* (RMA), the Council has been the agency with primary responsibility for air quality management in the Taranaki region. Early in 1992, the Council initiated air quality monitoring programmes for industries holding discharge permits, and has subsequently issued and monitored air discharge permits for a number of other industrial and trade premises.

The Council began monitoring some of the industries in the Lower Waiwhakaiho area in 1992. This report is the 29th Annual Report to be prepared by the Council to cover the companies' air discharges and their effects. It is the 21st Annual Report to deal with emissions in the area as a combined monitoring report.

A separate report covers the results and findings of the Council's monitoring programmes associated with the water discharge permits held by some of these companies¹.

1.1.2 Structure of this report

Section 1 of this report is a background section. It sets out general information about:

- consent compliance monitoring under the RMA and the Council's obligations;
- the Council's approach to monitoring sites through annual programmes;
- the resource consents held by the companies in the Lower Waiwhakaiho area;
- the nature of the monitoring programme in place for the period under review; and
- a description of the activities and operations conducted in the companies' site/catchment.

Each company's activity is then discussed in a separate section (Sections 2 to 4).

In the subsections for each company (e.g. Section 2.1) there is a general description of the industrial activity and its discharges, an aerial photograph or map showing the location of the activity, and an outline of the matters covered by the company's air discharge permit.

Subsection 1 provides a process description for each company.

Subsection 2 presents the results of monitoring of the company's activities during the period under review, including scientific and technical data.

Subsection 3 discusses the results, their interpretation, and their significance for the environment in the immediate vicinity of the site under discussion.

Subsection 4 presents recommendations to be implemented in the 2021-2022 monitoring year.

¹ Lower Waiwhakaiho Catchment Monitoring Programme Annual Report, 2020-2021

Section 5 presents the results and findings in relation to any investigations, interventions, and incidents relevant to the Lower Waiwhakaiho area and discusses the deposition gauge results, their interpretation, and their significance for the environment in the Lower Waiwhakaiho area as a whole.

Section 6 presents a summary of recommendations made in relation to the monitoring of each company's activities.

A glossary of common abbreviations and scientific terms, and a bibliography, are presented at the end of the report.

1.1.3 The Resource Management Act 1991 and monitoring

The RMA primarily addresses environmental 'effects' which are defined as positive or adverse, temporary or permanent, past, present or future, or cumulative. Effects may arise in relation to:

- a. the neighbourhood or the wider community around an activity, and may include cultural and social-economic effects;
- b. physical effects on the locality, including landscape, amenity and visual effects;
- c. ecosystems, including effects on plants, animals, or habitats, whether aquatic or terrestrial;
- d. natural and physical resources having special significance (for example recreational, cultural, or aesthetic); and
- e. risks to the neighbourhood or environment.

In drafting and reviewing conditions on discharge permits, and in implementing monitoring programmes, the Council is recognising the comprehensive meaning of 'effects' inasmuch as is appropriate for each activity. Monitoring programmes are not only based on existing permit conditions, but also on the obligations of the RMA to assess the effects of the exercise of consents. In accordance with Section 35 of the RMA, the Council undertakes compliance monitoring for consents and rules in regional plans, and maintains an overview of the performance of resource users and consent holders. Compliance monitoring, including both activity and impact monitoring, enables the Council to continually re-evaluate its approach and that of consent holders to resource management and, ultimately, through the refinement of methods and considered responsible resource utilisation, to move closer to achieving sustainable development of the region's resources.

1.1.4 Evaluation of environmental performance

Besides discussing the various details of the performance and extent of compliance by the consent holders, this report also assigns a rating as to each Company's environmental and administrative performance during the period under review. The rating categories are high, good, improvement required and poor for both environmental and administrative performance. The interpretations for these ratings are found in Appendix II.

For reference, in the 2021-2022 year, consent holders were found to achieve a high level of environmental performance and compliance for 88% of the consents monitored through the Taranaki tailored monitoring programmes. Another 10% of the consents holders achieved a good level of environmental performance and compliance.²

² The Council has used these compliance grading criteria for more than 18 years. They align closely with the 4 compliance grades in the MfE Best Practice Guidelines for Compliance, Monitoring and Enforcement, 2018

1.2 Resource consents

Section 15(1)(c) of the RMA stipulates that no person may discharge any contaminant from any industrial or trade premises into air, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations.

A list of the companies holding air discharge permits monitored as part of the Lower Waiwhakaiho Air Discharges Compliance Monitoring Programme is given in Table 1, and their locations are shown in Figure 1. Copies of the full consents are included (in alphabetical order) in Appendix I.

Table 1 Air discharge permits in the Lower Waiwhakaiho

Consent Holder	Consent No	Description	Granted	Next Review Date	Expiry Date
<i>Air discharge permits</i>					
Downer NZ Ltd	4060-5	To discharge emissions into the air from the manufacture of hot mix asphalt paving mixes and associated activities	September 2021	June 2026	June 2038
Dialog Fitzroy Ltd (formerly Fitzroy Engineering Group Ltd)	4025-4 10869-1	To discharge emissions into the air from abrasive blasting operations throughout the Taranaki region, except within some part of the Coastal Marine Area	December 2020	June 2029	June 2038
Katere Surface Coatings Ltd	4475-3 10881-1	To discharge emissions to air from abrasive blasting and surface coating activities at a permanent site located at Katere Road, New Plymouth and from mobile operations throughout the Taranaki region including Port Taranaki, but excluding the remainder of the Coastal Marine Area	December 2020	June 2023	June 2038

1.3 Monitoring programme

1.3.1 Introduction

Section 35 of the RMA sets obligations upon the Council to gather information, monitor and conduct research on the exercise of resource consents within the Taranaki region. The Council is also required to assess the effects arising from the exercising of these consents and report upon them.

The Council may therefore make and record measurements of physical and chemical parameters, take samples for analysis, carry out surveys and inspections, conduct investigations and seek information from consent holders.

The air quality monitoring programme for the industries in the Lower Waiwhakaiho area consisted of up to three primary components

1.3.2 Programme liaison and management

There is generally a significant investment of time and resources by the Council in:

- ongoing liaison with resource consent holders over consent conditions and their interpretation and application;
- discussion over monitoring requirements;

- preparation for any consent reviews, renewals or new consent applications;
- advice on the Council's environmental management strategies and content of regional plans; and
- consultation on associated matters.

1.3.3 Site inspections

Each site was visited up to four times during the monitoring period. Inspections focused on plant processes with associated actual and potential emission sources and characteristics, including potential odour, dust, noxious or offensive emissions. Sources of data being collected by the consent holder were identified and accessed, so that performance in respect of operation, internal monitoring and supervision could be reviewed by the Council. The neighbourhood was surveyed for environmental effects.

1.3.4 Particulate deposition monitoring

Atmospheric particulate matter can arise from natural and human sources and includes pollens, smoke and ash, sea spray, dust from soils and paved surfaces, and manufacturing processes. While extremely fine particles may remain suspended in the atmosphere for weeks or months, coarser dusts may settle out within timeframes ranging from a few seconds to minutes.

The environmental effects of dusts include loss of visibility, loss of the amenity and aesthetic values, breathing difficulties, and soiling of surfaces. It has been found that background rates of dust deposition in rural areas of New Zealand are typically 0.1-1.5 g/m²/30 days, while in urban areas rates are generally higher, in the range of 0.6-3.0 g/m²/30 days. Generally rates above 3-4 g/m²/30 days tend to lead to complaints by neighbours about objectionable or offensive dust emissions from particular sources.

Many industries emit dust from various sources during operational periods. In order to assess the effects of the emitted dust, industries have been monitored using deposition gauges. From past results of deposition gauging it is likely that factors including seasonal weather variations, vehicle traffic about the site and the type of work being conducted can have some effect on the results.

Deposition gauges are buckets elevated on a stand to about 1.6 m (photo 1). The buckets have a solution in them to ensure that any dust that settles out of the air is not re-suspended by wind. During processing, any insects and/or vegetative matter is removed by a 150 µm filter. Deposition gauge dust monitoring is used by Council as a simple and affordable method to monitor long-term dust trends, but has certain limitations. It is unsuitable for active dust management because of the lag-time in getting results, and the source of the dust cannot be conclusively determined without further analysis (Good Practice Guide for Assessing and Managing Dust, MfE, 2016) ([GPG:Dust](#)).

As a part of the Lower Waiwhakaiho Air Discharge Compliance Monitoring Programme, deposition gauges were placed in the vicinity of selected sites on two occasions during the year, and the collected samples were analysed for deposited particulate. The monitoring locations are shown in Figure 1. The gauges were left in place for approximately three weeks, on two separate occasions.

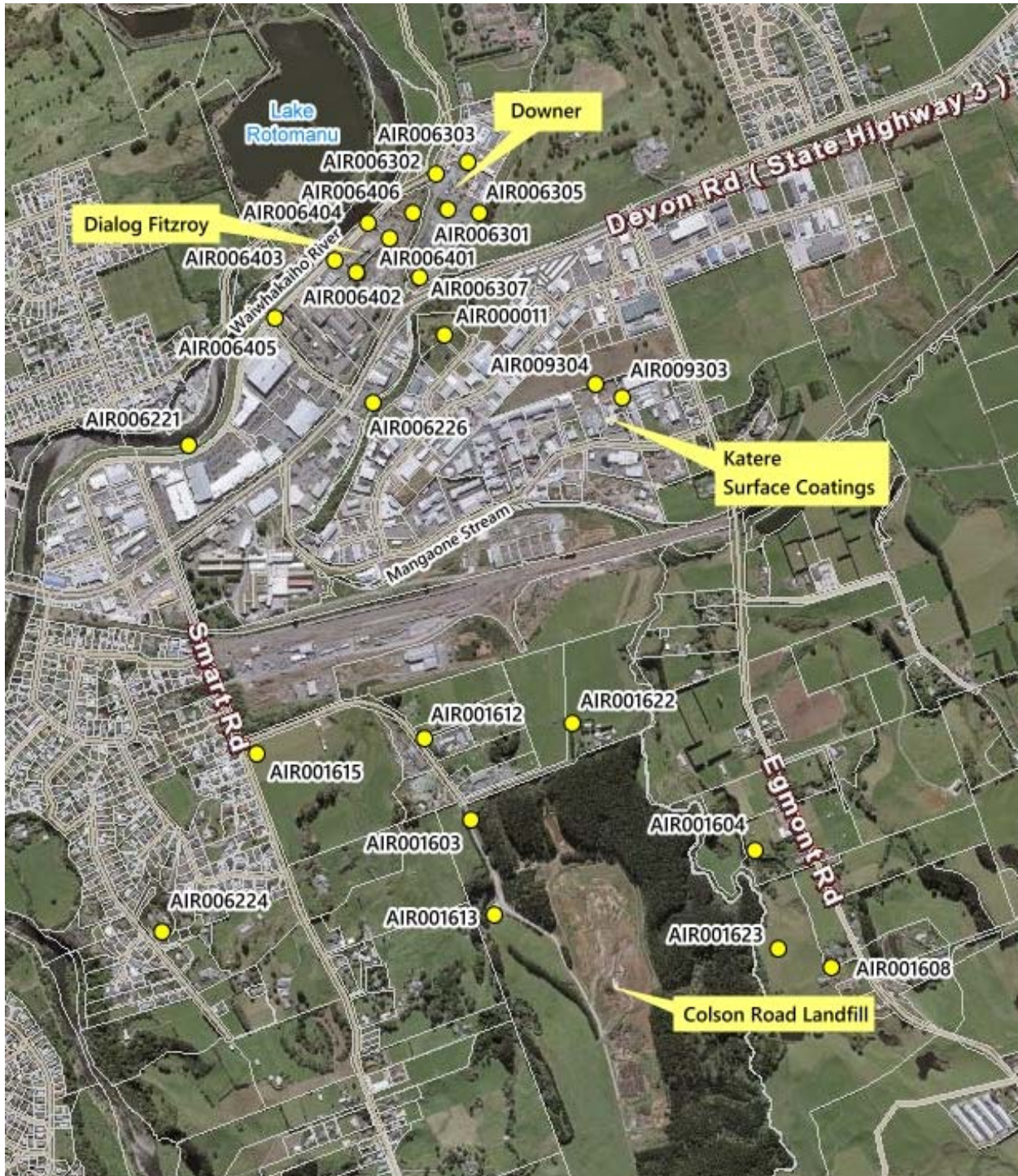


Figure 1 Location of industries holding air discharge permits, regional landfill and monitoring sites within the Lower Waiwhakaiho area



Photo 1 Examples of a deposition gauge set up and recovered filter pads

The rate of dustfall is calculated by dividing the weight of insoluble material (grams) collected by the cross-sectional area of the gauge (m^2) and the number of days over which the sample was taken. The units of measurement are $g/m^2/day$.

Guideline values used by the Council for dust deposition are $4 g/m^2/30$ days or $0.13 g/m^2/day$ deposited matter as recommended in the GPG:Dust. Consideration is given to the location of the industry and the sensitivity of the surrounding community, when assessing results against these values. This guideline value has been incorporated as a limit in the companies' consents.

1.4 Incidents, investigations, and interventions

The monitoring programme for the year was based on what was considered to be an appropriate level of monitoring, review of data, and liaison with the companies. During the year matters may arise which require additional activity by the Council, for example provision of advice and information, or investigation of potential or actual causes of non-compliance or failure to maintain good practices. A pro-active approach, that in the first instance avoids issues occurring, is favoured.

For all significant compliance issues, as well as complaints from the public, the Council maintains a database record. The record includes events where the individual/organisation concerned has itself notified the Council. Details of any investigation and corrective action taken are recorded for non-compliant events.

Complaints may be alleged to be associated with a particular site. If there is potentially an issue of legal liability, the Council must be able to prove by investigation that the identified individual/organisation is indeed the source of the incident (or that the allegation cannot be proven).

Details of incidents, investigations and interventions are provided under each Company's section of this report.

2 Downer NZ Ltd

2.1 Introduction

2.1.1 Process description

The purpose of the Downer EDI Works Ltd (Downer) plant is to produce asphalt for use on roads and driveways etc. A permanent drum mix plant has replaced the batch plant and mobile plant that were formerly in use at the site.

The asphalt production is achieved by the following processes. The plant is a parallel-flow drum mix plant consisting of a rotary drum (which is used to both dry and heat the aggregate and to mix the hot aggregate with bitumen), a dual fuel burner and integral combustion air fan, a bitumen drum injection system and expansion box. Aggregate is transferred into the rotating drum at the burner end and then travels down the slightly inclined rotating drum where products of combustion and excess air dry and heat the aggregate. The drum is fitted with flights, which achieve a lifting motion ensuring good contact between the drying gases and the aggregate. Hot liquid bitumen is injected into the drum about half way down. A steam barrier from the drying aggregate, and burner design, prevents the burner from impinging on the hot bitumen. Hot mix temperatures range from 135 °C to 170°C depending on the blend, and mixes generally contain about 5% bitumen. The product is removed continuously by a conveyor at the end of the drum and is transferred to insulated storage bins prior to discharge into trucks.

The spraying of bitumen into the aggregate, and the steam generated by drying the aggregate removes a substantial proportion of the entrained dust. The combustion products, dust, bitumen volatiles, and pyrolysis products are drawn through an expansion box where large dust particles settle out and drop into the aggregate/bitumen mix. The emissions then pass through a venturi water scrubber, which injects water into the exhaust gas stream and centrifugally separates out the water/dust prior to discharge from the 17 m stack.

Road patching mix can be manufactured in a pugmill serviced via a by-pass conveyor.

The current drum mix plant was installed in 2006. It has a maximum production rate of 80 tonnes per hour, but is normally operated at around 50 tonnes per hour, with the typical annual operating time being around 200 to 400 hours per year.

The major components of this drum mix plant were either new or refurbished, with only items such as the aggregate storage facilities, control room and weighbridge being existing facilities. The scrubber settling ponds, although existing, were deepened to increase retention/settling time.

The drum burner for this plant operates primarily on natural gas but is equipped with dual fuel capability. The plant is able to operate on diesel oil, primarily to give some commercial advantage when negotiating fuel contracts. The burner has a rated capacity of 12 MW gross, but the plant requires only 7 MW gross on average at the plant's maximum production rate of 80 tonnes per hour.

Diesel and kerosene are not blended or stored at the site but at Port Taranaki. If diesel firing of the dual fuel drum burner was required, the consent holder advised that the existing self banded (double skinned) 10,000 litre fuel tank would be used for fuel storage.

The plant is designed to be capable of processing recycled asphalt, and Downer indicated that they may want to introduce this at a later date. However, no information was provided to the Council at the time of their resource consent application regarding the potential effects from the processing of recycled asphalt paving and so it is not currently permitted by their consent.

The main contaminants associated with the discharges to air from the site are particulates, silica, organic compounds, carbon monoxide, nitrogen oxides and sulphur dioxide.

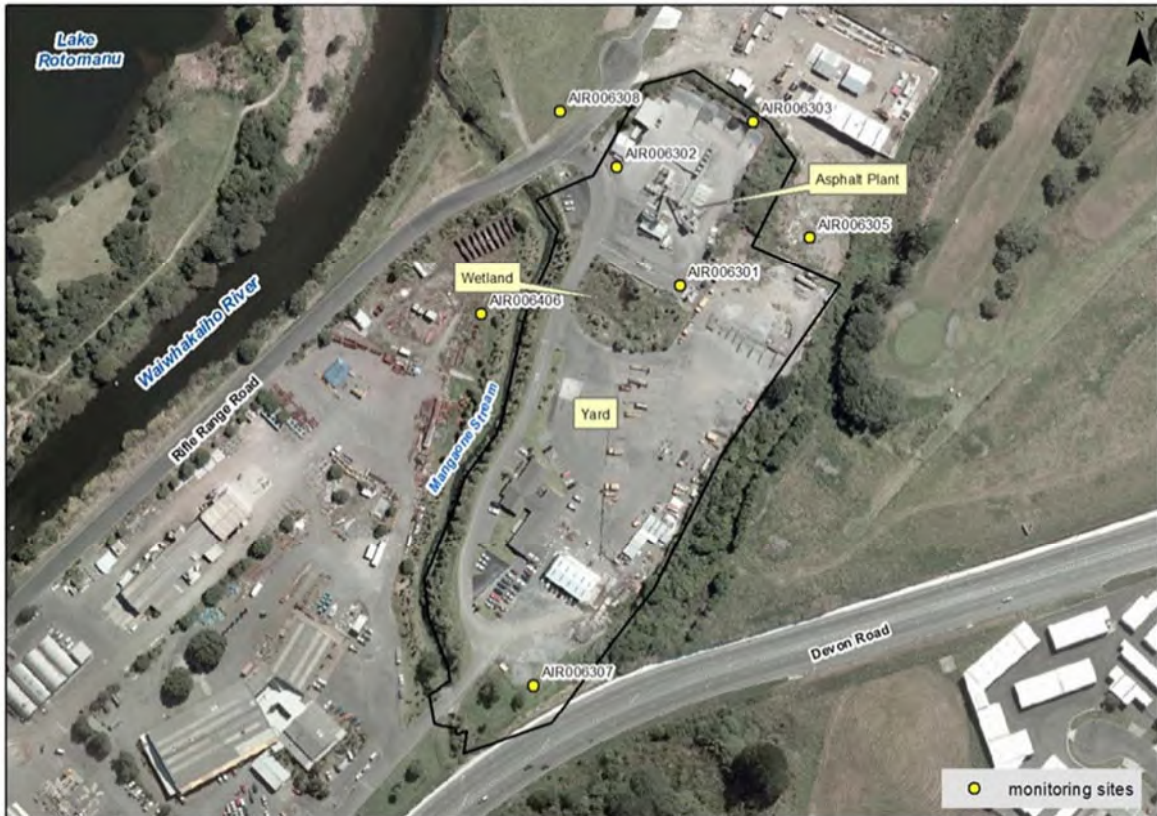


Figure 2 Location of Downer EDI Works Ltd and related deposition gauge sites

In addition to the emissions from the asphalt plant itself during normal operation, the main sources of additional particulates are:

- storage and movements of aggregate and crusher dust, the effects of which are mitigated by keeping the materials damp;
- washing out of the drum between substantially different batches of asphalt;
- run-out of aggregate loaded in excess of requirements;
- fugitive emissions, which are controlled by ensuring that adequate monitoring and maintenance is undertaken by operators at the site, and
- mobilisation of dust from the yard surface due to truck movements. The roads and yard areas have been progressively hard paved and these surfaces are kept damp when appropriate. The yard has been equipped with water sprays to assist in minimising dust during windy weather. Spillage of aggregate is scraped up and the area washed down as necessary. A speed limit of 10 km/h has been imposed to reduced dust generation from vehicle movements in dry weather.

Some of the total organic carbon (TOC) emissions can produce a noticeable odour, however it is expected that these odours would dissipate sufficiently so that they are not considered to be offensive beyond the boundary of the site. Bitumen odour can be apparent beyond the boundaries of the premises resulting from the dumping of hot mix or patching mix into waiting trucks. When the material is deposited in the truck, a moderate cloud of bitumen smoke may drift downwind. This event is of short duration.

Most of the sulphur dioxide and nitrogen oxides produced by the burning of fossil fuels in the plant are removed by the water scrubber in the cyclone.

Ground level concentrations of carbon monoxide and silica are estimated to be well below relevant guidelines.

2.2 Results

2.2.1 Inspections

Three inspections were carried out during the 2021-2022 period; these were conducted on 16 August 2021, 9 February 2022 and 20 April 2022. Results from the inspections are below.

16 August 2021

The asphalt site was clean and tidy and appeared to be well maintained. No objectionable or offensive dust or odour was noted at the time of the visit.

9 February 2022

The asphalt plant was clean and tidy at the time of the inspection. It was noted that the asphalt yard and the roading yard were in need of a sweep. A batch was being manufactured at the time of inspection. There was no offensive or objectionable smoke beyond the boundary of the property from the scrubber. And no offensive or objectionable dust or odour was noted beyond the boundary of the property in general.

20 April 2022

The asphalt plant was not operating. No dust or odours were detected beyond the site boundary. The consent holder was reminded that the emissions test results required by special conditions 6, 7, and 8 were required to be completed and submitted to the Council by 1 June 2022.

2.2.2 Results of receiving environment monitoring

2.2.2.1 Deposition gauging

Deposition gauges were deployed on two occasions during the monitoring period. The first deployment began in early January 2022 and lasted 21 days. The second deployment began in late January 2022 and lasted 21 days.

A site map marking the location of the gauges around the Downer site is shown in Figure 2, with the monitoring site locations also described in Table 2.

Material from the gauges was analysed for solid particulates with the results shown in Table 3. The prevailing wind directions during the surveys is included in Appendix II.

Table 2 Downer EDI Works Ltd air monitoring site locations

Site code	Location description	At or beyond site boundary
AIR006301	Approx. 80 m SE of asphalt plant	Inside boundary
AIR006302	NW of asphalt plant approx. 10 m from Rifle Range Road	Inside boundary
AIR006303	NE of asphalt plant approx. 50 m along screening bank	Inside boundary
AIR006305	East. Near golf course track	Outside boundary
AIR006307	Between southern site entrance and Devon Road	Inside boundary

For an industry such as this, relatively high deposition rates are expected due to handling and processing of aggregate material. As can be seen from Table 3, four of the ten samples collected and analysed during the year under review exceeded or were at the Council's recommended guideline value of 0.13 g/m²/day, or the consent limit of 4 g/m²/30 days for deposited particulate at monitoring locations at the site boundary.

January 2022 survey

One of the gauges (AIR006303) showed a dust deposition level slightly elevated above the guideline limit.

Along with dust, the material collected contained vegetative matter and insects. The appearance of the particulate matter collected was consistent with re-suspended yard dust from the surrounding area and vegetation.

February 2022 survey

Three gauges (sites AIR006302, AIR006303 and AIR006305) showed rates of dust deposition elevated above the guideline limit during the February survey.

Vegetative matter and/or insects were present in most of the gauges.

Table 3 Deposition gauge results from around the Downer NZ Ltd site

Site ID	Dust deposition rate (g/m ² /day)	
	Run 1 From 06/01/2022 to 27/01/2022	Run 2 from 27/01/2022 to 17/02/2022
AIR006301	0.04	0.07
AIR006302	0.05	0.15
AIR006303	0.14	0.15
AIR006305	0.10	0.23
AIR006307	0.04	0.06
Guideline value:	0.13 g/m ² /day	

Key: Results in bold are above recommended guideline value

2.2.3 Investigations, interventions, and incidents

In the 2021-2022 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with Downer's conditions in resource consents or provisions in Regional Plans.

2.3 Discussion

2.3.1 Discussion of site performance

Routine compliance monitoring inspections during the year under review found that activities at the site were well managed. There were no offsite effects found from either dust or odour due to Downer's activities at the time of inspection.

Emissions stack testing completed in May 2022 found the concentration of particulate matter complied with consent conditions.

In terms of potential dust issues, it is considered that activities at the site were generally well managed. There were four exceedances of the particulate deposition rate guideline value, or the consent limit, however these results were attributed to the presence of vegetative matter as opposed to dust from site activities.

2.3.2 Environmental effects of exercise of consents

Deposition gauging was conducted for the 64th and 65th time during the 2021-2022 monitoring year around the Downer site.

The results from the dust deposition gaugings show that of the ten samples collected during the 2021-2022 period, four were in excess of the particulate deposition rate guideline values adopted by the Council (Figure 3). However, the results could not be directly attributed to Downer's site; rather the high particulate deposition was more likely due to vegetation input and yard dust re-suspension from the wider area. Wind direction was predominantly from the west and south east during the first gauging period. During the second period, the prevailing wind was from the south east, with southerlies and north easterlies making up the majority of the rest (Appendix III). Particularly due to these variable winds, the neighbouring properties cannot be discounted as potential contributors to the high deposition rate.

It is noted that there were no complaints received by the Council in relation to odour or dust issues from the Downer site during the 2021-2022 year.

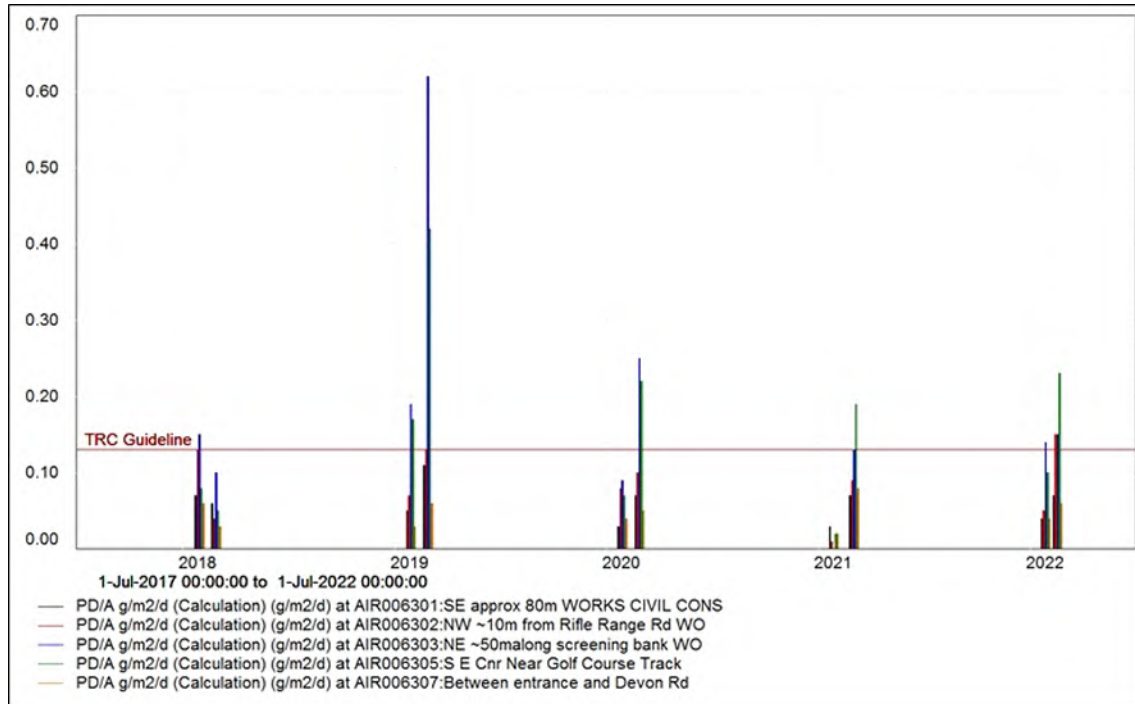


Figure 3 Deposition gauge results at Downer EDI Works monitoring sites (July 2017–July 2022)

2.3.3 Evaluation of performance

A tabular summary of Downer's compliance record for the year under review is set out in Table 4.

Table 4 Summary of performance for Consent 4060-5, Downer EDI Works Ltd discharge of emissions to air

Purpose: To discharge emissions to air from the manufacture of hot mix asphalt paving mixes and associated activities		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Exercised in accordance with the application	Inspection	Yes
2. Approval prior to alterations to plant or processes	Inspection and liaison with consent holder	N/A
3. Prohibition of recycled asphalt processing	Inspection and liaison with consent holder	Yes
4. Operation using waste oil not permitted	Inspection and liaison with consent holder	Yes
5. Sulphur content of fuel	Discussed during inspection. Diesel not used in asphalt plant	Yes
6. Concentration of total particulate matter less than 125mg/m ³	Stack testing	Yes
7. Stack emissions testing due before 1 June 2022 and every 12 months after	Review of documentation provided to the Council	Yes

Purpose: To discharge emissions to air from the manufacture of hot mix asphalt paving mixes and associated activities		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
8. Definition of methodology to be used for stack emissions testing	Review of documentation provided to the Council	Yes
9. The dust deposition rate beyond the property boundary arising from the discharge shall be less than 4.0 g/m ² /30 days or 0.13 g/m ² /day.	Deposition gauge monitoring	Yes, none of the exceedances were determined as arising from the discharge.
10. Objectionable odour or level of dust not permitted at site boundary	Inspection and observation when inspecting officer is in the vicinity of the site on other business	Yes
11. Control of ground levels of carbon monoxide, nitrogen dioxide, fine particles (PM10), and sulphur dioxide	Not assessed during current monitoring period	N/A
12. No hazardous, noxious, dangerous, offensive or objectionable emissions at site boundary	Inspection and observation when inspecting officer is in the vicinity of the site on other business	Yes
13. Requirements of Operations and Maintenance Management Plan	Review of plan	Yes
14. Reporting requirements of OMMP	Plan received	Yes
15. Option for review of consent	Liaison with consent holder	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

During the year, the Downer NZ Ltd demonstrated a high level of environmental performance and administration performance and compliance with their resource consent, as defined in Appendix II.

2.3.4 Recommendations from the 2020-2021 Annual Report

In the 2020-2021 Annual Report, it was recommended:

1. THAT monitoring of consented activities at the Downer EDI Works Ltd site in the 2021-2022 year continues at the same level as in 2020-2021.
2. THAT should there be issues with environmental or administrative performance in 2021-2022, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.

These recommendations were implemented.

2.3.5 Alterations to monitoring programmes for 2022-2023

In designing and implementing the monitoring programmes for air/water discharges in the region, the Council has taken into account:

- the extent of information already made available through monitoring or other means to date;
- its relevance under the RMA;
- the Council's obligations to monitor consented activities and their effects under the RMA;
- the record of administrative and environmental performances of the consent holder; and
- reporting to the regional community.

The Council also takes into account the scope of assessments required at the time of renewal of permits, and the need to maintain a sound understanding of industrial processes within Taranaki exercising resource consents.

It is proposed that for the 2022-2023 year the programme continues at the same level as in 2021-2022.

It should be noted that the proposed programme represents a reasonable and risk-based level of monitoring for the site in question. The Council reserves the right to subsequently adjust the programme from that initially prepared, should the need arise if potential or actual non-compliance is determined at any time during 2022-2023.

2.4 Recommendation

1. THAT monitoring of consented activities at the Downer EDI Works Ltd site in the 2022-2023 year continues at the same level as in 2021-2022.
2. THAT should there be issues with environmental or administrative performance in 2022-2023, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.

3 Dialog Fitzroy Ltd

3.1 Introduction

3.1.1 Process description

Dialog Fitzroy Ltd (formerly known as Fitzroy Engineering Group Ltd) carries out abrasive blasting to clean and prepare surfaces for painting. The process involves blasting "garnet", an abrasive sand-like substance, onto the surface of the object in question. Material from the blasting process becomes airborne due to the release of high pressure air used to accelerate the abrasive media to the required cleaning velocities. Spray painting is also carried out on the site.

Emissions from abrasive blasting operations have the potential to cause nuisance and possible health risks, especially when conducted within populated areas. The Dialog Fitzroy permanent site is within an industrial area. The environmental effects of dusts can include loss of visibility, loss of the amenity and aesthetic values of a 'clear sky', irritation to breathing, and soiling of surfaces. In the case of dust emissions from Dialog Fitzroy's blasting operation, there is also the potential for the dust to contain metals such as lead, zinc and chromium from the surface of the items blasted. The potential for lead to be contained in the dust has been significantly reduced as Dialog Fitzroy now undertakes lead testing as a matter of course. If a positive result is obtained, special procedures apply to contain and dispose of the debris in accordance with WorkSafe Guidelines. Dialog Fitzroy has also informed Council that the blasting of chromium items is not undertaken.

Dialog Fitzroy has carried out abrasive blasting in the permanent facilities and in the yard at their site on Rifle Range Road, New Plymouth since 1990, and also undertakes abrasive blasting work on fixed items at various locations throughout the Taranaki region (mobile blasting).

At the Dialog Fitzroy site there is a permanent facility called the "grit room". The grit room has a wet scrubber unit on its discharge outlet to minimise emissions to the atmosphere. The wet scrubber was commissioned in July 1995. The canvas curtains at the north-east end of the building were replaced by solid doors during the 1998-1999 monitoring period. These doors more effectively contained dust emissions from the operation. The grit room is now used very infrequently, and was not used at all during the year under review.

Dialog Fitzroy has another facility on its premises to provide for unusually sized and/or shaped objects. This facility is called the "garnet shed". A scrubber tower and spray system was installed to mitigate emissions from the garnet shed in June 2000, which was expected to provide a decrease in particulate levels on and off site. An upgrade was carried out in January 2003 when a stack extension, incorporating a third ring of water spray nozzles, was added. Further upgrades were undertaken during the 2005-2006 year when it was found that the discharge from the stack did not comply with condition 7, limiting the particulate emissions to less than 125 mg/m³. The upgrade consisted of a reduction in nozzle size to achieve a more effective droplet size, and changing the spray configuration from a circumferential pattern to a centrally located arrangement. These upgrades were intended to generate a more effective water mist within the tower. Spent garnet and waste removed from the bottom of the scrubber towers was stored in bags in the yard, which were then disposed of by a contracted company on an as required basis.

In 2015, a new 'Blastquip' fabric filter air treatment system was installed at the garnet shed (Photo 2). This new system is considered to be the best practicable option for air treatment and a significant improvement from the wet scrubber system. Essentially, air is extracted from the roof at the northern end of the shed and directed through a filter system. The treated air is then returned to the shed at the southern end of the roof. The system is largely 'closed loop'; however, some of the treated air is discharged to the atmosphere with ambient air introduced into the shed, in order to control the shed temperature.



Photo 2 Blastquip fabric filter air treatment system at Dialog Fitzroy

The 'Blastquip' system has since been inspected by an external consultant from JCL Air and Environment Ltd in order to assess the feasibility and necessity of emission monitoring. Due to a number of factors, the consultant determined that emission monitoring was not feasible. Furthermore, the system's specifications provided by Blastquip indicated that the particulate concentration of treated air would be around 0.1 mg/m^3 ; well below the guideline level of 125 mg/m^3 . Instead, the consultant's recommendation was to require compliance of the consent holder through the implementation of a management plan for the 'Blastquip' air treatment system. All these recommendations were set out as new conditions in a consent change in June 2016. They have subsequently been implemented.

Yard blasting is carried out when items cannot be blasted within the grit room or garnet shed. The yard areas on site are predominantly gravel, and therefore any sandblasting material spilt or deposited on site from aerial emissions is difficult to manage, and may be re-suspended by wind or vehicle movements. A substantial area of the yard near the offices at the Rifle Range Road end of the site was sealed during the 2002-2003 monitoring period.

The containment of emissions from yard and mobile blasting is limited to the use of screens, tarpaulins and other similar methods of airborne particulate suppression due to the temporary nature of the work being carried out.

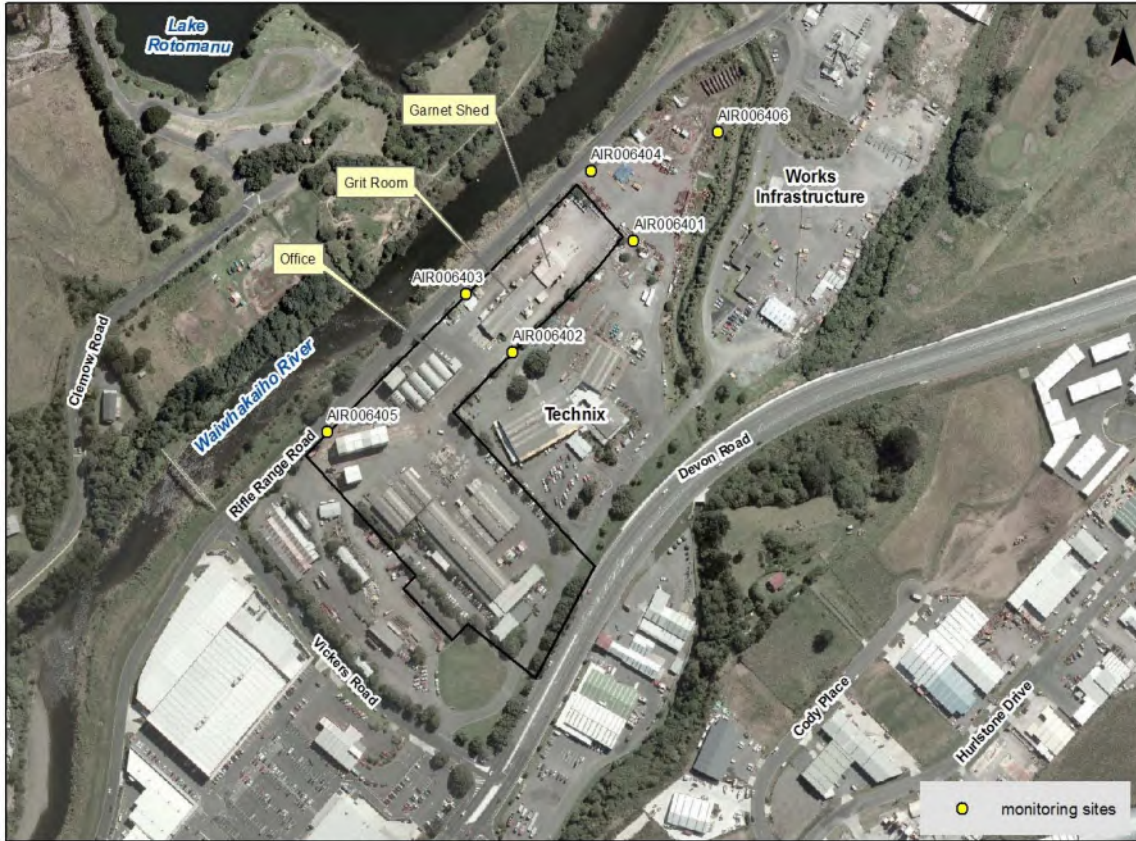


Figure 4 Dialog Fitzroy Ltd site and deposition gauge locations

3.2 Results

3.2.1 Inspections

Three routine compliance monitoring inspections were undertaken during the 2021-2022 year, on 7 September 2021, and 10 February and 20 April 2022. Inspections were also undertaken in relation to monitoring of the stormwater consent for the site, which was previously reported here but is now included in Dialog Fitzroy's section of the Lower Waiwhakaiho Catchment Monitoring Report.

There is also provision for a further inspection of mobile blasting operations to be undertaken by the Council if notification of mobile blasting is received.

7 September 2021

The site was very clean and tidy and it was noted that a large amount of improvements had been made to the housekeeping of the lay down areas. Used garnet is now stored in a dedicated area. No discharges to air were occurring at the time of the inspection.

10 February 2022

The site was generally clean and tidy. Very little garnet was noted outside the blast shed. There were no offensive or objectionable odours or dust beyond the boundary of the property.

20 April 2022

There was no offensive or objectionable odour or dust beyond the boundary. The area around the blast shed was clean and tidy. It appeared that the sweeper had been used recently as this was parked outside the blast shed.

3.2.1.1 Mobile blasting inspections

Mobile blasting was not undertaken during the 2021-2022 year.

3.2.2 Provision of company data

3.2.2.1 Operation, Management and Maintenance Plan

As per special condition 7 the new consent, Dialog Fitzroy is required to update and maintain an Air Discharge Management Plan (formerly known as the OMMP) which details their procedures. This includes:

- Staff training
- General housekeeping, site clean-up, and yard maintenance, including record keeping
- Blasting operations
- Screening/containment of both off-and onsite blasting that occurs outside of an enclosed environment
- Monitoring and maintenance of the blasting buildings and air discharge treatment systems
- Handling of potentially hazardous substances
- Provision of blasting information to interested parties

The most up-to-date version of this plan was received from Dialog Fitzroy on 16 September 2021, and has been subsequently implemented into the monitoring programme. Adherence to this plan is assessed during compliance monitoring inspection visits.

3.2.3 Results of receiving environment monitoring

3.2.3.1 Deposition gauging

Deposition gauges were deployed on two occasions during the monitoring period. The first deployment began in early January 2022 and lasted 21 days. The second deployment began in late January 2022 and lasted 21 days.

A site map marking the location of the gauges around the Dialog Fitzroy site are shown in Figure 4. The results for the year under review are given in Table 5, with the prevailing wind directions during the surveys given in Appendix III.

Table 5 Deposition gauge results from around the Dialog Fitzroy site

Site ID	Dust deposition rate (g/m ² /day)	
	Run 1 from 06/01/2022 to 27/01/2022	Run 2 from 27/01/2022 to 17/02/2022
AIR006401	0.06	0.09

Site ID	Dust deposition rate (g/m ² /day)	
	Run 1 from 06/01/2022 to 27/01/2022	Run 2 from 27/01/2022 to 17/02/2022
AIR006402	0.02	0.10
AIR006403	0.04	0.02
AIR006404	0.05	0.07
AIR006405	0.06	0.07
AIR006406	0.04	0.03
Guideline value:	0.13 g/m ² /day	

Key: Results in bold exceed recommended guideline value

The monitoring showed that the deposited particulate was in compliance with Dialog Fitzroy's consent limit in all 12 gauges collected during the year under review.

January 2022 survey

The January survey found that no sites exceeded the particulate deposition rate guideline value.

Five of the six samples contained bugs and/or vegetative matter. The appearance of the particulate matter collected was consistent with re-suspended yard dust and vegetation from the surrounding area rather than blasting media.

February 2022 survey

Particulate deposition was below the limit in all samples.

The appearance of the particulate matter was consistent with re-suspended yard dust from the surrounding area and vegetation rather than blasting media.

No dust complaints were received regarding dust issues originating from the Dialog Fitzroy site.

3.2.4 Investigations, interventions, and incidents

In the 2021-2022 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with Dialog Fitzroy's conditions in resource consents or provisions in Regional Plans.

3.3 Discussion

3.3.1 Discussion of site performance

No issues were noted during inspections of the site during the 2021-2022 monitoring period. There were no offensive or objectionable odours or dust beyond the boundary of the property noted.

The Air Discharge Management Plan (formerly the Operation, Management and Maintenance Plan) continued to be implemented and operational throughout the monitoring year, with no issues noted during compliance monitoring inspections. Site inspections continued to show generally high level in management and housekeeping, with no unauthorised incidents occurring during the monitoring period.

During the year under review there were no complaints received by the Council relating to dust emissions or off site odours.

3.3.2 Environmental effects of exercise of consent

Abrasive blasting operations have the potential to create adverse effects on health and the environment as well as creating nuisance. The impact that sandblasting has is determined by the type of abrasive material used (for example if it is sand that is dust free with low silica content), the effectiveness of the blasting enclosure and treatment system, the procedures followed by staff when blasting outside the blasting room (for example temporary screening), and the items blasted (e.g. with coatings such as lead-based paints or larger rusted areas resulting in generation of extra detritus).

Deposition gauging was conducted for the 52nd and 53rd time during the 2021-2022 monitoring year around the Dialog Fitzroy site.

The results from the gaugings found that all 12 samples collected during the 2021-2022 period complied with consent limits (Table 5).

The site and immediate surrounding landscape has been significantly reshaped by human activity, and has no features of particular aesthetic, cultural, or other value. The main highway, golf course, and Mangaone Stream/Waiwhakaiho River are unlikely to be affected by activities on the site.

There is the potential for the staff and property of industries in the surrounding area to be affected by dust generated by Dialog Fitzroy and during recent years a significant amount of commercial development has occurred in the area. This increases the potential for complaints, as the number of people working in this area, and the number of public visiting the area has increased.

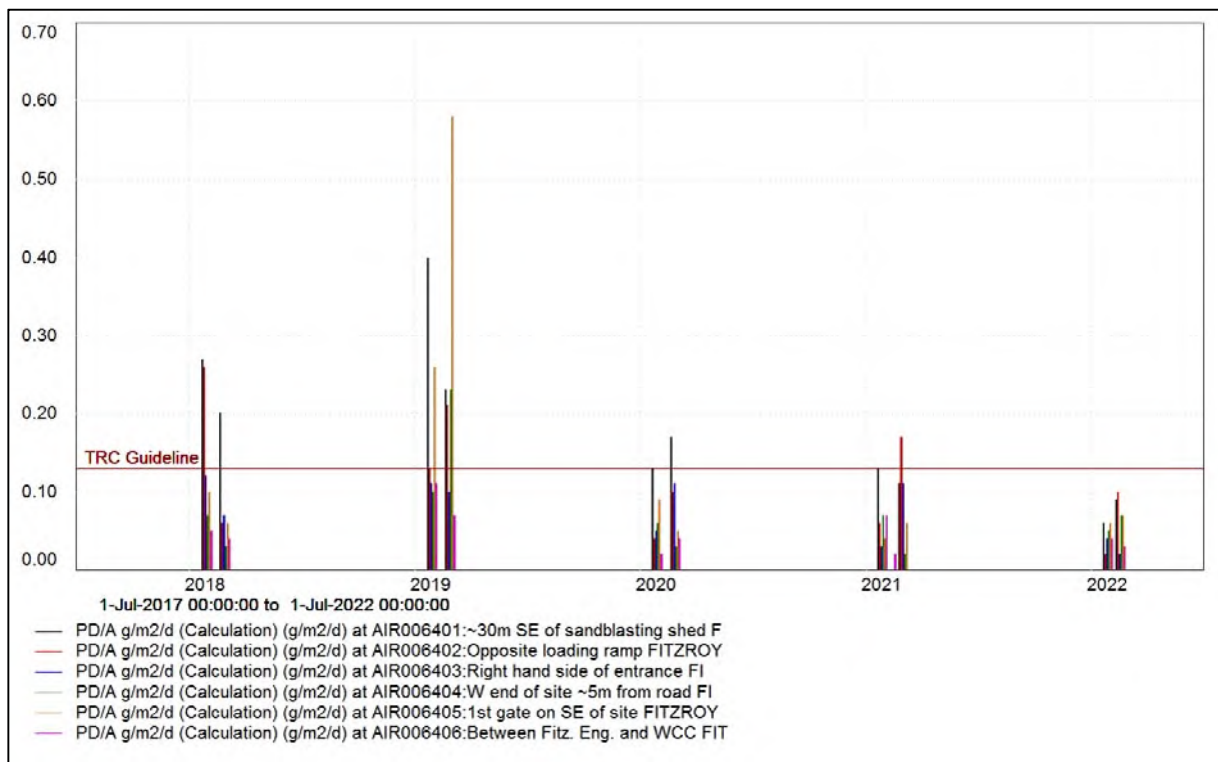


Figure 5 Deposition gauge results for the Dialog Fitzroy monitoring sites from July 2017 to July 2022

3.3.3 Evaluation of performance

A tabular summary of Dialog Fitzroy's compliance record for the year under review is set out in Table 6.

Table 6 Summary of performance for Consent 4025-4, Dialog Fitzroy Ltd discharge of emissions to air

Purpose: To discharge emissions into the air from abrasive blasting operations throughout the Taranaki Region, except within some parts of the Coastal Marine Area		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Specifies which special conditions apply to which activities	N/A	N/A
All operations		
2. Definition of area that discharges to air are authorised to occur in	Inspection and liaison with consent holder	Yes
3. Exercise consent in manner consistent with consent application	Inspection and liaison with consent holder	Yes
4. No offensive, objectionable or toxic odour or dust beyond boundary	Inspection and observation when inspecting officer is in the vicinity of the site on other business	Yes
5. Clearance of blasting material	Inspection	Yes
6. Avoidance of dry sand blasting	Inspection and liaison with consent holder. Dry sand not used	Yes
7. Provision and maintenance of Air Discharge Management Plan	Plan on file	Yes
Operations within permanent facilities		
8. Enclosed blasting at permanent site	Inspection and observation when inspecting officer is in the vicinity of the site on other business	Yes
9. Screening at yard blasting to contain dust emissions	Inspection and observation when inspecting officer is in the vicinity of the site on other business	Yes
10. All emissions contained and treated as far as practicable	Inspection and observation when inspecting officer is in the vicinity of the site on other business	Yes
11. Particulate deposition rate limit of 0.13 g/m ² /day beyond the boundary	Deposition gauging	Yes
Operations at any other site		
12. Screening at mobile blasting to contain emissions	Liaison with consent holder – mobile blasting not undertaken during the monitoring period	N/A
13. Notification 48 hours before blasting near watercourses	Liaison with consent holder – mobile blasting not undertaken during the monitoring period	N/A

Purpose: To discharge emissions into the air from abrasive blasting operations throughout the Taranaki Region, except within some parts of the Coastal Marine Area		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
14. Discharges prohibited within 150 m of sites of significance to Maori	Liaison with consent holder – mobile blasting not undertaken during the monitoring period	N/A
15. Limits on suspended particulate matter and dust deposition	Liaison with consent holder – mobile blasting not undertaken during the monitoring period	N/A
16. Wind direction and strength accounted for during blasting	Liaison with consent holder – mobile blasting not undertaken during the monitoring period	N/A
17. Requirements for record keeping of blasting activities	Liaison with consent holder – mobile blasting not undertaken during the monitoring period	N/A
18. Noise to be managed and controlled during works within the CMA	Liaison with consent holder – mobile blasting not undertaken during the monitoring period	N/A
Review and Lapse		
19. Provision for lapse of consent if not exercised	Consent exercised	N/A
20. Optional review provision re environmental effects	Next opportunity for review June 2026	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

During the year, Dialog Fitzroy Ltd demonstrated a high level of environmental and a high level of administrative performance as defined in Appendix II.

3.3.4 Recommendations from the 2020-2021 Annual Report

In the 2020-2021 Annual Report, it was recommended:

1. THAT monitoring of consented activities at the Dialog Fitzroy Ltd site in the 2021-2022 year continues at the same level as in 2020-2021.
2. THAT should there be issues with environmental or administrative performance in 2021-2022, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.

These recommendations were implemented,

3.3.5 Alterations to monitoring programmes for 2022-2023

In designing and implementing the monitoring programmes for air/water discharges in the region, the Council has taken into account:

- the extent of information already made available through monitoring or other means to date;
- its relevance under the RMA;
- the Council's obligations to monitor consented activities and their effects under the RMA;
- the record of administrative and environmental performances of the consent holder; and

- reporting to the regional community.

The Council also takes into account the scope of assessments required at the time of renewal of permits, and the need to maintain a sound understanding of industrial processes within Taranaki exercising resource consents.

It is proposed that for 2022-2023 the programme continues at the same level as in 2021-2022.

It should be noted that the proposed programme represents a reasonable and risk-based level of monitoring for the site in question. The Council reserves the right to subsequently adjust the programme from that initially prepared, should the need arise if potential or actual non-compliance is determined at any time during 2022-2023.

3.4 Recommendation

1. THAT monitoring of consented activities at the Dialog Fitzroy Ltd site in the 2022-2023 year continues at the same level as in 2021-2022.
2. THAT should there be issues with environmental or administrative performance in 2022-2023, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.

4 Katere Surface Coatings Ltd

4.1 Introduction

4.1.1 Process description

Katere Surface Coatings Ltd (Katere Surface Coatings) operates an abrasive blasting and surface coating business from a mobile unit at a permanent site on Katere Road. A map showing the location of the site is provided in Figure 6.

The emissions from abrasive blasting operations may include sand, grit, dust, silicates, rust, detritus, and various metal compounds including zinc, iron, lead and arsenic. Emissions from surface coating processes may include objectionable odours and spray drift.

Blasting takes place within an enclosed building with emissions passed through a scrubber system before being discharged to the atmosphere. Some items are too large to process in the building and are, therefore, blasted outside. All outside work requires effective screening measures such as tarpaulins and similar covers to contain emissions within the site boundary. Screening also applies to operations carried out by the mobile unit. Weather conditions must be considered before any outside work is carried out.

The 2020-2021 monitoring year was the 30th year in which the Council has monitored air emissions from the Katere Surface Coatings site (formerly Vinsen G M Ltd) and their effects within the region.



Figure 6 Location of Katere Surface Coatings Ltd and their deposition gauge sites

4.2 Results

4.2.1 Inspections

Three routine compliance monitoring inspections were carried out during the monitoring period, on 16 August 2021, 9 February and 20 April 2022.

4.2.1.1 Site inspections

16 August 2021

Repairs to one side of the blasting shed had been undertaken, however it was noted that garnet was still able to escape. The hard stand area outside the blast shed required sweeping, along with the driveway down towards the stormwater drain. No visible dust or odours were noted on the site or beyond the boundary. A new container shed was being installed to undertake soda blasting on site, it was noted that any soda blasting work needed to comply with special condition 8, unless the item is too large, and instead special condition 9 would apply. The consent holder was reminded that an Air Discharge Management Plan as per special condition 6 was required to be submitted as soon as possible.

9 February 2022

Material had accumulated along the side of the blast shed (Photo 3). The iron on the side of the building had recently been replaced but material was still escaping through some sheets, particularly towards the back of the shed. Blasting material was also observed escaping out the back of the shed in close proximity to a stormwater drain. It was noted that the Air Discharge Management Plan had not been submitted as required by special condition 6. Abatement notice EAC-24416 was issued (refer to section 4.2.3).

20 April 2022

The site had recently been swept. Gravel had been applied to the side of the blast shed to prevent material seeping out. This appeared to be working, however some areas needed to be cleaned where it had seeped through. The back of shed still required some work. The site was compliant with action 1 of abatement notice EAC-24416. The site manager advised that the Air Discharge Management Plan document was almost complete and would be submitted presently.

4.2.1.2 Mobile blast inspections

No notifications were received by the Council regarding mobile blasting being undertaken by Katere Surface Coatings during the year under review.

4.2.2 Results of receiving environment monitoring

4.2.2.1 Deposition gauging

Deposition gauges were deployed on two occasions during the monitoring period. The first deployment began in early January 2022 and lasted 21 days. The second deployment began in late January 2022 and lasted 21 days.

A site map marking the location of the gauges around the Katere Surface Coatings site is shown in Figure 6 and the results of the 2021-2022 gauging surveys are presented in Table 7. The prevailing wind directions during the surveys are shown in Appendix III.

Table 7 Deposition gauge results from around the Katere Surface Coating Ltd site

Site ID	Dust deposition rate (g/m ² /day)	
	Run 1 from 06/01/2022 to 27/01/2022	Run 2 from 27/01/2022 to 17/02/2022
AIR009303	0.22	0.15
AIR009304	0.21	0.54
Guideline value:	0.13 g/m ² /day	

January 2022 survey

Both sites were above the guideline limit in the January survey. The material collected contained grit, along with bugs and grass. The appearance of the particulate matter was consistent with organic matter and re-suspended yard dust rather than blasting media.

February 2022 survey

Both gauges exceeded the guideline limit. The material collected contained grit, vegetative matter and bugs. The appearance of the particulate matter was consistent with vegetation and re-suspended yard dust rather than blasting media.

4.2.3 Investigations, interventions, and incidents

Table 8 below sets out details of any incidents recorded, additional investigations, or interventions required by the Council in relation to Katere Surface Coatings's activities during the 2021-2022 period. This table presents details of all events that required further investigation or intervention regardless of whether these were found to be compliant or not.

Table 8 Incidents, investigations, and interventions summary table

Date	Details	Compliant (Y/N)	Enforcement Action Taken?	Outcome
February 2022	Routine inspection found blasting material was escaping from the blasting shed. An Air Discharge Management Plan had not been submitted as per condition 6	N	Abatement notice	Follow up inspection found that improvements had been made to the shed. An Air Discharge Management Plan was submitted.



Photo 3 Material escaping from blasting shed, 9 February 2022

4.3 Discussion

4.3.1 Discussion of site performance

No visible dust clouds or odours were noted during inspections and there were no complaints received during the 2021-2022 year in relation to Katere Surface Coating's activities.

Repairs had been undertaken on the blasting shed, however inspections noted that material was still escaping from this and an abatement notice was issued in regards to accumulation of blast material on the ground around the vicinity of the blast booth.

The abatement notice also required that an Air Discharge Management Plan be submitted as per condition 6 of the consent. This was submitted in April 2022.

4.3.2 Environmental effects of exercise of consents

Abrasive blasting operations have the potential to create adverse effects on health and the environment as well as creating nuisance. The impact that sandblasting has is determined by the type of abrasive used (for example is it sand that is dust free with low silica content), the effectiveness of the blasting enclosure and treatment system, the procedures followed by staff when blasting outside the blasting room (for example temporary screening), and the items blasted (for example with coatings such as lead-based paints or larger rusted areas resulting in generation of extra detritus).

All four gauging results exceeded the particulate deposition rate during the January and February 2022 surveys. The high particulate deposition during this instance was attributed to vegetation input and re-suspended yard dust from the wider area.

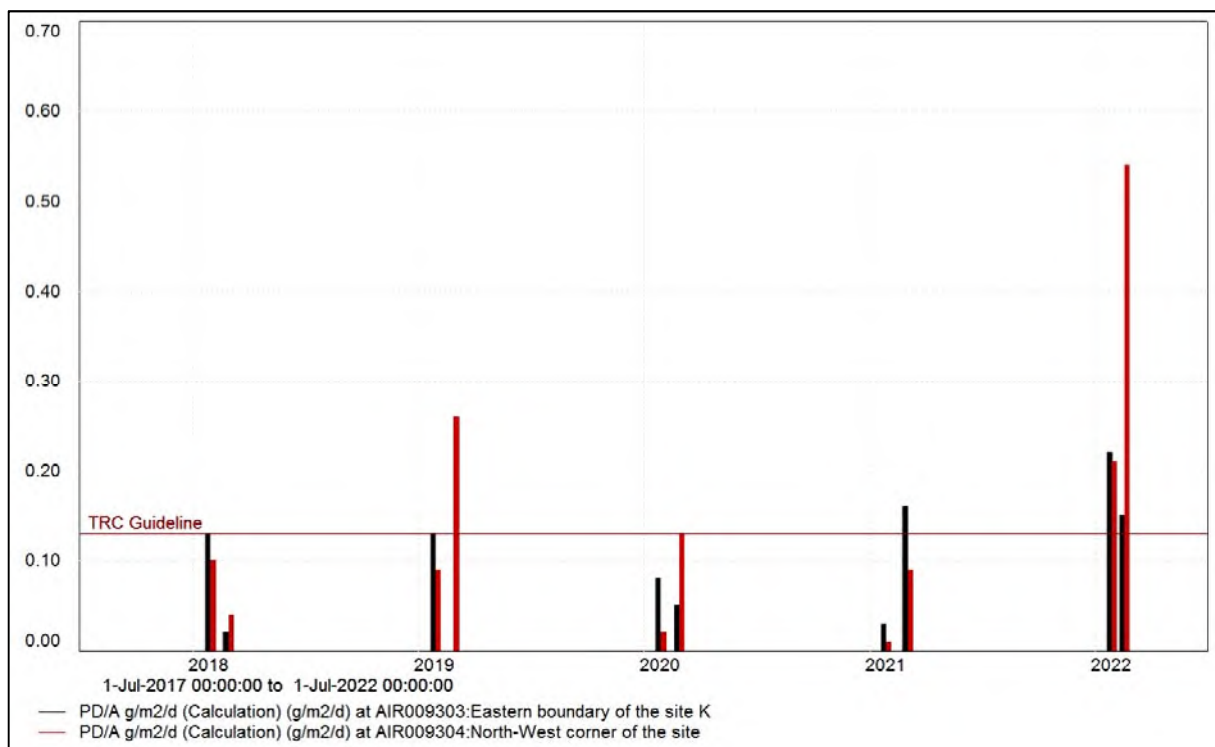


Figure 7 Deposition gauge results for the Katere Surface Coatings monitoring sites from July 2017 to July 2022

There were no complaints received regarding dust impacting beyond the boundary of the property. Wind direction was predominantly from the west and south east during the first gauging period. During the second period, the prevailing wind was from the south east, with southerlies and north easterlies making up

the majority of the rest (Appendix III). Due to these variable winds, neighbouring properties cannot be discounted as potential contributors to the deposition rate.

The results of the 2021-2022 monitoring indicate that there were no significant adverse environmental effects that occurred as a result of Katere Surface Coatings' activities.

4.3.3 Evaluation of performance

A tabular summary of Katere Surface Coating's compliance record for the year under review is set out in Table 9.

Table 9 Summary of performance for combine Consent 4475-3 and Consent 10881-1 - Katere Surface Coatings Ltd discharge of emissions to air

Purpose: To discharge emissions to air from abrasive blasting and surface coating activities at a permanent site located at Katere Road, New Plymouth and from mobile operations throughout the Taranaki region, including Port Taranaki, but excluding the remainder of the Coastal Marine Area		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Specifies which special conditions apply to which activities	N/A	N/A
All operations		
2. Exercise consent in manner consistent with consent application	Inspection and liaison with consent holder	Yes
3. No offensive, objectionable or toxic odour or dust beyond boundary	Inspection and observation when inspecting officer is in the vicinity of the site on other business	Yes
4. Clearance of blasting material	Inspection	No
5. Sand has low active silica content and avoidance of dry sand blasting	N/A – garnet used	N/A
6. Provision and maintenance of Air Discharge Management Plan	Plan submitted April 2022	Yes
Operations within the permanent facility		
7. Blasting to be carried out in enclosed facility	Inspection and liaison with consent holder	Yes
8. Treatment of emissions prior to discharge. Limit on emissions from enclosure of 125 mg/m ³	Not assessed during period under review	N/A
9. Items too large for enclosed facility to be screened for blasting	Inspection and observation when inspecting officer is in the vicinity of the site on other business	Yes
10. Particulate deposition rate limit of 0.13 g/m ² /day	Deposition gauging	No. All results exceeded this
Operations at any other site		
11. Screening to contain emissions	No mobile blasting undertaken	N/A

Purpose: To discharge emissions to air from abrasive blasting and surface coating activities at a permanent site located at Katere Road, New Plymouth and from mobile operations throughout the Taranaki region, including Port Taranaki, but excluding the remainder of the Coastal Marine Area		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
12. Email notification to the Council 48 hrs prior to blasting in close proximity to watercourse	Discussion with consent holder, and review of the Council records. No notifications received as no mobile blasting undertaken	N/A
13. Discharges prohibited within 150 m of sites of significance to Maori	No mobile blasting undertaken	N/A
14. Suspended and deposited particulate limits 3 mg/m ³ and 0.13 g/m ² /day respectively	No mobile blasting undertaken	N/A
15. Consideration of wind conditions to minimise off-site emissions	No mobile blasting undertaken	N/A
16. Requirements for record keeping of blasting activities	No mobile blasting undertaken	N/A
17. Noise to be managed and controlled during works within the CMA	No mobile blasting undertaken	N/A
18. Occupation of coastal space limited to 48 hr period	No mobile blasting undertaken	N/A
19. Discharges within CMA limited to defined Port Area	No mobile blasting undertaken	N/A
Review		
20. Optional review provision re environmental effects	Option for review in June 2023, recommendation attached in Section 4.3.6	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		Improvement required
Overall assessment of administrative performance in respect of this consent		Good

During the year, Katere Surface Coatings demonstrated a level of environmental performance that required improvement and a good level of administrative performance as defined in Appendix II.

4.3.4 Recommendations from the 2020-2021 Annual Report

In the 2020-2021 Annual Report, it was recommended:

1. THAT monitoring of consented activities of Katere Surface Coatings Ltd in the 2021-2022 year continues at the same level as in 2020-2021.
2. THAT should there be issues with environmental or administrative performance in 2021-2022, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.

These recommendations were implemented.

4.3.5 Alterations to monitoring programmes for 2022-2023

In designing and implementing the monitoring programmes for air/water discharges in the region, the Council has taken into account:

- the extent of information already made available through monitoring or other means to date;
- its relevance under the RMA;
- the Council's obligations to monitor consented activities and their effects under the RMA;
- the record of administrative and environmental performances of the consent holder; and
- reporting to the regional community.

The Council also takes into account the scope of assessments required at the time of renewal of permits, and the need to maintain a sound understanding of industrial processes within Taranaki exercising resource consents.

It is proposed that for 2022-2023, the monitoring continues at the same level as in 2021-2022.

It should be noted that the proposed programme represents a reasonable and risk-based level of monitoring for the site in question. The Council reserves the right to subsequently adjust the programme from that initially prepared, should the need arise if potential or actual non-compliance is determined at any time during 2022-2023.

4.3.6 Exercise of optional review of consent

Resource consents 4475-3 and 10881-1 provides for an optional review of the consents in June 2023. Condition 20 allows the Council to review the consents, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment.

Based on the results of monitoring in the year under review, and in previous years as set out in earlier annual compliance monitoring reports, it is considered that there are no grounds that require a review to be pursued.

4.4 Recommendation

1. THAT monitoring of consented activities of Katere Surface Coatings Ltd in the 2022-2023 year continues at the same level as in 2021-2022.
2. THAT the Company ensures they operate in accordance with their Air Discharge Management Plan to reduce dust emissions.
3. THAT should there be issues with environmental or administrative performance in 2022-2023, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.
4. That the option for a review of resource consent in June 2023, as set out in condition 20 of the consents, not be exercised, on the grounds that the current conditions are adequate.

5 Lower Waiwhakaiho area performance

5.1 Air related incidents

During the year under review there was one incident recorded in relation to air discharges within the Lower Waiwhakaiho catchment. , Downer and Dialog Fitzroy demonstrated a high level of environmental performance, while Katere Surface Coatings performance required improvement.

5.2 Deposition gauging

With the transient nature of effects upon air quality a combined monitoring approach in the industrial area in question is a good way of assessing consent holder performance. This approach was continued in this monitoring period as adopted following the recommendations in the 2000-2001 annual reports for dischargers in the area.

The deposition gauges were put in place and retrieved at all sites at the same time, including the Council's state of the environment monitoring (SEM) sites. The gauges for the near-by Colson Road landfill site were also deployed for the same period. The wind direction and speed for each of the sampling periods are shown in Appendix III. These were recorded at the Hillsborough Weather Station, which is in the same area.

5.2.1 Results of deposition gauging

There were eight recorded instances where the Council's guideline limit was met or exceeded, out of 26 total gauge deployments assessing the three consent holders covered by this report. The results of the deposition gauging undertaken in the Lower Waiwhakaiho area for the year under review are summarised in Figure 8.

Deposition gauge results from the Colson Road landfill monitoring programme have also been included in Figure 8 to provide context of air quality in the wider Waiwhakaiho area. There were no exceedances of the 11 total gauge deployments for the Colson Road landfill programme in the year under review. Colson Road landfill deposition gauges AIR001612 and AIR001615 are also used as SEM gauges. Accordingly, results from these gauges have been included in the TRC SEM table in Figure 8.

Results from the SEM gauges deployed in the Lower Waiwhakaiho area have been included in Figure 8 to provide context of air quality in the wider Waiwhakaiho area. None of the 12 total SEM gauges exceeded the Council's guideline limit in the period under review.

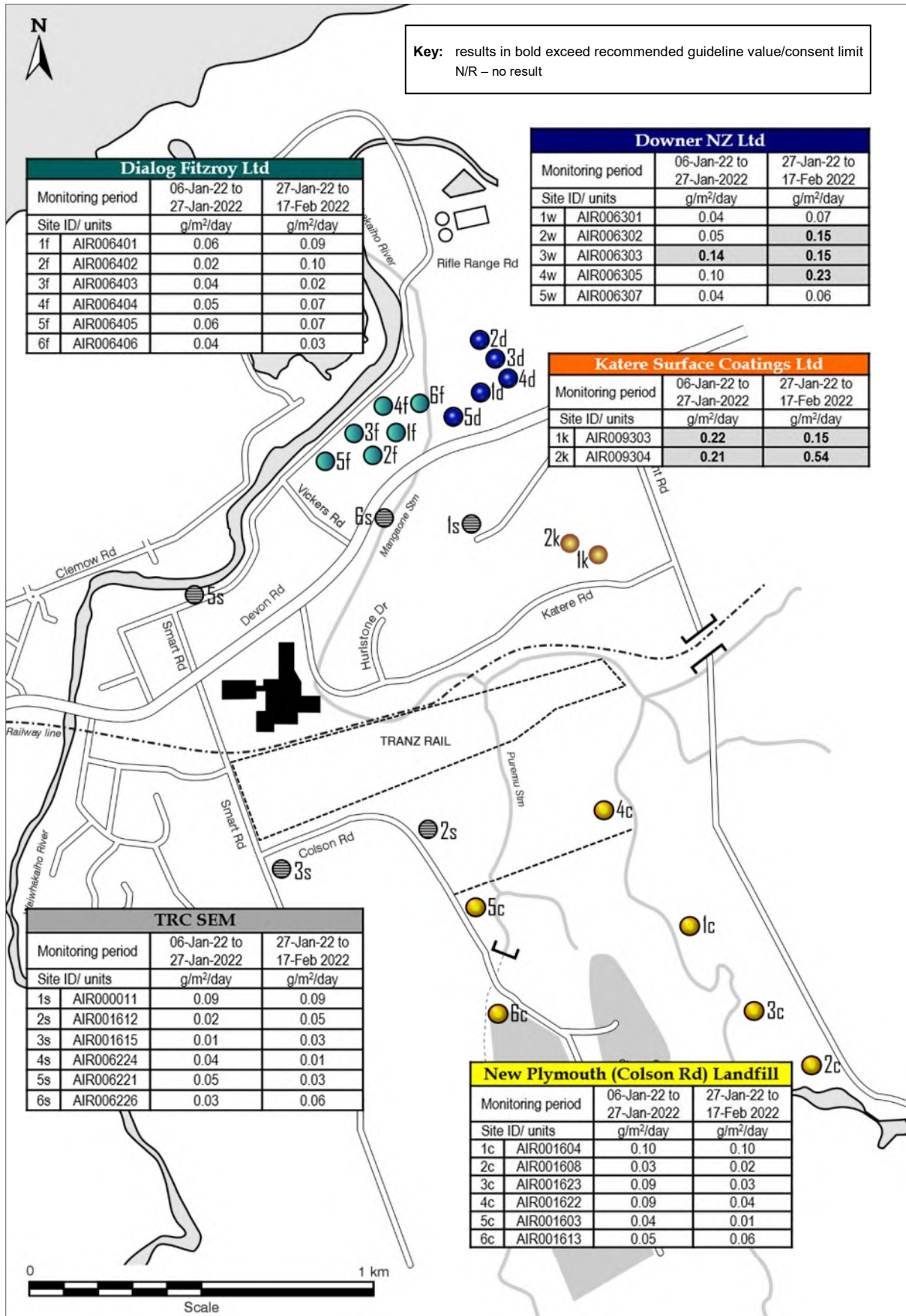


Figure 8 Dust deposition for the Lower Waiwhakaiho area in the 2021-2022 monitoring period

5.3 Discussion

5.3.1 Environmental effects of exercise of air discharge permits

Ambient air quality (at SEM sites) in the Lower Waiwhakaiho area during the year under review was good. The overall air quality in the Lower Waiwhakaiho area, including deposition survey results for the three consent holders covered in this report, was generally high during both the January and February gauging periods.

January 2022 deposition gauge survey

In the case of the January survey, three of 13 (23%) of the gauges exceeded the guideline value. As with previous years, the higher particulate deposition rates were again found to be at monitoring locations in close proximity to industrial sites.

Wind direction was consistent during the gauging period, with winds predominantly from the west to north west for 41% of the time, and from the south east to south for 38%. The strongest winds were from the south east.

February 2022 deposition gauge survey

In the case of the February survey, five of 13 (38%) of the gauges returned results that were at or in excess of the guideline value. On this occasion the exceedances were again at monitoring sites located close to the industrial sites, in the vicinity of the Katere Surface Coatings and Downer EDI sites. The prevailing wind directions observed during this gauging period were from the south east to south (40% of the time) and the north to north east (39% of the time), with the strongest winds from the south east.

6 Summary of recommendations

1. THAT monitoring of consented activities at the Downer EDI Works Ltd site in the 2022-2023 year continues at the same level as in 2021-2022.
2. THAT monitoring of consented activities at the Dialog Fitzroy Ltd site in the 2022-2023 year continues at the same level as in 2021-2022.
3. THAT monitoring of consented activities of Katere Surface Coatings Ltd in the 2022-2023 year continues at the same level as in 2021-2022.
4. THAT should there be issues with environmental or administrative performance in 2022-2023, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.
5. That the option for a review of resource consent in June 2023, as set out in condition 20 of the consents, not be exercised, on the grounds that the current conditions are adequate.

Glossary of common terms and abbreviations

The following abbreviations and terms may be used within this report:

g/m ³	Grams per cubic metre, and equivalent to milligrams per litre (mg/L). In water, this is also equivalent to parts per million (ppm), but the same does not apply to gaseous mixtures.
Incident	An event that is alleged or is found to have occurred that may have actual or potential environmental consequences or may involve non-compliance with a consent or rule in a regional plan. Registration of an incident by the Council does not automatically mean such an outcome had actually occurred.
Investigation	Action taken by the Council to establish what were the circumstances/events surrounding an incident including any allegations of an incident.
L/s	Litres per second.
PM ₁₀	Relatively fine airborne particles (less than 10 micrometre diameter).
QPR	Quality Pavement Repair - a high performance permanent repair material for repairing potholes, filling utility cuts and repairing damaged asphalt.
Resource consent	Refer Section 87 of the RMA. Resource consents include land use consents (refer Sections 9 and 13 of the RMA), coastal permits (Sections 12, 14 and 15), water permits (Section 14) and discharge permits (Section 15).
RMA	<i>Resource Management Act</i> 1991 and including all subsequent amendments.

For further information on analytical methods, contact an Environmental Quality Manager.

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Appendix I

Resource consents for discharges to air held by industries in the Lower Waiwhakaiho area (alphabetical order)

(For a copy of the signed resource consent
please contact the TRC Consents department)

Water abstraction permits

Section 14 of the RMA stipulates that no person may take, use, dam or divert any water, unless the activity is expressly allowed for by a resource consent or a rule in a regional plan, or it falls within some particular categories set out in Section 14. Permits authorising the abstraction of water are issued by the Council under Section 87(d) of the RMA.

Water discharge permits

Section 15(1)(a) of the RMA stipulates that no person may discharge any contaminant into water, unless the activity is expressly allowed for by a resource consent or a rule in a regional plan, or by national regulations. Permits authorising discharges to water are issued by the Council under Section 87(e) of the RMA.

Air discharge permits

Section 15(1)(c) of the RMA stipulates that no person may discharge any contaminant from any industrial or trade premises into air, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations. Permits authorising discharges to air are issued by the Council under Section 87(e) of the RMA.

Discharges of wastes to land

Sections 15(1)(b) and (d) of the RMA stipulate that no person may discharge any contaminant onto land if it may then enter water, or from any industrial or trade premises onto land under any circumstances, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations. Permits authorising the discharge of wastes to land are issued by the Council under Section 87(e) of the RMA.

Land use permits

Section 13(1)(a) of the RMA stipulates that no person may in relation to the bed of any lake or river use, erect, reconstruct, place, alter, extend, remove, or demolish any structure or part of any structure in, on, under, or over the bed, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations. Land use permits are issued by the Council under Section 87(a) of the RMA.

Coastal permits

Section 12(1)(b) of the RMA stipulates that no person may erect, reconstruct, place, alter, extend, remove, or demolish any structure that is fixed in, on, under, or over any foreshore or seabed, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations. Coastal permits are issued by the Council under Section 87(c) of the RMA.

Discharge & Coastal Permit
Pursuant to the Resource Management Act 1991
a resource consent is hereby granted by the
Taranaki Regional Council

Name of
Consent Holder: Dialog Fitzroy Limited
Private Bag 2053
New Plymouth 4340

Decision Date 2 December 2020

Commencement Date 2 December 2020

Conditions of Consent

Consent Granted: To discharge emissions into the air from abrasive blasting operations throughout the Taranaki Region, except within some parts of the Coastal Marine Area

Expiry Date: 1 June 2038

Review Date(s): June 2026, June 2029, June 2032, June 2035

Site Location: 691 Devon Road, Waiwakaiho & various locations throughout the Taranaki region

Grid Reference (NZTM) 1696630E-5677760N (Permanent Site)

Catchment: Waiwhakaiho
Tasman Sea
Various

*For General, Standard and Special conditions
pertaining to this consent please see reverse side of this document*

General condition

- a. The consent holder shall pay to the Taranaki Regional Council all the administration, monitoring and supervision costs of this consent, fixed in accordance with section 36 of the Resource Management Act 1991.

Special conditions

1. The conditions of this consent shall apply to the various operations of the consent as follows:
 - a) Special Conditions 2 – 7 apply to all operations.
 - b) Special Conditions 8 – 11 apply to operations conducted within the blasting enclosure at the permanent facility at 691 Devon Road, Waiwhakaiho.
 - c) Special Conditions 12 – 18 apply to mobile blasting operations.

All operations

2. This consent authorises discharge to air from abrasive blasting throughout the Taranaki Region, excluding the Coastal Marine Area within the rohe of Ngaruahine Iwi.
3. The activity shall be undertaken in general accordance with the information provided in the application documentation. In the case of any contradiction between the application and the conditions of this consent, the conditions of this consent shall prevail.
4. The exercise of this consent shall not give rise to any offensive, objectionable, noxious, hazardous or dangerous levels of dust or odour at or beyond the boundary of the property on which the abrasive blasting is occurring, or within 20 metres of the activity, where the activity occurs on public land or within the Coastal Marine Area.
5. As far as is practicable, work areas and surrounding areas shall be cleared of accumulations of blasting material at the end of each blasting session and by the end of each working day.
6. Blasting media used for dry abrasive blasting shall contain less than 2% by dry weight dust able to pass through a 0.15 mm sieve and sand used for dry abrasive blasting shall contain less than 5% by dry weight free silica.
7. From March 2021 onwards all blasting operations and site management shall be undertaken in accordance with an Air Discharge Management Plan ('the Plan') that has been prepared by the applicant and approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity. The Plan shall detail procedures and methods that will be used achieve compliance with the conditions of this consent and shall include but not be limited to details of:
 - a) blasting operations;
 - b) screening/containment of offsite blasting or onsite blasting that occurs outside of an enclosed booth or shed;
 - c) monitoring and maintenance of the blasting buildings and air discharge treatment systems;
 - d) handling of potentially hazardous substances;

- e) how advice of blasting will be provided to interested parties
- f) process for ensuring compliance with condition 14
- g) recording of maintenance;
- h) staff training; and
- i) general housekeeping, site cleanup and yard maintenance.

Discharges within blasting enclosure 691 Devon Road, Waiwhakaiho

8. As far as practical, all abrasive blasting at 691 Devon Road, Waiwhakaiho shall be carried out in an enclosed booth or shed.
9. All items to be blasted within the yard of the site shall be screened by means of covers, tarpaulins, cladding, or other means, as completely as practicable, to contain dust emissions and depositions and, as far as practicable, minimise the spread of all blasting debris.
10. All emissions at 691 Devon Road Waiwhakaiho shall be contained and treated prior to discharge from the operations enclosure. All exhaust air ventilated or otherwise emitted from an enclosure shall be treated to a concentration of total particulate matter of less than 125 mg/m³ [natural temperature & pressure] corrected to dry gas basis, at any time.
11. The dust deposition rate beyond the property boundary of the site at 691 Devon Road, Waiwhakaiho arising from the discharge, shall be less than 0.13g/m²/day.

Operations conducted at any site other than within the blasting enclosure

12. All items or premises to be blasted shall be screened by means of covers, tarpaulins, cladding, or other means, as completely as practicable, to contain dust emissions and depositions and, as far as practicable, minimise the spread of all blasting debris.
13. Where abrasive blasting or surface coating is to take place within 25 metres of a watercourse, the consent holder shall notify the Chief Executive, Taranaki Regional Council, at least two working days before the activity commences. The notice shall include details of: the location, the specific blasting proposed, the screening (required by condition 12 above), dates and times of the discharge. It shall be served by completing and submitting the 'Notification of work' form on the Council's website (<http://bit.ly/TRCWorkNotificationForm>).
14. There shall be no discharge within 150 metres of:
 - a) any fenced (or otherwise identified) urupa without the written approval of the relevant Iwi; or
 - b) any marae, unless the written approval of the marae Chair has been obtained to allow the discharge at a closer distance.
 - c) any site of significance to Maori located within the Coastal Marine Area.
15. The suspended particulate matter shall not exceed 3 mg/m³ [measured under ambient conditions], and the deposition of dust shall not exceed 0.13 g/m²/day beyond the property boundary or beyond 50 metres of the discharge when sited on land where the public has free access, whichever is less.

Consent 4025-4.0

16. All abrasive blasting is to be conducted with taking into account wind direction and wind strength, such that off-site effects are kept to a practicable minimum.
17. The consent holder shall keep a record of abrasive blasting, including, but not limited to the following information:
 - a) Location (property address and map reference);
 - b) the type of blasting material used;
 - c) date; and
 - d) time/duration of work.

The record of mobile blasting shall be made available to the Chief Executive, Taranaki Regional Council on request.

18. The noise from any construction, maintenance and demolition activities in the Coastal Marine Area must be measured, assessed, managed and controlled in accordance with the requirements of New Zealand Standard NZ6803:1999 Acoustics – Construction noise.

Lapse and Review

19. This consent lapses 5 years after its date of commencement, unless the consent is given effect to before the end of that period or the Taranaki Regional Council fixes a longer period pursuant to section 125(1)(b) of the Resource Management Act 1991.
20. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June 2026 and at 3 yearly intervals thereafter, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time

Signed at Stratford on 2 December 2020

For and on behalf of
Taranaki Regional Council



A D McLay
Director - Resource Management

Discharge Permit
Pursuant to the Resource Management Act 1991
a resource consent is hereby granted by the
Taranaki Regional Council

Name of
Consent Holder: Downer NZ Limited

Decision Date: 22 September 2021

Commencement Date: 22 September 2021

Conditions of Consent

Consent Granted: To discharge emissions into the air from the manufacture of hot mix asphalt paving mixes and associated activities

Expiry Date: 1 June 2038

Review Date(s): June 2026, June 2032

Site Location: 106 Rifle Range Road, New Plymouth

Grid Reference (NZTM) 1696860E-5677944N

*For General, Standard and Special conditions
pertaining to this consent please see reverse side of this document*

General condition

- a. The consent holder shall pay to the Taranaki Regional Council all the administration, monitoring and supervision costs of this consent, fixed in accordance with section 36 of the Resource Management Act 1991.

Special conditions

1. The exercise of this consent shall be undertaken in general accordance with the information provided in support of the application for this consent and with any subsequent application to change consent conditions. Where there is conflict between applications the later application shall prevail, and where there is conflict between an application and consent conditions the conditions shall prevail.
2. Prior to undertaking any alterations to the plant, processes or operations, which in the opinion of the Chief Executive, Taranaki Regional Council, may significantly change the nature or quantity of contaminants emitted from the site, the consent holder shall advise the Chief Executive, Taranaki Regional Council, and shall obtain any necessary approvals under the Resource Management Act, 1991.
3. Recycled asphalt shall not be processed at the site.
4. The consent holder shall not operate the asphalt plant using waste oil.
5. The asphalt plant shall not be operated on any fuel containing more than 0.3% sulphur (weight/weight basis).
6. All exhaust gases ventilated from the drier drum shall be treated to reduce the concentration of total particulate matter to less than 125 milligrams per cubic metre, expressed on a dry gas basis at zero degrees Celsius and 1 atmosphere pressure, at any time.
7. The consent holder shall have an emission test conducted on discharges from the asphalt plant stack to demonstrate compliance with special condition 6. This test shall:
 - a) be undertaken by 1 June 2022 and every 12 months thereafter for the duration of the consent; and
 - b) comprise not less than three separate samples taken during production conditions that give rise to maximum emissions from the asphalt plant stack; andbe reported to the Chief Executive, Taranaki Regional Council, within 20 working days of the samples being taken. The report shall include the results of the tests, the relevant operating parameters including pressure drop over the scrubber and the production rate over the period of each test, all the raw data, and all the calculations.

Consent 4060-5.0

8. The emissions tests shall be carried out in accordance with Australian Standard 4323.2-1995, or any other equivalent method subject to the written approval of the Chief Executive, Taranaki Regional Council, and these tests shall be performed to the satisfaction of the Chief Executive, Taranaki Regional Council.
9. The dust deposition rate beyond the property boundary arising from the discharge shall be less than 4.0 g/m²/30 days or 0.13 g/m²/day.
10. Any discharge to air from the exercise of this consent shall not give rise to any offensive or objectionable odour at or beyond the boundary of the property.
11. The consent holder shall control all emissions from of carbon monoxide, nitrogen dioxide, fine particles (PM₁₀) and sulphur dioxide to the atmosphere from the site, in order that the maximum ground level concentration of any of these contaminants arising from the exercise of this consent measured under ambient conditions does not exceed the relevant ambient air quality standard as set out in the Resource Management (National Environmental Standards for Air Quality Regulations, 2004) at or beyond the boundary of the property.
12. The consent holder shall control all emissions to the atmosphere from the site of contaminants other than those expressly provided for under special condition 11, in order that they do not individually or in combination with other contaminants cause hazardous, noxious, dangerous, offensive or objectionable effects at or beyond the boundary of the property.
13. Within one month of this consent being granted, the site shall be operated in accordance with an 'Operations and Maintenance Management Plan' (OMMP). The OMMP shall be prepared by the consent holder and approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity. The OMMP shall detail how the site is managed to achieve compliance with the conditions of this consent and shall include, but not be limited to:
 - staff training;
 - general housekeeping and site maintenance;
 - maintenance of air discharge treatment systems;
 - recording of training and maintenance;
 - recording of complaints made directly to the consent holder;
 - review frequency of the OMMP.
14. The OMMP required by condition 13 shall be forwarded to the Chief Executive, Taranaki Regional Council, before 1 August each year.

Consent 4060-5.0

15. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June 2026 and/or June 2032, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

Signed at Stratford on 22 September 2021

For and on behalf of
Taranaki Regional Council



A D McLay

Director - Resource Management

Discharge & Coastal Permit
Pursuant to the Resource Management Act 1991
a resource consent is hereby granted by the
Taranaki Regional Council

Name of
Consent Holder: Katere Surface Coatings Limited
 PO Box 3258
 Fitzroy
 New Plymouth 4341

Decision Date 21 December 2020

Commencement Date 21 December 2020

Conditions of Consent

Consent Granted: To discharge emissions to air from abrasive blasting and surface coating activities at a permanent site located at Katere Road, New Plymouth and from mobile operations throughout the Taranaki region, including Port Taranaki, but excluding the remainder of the Coastal Marine Area

Expiry Date: 1 June 2038

Review Date(s): June 2023 and 3-yearly intervals thereafter

Site Location: 93a Katere Road, New Plymouth and various locations throughout the Taranaki region, including Port Taranaki

Grid Reference (NZTM) 1697260E-5677410N (permanent site)

*For General, Standard and Special conditions
pertaining to this consent please see reverse side of this document*

General condition

- a. The consent holder shall pay to the Taranaki Regional Council all the administration, monitoring and supervision costs of this consent, fixed in accordance with section 36 of the Resource Management Act 1991.

Special conditions

1. The conditions of this consent shall apply to authorised discharges as follows;
 - (a) Special Conditions 2 to 6 apply to discharges from all locations.
 - (b) Special Conditions 7 to 9 apply only to discharges at the permanent facility at Katere Road, Waiwhakaiho.
 - (c) Special Conditions 10 to 14 apply to only to discharges at sites other than the permanent facility.
 - (d) Special Conditions 15 (review) apply to the consent generally.

All operations

2. The activity shall be undertaken in general accordance with the information provided in the application documentation. In the case of any contradiction between the application and the conditions of this consent, the conditions of this consent shall prevail.
3. The exercise of this consent shall not give rise to any offensive, objectionable, noxious, hazardous or dangerous levels of dust or odour at or beyond the boundary of the property on which the abrasive blasting is occurring.
4. As far as is practicable, work areas and surrounding areas shall be cleared of accumulations of blasting material at the end of each blasting session and by the end of each working day.
5. Blasting media used for dry abrasive blasting shall contain less than 2% by dry weight dust able to pass through a 0.15 mm sieve and sand used for dry abrasive blasting shall contain less than 5% by dry weight free silica.
6. From February 2021 onwards all blasting operations and site management shall be undertaken in accordance with an Air Discharge Management Plan ('the Plan') that has been approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity. The Plan shall detail procedures and methods that will be used achieve compliance with the conditions of this consent and shall include but not be limited to details of:
 - (a) blasting operations;
 - (b) screening/containment of offsite blasting;
 - (c) monitoring and maintenance of the blasting buildings and air discharge treatment systems;
 - (d) handling of potentially hazardous substances;
 - (e) recording of maintenance;
 - (f) staff training; and
 - (g) general housekeeping, site clean-up and yard maintenance.

Discharges at the permanent facility at 93a Katere Road, Waiwhakaiho

7. As far as practicable, all abrasive blasting at 93a Katere Road, Waiwhakaiho shall be carried out in an enclosed booth or shed.
8. All emissions from the enclosed booth or shed shall be contained and treated prior to discharge from the operations enclosure. All exhaust air ventilated or otherwise emitted from an enclosure shall be treated to a concentration of total particulate matter of less than 125 mg/m³ [natural temperature & pressure] corrected to dry gas basis, at any time.
9. Any items to be blasted at 93a Katere Road, Waiwhakaiho that are too large or otherwise not able to be blasted within the enclosed facility shall be screened by means of covers, tarpaulins, cladding, or other means, as completely as practicable, to contain dust emissions and depositions and, as far as practicable, to avoid any discharge beyond the immediate work area.
10. The dust deposition rate beyond the property boundary of the site at 93a Katere Road, Waiwhakaiho arising from the discharge, shall be less than 0.13 g/m²/day.

Operations conducted at any site other than the permanent facility

11. All items or premises to be blasted shall be screened by means of covers, tarpaulins, cladding, or other means, as completely as practicable, to contain dust emissions and depositions and, as far as practicable, to avoid any discharge beyond the immediate work area.
12. Where abrasive blasting or surface coating is to take place within 25 metres of a watercourse or at the coast, the consent holder shall notify the Chief Executive, Taranaki Regional Council, at least two working days before the activity commences. The notice shall include details of: the location, the specific blasting proposed, the screening (required by condition 11 above), dates and times of the discharge. It shall be served by completing and submitting the 'Notification of work' form on the Council's website (<http://bit.ly/TRCWorkNotificationForm>).

For clarity, this consent does not authorise any discharge to water except of contaminants of very small volumes that cannot practicably be contained and which have less than minor adverse effects.

13. There shall be no discharge within 150 metres of:
 - (a) any fenced (or otherwise identified) urupa without the written approval of the relevant Iwi; or
 - (b) any marae, unless the written approval of the marae Chair has been obtained to allow the discharge at a closer distance.
 - (c) any site of significance to Maori as defined in the *Proposed Regional Coastal Plan for Taranaki* (as modified by Council decisions, October 2019) or any Operative Coastal Plan unless prior approval is obtained from the relevant iwi.
14. The suspended particulate matter shall not exceed 3 mg/m³ [measured under ambient conditions], and the deposition of dust shall not exceed 0.13 g/m²/day beyond the property boundary or beyond 50 metres of the discharge when sited on land where the public has free access, whichever is less.

Consents 4475-3.0 & 10881-1.0

15. All abrasive blasting is to be conducted with taking into account wind direction and wind strength, such that off-site effects are kept to a practicable minimum.
16. The consent holder shall keep a record of abrasive blasting, including, but not limited to the following information:
 - (a) location (property address and map reference);
 - (b) the type of blasting material used;
 - (c) date; and
 - (d) time/duration of work.

The record of mobile shall be made available to the Chief Executive, Taranaki Regional Council on request.

17. Noise generated by blasting within the CMA shall not exceed the following at any point landward of the boundary of the CMA

Time (any day)	Limit
7am – 7pm	50 dB L _{Aeq} (15 mins)
7pm – 10pm	45 dB L _{Aeq} (15 mins)
10pm – 7am	40 dB L _{Aeq} (15 mins)
10pm to 7am	70 dB L _{Amax}

Noise shall be measured in accordance with the *New Zealand Standard NZS 6801:2008 Acoustic – Measurement of Environmental Sound* and assessed in accordance with *New Zealand Standard NZS 6802:2008 Acoustic Environmental Noise*

18. Any exclusive occupation of the coastal space within 1 km of MHWS shall not occur for a period of more than 48 hours.
19. Any discharge within the coastal marine area authorised by this consent shall occur only within the “Port” Coastal Management Area as defined in the *Proposed Regional Coastal Plan for Taranaki* (as modified by Council decisions, October 2019).

Review

20. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June 2023 and at 3-yearly intervals thereafter, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

Signed at Stratford on 21 December 2020

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

Appendix II

Categories used to evaluate environmental and administrative performance

Categories used to evaluate environmental and administrative performance

Environmental performance is concerned with actual or likely effects on the receiving environment from the activities during the monitoring year. Administrative performance is concerned with the Company's approach to demonstrating consent compliance in site operations and management including the timely provision of information to Council (such as contingency plans and water take data) in accordance with consent conditions.

Events that were beyond the control of the consent holder and unforeseeable (that is a defence under the provisions of the RMA can be established) may be excluded with regard to the performance rating applied. For example loss of data due to a flood destroying deployed field equipment.

The categories used by the Council for this monitoring period, and their interpretation, are as follows:

Environmental Performance

High: No or inconsequential (short-term duration, less than minor in severity) breaches of consent or regional plan parameters resulting from the activity; no adverse effects of significance noted or likely in the receiving environment. The Council did not record any verified unauthorised incidents involving environmental impacts and was not obliged to issue any abatement notices or infringement notices in relation to such impacts.

Good: Likely or actual adverse effects of activities on the receiving environment were negligible or minor at most. There were some such issues noted during monitoring, from self-reports, or during investigations of incidents reported to the Council by a third party but these items were not critical, and follow-up inspections showed they have been dealt with. These minor issues were resolved positively, co-operatively, and quickly. The Council was not obliged to issue any abatement notices or infringement notices in relation to the minor non-compliant effects; however abatement notices may have been issued to mitigate an identified potential for an environmental effect to occur.

For example:

- High suspended solid values recorded in discharge samples, however the discharge was to land or to receiving waters that were in high flow at the time;
- Strong odour beyond boundary but no residential properties or other recipient nearby.

Improvement required: Likely or actual adverse effects of activities on the receiving environment were more than minor, but not substantial. There were some issues noted during monitoring, from self-reports, or during investigations of incidents reported to the Council by a third party. Cumulative adverse effects of a persistent minor non-compliant activity could elevate a minor issue to this level. Abatement notices and infringement notices may have been issued in respect of effects.

Poor: Likely or actual adverse effects of activities on the receiving environment were significant. There were some items noted during monitoring, from self-reports, or during investigations of incidents reported to the Council by a third party. Cumulative adverse effects of a persistent moderate non-compliant activity could elevate an 'improvement required' issue to this level. Typically there were grounds for either a prosecution or an infringement notice in respect of effects.

Administrative performance

High: The administrative requirements of the resource consents were met, or any failure to do this had trivial consequences and were addressed promptly and co-operatively.

Good: Perhaps some administrative requirements of the resource consents were not met at a particular time, however this was addressed without repeated interventions from the Council staff. Alternatively

adequate reason was provided for matters such as the no or late provision of information, interpretation of 'best practical option' for avoiding potential effects, etc.

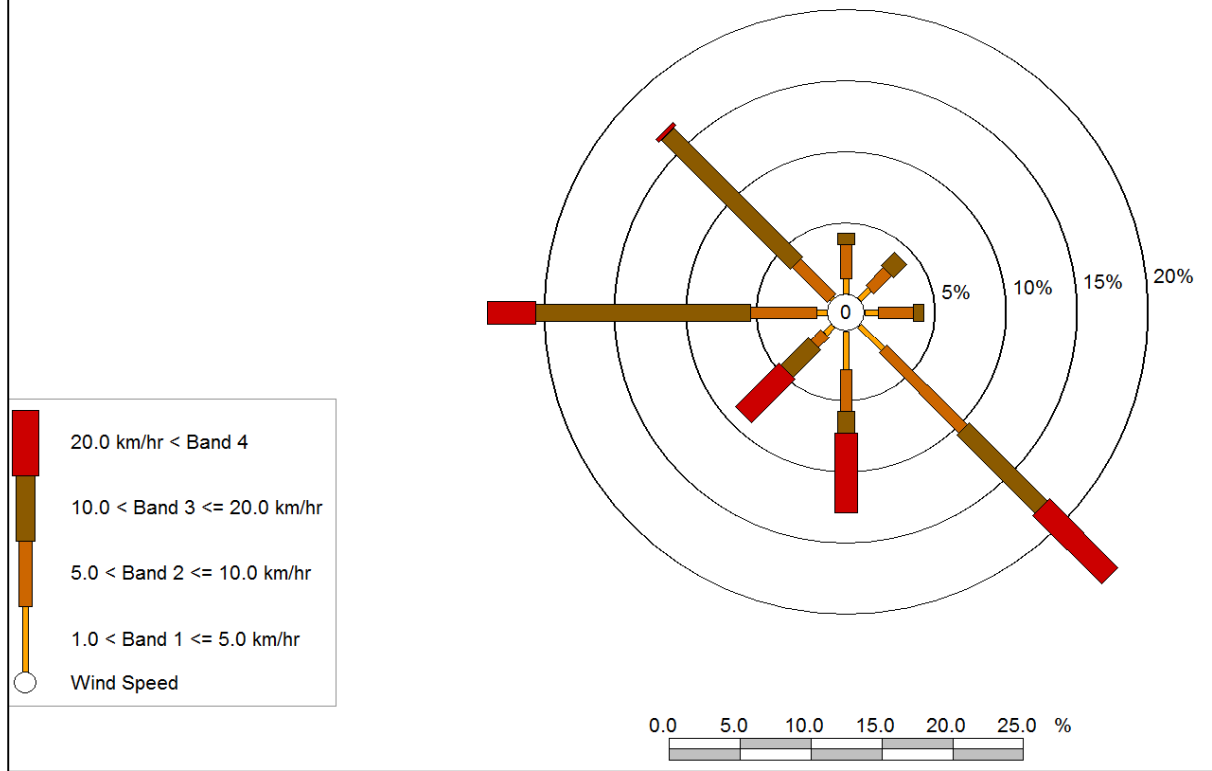
Improvement required: Repeated interventions to meet the administrative requirements of the resource consents were made by Council staff. These matters took some time to resolve, or remained unresolved at the end of the period under review. The Council may have issued an abatement notice to attain compliance.

Poor: Material failings to meet the administrative requirements of the resource consents. Significant intervention by the Council was required. Typically there were grounds for an infringement notice.

Appendix III

Wind direction information for the New Plymouth
area during the deposition gauge monitoring
periods

Wind Direction at Waiwhakaiho at Hillsborough
 Wind Speed at Waiwhakaiho at Hillsborough
 From 6-Jan-2022 12:00:00 to 27-Jan-2022 12:00:00



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 ~~~ PLWind ~~~

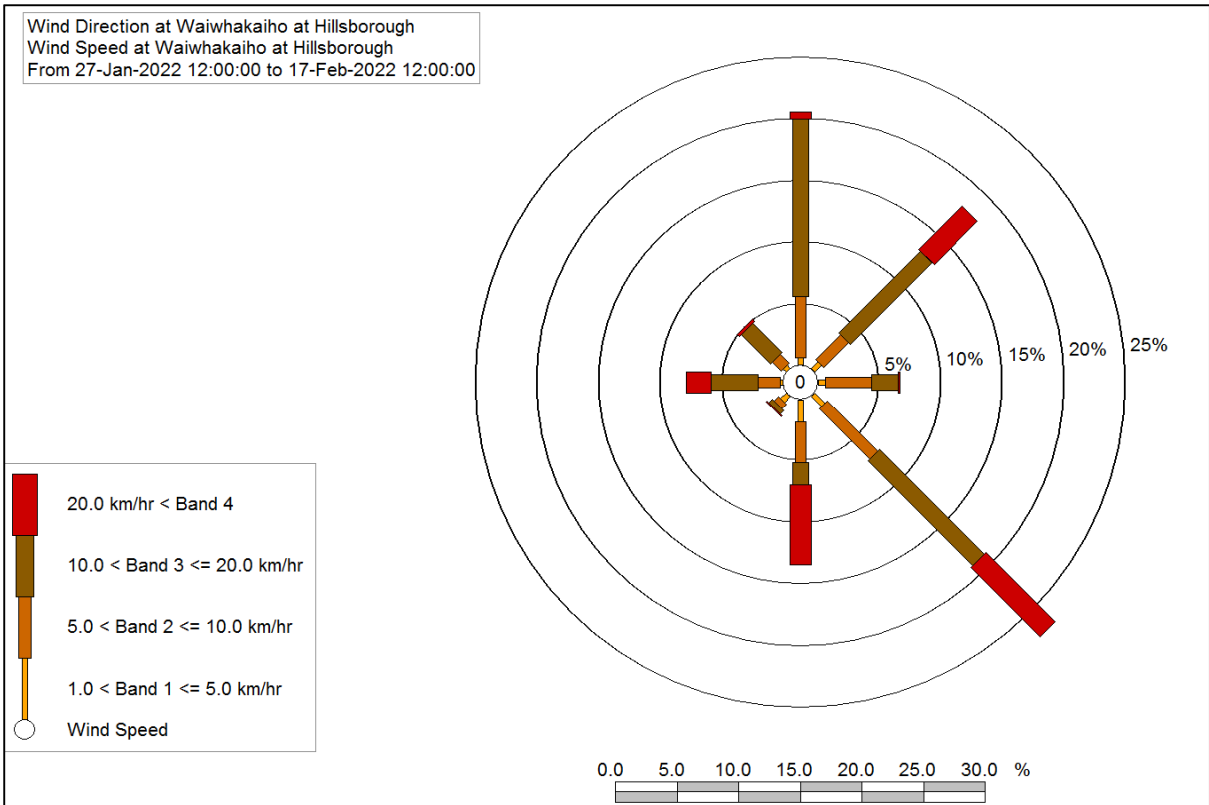
30-Aug-2022

Source is R:\UNAUDITED-DATA\TELEMETRY\TELEMETRY.HTS
 Wind Direction at Waiwhakaiho at Hillsborough and Wind Speed at Waiwhakaiho at Hillsborough
 From 6-Jan-2022 12:00:00 to 27-Jan-2022 12:00:00

Number of data points read : 3024
 Number of directions <0.0 or >360.0 deg. : 0
 Limits for Wind Speed are 0.0 to 50.0 km/hr
 Number of readings outside limits : 0
 Number of data points used : 3024

| Direction | Percentage of time in each band | | | | Total |
|---------------|---------------------------------|--------|-------------------|--------|-------|
| | Band 1 | Band 2 | Band 3 | Band 4 | |
| 337.5 - 22.4 | 1.1 | 2.4 | 0.8 | 0.0 | 4.3 |
| 22.5 - 67.4 | 1.0 | 1.8 | 1.3 | 0.0 | 4.1 |
| 67.5 - 112.4 | 1.0 | 2.5 | 0.7 | 0.0 | 4.1 |
| 112.5 - 157.4 | 2.3 | 8.0 | 7.8 | 6.8 | 25.0 |
| 157.5 - 202.4 | 2.8 | 2.9 | 1.6 | 5.6 | 12.8 |
| 202.5 - 247.4 | 0.8 | 1.1 | 2.7 | 4.4 | 8.9 |
| 247.5 - 292.4 | 0.8 | 4.6 | 15.2 | 3.4 | 24.0 |
| 292.5 - 337.4 | 0.2 | 3.5 | 12.9 | 0.3 | 16.8 |
| Total | 9.9 | 26.8 | 42.8 | 20.4 | 100.0 |
| | | | Percentage <= 1.0 | | 0.0 |

Wind Speed bands (km/hr)
 1.0 < Band 1 <= 5.0 5.0 < Band 2 <= 10.0
 10.0 < Band 3 <= 20.0 Band 4 > 20.0



~~~ Hilltop Hydro ~~~ Version 6.74  
 ~~~ PLWind ~~~

30-Aug-2022

Source is R:\UNAUDITED-DATA\TELEMETRY\TELEMETRY.HTS
 Wind Direction at Waiwhakaiho at Hillsborough and Wind Speed at Waiwhakaiho at Hillsborough
 From 27-Jan-2022 12:00:00 to 17-Feb-2022 12:00:00

Number of data points read : 3024
 Number of directions <0.0 or >360.0 deg. : 0
 Limits for Wind Speed are 0.0 to 50.0 km/hr
 Number of readings outside limits : 20
 Number of data points used : 3004

| Direction | Percentage of time in each band | | | | Total |
|---------------|---------------------------------|--------|-------------------|--------|-------|
| | Band 1 | Band 2 | Band 3 | Band 4 | |
| 337.5 - 22.4 | 0.6 | 4.9 | 14.4 | 0.6 | 20.5 |
| 22.5 - 67.4 | 0.8 | 2.8 | 9.4 | 5.0 | 18.0 |
| 67.5 - 112.4 | 0.6 | 3.7 | 2.2 | 0.2 | 6.7 |
| 112.5 - 157.4 | 1.2 | 5.8 | 12.0 | 8.0 | 26.9 |
| 157.5 - 202.4 | 1.8 | 3.3 | 1.8 | 6.5 | 13.4 |
| 202.5 - 247.4 | 0.7 | 0.5 | 0.4 | 0.1 | 1.7 |
| 247.5 - 292.4 | 0.2 | 1.8 | 3.8 | 2.0 | 7.9 |
| 292.5 - 337.4 | 0.4 | 1.0 | 3.4 | 0.2 | 5.0 |
| Total | 6.3 | 23.9 | 47.4 | 22.4 | 100.0 |
| | | | Percentage <= 1.0 | | 0.0 |

Wind Speed bands (km/hr)
 1.0 < Band 1 <= 5.0 5.0 < Band 2 <= 10.0
 10.0 < Band 3 <= 20.0 Band 4 > 20.0