

**Lower Waiwhakaiho
Air Discharges
Monitoring Programme
Annual Report
2022-2023**

Technical Report 2023-84



Working with people | caring for Taranaki

Taranaki Regional Council
Private Bag 713
Stratford

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Executive summary

The Lower Waiwhakaiho industrial area of New Plymouth accommodates a wide range of industrial activities. Three sites involve activities with discharges to air that are authorised by resource consents and are monitored under this programme. These are Downer EDI Works (asphalt plant), Dialog Fitzroy Ltd, and Katere Surface Coatings Ltd. This report for the period July 2022 to June 2023 details the monitoring programme implemented by the Taranaki Regional Council (the Council) to assess the companies' compliance with consent conditions and environmental effects of the companies' activities in relation to emissions to air.

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

Collectively the companies hold three resource consents for discharges to air from onsite activities, while Dialog Fitzroy Ltd and Katere Surface Coatings Ltd also have consents for discharges from mobile abrasive blasting around the region. All of the consents include a set of conditions which impose 'bottom-line' requirements that minimise adverse environmental effects from the discharges. Through the monitoring programme the Council assess compliance with these conditions.

During the monitoring year the Council conducted two deposition gauge surveys to quantify the rate of dust deposition beyond the site boundaries to determine if the dust caused significant amenity effects to neighbouring properties. The results of the survey were close to, and in some cases exceeded, the consent limits however the sources of the dust were inconclusive and the results likely represent normal levels for an industrial area.

The consents also require that the companies complete various administrative actions including maintaining and updating air quality management plans, and in the case of Downer EDI Ltd conduct testing of emissions from the asphalt plant.

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 administrative performance with their resource consent.

During the year, Katere Surface Coatings Ltd demonstrated a high level of environmental and administrative performance with their consent.

For reference, in the 2022-2023 year consent holders were found to achieve a high level of environmental performance and compliance for 878 (87%) of the 1007 consents monitored through the Taranaki monitoring programmes. Another 96 (10%) of the consents achieved a good level of environmental performance and compliance. A further 27 (3%) of consents monitored required improvement in their performance, while the remaining one (<1%) achieved a rating of poor.

This report recommends that monitoring of these sites in 2023-2024 continues at the same level as the 2022-2023 programme.

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1 Introduction

1.1 Compliance monitoring programme reports and the Resource Management Act 1991

1.1.1 Introduction

This is the annual report for the period July 2022 to June 2023 by the Taranaki Regional Council (the Council) detailing the results of the monitoring programme associated with the air discharge consents held by three industrial sites in the Lower Waiwhakaiho industrial catchment. These are the Downer NZ Ltd asphalt manufacturing plant, Dialog Fitzroy Ltd abrasive blasting operation, and the Katere Surface Coatings Ltd abrasive blasting and surface coating operation.

In accordance with the *Resource Management Act 1991* (RMA) environmental management should be integrated across the water air and land domains so that a consent holder's use of these resources can be considered from a single comprehensive environmental perspective. Accordingly, the Council generally implements integrated environmental monitoring programmes and reports the results of the programmes jointly.

Monitoring of industrial air discharges in the Lower Waiwhakaiho area by the Council commenced in 1992. This report is the 30th Annual Report to be prepared by the Council to report on air discharges and their effects.

1.1.2 Structure of this report

Section 1 of this report is a background section and 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.

The monitoring results of each company are reported on separately in sections 2 to 4.

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.

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.

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 regulates 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' in as much 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

In addition to 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 2022-2023 year, consent holders were found to achieve a high level of environmental performance and compliance for 878 (87%) of a total of 1007 consents monitored through the Taranaki tailored monitoring programmes. Another 96 (10%) of the consents achieved a good level of environmental performance and compliance. A further 27 (3%) of consents monitored required improvement in their performance and one (<1%) achieved a poor rating.¹

1.2 Resource consents

A list of the companies which hold 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.

A summary of the various consent types issued by the Council is included in Appendix I, as are copies of all permits held by the Company during the period under review.

¹ The Council has used these compliance grading criteria for more than 19 years. They align closely with the 4 compliance grades in the MfE Best Practice Guidelines for Compliance, Monitoring and Enforcement, 2018

Table 1 Air discharge permits in the Lower Waiwhakaiho monitoring programme

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	4025-4	To discharge emissions into the air from abrasive blasting operations at a permanent site and throughout the Taranaki region	December 2020	June 2029	June 2038
Katere Surface Coatings Ltd	4475-3	To discharge emissions to air from abrasive blasting and surface coating activities at a permanent site and from mobile operations throughout the Taranaki region	December 2020	June 2023	June 2038

1.3 Monitoring programme

1.3.1 Introduction

Section 35 of the RMA imposes obligations on 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 on 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 comprises of three components

1.3.2 Programme liaison and management

There can be 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

Site Inspections focus on equipment with actual and potential emission sources, and on-site management processes which minimise discharges of contaminants to air. Where possible inspections are scheduled to coincide with activities which have discharges to air; for example, the operation of the Downer asphalt plant or abrasive blasting at Dialog Fitzroy Ltd or Katere Coatings Ltd. Observations of the receiving environment

are made to identify potential effects of odour, dust, noxious or dangerous emissions. Sources of data collected by the consent holder may be reviewed or requested. During inspections the receiving environment may be surveyed for evidence of offsite effects of discharges of odour or dust.

Three inspections at each site were scheduled to be conducted over the course of the monitoring year. Due to staff shortages and reallocation of inspection programmes none of the inspections were conducted.

1.3.4 Particulate deposition monitoring

Particulate matter in ambient air can arise from natural sources including pollens, sea spray and crustal matter, and from human sources such as smoke and ash, unsealed surfaces, and manufacturing processes. Fine particles (<30 µm) can remain suspended in the atmosphere for hundreds of meters, while coarser dust particles usually settle out within tens to a hundreds of metres.

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 typically range between 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 when they come from a single source (Good Practice Guide for Assessing and Managing Dust, MfE, 2016, [GPG:Dust](#)). The Regional Air Quality Plan (RAQP) has adopted an average daily deposition rate guideline value of 0.13 g/m²/day which is calculated on the GPG:Dust threshold. This daily guideline value has been imposed as a limit on all air discharge consents in this monitoring programme. The primary method of measuring the rates dust deposition uses deposition gauges. This method of monitoring is used for quantifying ambient dust levels near the three operations subject to this report. From past results of deposition gauging it is likely that factors including seasonal weather variations, on site activities, and offsite sources can have some effect on the results.

Deposition gauges are buckets fixed to a stand about 1.6 m high (photo 1) and contain a solution 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 source apportionment analysis (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 three weeks, on two separate occasions.

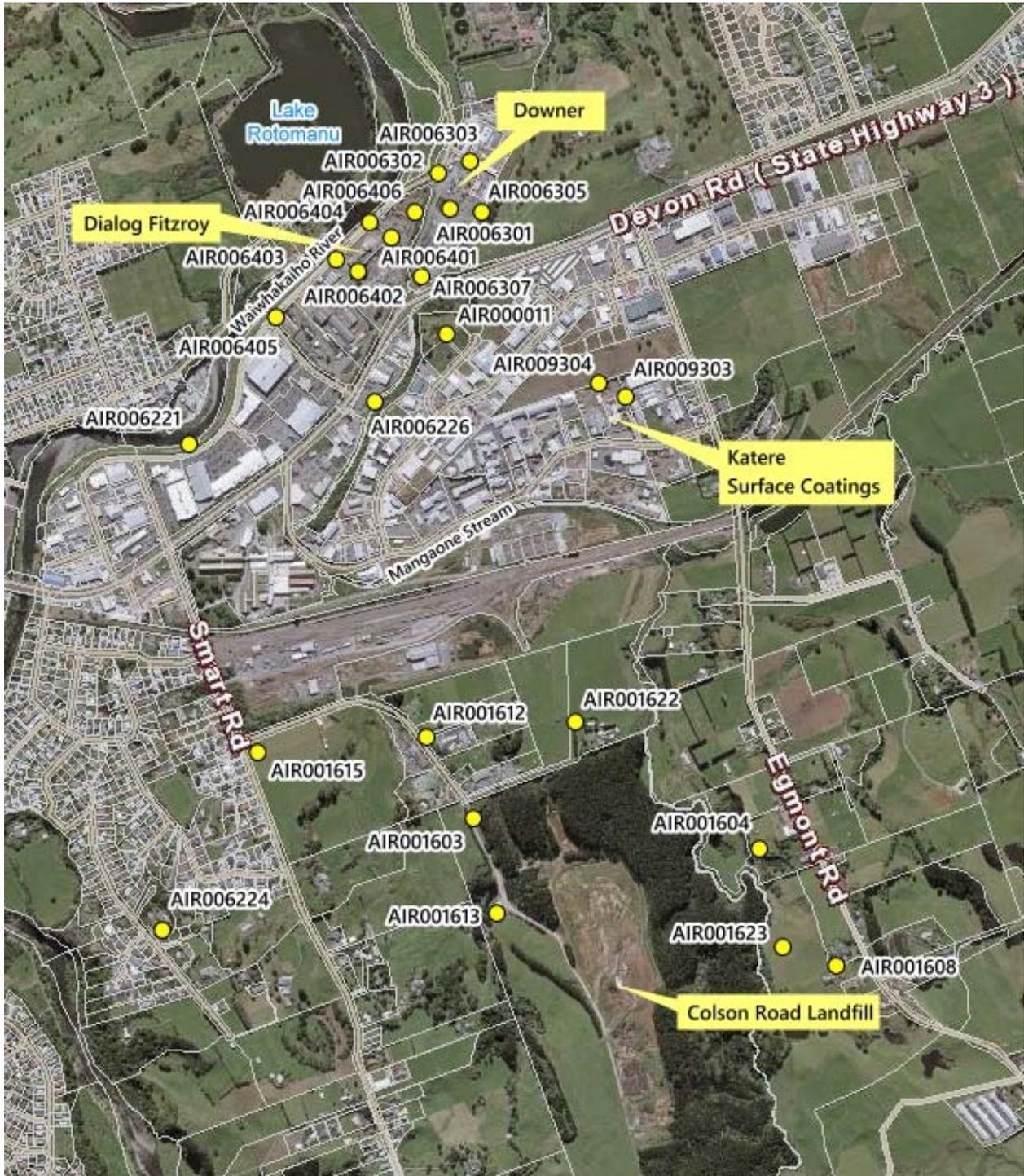


Figure 1 Locations of the industries in this monitoring programme, closed landfill, and all monitoring sites within the Lower Waiwhakaiho area



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

The rate of dust deposition is calculated by dividing the weight of insoluble material (grams) collected on the filter by the cross-sectional area of the gauge (m^2) and the number of days over which the sample was deployed. The unit of measurement is $g/m^2/day$.

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 which includes events where the individual or organisation concerned has notified the Council. Details of any investigation and corrective action taken are recorded for non-compliant events.

Where complaints may be alleged to be associated with a particular site, and if there is potential legal liability on the part of Council, 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).

There were no air quality related complaints received by the Council during this monitoring year for any of the sites. No investigations or interventions were conducted by the Council in relation to any of the sites.

2 Downer NZ Ltd

2.1 Introduction

2.1.1 Process description

Downer EDI Works Ltd (Downer) operates an asphalt manufacturing plant which produces asphalt for use on roads and other drive-on surfaces. Discharges of contaminants to air are authorised by air discharge consent 4060-5.

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. 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, volatile organic compounds (VOC), carbon monoxide, nitrogen oxides and sulphur dioxide.

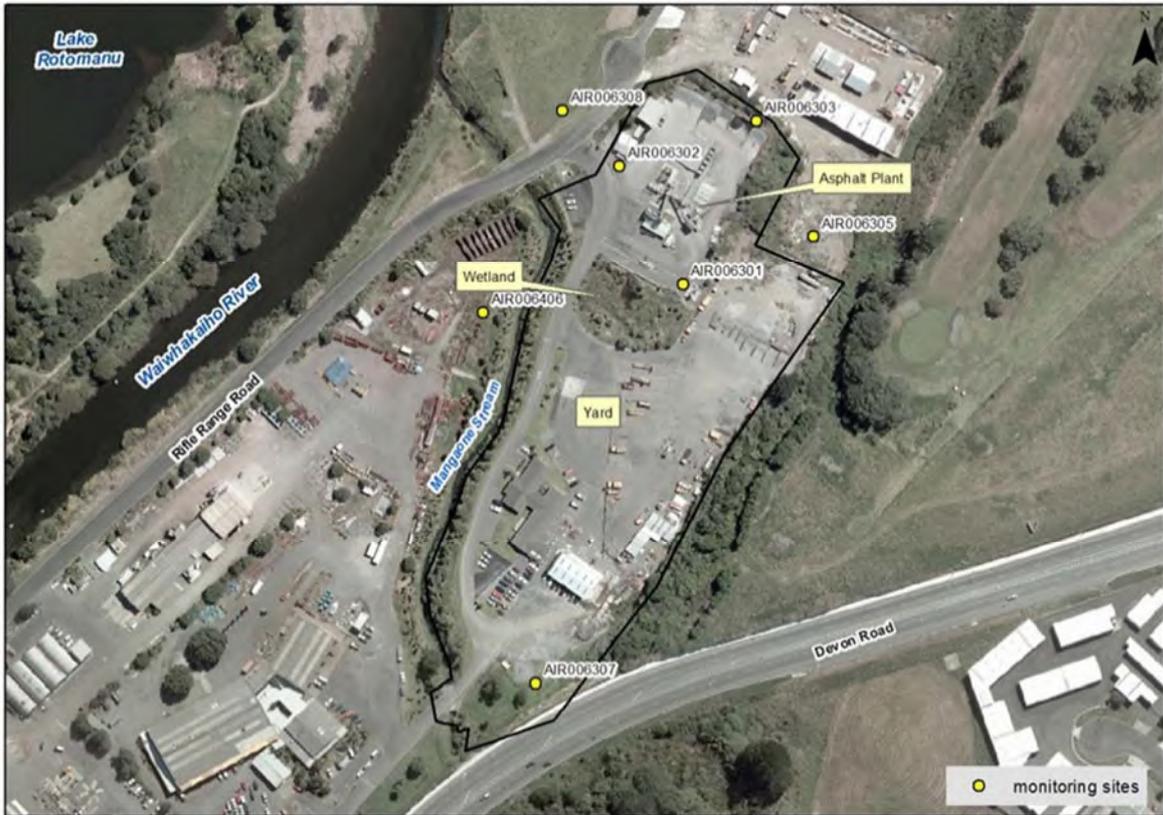


Figure 2 Location of Downer EDI Works Ltd and deposition gauge sites

In addition to the discharges from the asphalt plant during normal operation, the other sources of 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.

Some of the VOC emissions can produce an 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.

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. Atmospheric dispersion modelling of the plant emissions during the consent application stage predicted that the maximum ground-level concentrations of contaminants were less than the relevant human health-based assessment criteria.

2.2 Results

2.2.1 Results of receiving environment monitoring

2.2.1.1 Deposition gauge monitoring

Deposition gauges were deployed on two occasions during the monitoring period. The first deployment began on 27 January 2023 and lasted 21 days. The second deployment began on 17 February 2023 and also 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. The only monitoring location outside the boundary of the site is AIR006305.

Material from the gauges was analysed for solid particulates and the results are shown in Table 3.

Table 2 Downer EDI Works Ltd monitoring location details

Site code	Location description	Location to 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 almost all of the samples taken within the boundary of the site were greater than the consent limit of $<0.13 \text{ g/m}^2/\text{day}$. The consent limit only applies to dust deposition beyond the boundary, and the site did breach this limit ($0.31 \text{ g/m}^2/\text{day}$) at location AIR006305 during the January 2023 deposition rate deployment. The consent also limits the mass deposition over 30 days to less than 4 g/m^2 , none of the results exceeded 0.2 g/m^2 .

Monitoring site AIR006301 was the only location where both results exceeded the consent limit, with results of 0.15 and $0.3 \text{ g/m}^2/\text{day}$. The February survey returned the most exceedances, with three of the monitoring locations returning results of between 0.19 and $0.3 \text{ g/m}^2/\text{day}$. The highest result of either survey was $0.31 \text{ g/m}^2/\text{day}$ reported from AIR003605 in January which is located outside the boundary in an unsealed yard and adjacent to the New Plymouth golf course.

Vegetation matter and/or insects were present in most of the gauges. There were no dust complaints received from neighbours of the site.

Table 3 Deposition gauge results from around the Downer NZ Ltd site (exceedances in **bold**)

Monitoring site	Dust deposition rate (g/m ² /day)	
	January	February
AIR006301	0.15	0.30
AIR006302	0.13	0.25
AIR006303	0.12	0.19
AIR006305	0.31	0.02
AIR006307	0.06	0.11
Consent limit:	<0.13 g/m²/day	

2.3 Discussion

2.3.1 Site performance and environmental effects

In February 2023 emissions testing of the hot mix asphalt plant was conducted in accordance with condition 7 of air discharge consent 4060-5 which requires annual emissions testing. Condition 6 of the consent limits discharges of total particulate matter (TPM) to 125 mg/m³. Three samples were collected with the results ranging from 108 to 145 mg/m³, and an average of 124 mg/m³. On this basis the discharge of TPM from the plant complies with the consent condition. Atmospheric dispersion modelling of the emissions for the consent application determined that, under worst case conditions, contaminants discharged from the asphalt plant would not result in pollution which posed a significant risk to human health. On this basis emissions from the plant this year are unlikely to have significantly degraded air quality in the area.

The results of the deposition gauge monitoring indicate that, at times, dust deposition beyond the boundary of the site exceed the consent limit and the guideline threshold recommended by the GPG:Dust (MfE, 2016). Given the industrial nature of the wider area the dust is likely to be from multiple off site sources as well as the authorised discharge. Additionally, workers and visitors to industrial areas are more tolerant of dust than in more sensitive environments such as commercial and residential settings.

During the manufacture of batch of asphalt there is a visible plume from the scrubber stack. The discharge is mostly steam and is generally whitish in colour which is not considered to be objectionable. The plume may become discoloured for a short time but will return to a whitish colour within minutes.

In June 2023 the Production Management Plan was submitted for review in accordance with condition 14 of the consent.

In the absence of any site inspections the day to day site management cannot be assessed, however it is noted that the Council has not received any air quality related complaints.

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

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?
3. Prohibition of recycled asphalt processing	Inspection and liaison with consent holder	N/A
4. Operation using waste oil not permitted	Inspection and liaison with consent holder	N/A
5. Sulphur content of fuel	Inspection	N/A
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
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	No. Dust likely from other industrial sources
10. Objectionable odour or level of dust not permitted at site boundary	Inspection and complaints record	Yes No complaints received
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 complaints record	Yes No complaints received
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.

2.3.2 Recommendations from the 2021-2022 Annual Report

In the 2021-2022 Annual Report it was recommended:

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.

These recommendations were implemented.

2.3.3 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 2023-2024 year the programme continues at the same level as in 2022-2023.

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 2023-2024.

2.4 Recommendation

1. THAT monitoring of consented activities at the Downer EDI Works Ltd site in the 2023-2024 year shall continue at the same level as in 2022-2023.
2. THAT should there be issues with environmental or administrative performance in 2023-2024, 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 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. The company holds air discharge consent 4025-4 which authorises discharges of contaminants to air from onsite and mobile operations.

Emissions from abrasive blasting operations have the potential to cause nuisance and possible health risks, especially when conducted near 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 *Guidelines for the Management of Lead-Based Paint* (Ministry of Health, revised 2013). 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.

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. 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.

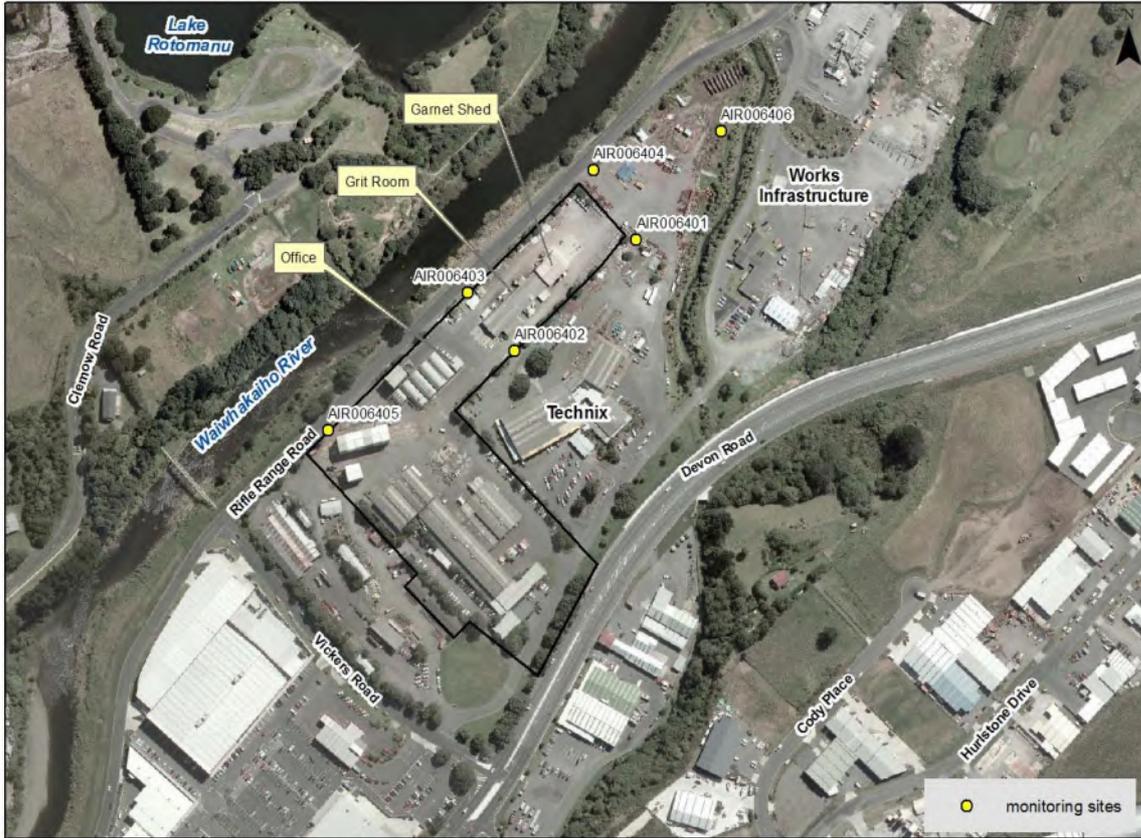


Figure 3 Location of the Dialog Fitzroy Ltd site and deposition gauges

3.2 Results

3.2.1.1 Mobile blasting inspections

According to records mobile blasting was not undertaken during the 2022-2023 year.

3.2.2 Provision of company data

3.2.2.1 Operation, Management and Maintenance Plan

Condition 7 the air discharge consent, Dialog Fitzroy is required to update and maintain an Air Discharge Management Plan (ADMP, 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 gauge monitoring

Deposition gauges were deployed on two occasions during the monitoring period. The first deployment began on 27 January 2023 and lasted 21 days. The second deployment began on 17 February 2023 and also lasted 21 days.

A site map marking the location of the gauges around the Dialog Fitzroy site is shown in Figure 3.

Table 5 Dialog Fitzroy monitoring location details

Site code	Location description	At or beyond site boundary
AIR006401	30m SE of sandblasting shed	Outside boundary
AIR006402	Opposite loading ramp	Inside boundary
AIR006403	Right hand side of entrance	Inside boundary
AIR006505	1st gate on SE of site	Inside boundary
AIR006406	Between Fitz. Eng. and Downer	Outside boundary

Table 6 Deposition gauge results from around the Dialog Fitzroy Ltd site (exceedances in **bold**)

Site ID	Dust deposition rate (g/m ² /day)	
	January	February
AIR006401	0.19	0.09
AIR006402	0.05	0.10
AIR006403	0.06	0.04
AIR006404	0.10	0.16
AIR006405	0.11	Field error, no data
AIR006406	0.07	0.14
Guideline value:	<0.13 g/m ² /day	

Consent 4025-4 imposes a particulate deposition limit of less than 0.13 g/m²/day. Deposition gauge monitoring around the Dialog Fitzroy Ltd site reported three exceedances of the consent limit over the course of the two surveys, including outside the site boundary. At monitoring location AIR006401, 30 m from the blasting shed, the reported deposition rate was 0.19 g/m²/day which is 0.07 g, or 16%, higher than the limit. The remaining exceedances were negligible, 0.02 and 0.03 g above the limit.

All of the samples contained bugs and/or vegetation matter. No complaints were received regarding dust issues originating from the Dialog Fitzroy site.

3.3 Discussion

3.3.1 Site performance and environmental effects

The results of the deposition gauge monitoring indicate that, at times, dust deposition beyond the boundary of the site exceed the consent limit. Given the absence of blasting media in the samples the dust is likely to be from multiple on and off site sources given the industrial nature of the surrounding properties.

Workers and visitors to industrial areas are more tolerant of dust than in more sensitive environments such as commercial and residential settings.

In the absence of any site inspections the day to day site management cannot be assessed, however it is noted that the Council has not received any air quality related complaints.

3.3.2 Evaluation of performance

A summary of Dialog Fitzroy's compliance record for the year under review is set out in Table 7.

Table 7 Summary of performance for Consent 4025-4 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	N/A
3. Exercise consent in manner consistent with consent application	Inspection and liaison with consent holder	N/A
4. No offensive, objectionable or toxic odour or dust beyond boundary	Inspection and complaints record	Yes No complaints received
5. Clearance of blasting material	Inspection	N/A
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	Inspections	N/A
9. Screening at yard blasting to contain dust emissions	Inspections	N/A
10. All emissions contained and treated as far as practicable	Inspection.	N/A
11. Particulate deposition rate limit of 0.13 g/m ² /day beyond the boundary	Deposition gauge monitoring	No. Dust likely from other industrial sources
Operations at any other site		

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?
12. Screening at mobile blasting to contain emissions	Liaison with consent holder	N/A
13. Notification 48 hours before blasting near watercourses	Liaison with consent holder	N/A
14. Discharges prohibited within 150 m of sites of significance to Maori	Liaison with consent holder	N/A
15. Limits on suspended particulate matter and dust deposition	Liaison with consent holder	N/A
16. Wind direction and strength accounted for during blasting	Liaison with consent holder	N/A
17. Requirements for record keeping of blasting activities	Liaison with consent holder	N/A
18. Noise to be managed and controlled during works within the CMA	Liaison with consent holder	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.

3.3.3 Recommendations from the 2021-2022 Annual Report

In the 2021-2022 Annual Report, it was recommended:

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.

These recommendations were implemented during the 2022-2023 monitoring year.

3.3.4 Alterations to monitoring programmes for 2023-2024

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 2023-2024 the programme continues at the same level as in 2022-2023.

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 2023-2024.

3.4 Recommendation

1. THAT monitoring of consented activities at the Dialog Fitzroy Ltd site in the 2023-2024 year continues at the same level as in 2022-2023.
2. THAT should there be issues with environmental or administrative performance in 2023-2024, 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 4.

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 requirements also apply to operations carried out by the mobile unit. Weather conditions must be considered before any outside work is carried out.



Figure 4 Location of Katere Surface Coatings Ltd and the deposition gauges

4.2 Results

4.2.1.1 Mobile blasting 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 gauge monitoring

Deposition gauges were deployed on two occasions during the monitoring period. The first deployment began on 27 January 2023 and lasted 21 days. The second deployment began on 17 February 2023 and also lasted 21 days.

A site map marking the location of the gauges around the Katere Surface Coatings Ltd site is shown in Figure 4 and details of the monitoring locations can be found in Table 8. The results of the 2022-2023 deposition gauging surveys are presented in Table 7.

Table 8 Katere Surface Coatings monitoring location details

Site code	Location description	At or beyond site boundary
AIR009303	Eastern boundary of the site	Inside boundary
AIR009304	North-West corner of the site	Inside boundary

Table 9 Deposition gauge results from around the Katere Surface Coating Ltd site (exceedances in **bold**)

Site ID	Dust deposition rate (g/m ² /day)	
	January	February
AIR009303	1.07	0.31
AIR009304	0.26	0.33
Consent limit	<0.13 g/m²/day	

All results reported during this monitoring period exceeded the consent limit. The highest result was 1.07 g/m²/day reported from AIR009303 which is substantially higher than the consent limit. The laboratory report noted lots of light and dark brown dust on the filter which is indicative of yard dust rather than the garnet blasting media which is red in colour. The remaining results were also notably higher than the consent limit, ranging between 0.26 and 0.33 g/m²/day. None of the laboratory observations noted blasting media on the filters.

4.3 Discussion

4.3.1 Site performance and environmental effects

All four gauging results exceeded the particulate deposition rate during the January and February 2023 surveys. The high particulate deposition during this instance was likely a result of dust from the wider environment as well as authorised discharges from abrasive blasting. Industrial areas generally have higher levels of dust and therefore workers and visitors tend to be more tolerant. There were no dust-related complaints received from adjacent properties.

Due to the age of the building some dust leaks through the door seals and in time the building will need to be upgraded to further minimise these fugitive emissions.

The results of the 2022-2023 monitoring indicate that there were no significant adverse environmental effects that occurred as a result of Katere Surface Coatings' activities.

4.3.2 Evaluation of performance

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

Table 10 Summary of performance for Consent 4475-3 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	N/A
3. No offensive, objectionable or toxic odour or dust beyond boundary	Inspection and complaints record	Yes No complaints received
4. Clearance of blasting material	Inspection	N/A
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	N/A
8. Treatment of emissions prior to discharge. Limit on emissions from enclosure of 125 mg/m ³	Design criteria	N/A
9. Items too large for enclosed facility to be screened for blasting	Inspection	N/A
10. Particulate deposition rate limit of 0.13 g/m ² /day	Deposition gauging	No. Dust likely from other industrial sources
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		High
Overall assessment of administrative performance in respect of this consent		High

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

4.3.3 Recommendations from the 2021-2022 Annual Report

In the 2021-2022 Annual Report, it was recommended:

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.

These recommendations were implemented.

4.3.4 Alterations to monitoring programmes for 2023-2024

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 2023-2024, the monitoring continues at the same level as in 2022-2023.

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.

4.3.5 Exercise of optional review of consent

Resource consents 4475-3 provides for an optional review of the consents in June 2026. 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.

4.4 Recommendation

1. THAT monitoring of consented activities of Katere Surface Coatings Ltd in the 2023-2024 year shall continue at the same level as in 2022-2023.
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.

5 Lower Waiwhakaiho air quality

The Lower Waiwhakaiho industrial area is characterised by a range of industrial and commercial activities, In addition to the three consented sites reviewed in his report there are a range of other industrial activities which discharge contaminants such as odour and dust to air. These can be intermittent discharges such as dust from unsealed yards or handling of aggregate. Other operations may discharge odour or hazardous air pollutants at such low levels that they do not require a consent. Industrial areas are set aside for activities which cannot avoid discharging contaminants to air and accordingly elevated levels of dust and odour are tolerated to a greater extent than if these discharges were in areas more sensitive to air quality such as residential housing. An air discharge consent is also held by New Plymouth District Council for discharges to air from the closed landfill on Colson Rd. The details of the 2022-2023 monitoring year is reported on in *NPDC Colson Rd Landfill – 22/23* annual report.

5.1 Air related incidents

Despite the permitted activity status of many discharges in this area, the RAQP imposes limits on discharges of dust and odour to maintain a level air quality and minimise nuisance effects in the area. When this threshold is exceeded by any individual site the Council may undertake enforcement action.

There were no air quality-related incidents in the lower Waiwhakaiho area during this monitoring year.

5.2 Deposition gauging

As discussed above the deposition of dust in the lower Waiwhakaiho area was monitored using deposition gauges on two occasions. In addition to the surveys detailed in this report there were two deposition surveys conducted around the Colson Rd landfill and the results are reported on in detail in the *NPDC Colson Rd Landfill – 22/23* annual report. In brief, the dust deposition results were less than the consent limit of 0.13 g/m²/day with the exception of one site which was likely the result of foreign material rather than site activities.

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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- Taranaki Regional Council (1993): *Farmers Fertiliser Ltd Air Monitoring Programme Annual Report 1992–93*. Technical Report 93–42.

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)

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.

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: 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 & 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.

