APPLICATION FOR RESOURCE CONSENT INCLUDING FAST TRACK CONSENT (Form 9)

Under Section 87AAC or 88 of the Resource Management Act 1991

Return completed form, supporting documents, and application fee to:
Kāpiti Coast District Council,
175 Rimu Road, Paraparaumu 5032
Private Bag 60601, Paraparaumu 5254
Email: resource.consents@kapiticoast.govt.nz

For enquiries:
Phone 04 296 4700 or toll free 0800 486 486 and ask for the Duty Planner
Email: resource.consents@kapiticoast.govt.nz

Council use only:
Formally Received Stamp

Please provide **two copies** of all attachments, unless otherwise specified in checklist.

PART 1 – RESOURCE CONSENT

Description of the Proposal

Mobile asphalt plant to supply the Transmission Gully motorway project

Type(s) of Resource Consent Sought

	☒ Please check the relevant box(es)
Land use consent	✓
Is this application for a fast track consent? (see notes on page 3)	
Subdivision consent	
Other resource consent sought (e.g. from Regional Council)	✓
Do you want any regional consent(s) to be processed jointly?	

If applicable, please outline your consent application to the Regional Council.

Discharge of contaminants to air

NRP Rule 41 - Discretionary Activity

Previous contact with Council regarding application

	✓ Please tick the relevant box(es) and record officer's name
Pre-application meeting including business start-up meeting	✓ on 23 July 2020
Application previously returned under section 88 (include previous resource consent (RM) number if known)	

PART 2 – DETAILS OF THE APPLICANT(S)

I/We apply for the land use and/or subdivision resource consent(s) described above. I/We note that any application for regional consent(s) must be made to the Regional Council.

Applicant's name: *(please write all names in full):*	Fulton Hogan Limited	
Electronic address for service:	Ruan.vanDeventer@fultonhogan.com	
Contact details:	Landline:	Mobile:
Alternative address for service:	PO Box 38208 Wellington Mail Centre Lower Hutt 5045	

DETAILS OF AGENT ACTING FOR APPLICANT (if different from above)

Agent's name:	Bruce Clarke	
Electronic address for service:	Bruce.Clarke@jacobs.com	
Contact details:	Landline: +64 4 914 8417	Mobile: +64 21 625795
Alternative address for service:	Level 8, 1 Grey Street Wellington 6011	

DETAILS FOR BILLING (if different from Applicant)

Name:		
Electronic address for service:		
Contact details:	Landline:	Mobile:
Email:		

PART 3 – SITE INFORMATION

The physical site to which this application relates is described as: West of State Highway 1, betwee

Number: Street: Town: Paek k riki

Legal Description: Part Lot 4 DP 714

PART 4 – SUPPORTING INFORMATION REQUIRED

I/We provide the following information in support of this application to satisfy the requirements of Section 88 (4) of the Resource Management Act 1991

• **Information required by Schedule 4 of the Resource Management Act 1991**	☑
• **Assessment against Part 2 of the Resource Management Act 1991**	☑
• **Record of Title for the site** (Note: must be no more than three months old) **and any relevant Consent Notices, Easement / Encumbrance documents**	☑
• **Full set of plans and any other required technical reports** (refer to attached guidelines)	☑
• **Notice of written approval from affected parties if relevant** (these must be signed by all owners of a property)	☐

Please refer to attached information requirement checklist.

If you are unsure about any information requirements, please contact the Council Duty Planner or your independent Planning Advisor before you submit this application. This will help to reduce potential delays in processing.

Application Fee (Deposit)

I/We enclose the fee of $ (as required under Section 36 of the Resource Management Act 1991)

Privacy Information

The information you have provided on this form is required so that your application for consent can be processed under the Resource Management Act 1991, and so that statistics can be collected by the Council. The information will be stored on a public register and held by the Council.

The details may also be made available to the public on the Council's website, www.kapiticoast.govt.nz. These details are collected to inform the general public and community groups about all consents which have been received and issued through the Council. If you would like to request access to, or correction of, your details please contact the Council on 04 296 4700 or toll free on 0800 486 486 and ask for the Duty Planner.

Once this application is lodged with Council, it becomes public information. If there is any sensitive information in the proposal, you may request that it is withheld and the Processing Officer will contact you regarding this matter.

Signature(s)

I/We hereby certify that, to the best of my/our knowledge and belief, the information given in this application is true and correct. I/We undertake to pay all actual and reasonable application costs incurred by the Kāpiti Coast District Council.

Signature of applicant/agent (no signature is required if the application is being submitted electronically):

Name: (Please Print)

Date:

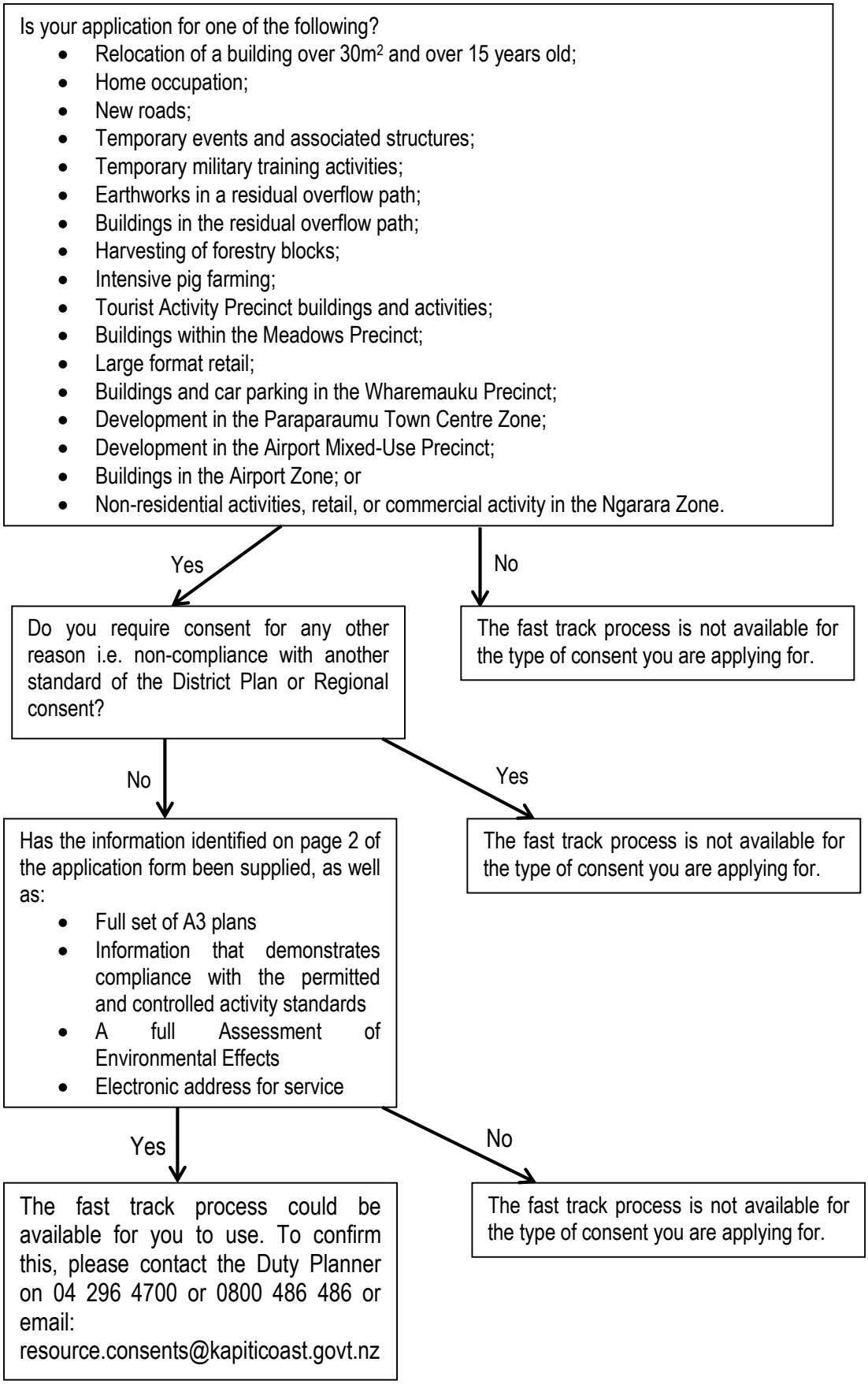
FAST TRACK APPLICATIONS

Previously all non-notified resource consent applications were subject to a 20-working day process, regardless of the scale of the application. The Resource Management Act 1991 has been amended to introduce a new fast track process.

Where a land use resource consent has been applied for in respect of a controlled activity, Council must process and issue a decision within 10 working days unless the Applicant choose to opt out of the fast track process. Council has no discretion to decline controlled activity consents.

There are currently 17 land use controlled activities in the Operative District Plan; this may change when decisions are released on the Proposed District Plan. The most common applications received for land use controlled activities are for home occupations and relocated buildings.

The Operative District Plan contains the activities which are classed as Controlled Activities. If you are unsure whether the proposed activity can be processed as a fast track consent, please contact the Council Duty Planner or your independent Planning Advisor.


Is your application for one of the following?
Relocation of a building over 30m² and over 15 years old;
Home occupation;
New roads;
Temporary events and associated structures;
Temporary military training activities;
Earthworks in a residual overflow path;
Buildings in the residual overflow path;
Harvesting of forestry blocks;
Intensive pig farming;
Tourist Activity Precinct buildings and activities;
Buildings within the Meadows Precinct;
Large format retail;
Buildings and car parking in the Wharemauku Precinct;
Development in the Paraparaumu Town Centre Zone;
Development in the Airport Mixed-Use Precinct;
Buildings in the Airport Zone; or
Non-residential activities, retail, or commercial activity in the Ngarara Zone.
Yes
No
Do you require consent for any other reason i.e. non-compliance with another standard of the District Plan or Regional consent?
The fast track process is not available for the type of consent you are applying for.
No
Yes
Has the information identified on page 2 of the application form been supplied, as well as:
Full set of A3 plans
Information that demonstrates compliance with the permitted and controlled activity standards
A full Assessment of Environmental Effects
Electronic address for service
The fast track process is not available for the type of consent you are applying for.
Yes
No
The fast track process could be available for you to use. To confirm this, please contact the Duty Planner on 04 296 4700 or 0800 486 486 or email: resource.consents@kapiticoast.govt.nz
The fast track process is not available for the type of consent you are applying for.

Paekākāriki Mobile Asphalt Plant

Assessment of Effects on the Environment

IZ0130801-EP-RPT-0004 | 0

August 28,2020

Fulton Hogan

Paekākāriki Mobile Asphalt Plant

Project No:	IZ130801
Document Title:	Assessment of Effects on the Environment
Document No.:	IZ0130801-EP-RPT-0004
Revision:	0
Document Status:	For lodgement with Kāpiti Coast District Council
Date:	August 28, 2020
Client Name:	Fulton Hogan
Project Manager:	Bruce Clarke
Author:	Kate McNab
File Name:	IZ130801-EP-RPT-0004-B

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Document history and status

Revision	Date	Description	Author	Checked	Reviewed	Approved
A	27/08/2020	First Draft	K McNab		A Henderson	
B	27/08/2020	Draft for Client Review	K McNab	D Eastham		K Tearney
0	28/08/2020	For lodgement with Kāpiti Coast District Council				

Application for Resource Consent under section 88 of the Resource Management Act 1991 (RMA)

Form 9

To: Kāpiti Coast District Council
175 Rimu Road
Paraparaumu

From: Fulton Hogan
Level 2, 15 Sir William Pickering Drive
Harewood
PO Box 39185
Christchurch 8545

Note different address for service listed below.

Fulton Hogan applies for the following type of resource consent:

Pursuant to section 9(3) of the Resource Management Act 1991 and the provisions of the Kāpiti Coast District Plan (Appeals Version 2018), the following resource consents are sought:

Activity	Rule	Term Sought
Industrial Activity	7A.5.7	2 years, or until the completion of the Transmission Gully motorway
Major traffic activity	11E.4.1	2 years, or until the completion of the Transmission Gully motorway

A description of the activity to which the application relates is:

A proposed mobile hot-mix asphalt plant to supply the Transmission Gully motorway project.

Further details are contained in the attached Assessment of Effects on the Environment (AEE) and its appendices which form part of this resource consent application.

The description of the site at which the activity is to occur is:

The site is located at 525 State Highway 1, between the Paekākāriki and Mackays Crossing Interchanges in the Kāpiti District. The site is legally described as Part Lot 4 DP 714, held in Record of Title WN27B/863. The area of the proposed mobile asphalt plant operation is 2.1 hectares. The plant operation will be located at GPS coordinates 1766170 5461939 metres.

The full names and address of the owner and occupier of the site is:

The site is owned by the Crown and is gazetted 'for use in connection with a road'. Waka Kotahi NZ Transport Agency has operational management of the site. The site is currently leased to the Transmission Gully project.

Waka Kotahi NZ Transport Agency's postal address is:

Private Bag 6995
Marion Square

Wellington 6141

There are no other activities that are part of the proposal to which the application relates.

An air discharge consent is required for the proposed activity pursuant to section 15 of the Resource Management Act 1991 and Rule 41 of the Natural Resources Plan (Appeals Version 2019). This resource consent has been applied for.

Attached is any information relating to the activity, including an assessment of the activity's effects on the environment, as required by Schedule 4.

Appendix A: Record of Title

Appendix B: Plant Layout Plan

Appendix C: Noise Assessment

Appendix D: Odour Assessment

Appendix E: Correspondence

The information has been provided in sufficient detail to satisfy the purpose for which it is required.

Signed on behalf of Fulton Hogan by:

DATE: 28 August 2020

Address for Service:

Jacobs New Zealand Limited
PO Box 10-283
Wellington 6143

ATTENTION: Bruce Clarke

Ph 04 914 8417
Cell 021 625795
Email bruce.clarke@jacobs.com

Contents

Important note about your report

The sole purpose of this report and the associated services performed by Jacobs is to assess the effects on the environment resulting from the operation of Fulton Hogan's (the Client's) hot mix asphalt plant. This assessment is in support of an application for a land use consent from the Kāpiti Coast District Council in accordance with the scope of services set out in the contract between Jacobs and the Client. That scope of services, as described in this report, was developed with the Client.

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

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

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

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

1. Introduction

Fulton Hogan is seeking to operate a mobile asphalt plant at a site located west of State Highway 1 between Paekākāriki and the Mackays Crossing Interchange, to supply asphalt to the Transmission Gully motorway project.

Fulton Hogan engaged Jacobs New Zealand Limited (Jacobs) to prepare an assessment of effects on the environment (AEE) to support an application for resource consent for the proposal.

Given the scale of the work and the amount of asphalt required, it is considered more practical to manufacture the asphalt at a location as close to the roading construction site as possible using the mobile asphalt plant rather than manufacturing the asphalt at one of Fulton Hogan's permanent plants and trucking the asphalt to the site.

Fulton Hogan intends to establish and operate a mobile asphalt plant which has been purchased from Marini S.p.A, Italy (the 'Marini plant'), using diesel as the main fuel. The plant has nominal maximum production capacity of 180 tonnes of asphalt per hour and will produce a maximum of 416,000 tonnes per annum. Resource consent is sought to operate the plant for two years or until the completion of the Transmission Gully motorway. The plant will typically operate between 6.00am to 6.00pm seven days a week, as well as occasional nights for up to 10 hours.

This report provides an assessment of effects on the environment (AEE) to support an application for a land use consent.

This report:

- Describes the operation of the mobile asphalt plant;
- Provides an assessment of environmental effects in accordance with the information requirements set out in Section 104 and Schedule 4 of the RMA; and
- Describes how Fulton Hogan will ensure that the operation of the mobile asphalt plant will not cause adverse effects on the environment that are more than minor.

2. Local Environment

2.1 Site and Surrounding Features

The site is located at 525 State Highway 1, between the Paekākāriki and Mackays Crossing Interchanges in the Kāpiti District. The site is legally described as Part Lot 4 DP 714, held in Record of Title WN27B/863. The site is owned by the Crown and is gazetted 'for use in connection with a road'. A recent copy of the Record of Title is provided as Appendix A.

While the land parcel (as identified in the Record of Title) is 21.9 hectares in area, the proposed mobile asphalt plant operation will occupy approximately 2.1 hectares of the site. The mobile asphalt plant operation will be located at GPS coordinates 1766170 5461939 Metres. The overall property and the proposed mobile asphalt plant site (hereafter "the site") are shown in Figure 2.1 below.

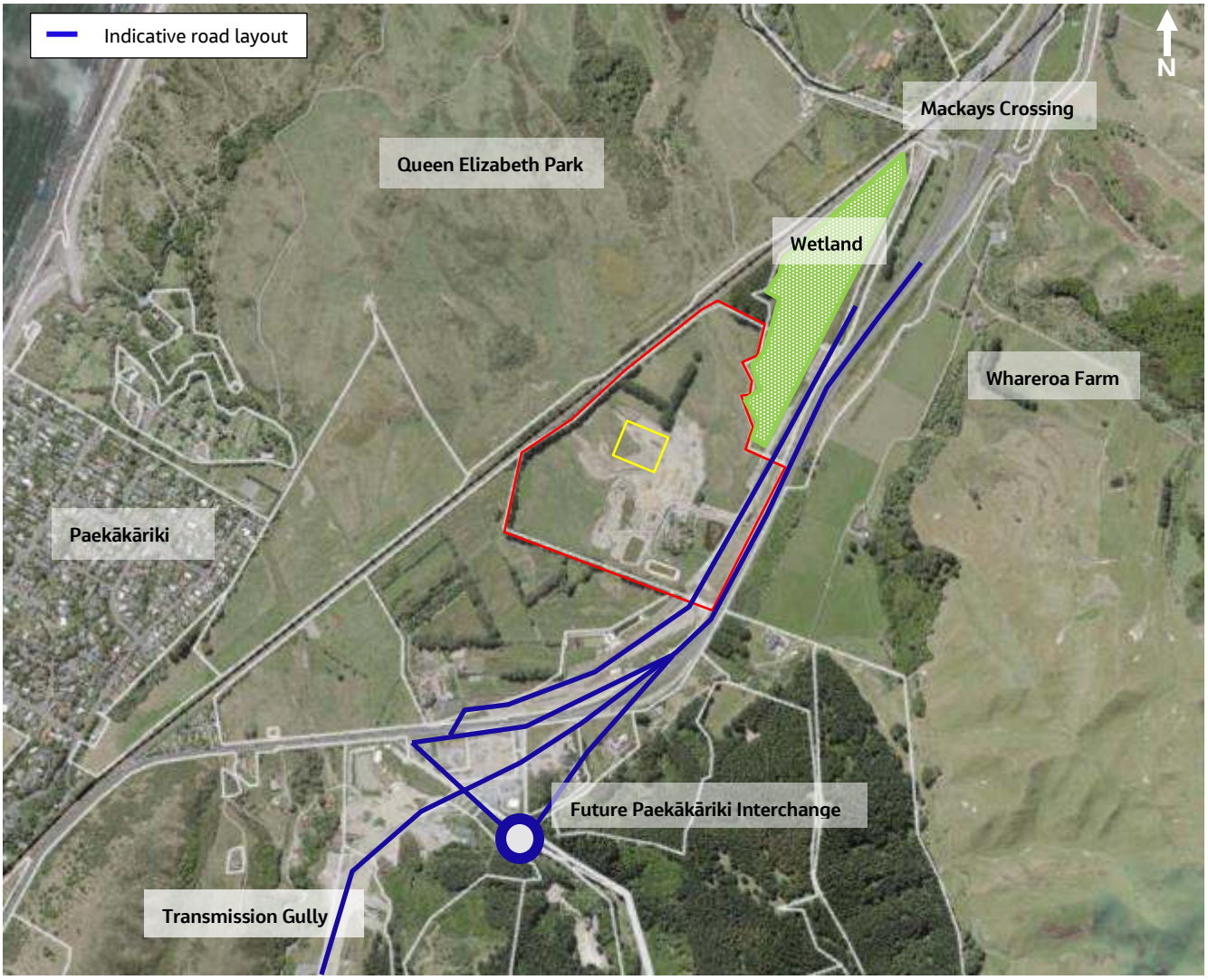


Figure 2.1: Aerial image of the site. The overall site is indicated in red, while the location of the mobile asphalt plant site is indicated by the yellow rectangle (Image sourced from Jacobs Xplore GIS platform).

The surrounding area is predominantly rural in character. The edge of Paekākāriki township is located approximately 770 metres west of the site. The nearest residential dwelling is located approximately 440 metres east of the site. Two other residential dwellings are located ~420 metres to the south-east and ~510 metres to the south respectively.

The Mackays Crossing Interchange provides access to the Queen Elizabeth Park located to the west, and Whareroa Farm located to the east. Both reserves are popular with recreational users and have recognised landscape, ecological, recreational, cultural and heritage values.

The Mackays Crossing Swamp wetland borders the land parcel to the north-east, approximately 173 metres from the proposed mobile asphalt plant site. The wetland is recognised in the Kāpiti Coast District Plan (Appeals Version 2018) as an Ecological Site and an Outstanding Natural Feature. Other waterways in the wider vicinity of the site include the Wainui Stream to the south and the Whareroa Stream to the north.

The site is located within the rohe of Ngāti Toa Rangātira and Te Ātiawa ki Whakarongotai. There is an Urupā, Mackays Crossing Cemetery, located approximately 630 metres north-east, between the wetland and State Highway 1. A second Urupā, Wainui Urupā, is located approximately 830 metres to the west. There are also a number of waahi tapu near the coast in Queen Elizabeth Park, and a number of (European) historic sites at the Mackays Crossing entrance to Queen Elizabeth Park and within Paekākāriki township.

State Highway 1 adjoins the land parcel to the east. The section of State Highway 1 between Paekākāriki and the Mackays Crossing Interchange forms the northern section of Waka Kotahi NZ Transport Agency's Transmission Gully motorway project. The daily traffic volume (AADT) on this highway is 27,532. Of this number, 2,340 (8.5%) are heavy motor vehicles. Other infrastructure in the area includes the North Island Main Trunk railway line that traverses the western boundary of the land parcel, and underground gas mains to the east and west of the land parcel. There are no overhead power lines in the vicinity of the site and no reticulated three waters infrastructure.

2.2 Site History

The site was formerly used for rural purposes but was obtained by the Crown in 2005 and gazetted for use in connection with a road. Waka Kotahi NZ Transport Agency is the government agency responsible for the site. In recent years the site has been used as a source of sand and for the deposition of cleanfill material associated with the Transmission Gully project. The previous land use consents granted to the site are listed below in Table 2.1.

Table 2.1: Previous consents granted to the site

Reference	Activity	Commencement
RM030140	Earthworks: approximately 14,000m^3 of cleanfill deposited on the site to raise the level of the land by 1 metre, to reduce the flooding risk on the property.	2003
RM090185	Realignment of 110kV transmission lines	2010
RM130157	Soil Disturbance (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011)	2013
RM150237	Earthworks and removal of 100,000m^3 of sand material	2015
RM160210	Removal of approximately 300,000m^3 of sand material	2016
RM170210	Industrial Activity (Pugmill Plant) – temporary activity 2 years	2017

2.3 Planning Layers

The site is zoned Rural Dunes in the Kāpiti Coast District Plan (Appeals Version 2018). The site is also located within an area of Coastal Dominance. A portion of the proposed mobile asphalt plant site traverses designation D0101 (State Highway 1: Waka Kotahi NZ Transport Agency). The District Plan features are shown in Figure 2.2 below.

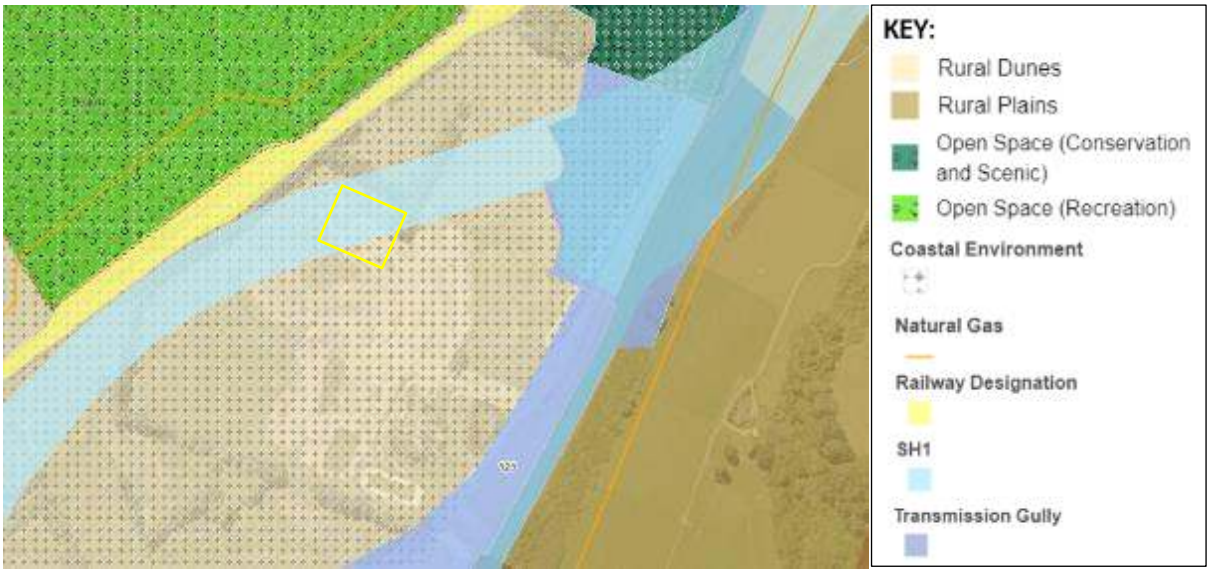


Figure 2.2: Planning Layers (Sourced from Kāpiti Coast District Council's EPlan).

The mobile asphalt plant site is not subject to any known natural hazards. The Ohariu and Gibbs faults run to the east of the site, but the site is not affected by the Fault Avoidance Areas. A portion of the land parcel (in the south-west corner and at the eastern boundary) is affected by the Flood Hazard-Ponding layer.

3. Proposal Description

3.1 Process and Materials

Fulton Hogan's Marini mobile asphalt plant is a parallel-flow drum mix plant, a common type of asphalt plant in New Zealand. A mixing drum is used to dry and heat the aggregate, and to mix liquid bitumen through the hot aggregate to produce hot mix asphalt. The following materials are used in the plant:

- **Diesel**

  The plant is fuelled by diesel. The plant is specified to burn 8.5 litres of diesel per tonne of asphalt produced.

- **Aggregates**

  Aggregate/gravel chip will be sourced from the Manawatu region, while dust and sand will be sourced from Kiwi Point in Wellington. Reclaimed asphalt pavement will be used where possible in order to minimise the product from the Transmission Gully project that goes to landfill.

  Bulk coarse aggregates and crusher dust is stored in semi-contained enclosures to control moisture content and to avoid mobilisation by wind. All materials will be delivered to the site on trucks in 30 tonne loads.

- **Bitumen**

  Bitumen is a solid to semi-solid residue resulting from the distillation of heavy crude oils. Bitumen is stored hot (135°C to 165°C). A hot oil burner is used to keep contents sufficiently fluid to pump to the hot mix drum and inject into the aggregate mix.

The extracted air from the mixing drum is passed through a baghouse filter system to remove dust and other particulate matter from the air before it is discharged to the environment via a 10-metre-high stack chimney. Plant equipment is checked/maintained daily to ensure that the emission of contaminants into air is minimised.

The mobile asphalt plant will be run at an average production rate of 140 tonnes per hour (tph) and a maximum production rate of 180 tonnes per hour (tph). Average weekly production will range between 4000 and 8000 tonnes per week.

Reject asphalt is either recycled or disposed of to an approved landfill. Other trade wastes such as wood, cardboard, paper and spent containers not able to be returned to the supplier are minimal in quantity and will be disposed of in an authorised landfill.

3.2 Access and Vehicle Movements

Access to the site will be obtained from the existing access from State Highway 1/Transmission Gully. Vehicle movements will comprise of:

- 25-45 truck movements per day delivering products (20-30 tonne loads);
- 67-125 truck movements per day carting asphalt to the Transmission Gully Project (12 tonne loads); and
- 20-30 light vehicle movements per day (staff vehicles)[1].

[1] Note: One movement indicates one return trip (both in and out).

3.3 Operating Hours

The plant can operate up to 24 hours per day but will operate typically between the hours of 6am to 6pm seven days a week, with the potential for work at night (up to 10 hours) depending on the construction schedule. There will be no deliveries of aggregates during night-time hours.

3.4 Plant Setup

The plant is comprised of five aggregate feeder bins, bitumen storage tanks, a fuel storage tank, a mixing drum, a conveyor belt feeding a single storage silo with a capacity of 45 tonnes, a baghouse filter, recovered filler and filler silos, and an operations office/workshop. Porta-loos on the site will be self-contained. Potable water will be provided by a single tank on the site.

The mobile asphalt plant site is surrounded by earth bunds. Stormwater from the site will be contained by the bunds and directed to an existing stormwater detention pond located to the south. Figure 3.1 shows the proposed site set-up, while Figure 3.2 shows a photograph of the equipment taken from another operation. A Plant Layout Plan is provided as Appendix B.

Figure 3.1: Proposed site layout

Figure 3.2: Photograph of Marini mobile asphalt plant

4. Reasons for application

Resource consent is required pursuant to section 9(3) of the Resource Management Act 1991.

4.1 Kāpiti Coast District Plan (Appeals Version 2018)

The mobile asphalt plant meets the definition of an Industrial Activity in the Kāpiti Coast District Plan (Appeals Version 2018):

Industrial Activity(ies) means any activity where people use materials and physical effort to:

1. extract or convert natural resources;

2. produce goods or energy from natural or converted resources;

3. repair goods; and

4. store goods (ensuing from an industrial process).

The proposed activity has been assessed against the relevant rules from the Kāpiti Coast District Plan (Appeals Version 2018). All relevant rules, including aspects of the proposal that are a permitted activity, are presented in Table 4.1 below. All of the listed rules are operative.

Table 4.1: Relevant Rules in the Kāpiti Coast District Plan (Appeals Version 2018)

Rule	Activity	Activity Status
7A.5.7	Industrial Activity	**Non-Complying**
7A.1.3	Structures	**Permitted** The mobile asphalt plant structures are not a residential habitable building or an accessory farm building and are not subject to maximum height or density provisions. The location of the structures will comply with the minimum yard and height envelope requirements.
11E.4.1	Major traffic activity	**Discretionary** The proposed operation of the mobile asphalt plant is a major traffic activity as it will generate more than 100 vehicles per day. A Transport Assessment and Travel Plan has not been submitted with the application, therefore the activity cannot be considered as a restricted discretionary activity under Rule 11E.3.1 and must be assessed as a discretionary activity.
12D.1.10	Noise from activities associated with construction or demolition	**Permitted** The noise associated with the mobile asphalt plant complies with the limits specified in NZS 6803:1999.

Overall the proposal will be assessed as a **non-complying activity**. Resource consent is sought for a duration of two years, or until the completion of the Transmission Gully motorway.

5. Assessment of Effects on the Environment

5.1 Introduction

The following Assessment of Effects on the Environment has been prepared in accordance with the requirements detailed in Clauses 6 and 7, Schedule 4 of the Resource Management Act 1991.

Due to the existing use of the site as a sand extraction and cleanfill deposition site, the traffic, nuisance and visual effects from the proposed mobile asphalt plant are all cumulative in nature.

5.2 Positive Effects

The mobile asphalt plant will enable a ready supply of asphalt to the Transmission Gully motorway project. Given the scale of the work and the amount of asphalt required, it is considered more practical and economical to manufacture the asphalt at a location as close to the roading construction site as possible rather than manufacturing the asphalt at one of Fulton Hogan's permanent plants and trucking the asphalt to the site. This will reduce travelling distances and the associated greenhouse gas emissions, and reduce uncertainties associated with traffic delays that could adversely impact Transmission Gully's construction timeline.

5.3 Traffic Effects

Access to the site will be obtained from the existing access from State Highway 1/Transmission Gully. The site's access is wide and sealed to allow for the two-way movement of heavy motor vehicles and the minimisation of conflicts. Vehicle movements will comprise of:

- 25-45 truck movements per day delivering products (20-30 tonne loads);
- 67-125 truck movements per day carting asphalt to the Transmission Gully Project (12 tonne loads); and
- 20-30 light vehicle movements per day (staff vehicles)[2].

All trucks will be singular (i.e., will not have trailers). Under the Construction Traffic Management Plan for the entire Transmission Gully project, a Site-Specific Traffic Management Plan (SSTMP) is in place for the site's existing activities (sand removal and the deposition of cleanfill material). The additional movements to be created at the site by the operation of the mobile asphalt plant are able to be incorporated into this existing management plan.

A 200-metre-long slip lane has been provided on both sides of the site's access to allow for the entry of northbound heavy motor vehicles into the site without impeding the flow of traffic behind them, and the safe exit and merging of heavy motor vehicles into the northbound traffic flow. A temporary speed limit of 80 km/h is in place to reduce the risk of rear-end crashes. Barriers are in place to prevent the entry of southbound vehicles into the site, so there are no right-turn movements. The site access is marked clearly with a sign, and "Trucks Merging" signage is in place to the south of the site's access to provide advance warning to northbound traffic.

Overall, the truck movements are able to be accommodated by the existing access from State Highway 1 and safety risks avoided through compliance with the existing SSTMP.

[2] Note: One movement indicates one return trip (both in and out).

5.4 Nuisance Effects

Nuisance effects associated with the mobile asphalt plant comprise of noise, odour, dust and the occasional use of lighting to illuminate the site for night-time operation.

5.4.1 Noise

A noise assessment has been completed and is provided as Appendix C. The noise from all components of the mobile asphalt plant has been modelled based on similar noise impact assessments for mobile asphalt plants operated in New Zealand and Australia and based on the manufacturer's specifications that the batch plant would produce a sound pressure level of less than 65 dB at 100 m. The assessment concludes that the noise from the mobile asphalt plant complies with the limits specified in NZS 6803:1999 at all times. The highest predicted noise level at a sensitive receiver was 43.5 dB(A) at 528 State Highway 1. This level is below the most stringent noise criteria level the plant could be subjected to which is 45dB(A).

As there is no exceedance of the noise limits in NZS 6803:1999, any impact on amenity or human health from the noise associated with the mobile asphalt plant is considered to be negligible.

5.4.2 Odour

The odour from the mobile asphalt plant has been modelled and assessed against the guidance in the "Good Practice Guide for Assessing and Managing Odour", (Ministry for the Environment, 2016) in an Odour Assessment provided as Appendix D.

The Odour Assessment has determined that odour concentrations would remain below the relevant criterion developed using guidance from the "Good Practice Guide for Assessing and Managing Odour", (Ministry for the Environment, 2016). Based on the conclusions of the odour assessment, the effects of odour on the surrounding community from the discharges from the mobile asphalt are considered to be less than minor.

5.4.3 Dust

Fugitive emissions to air will be emitted during the handling, storage and transport of aggregates and dust/sand. Fulton Hogan have procedures in place to minimise fugitive emissions of dust. Procedures include:

- Bulk coarse aggregates and crusher dust to be stored in semi-contained enclosures to control moisture content and to avoid mobilisation by wind;
- Coarse aggregates to be wet when being moved;
- Crusher dust and sand will be received damp and kept damp while in storage to prevent dust generation while unloading, while being stored, and during transfer by front-end loader from the storage bin to the cold feed bins;
- Roadways and yards to be kept well maintained and kept damp as necessary during times that the plant is operating; and
- All loads on trucks will be covered and secured.

These procedures are considered to be the most practical and efficient methods for controlling dust. With the procedures in place, dust from the mobile asphalt plant operation is not expected to be present beyond the boundary of the land parcel.

5.4.4 Lighting

There is lighting on the site associated with the existing activities. When night time operation of the mobile asphalt plant is required (this is expected to be infrequent), additional lighting will be required to illuminate the site area. The lights will be downwards-facing LEDs on 3-metre-high stands, oriented onto the specific parts of the plant that require illumination. Lighting will be located within the bunded area, directly adjacent the plant. Light spill outside of the bunded area shown in Figure 3.1 will not occur.

5.5 Visual Effects

The site is largely shielded from view from State Highway 1 due to existing vegetation to the south of the site's access, and an existing earth bund to the north of the site's access. It is noted that the vent stack is 10 metres high and will be visible over the earth bund. Some existing aggregate stockpiles are visible from State Highway 1 for a distance of approximately 80 metres near the site's access. These stockpiles are expected to screen the mobile asphalt plant from view.

In the event that the aggregate stockpiles are no longer there in future, the mobile asphalt plant may be visible from State Highway 1 near the site's access. However, views from this point are transient in nature. In the context of the surrounding construction of the Transmission Gully motorway, adverse visual effects from this viewpoint are considered to be less than minor.

It is noted that the vent stack chimney is 10 metres high and will be visible over the earth bund and aggregate stockpiles, and is likely to be visible from further away and beyond the site. The width of the vent stack is 70 cm. The tall, narrow nature of the stack is such that visibility will decrease with distance.

The existing stockpiles and the proposed mobile asphalt plant may be slightly visible to northbound vehicles travelling on State Highway 1 approximately 700 metres south of the site's access, through a gap in the trees located at the southern boundary of the land parcel. The views from this point are also transient in nature and less than minor in the context of the surrounding construction of the Transmission Gully motorway.

Due to the retention of the shelter belt of trees on the northwest boundary of the land parcel and the distance from any frequently used tracks, the mobile asphalt plant will not be visible to users of Queen Elizabeth Park. The mobile asphalt plant will be visible to users of Whareroa Farm, which is at a higher elevation on the eastern side of State Highway 1. Due to the distance from the site and the higher elevation, the mobile asphalt plant will appear very small and will not be obvious or jarring in the context of State Highway 1 and the construction of the Transmission Gully motorway.

5.6 Effects of Hazardous Substances

The bulk storage of diesel oil and bitumen has minimal fire risk. Storage will comply with the relevant requirements of the Health and Safety at Work (Hazardous Substances) Regulations 2017. All fuels, chemicals and other potentially environmentally harmful materials will be bunded to prevent land and water pollution in the event of an accidental spill.

Spill kits will be labelled and kept in the control room or laboratory and plant loader. Kits include absorbents and PPE appropriate to the specific materials used. All staff are trained in the Accidental Spill Procedure and the use of spill kits. Spills that exceed a volume of five litres will be reported to the relevant authorities and the causes investigated.

Overall, the level of risk to the environment and human health and safety from the storage and use of hazardous substances on the site is considered to be low.

5.7 Effects on Biodiversity

The proposal will not involve any soil disturbance or any change to the water table. Stormwater from the site will be managed to go into an existing stormwater retention pond. There will be no adverse effects on the freshwater ecology in any of the waterbodies in the vicinity.

The operation of the mobile asphalt plant is unlikely to affect the migration of any birds as the plant equipment does not exceed a height of 10 metres and is unlikely to be directly in their flightpath. As discussed in section 5.4.4, night-time illumination of the site will be infrequent, only operating at night when required by the construction schedule. Lighting will be directed downwards and there will be no light spill upwards or beyond the bunds that surround the mobile asphalt plant site. Overall, adverse effects on birds are likely to be less than minor.

5.8 Summary of Effects

Overall, the effects on the environment from the mobile asphalt plant are considered to be minor. Nuisance effects from dust, noise, odour and night-time illumination of the site are not significant; the noise does not exceed the limits specified in NZS 6803:1999, dust will be minimal and contained within the site, odour will not be offensive or objectionable, and night-time illumination will be occasional and will not be a nuisance. The truck movements can be accommodated by the network and the site's access is safe and appropriate. Visual effects are minor and will not degrade the existing character and amenity of the area.

The mobile asphalt plant will operate for a period of two years or until the completion of the Transmission Gully motorway, and the effects will not endure beyond that time period.

6. Engagement and Consultation

6.1 Mana whenua

Ngāti Toa Rangatira were contacted about the proposal on 2 July 2020. On 29 July 2020, Resource Management Advisor Turi Hippolite responded with questions about toxic materials and their disposal, and the stormwater management on the site. Following a response from Fulton Hogan on 30 July, Turi confirmed that Ngāti Toa have no concerns about the proposal.

Te Ātiawa ki Whakarongotai were also contacted on 2 July 2020. Due to a heavy workload, substantive comment on the proposal has not yet been received.

All correspondence detailed above has been provided as Appendix E.

6.2 Waka Kotahi NZ Transport Agency

Fulton Hogan has contractual agreements with the Wellington Gateway Partnership and CPB/HEB, who lease the land parcel from Waka Kotahi. Waka Kotahi is the owner of the land parcel on which the mobile asphalt plant will operate. Access to the site will be obtained from State Highway 1, which is a Limited Access Road in this location. Due to the number of truck movements generated by the proposal, a potential adverse effect on the safe and efficient operation of State Highway 1 was identified.

Waka Kotahi have been contacted in relation to the proposal and discussions are ongoing. Due to the safe standard of the access and the existing SSTMP that is in place, a Form 8A written approval is expected to be forthcoming in due course.

It is noted for completeness that a portion of the mobile asphalt plant will traverse designation D0101 (State Highway 1). Written consent from Waka Kotahi NZ Transport Agency will be required pursuant to section 176(1)(b) of the Resource Management Act 1991. As that designation is not in use, written consent is also expected to be forthcoming.

7. Notification

7.1 Public notification assessment (section 95A)

The test that must be considered by the consent authority when deciding whether or not to publicly notify an application are set out in section 95A of the RMA.

Step 1: Mandatory public notification in certain circumstances

No mandatory notification is required as:

- the applicant has not requested that the application is publicly notified (s95A(3)(a))
- there are no outstanding or refused requests for further information (s95C and s95A(3)(b)), and
- the application does not involve any exchange of recreation reserve land under s15AA of the Reserves Act 1977 (s95A(3)(c)).

Step 2: If not required by step 1, public notification precluded in certain circumstances

The application is not precluded from public notification as:

- the activities are not subject to a rule or national environmental standard (NES) which precludes public notification (s95A(5)(a)), and
- the application for resource consent is for a non-complying activity and therefore not precluded from public notification (s95A(5)(b)).

Step 3: If not precluded by Step 2, public notification in certain circumstances

The application is precluded from public notification as:

- the activities are not subject to a rule or national environmental standard (NES) which require public notification (s95A(5)(a)), and
- The activity will not have adverse effects on the environment that are more than minor (s95A(8)(b)).

Step 4: Special circumstances

Section 95(4) of the Act states that an application may be publicly notified if 'special circumstances' exist, notwithstanding the satisfaction of the statutory tests that would allow for non-notification. 'Special circumstances' are not defined in the Act. Case law has identified 'special circumstances' as something outside the common run of things which is exceptional, abnormal or unusual but less than extraordinary or unique. A 'special circumstance' would be one which makes notification desirable despite the general provisions excluding the need for notification. The local authority should be satisfied that public notification may elicit additional information on the aspects of the proposal requiring resource consent.

Public notification conclusion

There are no 'special circumstances' that exist to justify the public notification of this application.

It is considered that public notification of the application under s95A - 95C-D is not required.

7.2 Limited notification assessment (section 95B)

Step 1: Certain affected protected customary rights groups must be notified

There are no protected customary rights groups or customary marine title groups affected by the proposed activity (s95B(2)).

Step 2: If not required by step 1, limited notification precluded in certain circumstances

The application is not precluded from limited notification as:

- the activities are not subject to a rule or national environmental standard (NES) which precludes limited notification (s95B(6)(a)), and
- the application for resource consent is for a discretionary activity and is therefore not precluded from limited notification (s95B(6)(b)).

Step 3: If not precluded by Step 2, certain other affected person must be notified.

Limited notification is not required as:

- The application is not for a boundary activity or an activity prescribed under section 360H(1)(b), and
- There are no persons considered to be affected in accordance with s95(e) (s95B(8).

  *It is noted that Waka Kotahi NZ Transport Agency are anticipated to provide written approval.

Step 4: Further notification in special circumstances

The application does not warrant notification to any other persons not already determined to be eligible for limited notification under this section.

Limited notification conclusion

It is considered that limited notification of the application under s95B is not required and the application can be processed on a non-notified basis.

8. Statutory Assessment

The following assessment is provided in accordance with the relevant sections of the Resource Management Act 1991 (RMA) applicable to this proposal.

8.1 Section 104

8.1.1 Section 104(1)(a)

This section of the Act requires that regard is given to any actual and potential effects on the environment of allowing the activity.

An assessment of the actual and potential environmental effects on the environment resulting from the operation of the mobile asphalt plant is included in Section 5 of this report.

8.1.2 Section 104(1)(b)(i)

This section of the Act requires that regard is given to any relevant provisions of a national environmental standard (NES).

The NES for Air Quality (NESAQ) has been assessed in an Air Quality Assessment provided to the Greater Wellington Regional Council. The proposed discharge of contaminants to air is not prohibited by any of the provisions of the NESAQ.

No other NES is considered to be relevant to this proposal.

8.1.3 Section 104(1)(b)(ii)

This section of the Act requires that regard is given to any relevant provisions of any other regulations. No other applicable regulations have been identified.

8.1.4 Section 104(1)(b)(iii)

This section of the Act requires that regard is given to any relevant provisions of a national policy statement (NPS). None of the NPSs are considered to be relevant to this proposal.

8.1.5 Section 104(1)(b)(iv)

This section of the Act requires that regard is given to any relevant provisions of a New Zealand Coastal Policy Statement (NZCPS). The NZCPS is not considered to be relevant to the proposal.

8.1.6 Section 104(1)(b)(v)

Section 104(1)(b)(v) of the Act requires that regard is given to any relevant provisions of a regional policy statement or proposed regional policy statement. The relevant provisions of the Greater Wellington Regional Policy Statement are assessed in Table 8.1 below.

Table 8.1: Greater Wellington Regional Policy Statement Provisions

Objective	Is the Proposal Consistent	Comment
Objective 1 Discharges of odour, smoke and dust do not adversely affect amenity values and people's wellbeing.	Yes	Concentrations of odour from the site are predicted to remain below the relevant criterion developed using guidance from the "Good Practice Guide for Assessing and Managing Odour", (Ministry for the Environment, 2016). The effects of odour on the surrounding community from the discharges from the MAP are deemed to be less than minor. Similarly, with the site management measures in place, dust emissions are not expected to extend beyond the site or adversely affect amenity values or people's wellbeing.
Objective 3 Habitats and features in the coastal environment that have significant indigenous biodiversity values are protected; and Habitats and features in the coastal environment that have recreational, cultural, historical or landscape values that are significant are protected from inappropriate subdivision, use and development.	Yes	The proposal will not degrade the significant indigenous biodiversity values of the Mackays Crossing Swamp wetland. The recreational, cultural, historical and landscape values of the surrounding area will be maintained as nuisance and visual effects will not be more than minor. The location of the proposed mobile asphalt plant is considered to be an appropriate development to enable the efficient completion of the Transmission Gully motorway project.
Objective 10 The social, economic, cultural and environmental, benefits of regionally significant infrastructure are recognised and protected.	Yes	The proposed mobile asphalt plant will enable the efficient completion of the Transmission Gully motorway project.

8.1.7 Section 104(1)(b)(vi)

This section of the Act requires that regard is given to any relevant provisions of a plan or proposed plan. The relevant objectives and policies of the Kāpiti Coast District Plan (Appeals Version 2018) are assessed in Table 8.2 below.

Table 8.2: Kāpiti Coast District Plan Provisions

Objective/Policy	Is the Proposal Consistent	Comment
Objective 2.1 – Tangata Whenua To work in partnership with the tāngata whenua of the District in order to maintain kaitiakitanga of the District's resources and ensure that decisions affecting the natural environment in the District are made in accordance with the principles of Te Tiriti o Waitangi (Treaty of Waitangi).	Yes	Both Ngāti Toa Rangatira and Te Ātiawa ki Whakarongotai have been contacted in relation to the proposal. Ngāti Toa have confirmed that they have no concerns in relation to the proposal.
Objective 2.13 – Infrastructure To recognise the importance and national, regional and local benefits of infrastructure and ensure the efficient development,	Yes	The proposed mobile asphalt plant will assist in the efficient development and completion of the Transmission Gully motorway project. The

maintenance and operation of an adequate level of social and physical infrastructure and services throughout the District that: a. meets the needs of the community and region; and b. builds stronger community resilience while avoiding, remedying or mitigating adverse effects on the environment.		motorway will deliver significant benefits to the Wellington Region through improved travel times and connectivity.
Policy DW9 – Retail, Commercial and Industrial Activities not within Centres or Other Working Zones *(Appealed)* A. Retail activities located outside of the District Centre Zone, Town Centre and Local Centre Zones; commercial activities located outside of the Working Zones; and industrial activities located outside of the Working Zones, will be avoided where: a. they may, either individually or cumulatively, disperse retail and commercial activity to the detriment of the efficient operation, function, viability and sustainability of the District's centres, especially the District Centre Zone; b. the proposed retail activity serves a market beyond the daily convenience needs of the immediate local residential neighbourhood; c. they are an inefficient use of existing infrastructure; d. there are more than minor actual or potential adverse effects on amenity values, local environmental quality or infrastructure capacity; e. the proposed activity compromises the efficient operation of infrastructure; or f. the activity has the potential to generate adverse reverse sensitivity effects on permitted activities. B. In determining whether or not retail, industrial or commercial activities outside of these zones are appropriate, particular regard will be given to the following considerations: a. whether or not the activities adversely affect the function, role, viability and vitality of the centres and other Working Zones; b. whether or not the activities are an efficient use of infrastructure; c. the location, scale and intensity of the proposed activities; d. the location, size and design of the proposed buildings, and any visual or landscape mitigation proposed; e. the effects of the safety of and access to the local transport network; f. the design and capacity of the proposed access and car parking for staff, customers, visitors and service/delivery vehicles; g. the hours of operation, including the timing and frequency of delivery/service vehicles; h. the effects on local character and amenity values; i. the effects of nuisance effects (including noise, odour, light, glare and dust); j. whether or not any proposed signage would be distracting to motorists, or dominating or detracting from the amenity of the surrounding environment;	Yes	The proposal will not result in any adverse effects on the District Centre Zone, Town Centre or Local Centre Zones. The actual and potential adverse effects on amenity values, local environmental quality or infrastructure capacity are not more than minor. The location of the mobile asphalt plant is close to the Transmission Gully project, delivering efficiency gains. The access to the site is safe for the anticipated truck movements, and the proposal will not have more than minor adverse effects on the operation of State Highway 1. Nuisance effects from noise, dust, odour and lighting will be minimal. *Note: This policy has been appealed by Kāpiti Coast Airport Holdings Limited, who have requested recognition of retail activities in the Airport Zone, and by Coastlands Shoppingtown Limited who have requested changes to the wording in the introduction to Chapter 2A.*

k. whether the industrial activity requires a rural location or depends on the location of a natural resource.		
Policy DW14 – Amenity Values A. New subdivision, land use and development within reserves and areas of significant scenic, ecological, cultural, scientific and national importance will provide for the amenity values of these areas, including (but not limited to) values associated with: a. a sense of openness and visual relief from more intensive urban areas; b. indigenous vegetation; c. significant landforms; and d. natural character. B. New subdivision use and development of land outside of the areas identified in (A.) above will be undertaken in a manner that does not compromise the amenity values of those areas.	Yes	The amenity values as experienced at the Mackays Crossing Swamp wetland and Queen Elizabeth Park will not be compromised by the mobile asphalt plant as they are located at some distance and the plant will be largely shielded from view by existing vegetation and landforms. Nuisance effects from noise, dust, odour and lighting will be minimal.
Policy 7.2 – Rural Character Subdivision, use and development in the Rural Zones will be undertaken in a manner that maintains or enhances the District's rural character, including: a. the general sense of openness; b. natural landforms; c. overall low density of development; and d. the predominance of primary production activities.	No	The proposal will not alter any existing landforms and is not a high-density or permanent development. However, the mobile asphalt plant is not a primary production activity and does not maintain or enhance rural character. This must be considered in the context of the existing state highway, the Transmission Gully motorway project and the existing use of the site that has altered the amount of rural character that the site has.
Policy 7.12 – Rural Dunes Zone Subdivision, use and development in the Rural Dunes Zone will be undertaken in a manner which: a. supports the primary production activity focus of the Rural Zones while protecting the valued landforms and ecological character, including dunes and wetlands of the Rural Dunes Zone; b. retains an overall low density scale and intensity to retain an overall rural character; c. avoids activities, such as industrial, commercial or retail activities which are not ancillary to primary production activities; d. ensures sensitive areas and areas of visually sensitive open space in the Rural Dunes Zone are protected; e. clusters development in areas characterised by undulating topography where the development can be accommodated in a sensitive manner, with minimal disruption to natural landform; f. located buildings and other structures in a way which avoids visual and landform effects on dominant dune ridges; g. provides sites which are capable of accommodating a primary residential building which is not at risk from identified natural hazards; and h. encourages increases in biodiversity, water quality and energy efficiency.	Yes and No	a. the proposal does not support primary production activity, but it does not alter the landforms and ecological character of the surrounding area. b. as discussed above, the proposal is not consistent with rural character. c. the proposal does not avoid an industrial activity. d. the adverse visual effects associated with the mobile asphalt plant will not be more than minor, and the mobile asphalt plant will be largely shielded from view from visually sensitive open space areas. e. the proposal will not disturb any landforms and is clustered with an existing sand extraction and cleanfill deposition operation. f. the structures will not be located on dominant dune ridges. g. not applicable. h. the proposal does not encourage increases in biodiversity, water quality or energy efficiency, but neither does it degrade or compromise them.

Policy 11.30 – Integrated Transport and Urban Form Development and subdivision will be integrated with and consistent with the transport network hierarchy in Schedule 11.2, and undertaken in a manner and at a rate to ensure: a. the transport network is capable of serving the projected demand safely and efficiently; b. the location of development is appropriate, including providing for the co-location of compatible developments and land use and transport networks to reduce unnecessary travel; c. travel time and distance to services are minimised for all modes of travel; d. development is consistent with Council's Subdivision and Development Principles and Requirements 2012; and e. enhanced community connectivity is achieved, resulting in more efficient travel patterns from the community.	Yes	The state highway network is capable of serving the trucks that will be accessing the mobile asphalt plant. The plant is co-located with an existing sand extraction and cleanfill deposition operation. The location of the mobile asphalt plant close to the Transmission Gully motorway project will reduce the travel time and distance for trucks.
Policy 11.35 – Safety The safety of all transport users will be enhanced during the development, operation, maintenance and upgrading of the transport network, by: a. implementing the principles set out in Appendix 5 – Crime Prevention Through Environmental Design (CPTED) Guidelines; b. requiring all developments provide for safe vehicular and pedestrian access, and have adequate visibility (sight lines); c. requiring all developments to have safe connections to the wider transport network; and d. requiring adequate visibility and sight lines for level crossings.	Yes	The existing access to the site is safe and constructed to an appropriate standard for truck movements. The access has clear sight distances of over 300 metres in both directions.

8.2 Sections 104B and 104D

Section 104B states that *'After considering an application for a resource consent for a discretionary or non-complying activity, a consent authority –*

(a) may grant or refuse the application; and

(b) if it grants the application, may impose conditions under section 108'.

Section 104D states that a consent authority '*may grant a resource consent for a non-complying activity only if it is satisfied that either –*

(a) the adverse effects of the activity on the environment (other than any effect to which section 104(3)(a)(ii) applies) will be minor; or

(b) the application is for an activity that will not be contrary to the objectives and policies of –

(i) the relevant plan, if there is a plan but no proposed plan in respect of the activity; or

(ii) the relevant proposed plan, if there is a proposed plan but no relevant plan in respect of the activity; or

(iii) both the relevant plan and the relevant proposed plan, if there is both a plan and a proposed plan in respect of the activity'.

The above assessment has identified that the adverse effects of the proposal are no more than minor, and while the proposal is not consistent with parts of two policies, importantly it is not contrary to them. Overall, the proposal satisfies both gateway tests in section 104D, noting that only one must be satisfied in order for the Council to be able to grant consent.

8.3 Part 2 (Purpose and Principles) – Sections 5, 6, 7 and 8

The overriding purpose of the RMA is "to promote the sustainable management of natural and physical resources" (Section 5). The broader principles (Sections 6 to 8) are to inform the achievement of that purpose.

When considering an application for a resource consent and any submissions received, the consent authority must, subject to Part 2, have regard to those matters listed under Section 104 of the RMA.

With regards to the application under Section 104, case law has determined that decision makers/Commissioners may now only have recourse to Part 2 of the RMA if it is determined that one of three exceptions apply:

- If any part or the whole of the relevant plan(s) are invalid;
- If the relevant plan(s) did not provide complete coverage of the Part 2 matters; and
- If there is uncertainty of the meaning of provisions as they affect Part 2.

In essence, what this means is that decisions makers only need to 'go back to' Part 2 of the Act if the relevant planning documents have not fully addressed the Part 2 matters. If a Regional or District Plan has not fully addressed the Part 2 matters, then decision makers can 'go up the tree' to the RPS and to any relevant NPS in relation to any Part 2 matters.

Plans which have to 'give effect' to the higher order statutory planning documents (RPS and NPS's), should have appropriately addressed Part 2 of the RMA.

It is considered that none of the three exceptions listed above apply and that the Part 2 matters have adequately been addressed through the provisions of the Kāpiti Coast District Plan (Appeals Version 2018).

Based on the assessment of the proposal being consistent with the planning framework as per Sections 8.1.6 and 8.1.7 above, the proposal is considered to be consistent with Part 2 of the RMA.

9. Conclusion

This assessment of effects on the environment (AEE) has been completed to support an application for land use consent for the operation of a mobile asphalt plant at Part Lot 4 DP 714 near Paekākāriki. Consent is sought for an industrial activity and major traffic activity located in the Rural Dunes Zone, for a duration of two years or until the completion of the Transmission Gully motorway.

The plant will be co-located with an existing sand extraction and cleanfill deposition operation on the site. Trucks will use the existing safe access from State Highway 1, and the movements will be managed through an existing Site-Specific Traffic Management Plan.

Nuisance effects from dust, noise, odour and night-time illumination of the site are not significant; the noise does not exceed the limits specified in NZS 6803:1999, dust will be minimal and contained within the site, odour will not be offensive or objectionable, and night-time illumination will be occasional and will not be a nuisance. Adverse effects on surrounding biodiversity will be less than minor. The plant will be largely screened by existing vegetation and landforms, with only the vent stack visible above these. The assessment in section 5 supports a conclusion that the adverse effects associated with the mobile asphalt plant will be minor overall.

The proposal is broadly consistent with the relevant objectives and policies in the Kāpiti Coast District Plan (Appeals Version), with the exception of polices that direct the avoidance of industrial activities in rural zones and the maintenance and enhancement of rural character. In this instance, the location of the mobile asphalt plant close to the Transmission Gully motorway project ensures ensuring a ready and consistent supply of asphalt to the project and creates efficiency gains by reducing the length and duration of travel by construction vehicles. In addition, the amount of rural character that the area boasts is minimal due to the existing sand extraction and cleanfill deposition operation on the site and the adjacent motorway.

It is considered that land use consent can be granted on a non-notified basis. Fulton Hogan requests the opportunity to review any proposed conditions of consent prior to the issuing of any decision.

Appendix A: Record of Title

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Search Copy

R. W. Muir
Registrar-General
of Land

Identifier	**WN27B/613**
Land Registration District	**Wellington**
Date Issued	15 August 1985

Prior References
WN611/306

Estate	Fee Simple
Area	21.8699 hectares more or less
Legal Description	Part Lot 1 Deposited Plan 7141
Purpose	for use in connection with a road

Registered Owners
Her Majesty The Queen

Interests

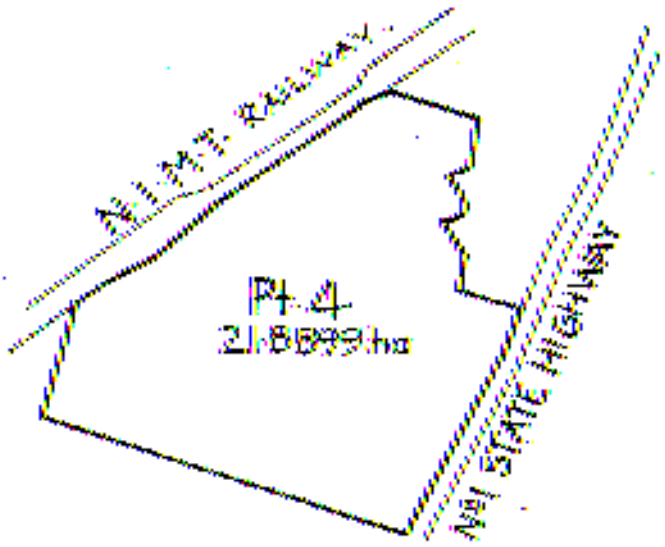
Subject to a right of way over part created by Transfer 1079354

35301 Proclamation defining the middle line of a portion of the Wellington Foxton Motorway - 7.6.1956 at 12.00 pm

899918 Gazette Notice declaring portion of State Highway No 1 to be a limited access road - 21.5.1990 at 9.04 am

Appurtenant hereto are rights of way created by Easement Instrument 8867195.6 - 19.9.2011 at 9:00 am

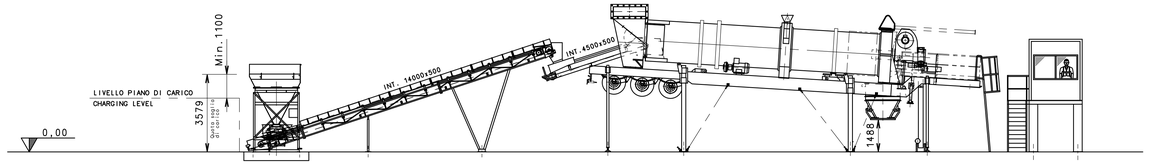
Subject to a right (in gross) to convey electricity and telecommunications over part marked A on DP 442005 in favour of Transpower New Zealand Limited created by Easement Instrument 8862187.2 - 5.10.2011 at 3:00 pm



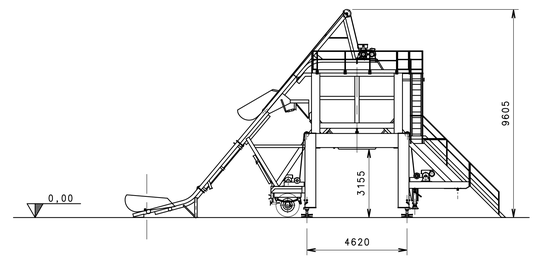
Measurements are Metric

Appendix B: Plant Layout Plan

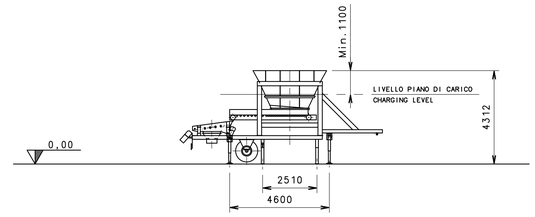
Rev.	Date	Modification	Designed by	Checked by	Approved by

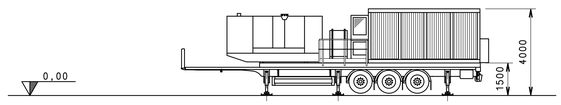


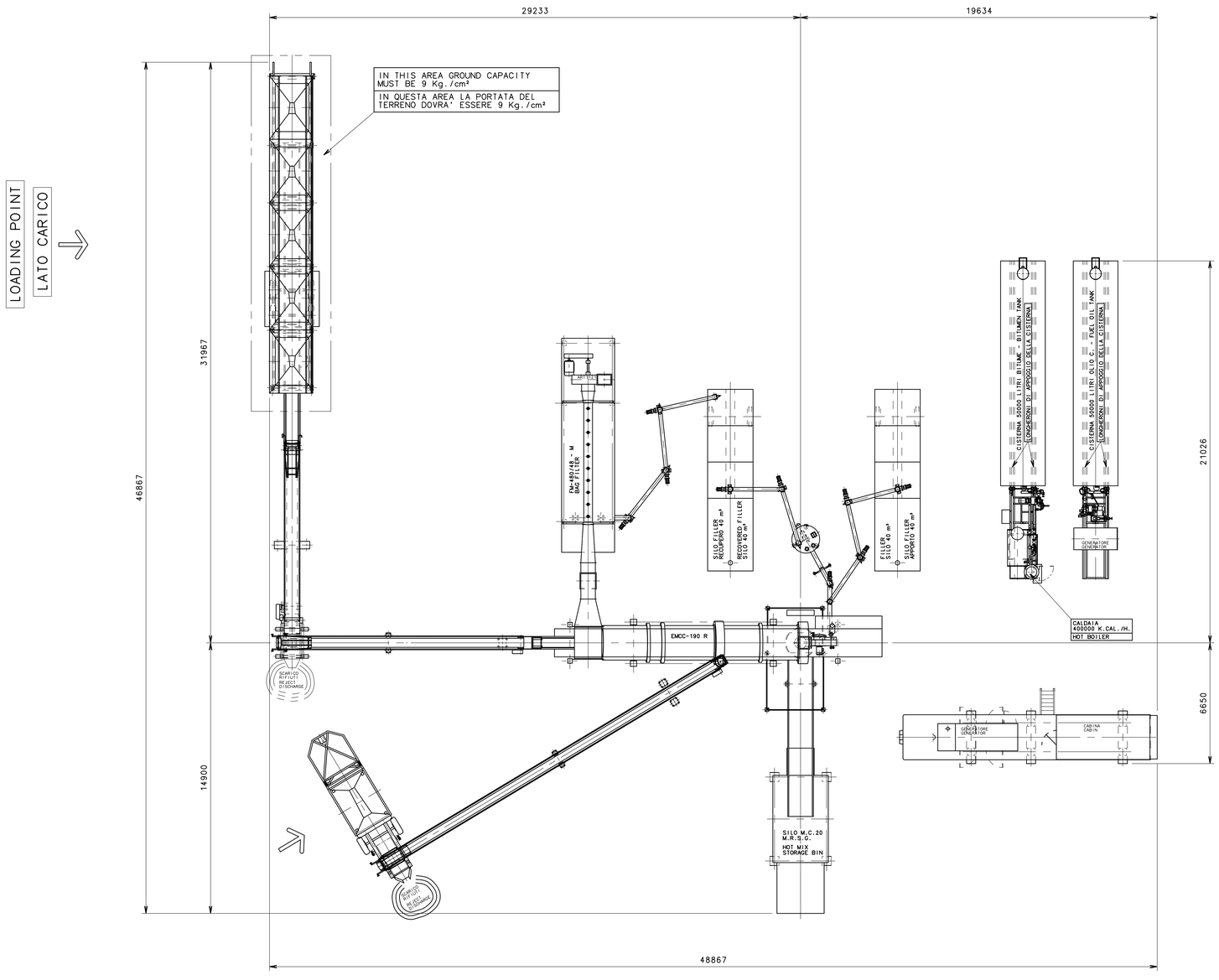
HOT MIX STORAGE BIN VIEW



RAP COLD FEEDER VIEW







N.B. : CAPACITY OF GROUND 2,5 Kg./cm²

N.B. : PORTATA DEL TERRENO 2,5 Kg./cm²

Y
X

N.B.: LE QUOTE DEL PRESENTE DISEGNO SONO DA CONSIDERARSI PURAMENTE INDICATIVE

N.B.: THE DIMENSIONS CONTAINED IN THIS DRAWING ARE TO BE CONSIDERED INDICATIVE

Pos.	Designation	Q.ty	Material	Wt Kg	Material Code	Part Code

FAYAT

MOBILE SELF-ERECTING
EMCC-190

PLANIMETRIA GENERALE
GENERAL LAY-OUT
FULTON HOGAN - NEW ZELAND

Material denomination		Material / Material code	Quality check / Weight(kg)
Approved by	Date	Projection method per ISO 128	Treatment according to
Checked by	Date	Dimensions are in millimeters	
Designed by: Nanni C.	Date: 05/07/12	Scale: 1:100	Drawing number: MO2756/01

Rev.

Appendix C: Noise Assessment

Paekākāriki Mobile Asphalt Plant

Noise Assessment

IZ130801-EP-RPT-003-A | Issue 0

27 August 2020

Fulton Hogan Limited

Paekākāriki Mobile Asphalt Plant

Project No:	IZ130801
Document Title:	Noise Assessment
Document No.:	IZ130801-EP-RPT-003-B
Revision:	Issue 0
Date:	27 August 2020
Client Name:	Fulton Hogan Limited
Project Manager:	Matthew Angel
Author:	Sean Brennan
File Name:	IZ130801-EP-RPT-003-Issue 0

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Document history and status

Revision	Version	Date	Description	Author	Checked	Reviewed	Approved
A	0	24/08/2020	Initial draft for internal technical review	SB	MB	MB	MB
B	0	25/08/2020	Draft for client review	SB	KM	BC	KT
Issue	0	27/08/2020	Issue for consent	SB	BC	BC	KT

Contents

Executive Summary

Background

Fulton Hogan has approached Jacobs to perform a noise impact assessment for the potential operation of a Mobile Asphalt Plant at Paekākāriki. The plant would be operated as part of the larger construction works of the Transmission Gully Motorway project. This assessment forms part of an Assessment of Effects of the Environment (AEE) to support the application for resource consent for the proposal.

Proposal Details and Existing Environment

The proposed Mobile Asphalt Plant would be located at a compound site at 525 State Highway 1 and will be operated at the site for the remaining duration to complete the construction of the Transmission Gully Project, and will typically operate between 6.00am to 6.00pm seven days a week, as well as nights for up to 8 -10 hours without truck deliveries.

The existing environment of the project area is predominately agricultural, with the nearest sensitive receivers being residential properties along State Highway 1. Additional residential receivers exist along Emerald Glen Road to the north of the project, as well as residences to the west of the project in the township of Paekākāriki.

Noise Policy Criteria

The project is located in land which falls under the *Kāpiti Coast District Plan (Appeals Version 2018)*. Under this plan, NZS 6803:1999 provides guidance on what is considered to be "reasonable" construction noise. The noise guidance in NZS 6803:1999 forms the main criterion that the predicted noise levels have been compared to.

Noise Assessment

Noise impacts have been predicted in the SoundPLAN 8.0 noise modelling software using the CONCAWE noise propagation calculation. The mobile asphalt plant layout within the model was based on layout plans provided by the client, with the noise source Sound Power Levels derived from similar asphalt plant noise assessments.

Results

Noise levels predicted at each nearby sensitive receiver have been predicted to be below the noise criteria levels at all time periods, with the highest predicted noise level at a sensitive receiver being 43.5 dB(A).

Conclusion and Management Measures

Predicted noise levels at residential receivers have been determined to be complaint with the criteria in NZS 6803:1999. As no adverse noise effects have been predicted, no mitigation measures have been advised.

Important note about your report

The sole purpose of this report and the associated services performed by Jacobs is to quantify the potential noise impacts for the Paekākāriki Mobile Asphalt Plant project in accordance with the scope of services set out in the contract between Jacobs and Fulton Hogan. That scope of services, as described in this report, was developed with Fulton Hogan.

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

Jacobs derived the data in this report from information sourced from Fulton Hogan (if any) and/or available in the public domain at the time or times outlined in this report. The passage of time, manifestation of latent conditions or impacts of future events may require further examination of the project and subsequent data analysis, and re-evaluation of the data, findings, observations and conclusions expressed in this report. Jacobs has prepared this report in accordance with the usual care and thoroughness of the consulting profession, for the sole purpose described above and by reference to applicable standards, guidelines, procedures and practices at the date of issue of this report. For the reasons outlined above, however, no other warranty or guarantee, whether expressed or implied, is made as to the data, observations and findings expressed in this report, to the extent permitted by law.

This report should be read in full and no excerpts are to be taken as representative of the findings. No responsibility is accepted by Jacobs for use of any part of this report in any other context.

This report has been prepared on behalf of, and for the exclusive use of, Fulton Hogan, and is subject to, and issued in accordance with, the provisions of the contract between Jacobs and Fulton Hogan. Jacobs accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this report by any third party.

1. Introduction

Jacobs New Zealand Limited (Jacobs) has been approached by Fulton Hogan Limited (the client) to perform a noise assessment to determine the noise effects of a proposed mobile asphalt plant at an existing construction compound site at 525 Highway 1, Paekākāriki (the proposal). The noise assessment forms part of an Assessment of Effects on the Environment (AEE) to support the application for resource consent for the proposal, and has been prepared to assess the predicted noise effects associated with the proposal against the relevant noise criteria set out in the Kāpiti Coast District Plan (Appeals Version 2018). The assessment was conducted by:

- Establishing key details on the proposal, including the position of the proposal in the local area (**Section 2**);
- Defining the relevant noise policy and criteria to which the predicted noise levels from the proposal will be compared to (**Section 3**);
- Detailing the modelling methodology applied to predict the potential noise impacts from the proposal (**Section 4**);
- Comparing the predicted noise impacts to the relevant criteria (**Section 5**); and
- Recommending mitigation and management measures to be applied where reasonable and feasible to mitigate potential noise impacts associated with the proposal (**Section 6**).

2. Proposal Details

The client currently operates a construction compound at 525 State Highway 1, Paekākārikii, as part of the ongoing Transmission Gully Motorway construction. The client has proposed to operate a Marini EMCC 190 Mobile Asphalt Batch Plant within this compound, in the positioning displayed in **Figure 2.1**. The plant is a diesel fuelled, hot mix and drum mix plant; and will typically operate between 6.00am to 6.00pm seven days a week, as well as nights for up to 8 -10 hours without truck deliveries. The proposal would be operated for the remaining duration for the construction of the Transmission Gully Project.

Figure 2.1: Proposal positioning within the compound

2.1 Existing Environment

The proposal is located along State Highway 1, approximately 600m east-northeast of the township of Paekākāriki and 3 km south of Raumati South. The nearest sensitive receivers include residencies along State Highway 1, as well as those along Wellington Road and Tilley Road in Paekākāriki and those along Emerald Glen Road north of the Mackays Crossing interchange. . The land use in the immediate vicinity of the proposal is a mix of agricultural and outdoor recreational areas, with a number of archaeological sites and historic monuments in the vicinity. The nearest residential and other sensitive receivers are displayed in relation to the proposal in **Figure 2.2**.

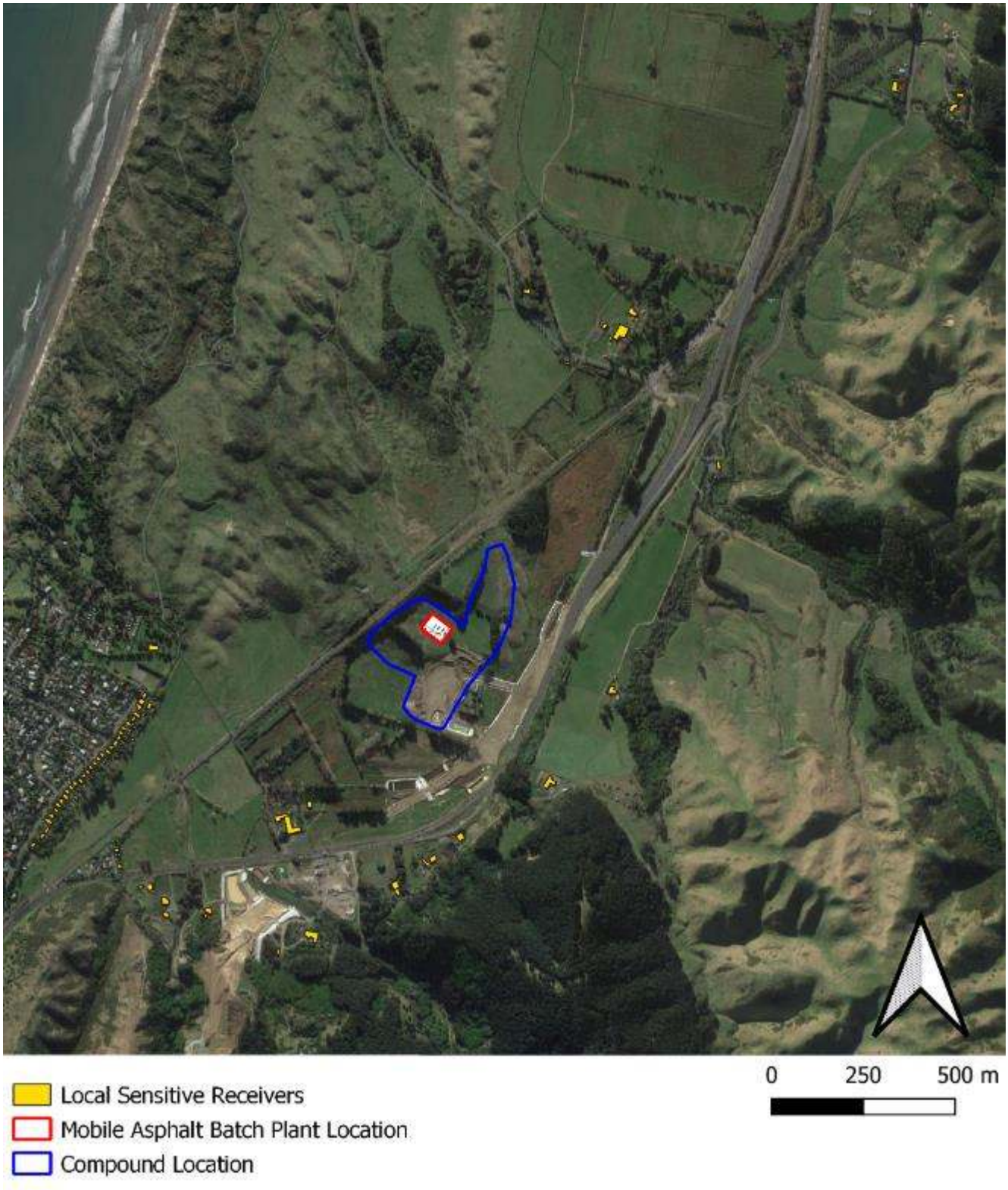

Figure 2.2: Locations of Nearby Sensitive Receivers

3. Noise Policy Criteria

The proposal is falls under the *Kāpiti Coast District Plan (Appeals Version 2018)*. Rule 12D.1.10 in the Kāpiti Coast District Plan (Appeals Version 2018) states that noise from activities associated with construction must be assessed in accordance with and must comply with NZS 6803:1999 Acoustics – Construction Noise. The standard provides guidance on what is considered to be "reasonable" noise, in the form of guideline noise limits which are shown in **Table 3.1**.

For the proposal, the long-term criteria (described as 'More than 20 weeks') is relevant.

Table 3.1: Noise Guideline Criteria from NZ 6803:1999 (at building facade)

Time of Week	Time Period	Duration of construction work at any one location					
		Less than 2 weeks		Less than 20 weeks		More than 20 weeks	
		$L_{Aeq(15min)}$	L_{AFMax}	$L_{Aeq(15min)}$	L_{AFMax}	$L_{Aeq(15min)}$	L_{AFMax}
Residential							
Weekdays	0630 – 0730	65 dB	75 dB	60 dB	75 dB	55 dB	75 dB
	0730 – 1800	80 dB	95 dB	75 dB	90 dB	70 dB	85 dB
	1800 – 2000	75 dB	90 dB	70 dB	85 dB	65 dB	80 dB
	2000 – 0630	45 dB	75 dB	45 dB	75 dB	45 dB	75 dB
Saturdays	0630 – 0730	45 dB	75 dB	45 dB	75 dB	45 dB	75 dB
	0730 – 1800	80 dB	95 dB	75 dB	90 dB	70 dB	85 dB
	1800 – 2000	45 dB	75 dB	45 dB	75 dB	45 dB	75 dB
	2000 – 0630	45 dB	75 dB	45 dB	75 dB	45 dB	75 dB
Sundays and Public Holidays	0630 – 0730	45 dB	75 dB	45 dB	75 dB	45 dB	75 dB
	0730 – 1800	55 dB	85 dB	55 dB	85 dB	55 dB	85 dB
	1800 – 2000	45 dB	75 dB	45 dB	75 dB	45 dB	75 dB
	2000 – 0630	45 dB	75 dB	45 dB	75 dB	45 dB	75 dB
Industrial and Commercial							
All Days	0730 – 1800	80 dB	-	75 dB	-	70 dB	-
	1800 – 0730	85 dB	-	80 dB	-	75 dB	-

4. Noise Assessment

4.1 Methodology

The operation of the proposed mobile asphalt plant was modelled using the SoundPLAN 8.0 acoustic modelling software. Within the noise modelling software, the CONCAWE noise propagation calculation was applied. The CONCAWE calculation was selected due to its reliability in assessing construction and industrial noise impacts. CONCAWE considers noise propagation and attenuation by:

- Geometrical spreading
- Atmospheric absorption
- Ground effects
- Meteorological conditions conducive of the propagation of noise
- Barriers
- Topography and distance between the source and receptor.

A number of inputs were used to create the model. These are detailed in **Table 4.1**.

Table 4.1: Noise Model Input Details

Model Input	Details
Topography	25 m resolution bare earth Digital Elevation Model (DEM).
Buildings	Footprints for receptor and other buildings in the area surrounding works was determined from aerial photography. Heights and floor numbers were ascertained from Google Street view, or otherwise, assuming a building height of 3 meters per floor plus 2m for the roof.
Ground Absorption	Rural Area/Grassland: 1.00
Noise Sources	SWLs were set as outlined in **Table 4.2**
Meteorology	Neutral Conditions: Humidity: 70% Temperature: 10°C Air Pressure: 1013.3 Wind Speed: 0 m/s Pasquill Stability Class: D

4.2 Equipment Noise Sources

Noise Sources for the proposed mobile asphalt plant were selected based on layout plans of the plant. The setup of the plant in the model is displayed in **Figure 4.1**.

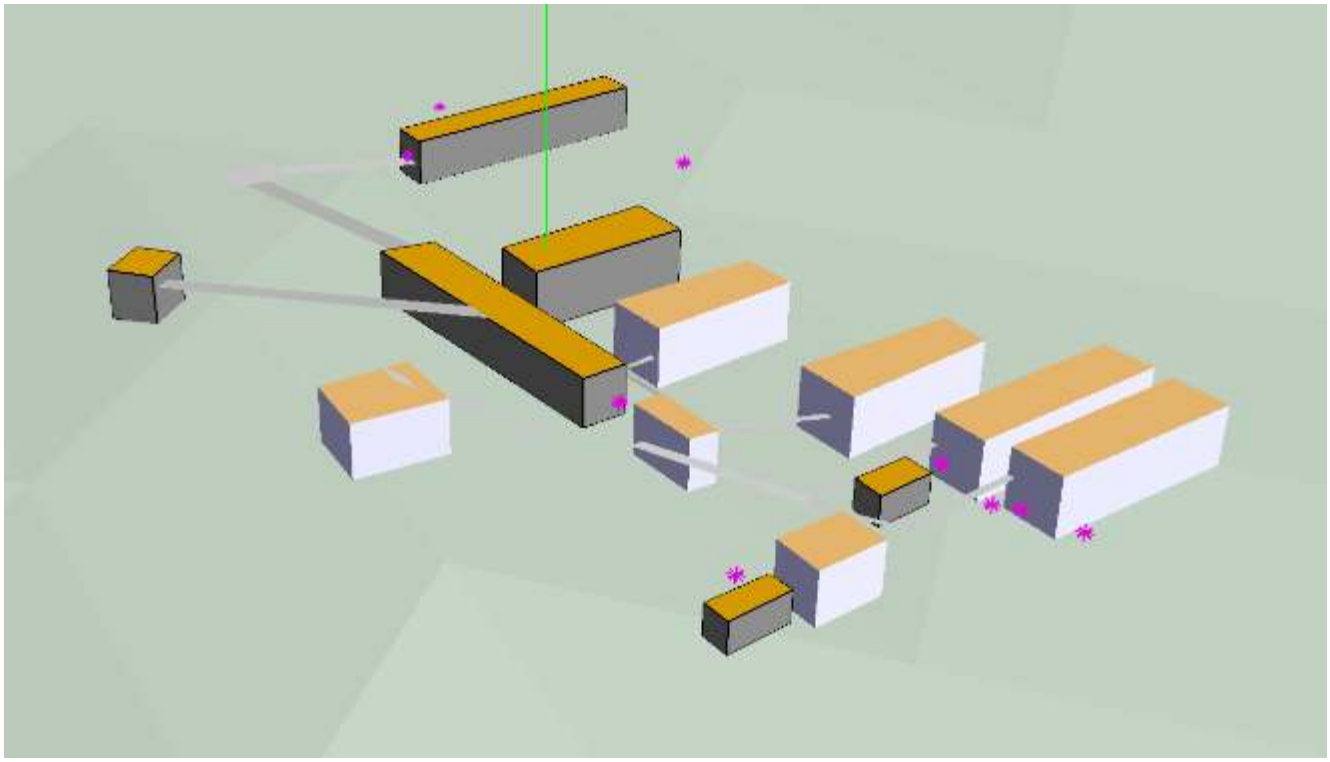

Figure 4.1: Mobile Asphalt Plant Setup

The Sound Power Levels (SWLs) have been derived from similar noise impact assessments for mobile asphalt plants operated in New Zealand and Australia, and have also been selected based on the manufacturer's specifications that the batch plant would produce a sound pressure level of less than 65 dB at 100 m. Each individual component of the plant has been displayed in **Table 4.2** below.

Table 4.2: Noise Sources and Sound Power Levels

Noise Source	SWL (dB(A)	Noise Source	SWL dB(A)
Air Compressor	94	Generator	103
Bag Filter	107	Heavy Oil Tank and Diathermic Oil Heating	96
Bitumen Feeding Pump	94	Hot Boiler	96
Bitumen Loading Pump	94	RAP Feed	87
Burner	101	Silo Discharge	88
Cold Feed	87	Stack	112
Dozer (Idle)	104	Truck (Idling) - Day Only	111
Drum Drier	75	Vibrating Screen	89
Drum Mixer	94		

The model operates on the conservative assumption that all of the equipment listed in Table 4.2 is operating concurrently for 24 hours a day.

5. Results

The predicted noise impacts of the proposed mobile asphalt plant have been compared to the relevant noise criteria established in **Section 3**. Appendix A contains the predicted noise level at each nearby sensitive receiver with a comparison to the relevant noise criteria. Appendix B contains noise contour maps displaying the propagation of noise levels across the project area.

It was predicted that no sensitive receivers in the vicinity of the project at any time period would receive a noise impact in exceedance of the noise criteria established in **Section 3**. The highest predicted noise level at a receiver was 43.5 dB(A) at 528 State Highway 1. This level is below the most stringent noise criteria level the plant could be subjected to which is 45dB(A).

The spatial extent of noise propagation found that at 100 m from the plant, noise levels ranged from 63 dB(A) to 65 dB(A), in line with the manufacturer's noise emission guarantee for the Marini EMCC 190 Mobile Asphalt Batch Plant. It is therefore recommended that consideration of other similar candidate Mobile Asphalt Batch Plants have components of equal or inferior sound power level to those provided in **Table 4.2**.

6. Mitigation and Management Measures

The noise from the proposed mobile asphalt plant has been measured and assessed in accordance with, and complies with, NZS 6803:1991 Acoustics – Construction Noise. The noise associated with the mobile asphalt plant is therefore a **permitted activity** in the Kāpiti Coast District Plan (Appeals Version 2018) in accordance with Rule 12D.1.10.

As there is no exceedance of the noise limits in NZS 6803:1999, any impact on amenity or human health from the noise associated with the mobile asphalt plant will be negligible. Accordingly, noise mitigation or management measures are not considered to be necessary in this instance.

7. Conclusion

Noise levels from the operation of the mobile asphalt plant have been predicted at the nearest sensitive receivers. The noise levels have been determined to be compliant with the noise limits in in NZS 6803:1999 Acoustics – Construction Noise at all times. The noise associated with the plant is therefore a permitted activity in the Kāpiti Coast District Plan (Appeals Version 2018).

As the project is compliant with all noise requirements, management or mitigation measures are not necessary.

8. References

AECOM. (2017). *Transmission Gully – Pugmill Batching Plants Noise Assessment*.

GHD (2008). *Report on Ulverstone Asphalt Plant DPEMP – Acoustic Assessment*.

Jacobs (2017). *Pacific Highway Upgrade, Warrell Creek to Nambucca Heads – Southern Asphalt Plant Noise Assessment*.

Kapiti Coast District Council. (1999). *Operative Kapiti Coast District Plan*. Paraparaumu NZ

Kapiti Coast District Council. (2018). *Proposed Kapiti Coast District Plan*. Paraparaumu NZ

Appendix A. Predicted Noise Levels at Sensitive Receivers

Table A.1: Predicted Noise Levels at Nearby Sensitive Receivers

Address	Floor	Predicted Noise Impact dB(A)	Noise Criteria – Works Longer than 20 weeks			Limit Exceeded?
			Day	Time Period	$L_{Aeq(15min)}$ Noise Limit (dB(A))	
100 Tilley Rd	GF	30.8	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
102 Tilley Rd	GF	31.3	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
104 Tilley Rd	GF	30.4	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
105 Tilley Rd	GF	31.7	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO

				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
108 Tilley Rd	GF	33.3	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
110 Tilley Rd	GF	31.8	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
112 Tilley Rd	GF	27.9	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
114 Tilley Rd	GF	34.9	Weekday	0630 – 0730	55	NO

				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
116 Tilley Rd	GF	30.2	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
118 Tilley Rd	GF	32.4	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
120 Tilley Rd	GF	26.1	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO

				2000 – 0630	45	NO
122 Tilley Rd	GF	29.4	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
124 Tilley Rd	GF	28.6	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
126 Tilley Rd	GF	30.4	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
128 Tilley Rd	GF	26.8	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
				0630 – 0730	45	NO

			Sundays and Public Holidays	0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
130 Tilley Rd	GF	30	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
132 Tilley Rd	GF	33.8	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
134 Tilley Rd	GF	28.5	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
136 Tilley Rd	GF	29.5	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO

				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
138 Tilley Rd	GF	36.5	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
140 Tilley Rd	GF	36.3	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
142 Tilley Rd	GF	30.8	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
144 Tilley Rd	GF	32.4	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO

				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
146 Tilley Rd	GF	34.8	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
148 Tilley Rd	GF	28.6	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
150 Tilley Rd	GF	31.3	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
152 Tilley Rd	GF	37	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO

				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
154 Tilley Rd	GF	33.4	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
156 Tilley Rd	GF	33.8	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
158 Tilley Rd	GF	36.4	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
158A Tilley Rd	GF	36.7	Weekday	0630 – 0730	55	NO

				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
160 Tilley Rd	GF	36.6	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
180 Queen Elizabeth Rd	GF	37.5	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
303 State Highway 1	GF	33	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO

				2000 – 0630	45	NO
305 State Highway 1	GF	32.8	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
306 State Highway 1	GF	33.5	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
324 State Highway 1	GF	34.3	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
330 State Highway 1	F 1	36.7	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
				0630 – 0730	45	NO

			Sundays and Public Holidays	0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
330 State Highway 1	GF	36	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
347 State Highway 1	GF	41.1	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
378 State Highway 1	GF	38.7	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
384 State Highway 1	GF	41.1	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO

				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
394 State Highway 1	GF	41.9	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
398 State Highway 1	GF	43.2	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
528 State Highway 1	GF	43.5	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
573 State Highway 1	GF	34.7	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO

				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
86 Emerald Glen Rd	GF	25.2	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
91 Emerald Glen Rd	GF	24.8	Weekday	0630 – 0730	55	NO
				0730 – 1800	70	NO
				1800 – 2000	65	NO
				2000 – 0630	45	NO
			Saturdays	0630 – 0730	45	NO
				0730 – 1800	75	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO
			Sundays and Public Holidays	0630 – 0730	45	NO
				0730 – 1800	55	NO
				1800 – 2000	45	NO
				2000 – 0630	45	NO

Appendix B. Predicted Noise Level Contours

Appendix D: Odour Assessment

Paekākāriki Mobile Asphalt Plant

Odour Assessment

IZ0130801-EP-RPT-0005 | 0

August 27,2020

Fulton Hogan

Paekākāriki Mobile Asphalt Plant

Project No:	IZ130801
Document Title:	Odour Assessment
Document No.:	IZ0130801-EP-RPT-0005
Revision:	0
Document Status:	Final
Date:	August 27,2020
Client Name:	Fulton Hogan
Project Manager:	Bruce Clarke
Author:	Luke Spencer/Bruce Clarke/Kate McNab
File Name:	IZ130801-EP-RPT-0005

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Document history and status

Revision	Date	Description	Author	Checked	Reviewed	Approved
A	26/08/2020	First Draft	KM/BC/LS	BC	BC	KT
0	27/08/20	FINAL				

Contents

Important note about your report

The sole purpose of this report and the associated services performed by Jacobs New Zealand Limited (Jacobs) is to assess the effects on the environment resulting from odour from Fulton Hogan's (the Client's) hot mix asphalt plant. This assessment is in support of an application for land use consent from the Kāpiti Coast District Council in accordance with the scope of services set out in the contract between Jacobs and the Client. That scope of services, as described in this report, was developed with the Client.

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

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

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

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

1. Introduction

Fulton Hogan is seeking to operate a mobile asphalt plant at a site located west of State Highway 1 between Paekākāriki and the Mackays Crossing Interchange, to supply asphalt to the Transmission Gully motorway project.

Given the scale of the work and the amount of asphalt required, it is considered more practical to manufacture the asphalt at a location as close to the roading construction site as possible using the mobile asphalt plant rather than manufacturing the asphalt at one of Fulton Hogan's permanent plants and trucking the asphalt to the site.

Fulton Hogan intends to establish and operate a mobile asphalt plant for this project, which has been purchased from Marini S.p.A, Italy (the 'Marini plant'), using diesel as the fuel. The plant has nominal maximum production capacity of 180 tonnes of asphalt per hour and will produce a maximum of 416,000 tonnes per annum. Resource consent is sought to operate the plant for two years or until the completion of the Transmission Gully motorway. The plant will typically operate between 6.00am to 6.00pm seven days a week, as well as nights for up to 8- 10 hours.

This report models and assesses the effects on the surrounding environment from the odour associated with the plant. This assessment is a subset of a larger Air Quality Assessment of Effects on the Environment undertaken to support an application for an air discharge consent from Greater Wellington Regional Council.

2. Local Environment

2.1 Site and Adjacent Land Use

The site is located west of State Highway 1, between the Paekākāriki and Mackays Crossing Interchanges in the Kāpiti District. The site is legally described as Part Lot 4 DP 714, held in Record of Title WN27B/863. The overall property and the proposed mobile asphalt plant site (hereafter "the site") are shown in Figure 2.1 below.

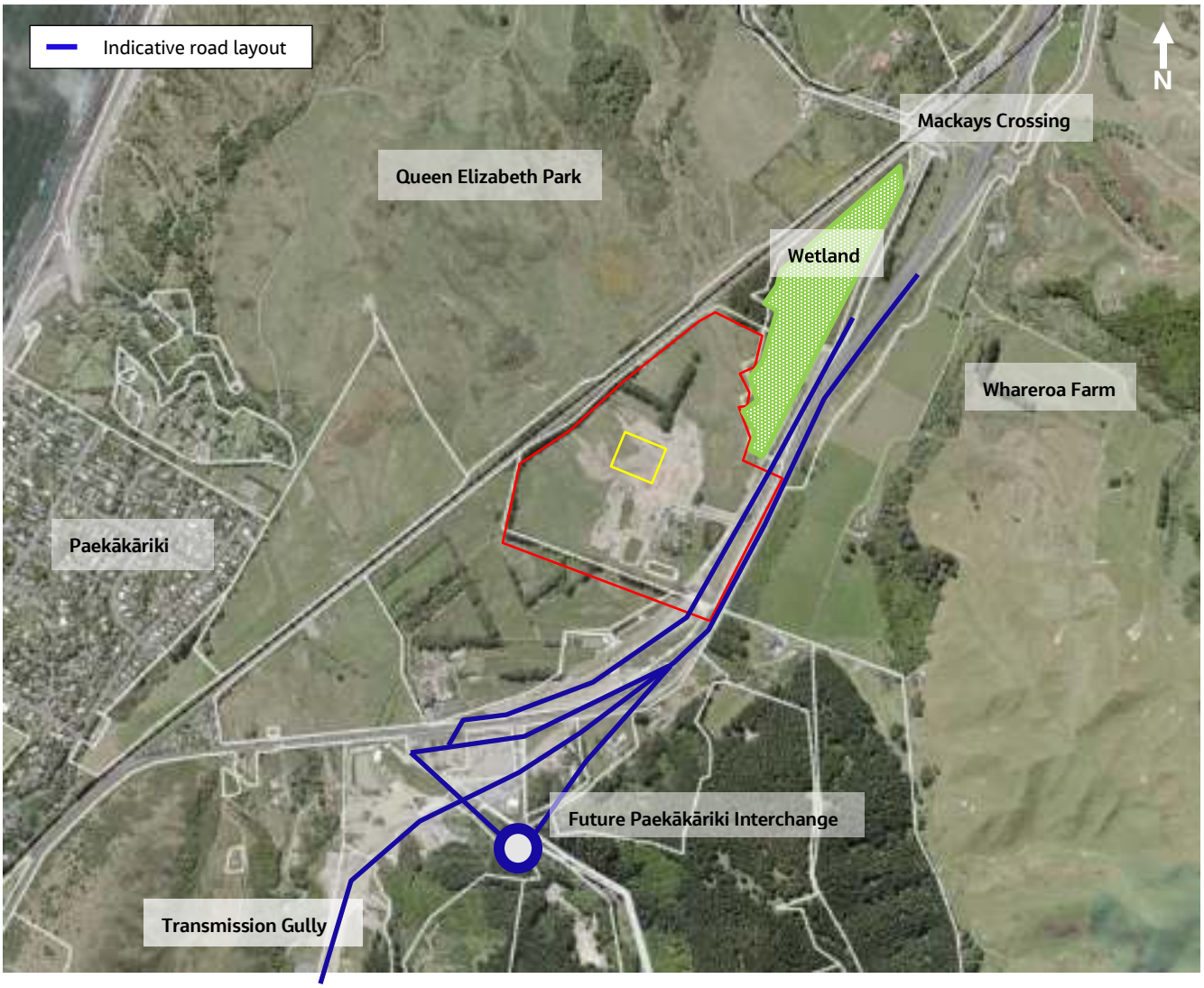


Figure 2.1: Aerial image of the site. The overall site is indicated in red, while the location of the mobile asphalt plant site is indicated by the yellow rectangle (Image sourced from Jacobs Xplore GIS platform).

The surrounding land use is predominantly rural. Queen Elizabeth Park located to the west and Whareroa Farm located to the east are used recreationally by walkers, cyclists and horse riders.

2.2 Surrounding sensitive receivers

Several sensitive receivers are located near the proposal. Figure 2.2: ure 2.2 below displays the nearest sensitive receivers around the site. As displayed, the nearest residential receiver (RR10) is located approximately 440 metres to the east of the proposed asphalt plant.

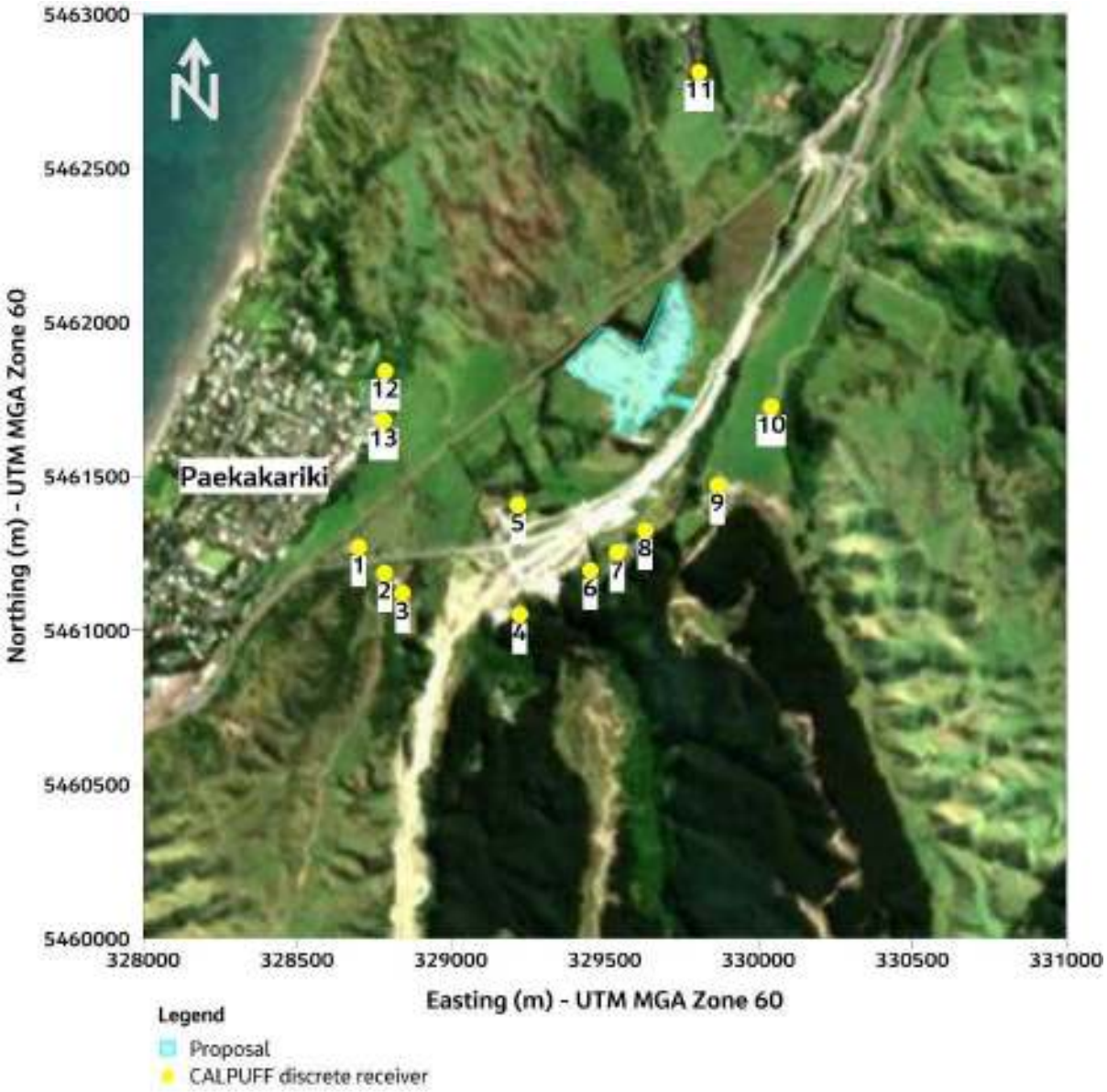


Figure 2.2: Surrounding sensitive receivers

Details of these nearby sensitive receivers is summarised below in Table 2.2.

Table 2.1: Nearby sensitive receivers

Receiver ID	Receiver type	Approximate co-ordinates UTM MGA 60		Approximate elevation (m)	Approximate distance from the proposal (m)	Approximate orientation from the proposal
		Easting (m)	Northing (m)			
R1	Residential	328700	5461271	13	1,000	Southwest
R2	Residential	328785	5461187	24	950	Southwest
R3	Residential	328843	5461121	32	1,000	Southwest
R4	Residential	329223	5461052	37	850	South southwest
R5	Residential	329218	5461407	18	550	Southwest
R6	Residential	329453	5461195	23	650	South
R7	Residential	329540	5461253	20	600	South
R8	Residential	329631	5461325	21	550	South
R9	Residential	329866	5461472	49	500	Southeast
R10	Residential	330041	5461726	50	440	East
R11	Residential	329806	5462813	18	950	North northeast
R12	Residential	328786	5461841	19	700	West
R13	Residential	328781	5461682	18	700	West

2.3 Terrain and Meteorology

2.3.1 Terrain

A three-dimensional schematic of terrain features around the proposed site is shown below in Figure 2-3. As displayed, elevations around the plainlands on and surrounding the proposal ranged from approximately 0 to 20 m above sea level. Ground elevations extend up to approximately 700 metres above sea level to the east of the site within the foothills of the Akatarawa Forest. The nearest residential receivers identified in Section 2.1 are located at similar elevations or are higher than the proposed site.

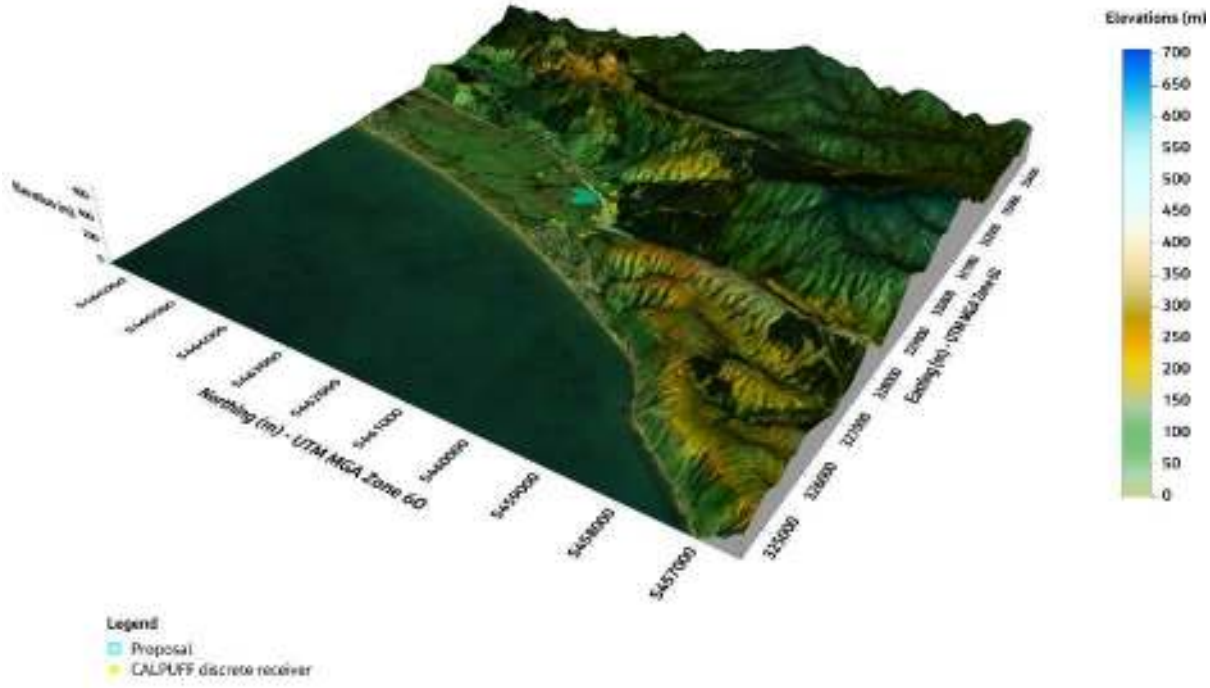


Figure 2.3: Surrounding topography

2.3.2 Meteorology

Meteorological conditions are important for determining the direction and rate at which emissions from a source will disperse. The key meteorological requirements for an air dispersion model typically include hourly records of wind speed, wind direction, temperature, atmospheric stability class and mixing layer height. For air quality assessments, a minimum one year of hourly data is usually required, which means that almost all possible meteorological conditions, including seasonal variations, are considered in the simulations.

Although there is no on-site meteorological station, a meteorological station was previously operated at Paraparaumu Airport approximately eight kilometres to the north of the proposal. As outlined above, a minimum of one year of data is generally required for dispersion modelling assessments. Hourly meteorological records from the Paraparaumu Airport station were available for three years; 2010 to 2012. These data were reviewed to identify a representative year for use in the dispersion modelling. Table 2.3 shows a range of statistics in order to evaluate differences in meteorological conditions from year-to-year.

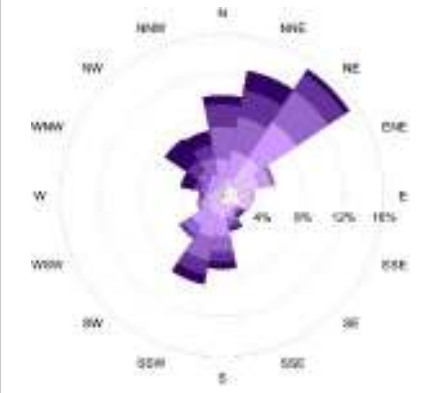
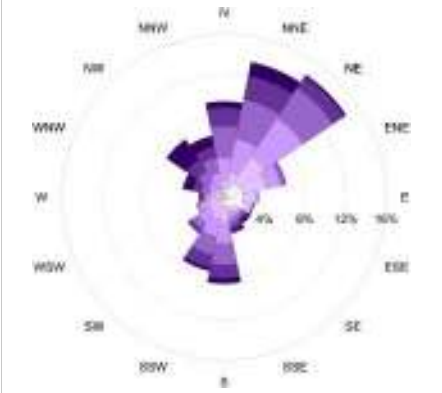
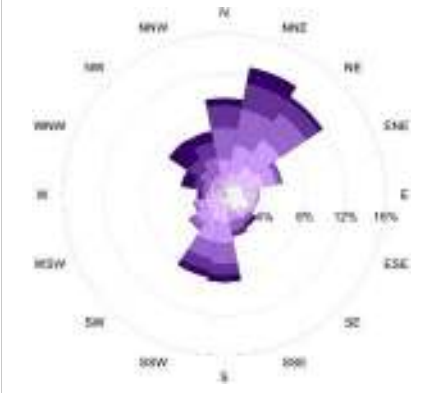
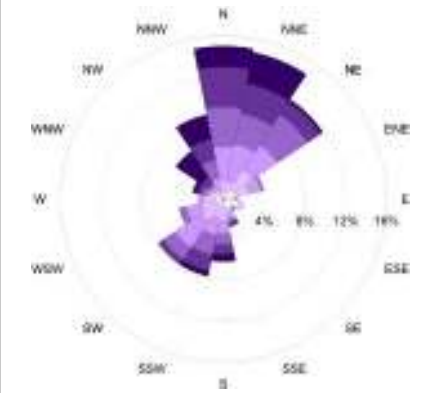
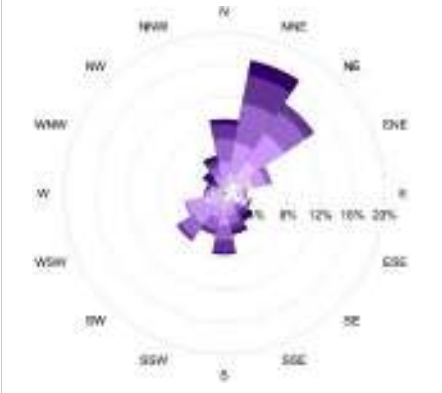
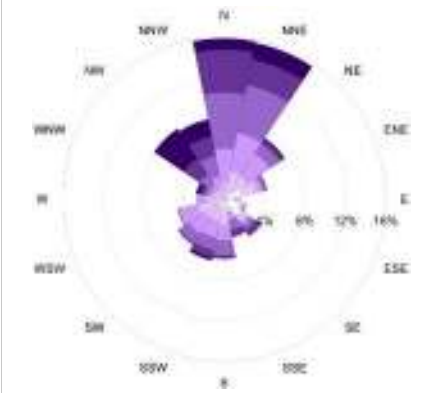
Table 2.2: Annual meteorological statistics, Paraparaumu Airport 2010 to 2012

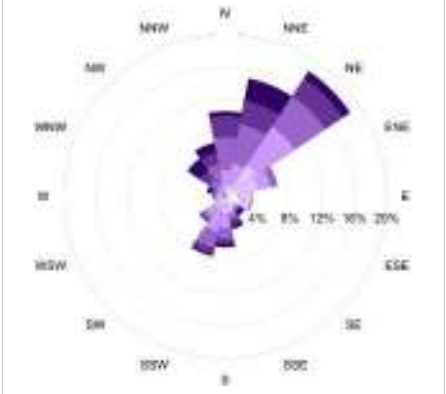
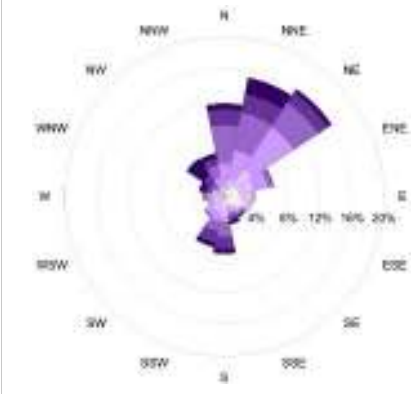
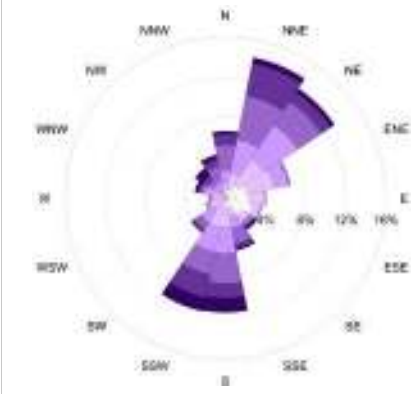
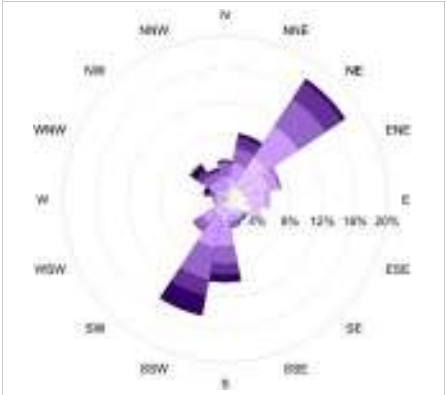
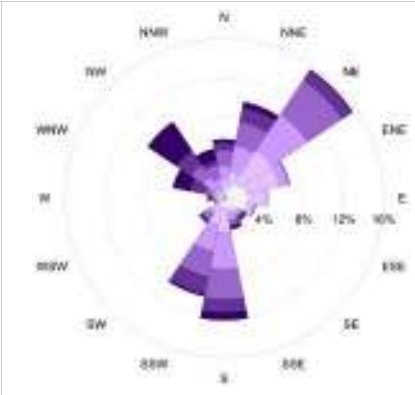
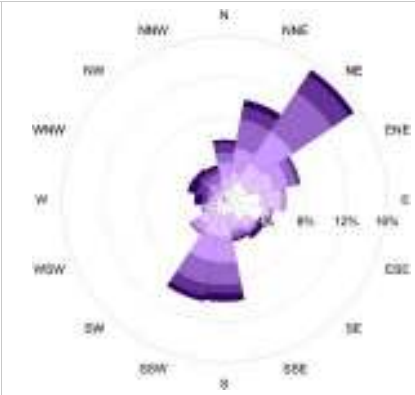
Statistic	2010	2011	2012
Percent complete (%)	99.9	99.9	99.9
Mean wind speed (m/s)	4.4	4.2	4.2
99th percentile wind speed (m/s)	11.2	11.3	10.6
Percentage of calms (%)	0.2	0.2	0.1
Percentage of winds >6 m/s (%)	24.9	21.6	23.1

The quality or level of completeness is an important factor in determining the suitability of meteorological data for use in air quality assessments. Generally, a data capture rate of 90 per cent or more is considered acceptable, taking into account periods of servicing, calibration and maintenance. The data from Table 4-2 shows that data capture rates were more than 90 per cent for each of the three available years. Mean wind speeds were consistent ranging between 4.2 and 4.4 metres per second (m/s). The frequency of high-speed winds was also consistent with 99th percentile wind speeds ranging between 10.6 and 11.3 m/s, and winds blowing at 6 m/s or more occurring 21.6 to 24.9 per cent of the time. Calm conditions (i.e. wind speeds less than 0.5 m/s) occurred 0.1 to 0.2 per cent of hours.

Annual and seasonal wind roses were developed to compare the frequency of winds from different directions over each year (Table 2.4).

Table 2.3: Annual and seasonal wind roses, Paraparaumu Airport 2010 to 2012

2010	2011	2012
Annual		
		
Summer		
		
Autumn		

2010	2011	2012
		
Winter		
		
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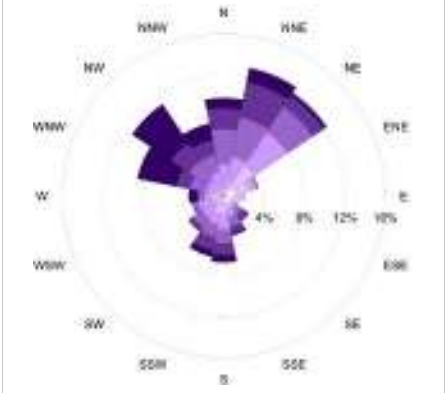
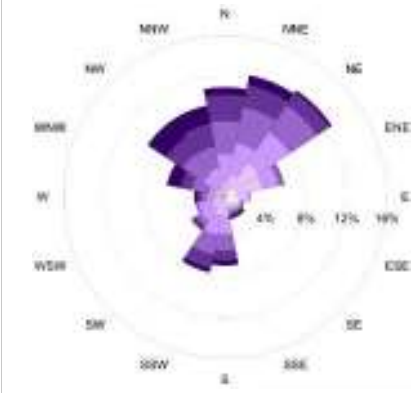
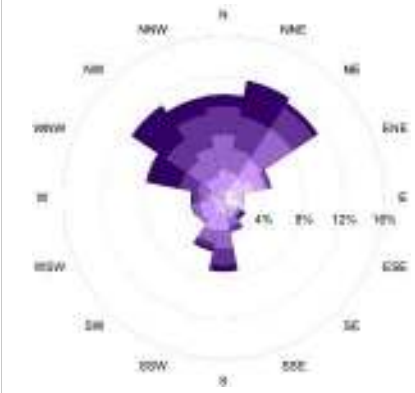
		
Legend		
		

Prevailing winds on an annual basis were consistent across the three years with winds most commonly from the north northeast, northeast and east northeast. Winds from the south and south southwest were also common. Seasonal trends across 2010, 2011 and 2012 were also generally consistent. Winds in summer, autumn and winter were generally consistent with annual trends. In spring winds from the north and northwest were also common.

Considering the consistency in meteorological conditions observed between the three available years, it was determined that any of these three years would be suitable as the 'representative year' for the purpose of the assessment. The 2011 calendar year was selected as it had the highest the frequency of winds blowing in the direction of the nearest sensitive receiver (R5), thereby providing for a more conservative assessment of potential impacts.

3. Description and Operation of Plant and Associated Processes

Fulton Hogan's Marini mobile asphalt plant is a parallel-flow drum mix plant, a common type of asphalt plant in New Zealand. This type of plant operates on a continuous basis with the drum used to both dry and heat aggregate and to mix liquid bitumen with hot aggregate to produce hot mix asphalt. Average weekly production of asphalt will range between 4000 and 8000 tonnes per week. The plant will typically operate between 6.00am to 6.00pm seven days a week, as well as nights for up to 8- 10 hours depending on the construction schedule.

The main source of air contaminants from the process is the mixing drum. The mixing drum is fitted with a 10.5 MW gross thermal capacity burner which has a fuel consumption rate for diesel of 835 kg/hour (based on a specific energy of 43.96 MJ/kg. The plant also incorporates a small boiler (465 kW) which is used to keep both waste oil and bitumen in a fluid state. This boiler will use diesel as a fuel source. The plant is specified to burn 8.5 litres of diesel per tonne of asphalt produced

The plant is comprised of five aggregate feeder bins, bitumen storage tanks, fuel storage tank, mixing drum, conveyor belt feeding a single storage silo with a capacity of 45 tonnes, a baghouse, recovered filler and filler silos, and an operations office / workshop. Figure 3.1 shows the proposed site set-up, while Figure 3.2 shows a photograph of the equipment taken from another operation.

A large fan at one end of the mixing drum extracts air from the drum (sucks the air out), which ensures fresh air is being brought into the drum. This provides an oxygen source to the burner and also minimises the emission of dust and contaminants from the mixing drum through creating a vacuum. The extracted air is passed through a baghouse filter system to remove dust and other particulate matter from the air that is extracted from the mixing drum before it is discharged to the environment via a 10 m high stack (above ground level).

Aggregate stockpiles will be established adjacent to the loading ramp and aggregate feeder bins. Aggregate from the stockpiles is placed into the feeder bins and during the day the aggregate stockpile are replenished with aggregate trucked to the site.

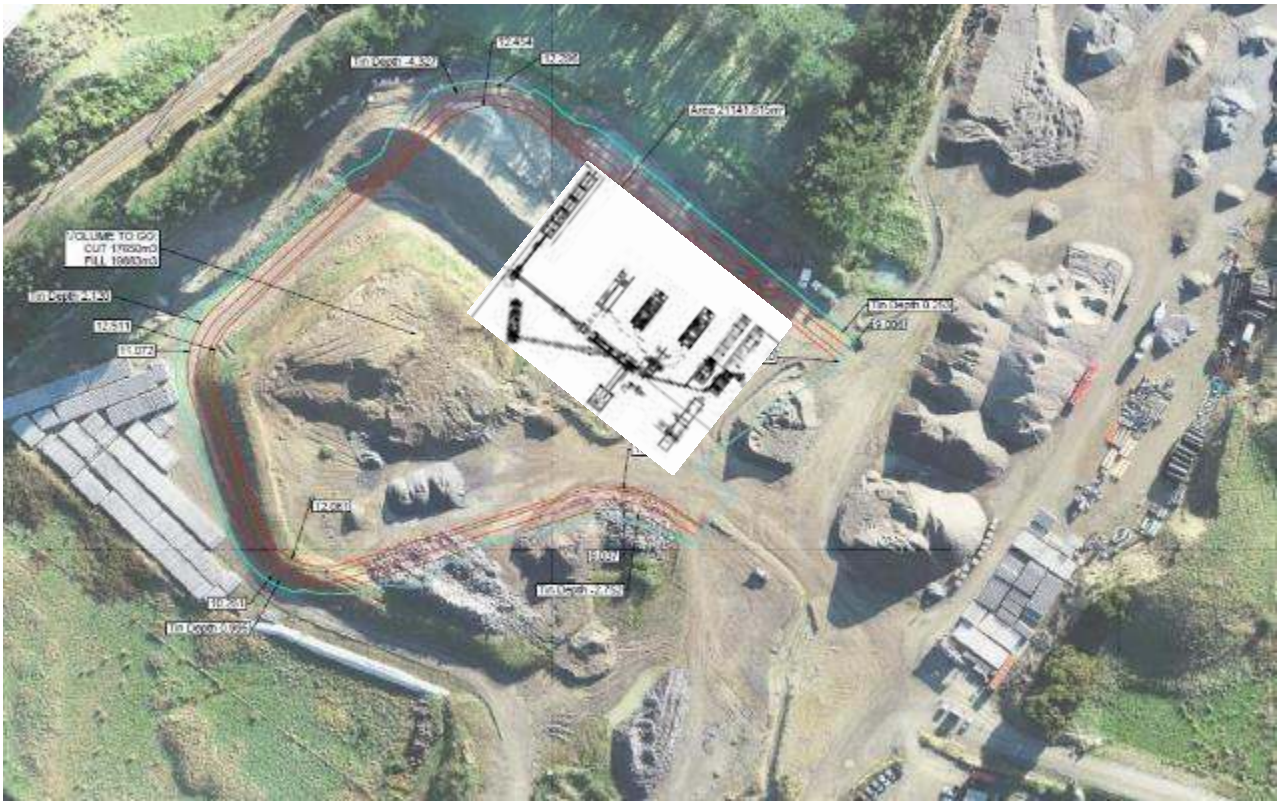


Figure 3.1: Proposed site layout

Figure 3.2: Photograph of Marini mobile asphalt plant

Fugitive emissions to air would also arise during the handling, storage and transport of associated materials. It is expected that air contaminants within these emissions as well as direct emissions from the hot boiler stack and filler lime silo filter would fall out and generally remain within the proposal site. Emissions from the burner drum baghouse filter represent the greatest risk of impacts beyond the proposal site boundary and form the focus of this study.

4. Modelling Methodology

4.1 Introduction

Computer dispersion modelling is an internationally accepted method for predicting concentrations of contaminants in air downwind of a source for use in environmental assessments. Particular dispersion models may be approved by regulatory agencies for specific applications. Dispersion models take into account a number of factors including the emission rate of the contaminant(s), the height of the discharge, building downwash effects, local topography, and meteorology. The main meteorological aspects considered in modelling are wind speed and direction, ambient temperature, atmospheric mixing height and atmospheric stability.

The accuracy of model predictions depends on a number of factors, including:

- The quality of the input data and assumptions;
- The inherent limitations in the model for predicting plume rise at any point downwind;
- The ability to predict plume dispersion coefficients (plume spread);
- The assumption that meteorological conditions remain constant between the source and receptor; and
- That varying terrain can be accounted for.

The modelling was performed using the emission rates described in Section 5.3 at the maximum throughput rate of 180 tonnes per hour and for all hours of the day (24 hours a day seven days per week).

4.2 Meteorological modelling

The air dispersion model used for this assessment, CALPUFF, requires information on the meteorological conditions in the modelled region. This information is typically generated by the meteorological pre-processor, CALMET, using surface observation data from local weather stations and upper air data from radio-sondes or numerical models, such as the CSIRO's prognostic model known as TAPM (The Air Pollution Model). CALMET also requires information on the local land-use and terrain. The result of a CALMET simulation is a year-long, three-dimensional output of meteorological conditions that can be used as input to the CALPUFF air dispersion model.

Table 4.1: TAPM setup details

Aspect	Value(s)
Model version	4.0.5
Number of grids (spacing)	4 (30 km, 10 km, 3 km, 1 km)
Number of grids point	35 x 35 x 25
Year(s) of analysis	2011, with one "spin-up" day.
Centre of analysis	40°58.5' S, 174°58.5' E
Terrain data source	Shuttle Research Topography Mission (SRTM), 30 m resolution
Land use data source	Default
Meteorological data assimilation	Paraparaumu Airport surface station Radius of influence = 3 km. Number of vertical levels for assimilation = 4. Quality factor = 1

Table 4.2: CALMET setup details

Aspect	Value(s)
Model version	6.334
Run mode	“observations” mode
Terrain data source(s)	NZ 25 m dataset
Land-use data source(s)	Digitized from aerial imagery and classified as ‘forest’, ‘urban’ , ‘water’ or ‘rural/agricultural’ categories specified in “CALPUFF Modeling System Version 6 User Instructions”, (TRC, 2011). This is displayed in Error! Reference source not found..
Meteorological grid domain	10.1 km x 10.1 km
Meteorological grid resolution	0.1 km
Meteorological grid dimensions	101 x 101 x 11
Meteorological grid origin	324.450 mE, 5456.450 mN. MGA Zone 60
Surface meteorological inputs	Paraparaumu Airport for observations of wind speed and wind direction. TAPM for temperature, relative humidity, air pressure, ceiling height and cloud cover.
Upper air meteorological inputs	Upper air data file for the location of Palmerston North derived by TAPM Bias applied over vertical layers 1 to 11 as follows (-1, -0.8, -0.8, -0.4, -0.2, 0, 1, 1, 1, 1, 1)
Simulation length	8760 hours (1 Jan 2011 to 31 Dec 2011)
R1, R2	0.1, 0.5
RMAX1, RMAX2	3, 20
TERRAD	3

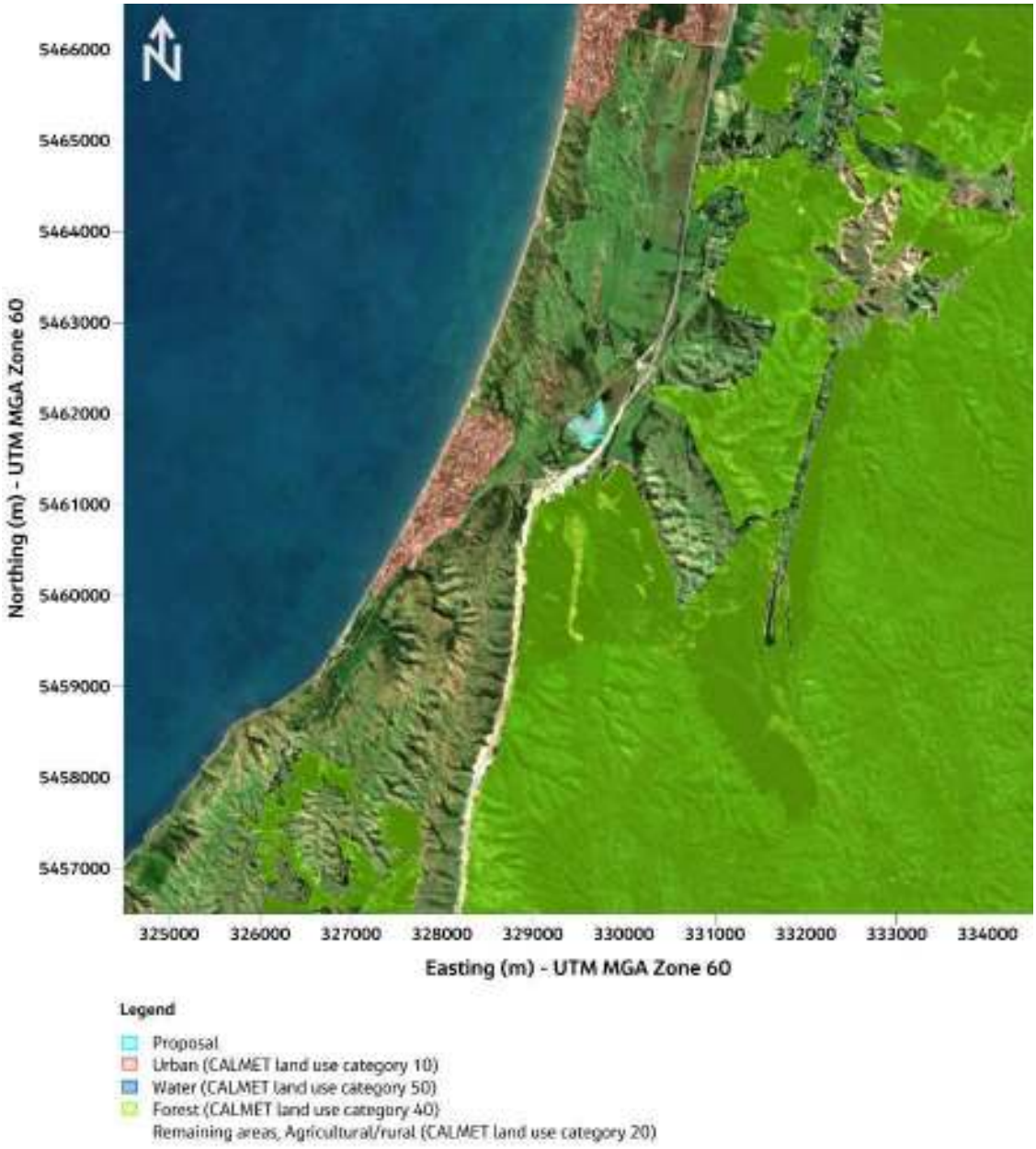


Figure 4.1: CALMET Land use classifications

4.3 CALPUFF Model

The CALPUFF computer-based air dispersion model has been used to predict ground-level concentrations due to the identified emission sources, and the model predictions have been compared with relevant air quality guidance values. The choice of model has considered the expected transport distances for the emissions, as well as the potential for temporally and spatially varying flow fields due to influences of the locally complex terrain, non-uniform land use, and potential for stagnation conditions characterised by calm or very low wind speeds with variable wind directions. Ground-level concentration and deposition levels due to the identified emission sources have been predicted using the air dispersion model known as CALPUFF (Version 6.42). CALPUFF is a Lagrangian dispersion model that simulates the dispersion of pollutants within a turbulent atmosphere by

representing emissions as a series of puffs emitted sequentially. Provided the rate at which the puffs are emitted is sufficiently rapid, the puffs overlap, and the serial release is representative of a continuous release.

The CALPUFF model differs from traditional Gaussian plume models (such as AUSPLUME and ISCST3) in that it can model spatially varying wind and turbulence fields that are important in complex terrain, long-range transport and near calm conditions. CALPUFF has the ability to model the effect of emissions entrained into the thermal internal boundary layer that forms over land, both through fumigation and plume trapping.

The CALPUFF model, through the CALMET meteorological pre-processor, simulates complex meteorological patterns that exist in a particular region. The effects of local topography and changes in land surface characteristics are accounted for by this model. The model comprises meteorological modelling as well as dispersion modelling, both of which are described below.

The modelling was performed using the emission estimates from Section 6.2 and using the meteorological information provided by the CALMET model, described in Section 2.3.2. Predictions were made at 572 discrete receptors (including the 13 nearby sensitive receptors shown in) to allow for contouring of results. The locations of the model receptors are shown Figure 4.2. Emissions were conservatively modelled to occur at the maximum throughput rate of 180 tonnes per hour and 24 hours per day, seven days per week

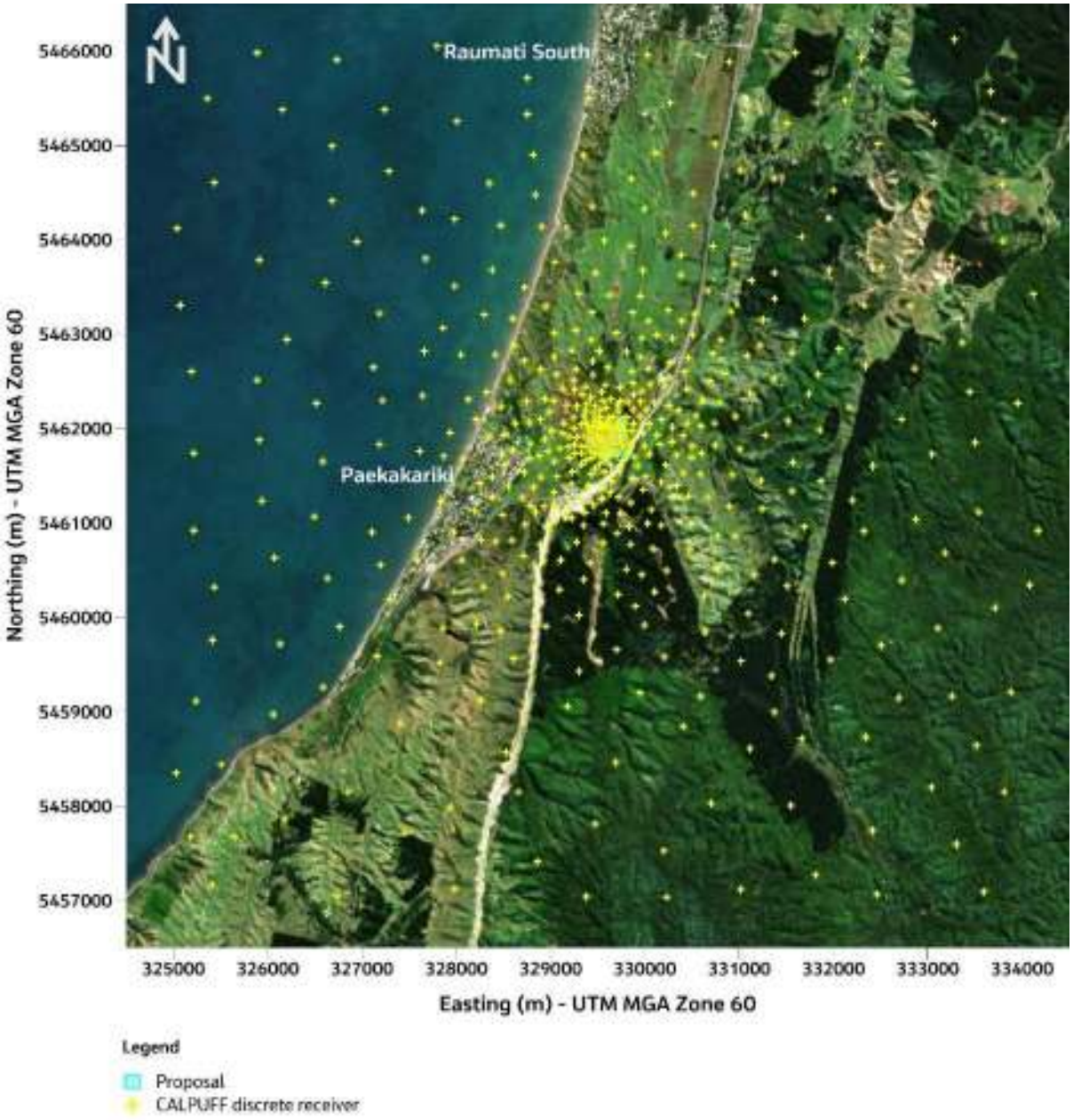


Figure 4.2: CALPUFF discrete receivers

5. Odour Modelling Guidelines

The "Good Practice Guide for Assessing and Managing Odour", (Ministry for the Environment, 2016) provides guidance for assessing and managing odours from activities and developments to avoid offensive and objectionable effects. Section 4.4.4 of the document provides the following odour guideline values to be applied in odour modelling assessments:

Table 5.1: Odour-modelling guideline values

Sensitivity of the receiving environment	Concentration (odour units [OU]/m^3)	Percentile
High (worst-case impacts during unstable to semi-unstable conditions)	1	0.1% (acute) and 0.5% (chronic)
High (worst-case impacts during neutral to stable conditions)	2	0.1% (acute) and 0.5% (chronic)
Moderate (all conditions)	5	0.1% (acute) and 0.5% (chronic)
Low (all conditions)	5 to 10	0.5%

The sensitivity of different land uses to odour effects are listed in Section 2.5 of the guide. The relevant aspects of the guidance that relate to the surrounding land uses has been reproduced below in Table 5.2.

Table 5.2: Types of land use and the general sensitivity of the receiving environment

Land use	Rating	Reason for sensitivity
Residential	High	People of high sensitivity (including children and the elderly) are exposed. People expect a high level of amenity in their home and immediate environs (ie, curtilage). People may be present all times of the day and night, both indoors and outdoors. Visitors to the area are unfamiliar with any discharges and are more likely to be adversely affected (which can cause embarrassment to residents and raise awareness of the problem).
Open space recreational	Moderate to high	These areas are used for outdoor activities and exercise, in circumstances where people tend to be more aware of the air quality. People of all ages and sensitivity can be present.
Tourist, cultural, conservation	High	These areas may have high environmental values, so adverse effects are unlikely to be tolerated.
Rural residential/ countryside living	Moderate to high	Population density is lower than in residential areas, so the opportunity to be adversely affected is lower. However, people of high sensitivity can still be exposed at all times of the day and night. Often people move into these areas for a healthier lifestyle and can be particularly sensitive to amenity issues or perceived health risks.

Land use	Rating	Reason for sensitivity
Rural	Low for rural activities; moderate or high for other activities	A low population density means there is a decreased risk of people being adversely affected. People living in and visiting rural areas generally have a high tolerance for rural activities and their associated effects. Although these people can be desensitised to rural activities, they may still be sensitive to other types of activities (e.g., industrial activities).
Public roads	Low	Roads users will typically be exposed to adverse effects from air discharges for only short periods of time

Additionally, the guide notes how cultural matters such as the presence of marae, mahinga kai, wāhi tapu, churches, mosques, theatres, art galleries and sporting or recreational areas and venues may also require consideration.

6. Odour Assessment

6.1 Introduction

Under normal operation, discharges from the hot mix plant consist of:

- On occasions a white opaque slightly visible plume, which dissipates as the steam evaporates;
- Products of combustion, including carbon dioxide, carbon monoxide, nitrogen oxides and sulphur dioxide;
- Particulate matter;
- Limited dust as process fugitive emissions, and generated from truck and machinery movements during dry weather and from receipt of aggregate; and,
- Minimal dust from storage of aggregates.

Discharges from plant fugitive sources occur from the cold feed bins and conveyor if aggregate is dry (dust); from the hot mix conveyor to the hot bin (limited smoke, and volatile organic compounds (VOCs)); from discharge of hot mix from the bin to trucks (limited smoke and VOCs). Dust will also be generated from machinery movements on dry surfaces during dry weather unless surfaces are kept clean or damp.

6.2 Odour Emissions

Odour emissions from the three key sources (Dryer Baghouse Filter, Bitumen Storage Tanks and Hot Mix Asphalt silo filling and loadout) are described and quantified in the following subsections. Although the hours of production would be between 6am and 6pm, seven days per week, emissions were conservatively modelled as occurring for all hours of the day, seven days per week.

6.2.1 Dryer baghouse stack

No emission factors for total odour are available in National Pollution Inventory Emission Estimation Technique Manuals (EETMs) or the United States Environment Protection Agencies AP-42 referred to in the 'Approved Methods for Modelling and Assessment of Air Pollutants in NSW' (Approved Methods), (EPA, 2016). In lieu of this, odour emissions information presented in the report, 'Air Quality Assessment for Proposed Asphalt Plant Wesley Vale, Tasmania', (Ektimo, 2016) were applied. This study considered information collected from a comparable hot mix, diesel-fuelled drum-style asphalt batch plant (ABP) and for a maximum production rate of 180 tonnes per hour (i.e. the same as the proposal). Table 6.1 below shows the relevant emissions.

Table 6.1:: Modelled odour emission rate, dryer baghouse stack

Parameter	Value(s)	Source
Odour emission rate (OU/s)	60,0000	Ektimo, 2016
Concentration (OU/Am^3)	7353	Calculated

6.2.2 Bitumen storage tanks

As for the dryer baghouse stack there are no emission factors for total odour available from suitable international guidance. Considering data collected at Narangba Asphalt Bitumen Plant, odour emissions from the bitumen storage tanks were estimated as outlined in Table 6.2.

Table 6.2: Estimated emissions, bitumen storage tanks

Parameter	Value(s)	Source
Source type		
Model source type	Volume	-
Location		
Easting (km)	329.559	GIS
Northing (km)	5461.890	GIS
Height (m)	5.5	Estimated based on dimensions of Fayat 50,000 L mobile tank
Initial horizontal spreading (m)	4	Calculated based on dimensions of Fayat 50,000 L mobile tank
Initial vertical spreading (m)	2.7	Calculated based on dimensions of Fayat 50,000 L mobile tank
Mass emission rate and calculation inputs		
Reference maximum hourly throughput (t/h)	240	Narangba ABP
Reference emission rate (odour) ($OU.m^3/s$)	204	
Proposed maximum hourly throughput (t/h)	180	-
Proposal emission rate (odour) ($OU.m^3/s$)	153	Calculated

6.2.3 Hot Mix Asphalt (HMA) silo filling and loadout

There is the potential for odours to arise during HMA loadout activities. Information presented in Ektimo, 2016 was also considered to estimate the rate of odour emissions from these activities. Full details of these calculations are listed below in Table 6.3.

Table 6.3: Estimated odour emissions, HMA truck loadout

Parameter	Value(s)	Source
Source type		
Model source type	Volume	-
Location		
Easting (km)	329.546	GIS
Northing (km)	5461.892	
Height (m)	2.5	Estimated dump height in truck
Base elevation (m)	15	GIS
Initial horizontal spreading (m)	2.5	Calculated
Initial vertical spreading (m)	0.6	Calculated
Mass emission rate and calculation inputs ($OU.m^3/s$)		
Reference HMA loadout rate (t/h)	40	Ektimo, 2016
Reference odour emission rate ($OU.m^3/s$)	400	Ektimo, 2016
Proposal HMA loadout rate (t/h)	180	-

Parameter	Value(s)	Source
Duration (min) per truck in HMA loadout area	2	Ektimo, 2016
Total duration per hour (min) HMA loadout area in-use	24	Calculated
Estimated HMA loadout odour emission rate ($OU.m^3/s$)	720	Calculated

Residual emissions can also arise once HMA has been dumped into trucks before the product is covered. The report '*Report on Ulverstone Asphalt Plant Air Quality Assessment*', (GHD, 2008) documents a residual odour emission rate of around 6% of the rate during dumping while tarping is being completed. Considering this, the estimated HMA loadout odour emission rate listed above in Table 6.3 was updated to include residual emissions while each truck is being covered. The resulting calculated 'HMA loadout and covering odour emission rate' was 784 $OU.m^3/s$. This was the value applied in the assessment.

7. Assessment of Odour Effects

This section presents and discusses the results of the modelling of odour. The significance of the predictions was assessed by evaluating the results (including cumulative concentrations as applicable) against the relevant guidance values presented in Section 5. Results are presented as ground level concentration plots for all pollutants and averaging times in **Appendix A**.

7.1 Odour Modelling Results

Acute (1-hour averaged, 99.9th percentile) and chronic (1-hour averaged 99.5th percentile) predicted odour concentrations due to the proposal are listed below in Table 7.1. Consistent with guidance from the "Good Practice Guide for Assessing and Managing Odour", (Ministry for the Environment, 2016), the 5 OU/m^3 criterion was applied at rural receivers R1 to R11. R12 and R13 are located on the urban fringe of Paekākāriki and so the more stringent value of 1 OU/m^3 was considered to be applicable at these locations.

Table 7.1: Predicted 100th percentile 24-hour $PM_{2.5}$ concentrations (µg/m^3)

Receiver	Predicted concentration (OU/m^3)		Criterion (OU/m^3)
	Acute (1-hour averaged, 99.9th percentile)	Chronic (1-hour averaged, 99.5th percentile)	
R1	0.6	0.6	5
R2	0.8	0.6	5
R3	0.8	0.6	5
R4	0.9	0.6	5
R5	1.5	1.2	5
R6	1.0	0.8	5
R7	0.9	0.6	5
R8	0.9	0.6	5
R9	1.4	0.8	5
R10	1.4	0.9	5
R11	0.6	0.4	5
R12	0.4	0.2	1
R13	0.4	0.3	1

As listed in Table 7.1, odour concentrations up to 1.5 OU/m^3 (99.9th percentile, acute) and 1.2 OU/m^3 (99.5th percentile, chronic) were predicted. It was determined that levels would remain below the relevant criterion developed using guidance from the "Good Practice Guide for Assessing and Managing Odour", (Ministry for the Environment, 2016). The effects of odour on the surrounding community from the discharges from the mobile asphalt plant are deemed to be less than minor.

7.1.1 Abnormal Operation

Abnormal discharges to air of odour from an asphalt plant can occur under the circumstances described below:

- If the drum burner when fired on diesel fuel is poorly maintained or adjusted, the emission of black smoke may occur from the stack (black steam discharge). Providing the burner is appropriately maintained and adjusted then the likelihood of significant smoke emissions is low.
- Faulty adjustment of the burner, and/or failure of the induced draught fan to sufficiently extract products of combustion and drying from the drum may generate positive pressure in the drum with fugitive discharges to atmosphere ('puffing'). Proper burner adjustment and induced draught fan regulation to maintain slight negative pressure in the drum prevents this problem.
- If a bitumen fire occurs in the mixing section of the drying drum, a considerable volume of black smoke is generated. Such fires are now very uncommon and would most likely occur if the cold (aggregate) feed is lost. These fires are extinguished by cutting the fuel and bitumen feed. The Company's plant is fitted with automatic bitumen and fuel cut-out activated by loss of cold feed for 1 to 2 minutes or by significant over-temperature.

Proper management and maintenance of plant and facilities reduces the frequency of such events and reduces their effect to a minimum if they do occur.

The emission of some contaminants will increase during abnormal operation. Contaminants that may be emitted in elevated concentrations during abnormal operation include smoke, odour, dust, and products of incomplete combustion.

The impact of abnormal plant discharges is, at least initially, mainly aesthetically objectionable. Providing abnormal operation is infrequent, we do not regard excessive smoke, odour, or dust, as a physical health hazard.

These emissions are also very obvious and invariably cause complaints before operations unreasonably detract from the amenity of the area. Excessive dust emissions from dry aggregate storage, and from dry yards and roadways during strong wind conditions and that resulting from vehicle movements, can result in long term soiling with surprisingly often little complaint from neighbours. The procedures adopted by Fulton Hogan aim to prevent such discharges from occurring and have been proven to be effective to date.

7.2 Conclusion and Summary of Effects

Potential impacts from the mobile asphalt plant were predicted using the CALPUFF dispersion model. The model considered key features of the existing environment including surrounding land uses and terrain features, and local meteorology. Emissions to air from the drum baghouse filter, hot boiler stack and during truck loadout were identified as having the greatest potential to result in off-site effects. Emission rates from these sources were estimated using manufacturer specifications, as well as relevant guidance from the US EPA.

Odour concentrations were evaluated against guidance presented in the "Good Practice Guide for Assessing and Managing Odour", (Ministry for the Environment, 2016), and it was determined that odours from the proposal would remain at acceptable levels at surrounding sensitive receivers.

References

1) Ektimo, 2016. 'Air Quality Assessment for Proposed Asphalt Plant Wesley Vale, Tasmania'
2) Environet Limited, 2004 . 'Monitoring of CO, NO2, SO2, ozone, benzene and benzo(a)pyrene in New Zealand Air Quality Technical Report No. 42'
3) GHD , 2008. 'Report on Ulverstone Asphalt Plant Air Quality Assessment'
4) Marini Fayat Group (undated) "Conditions of Supply, OFF. N. 12/867 – 1"
5) Ministry for the Environment (2002) "Ambient Air Quality Guidelines"
6) TRC (2011) "CALPUFF Modeling System Version 6 User Instructions"
7) US EPA (1985 and updates) "Compilation of Air Pollutant Emission Factors", AP-42, Fourth Edition United States Environmental Protection Agency, Office of Air and Radiation Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina 27711. Now a web-based document

Appendix A. Maximum Ground Level Concentration Plots

Figure Error! No text of specified style in document..1: Predicted 99.9th percentile 1-hour averaged Odour (OU/m^3) GLCs (acute) due to MAP

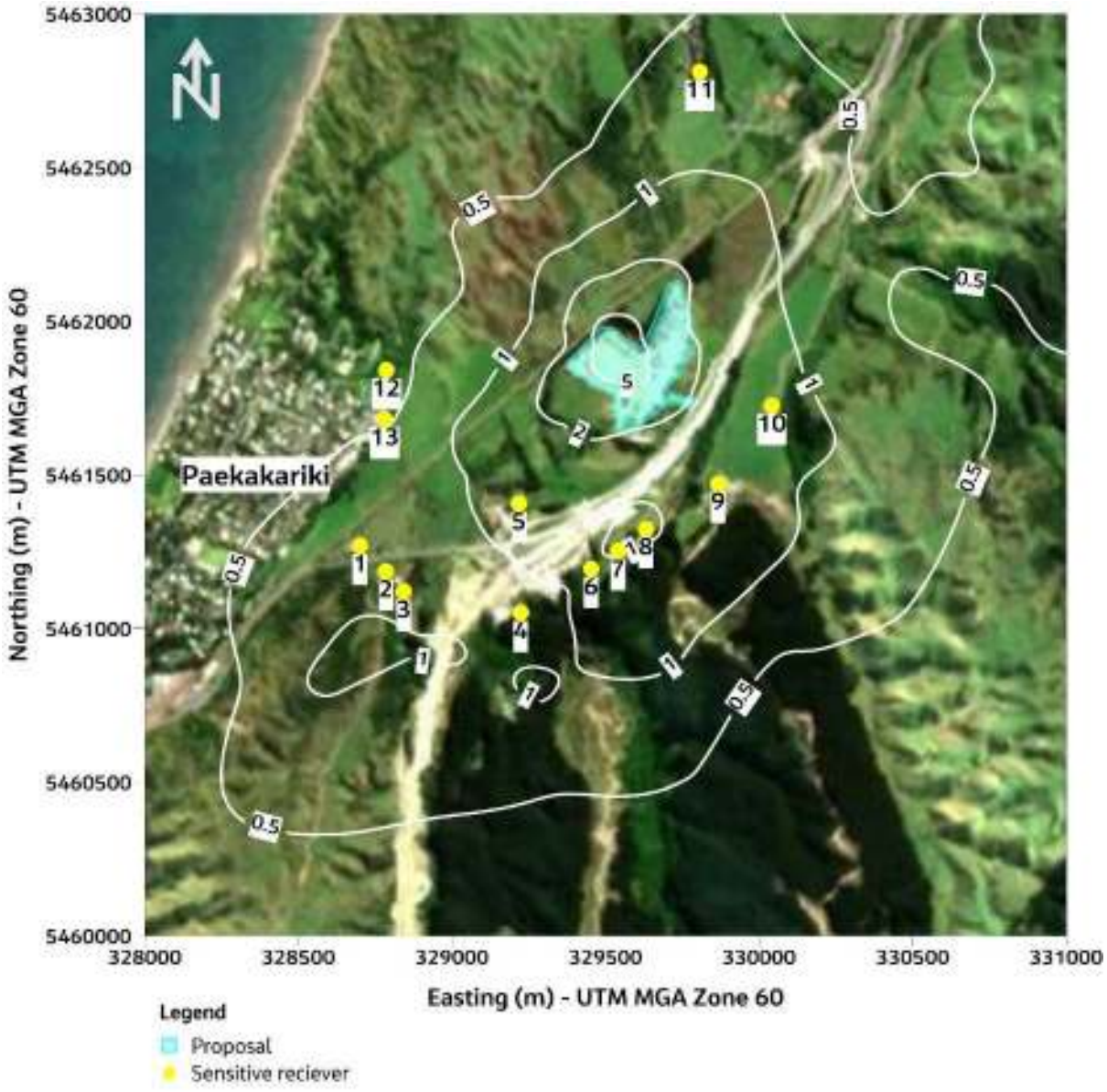
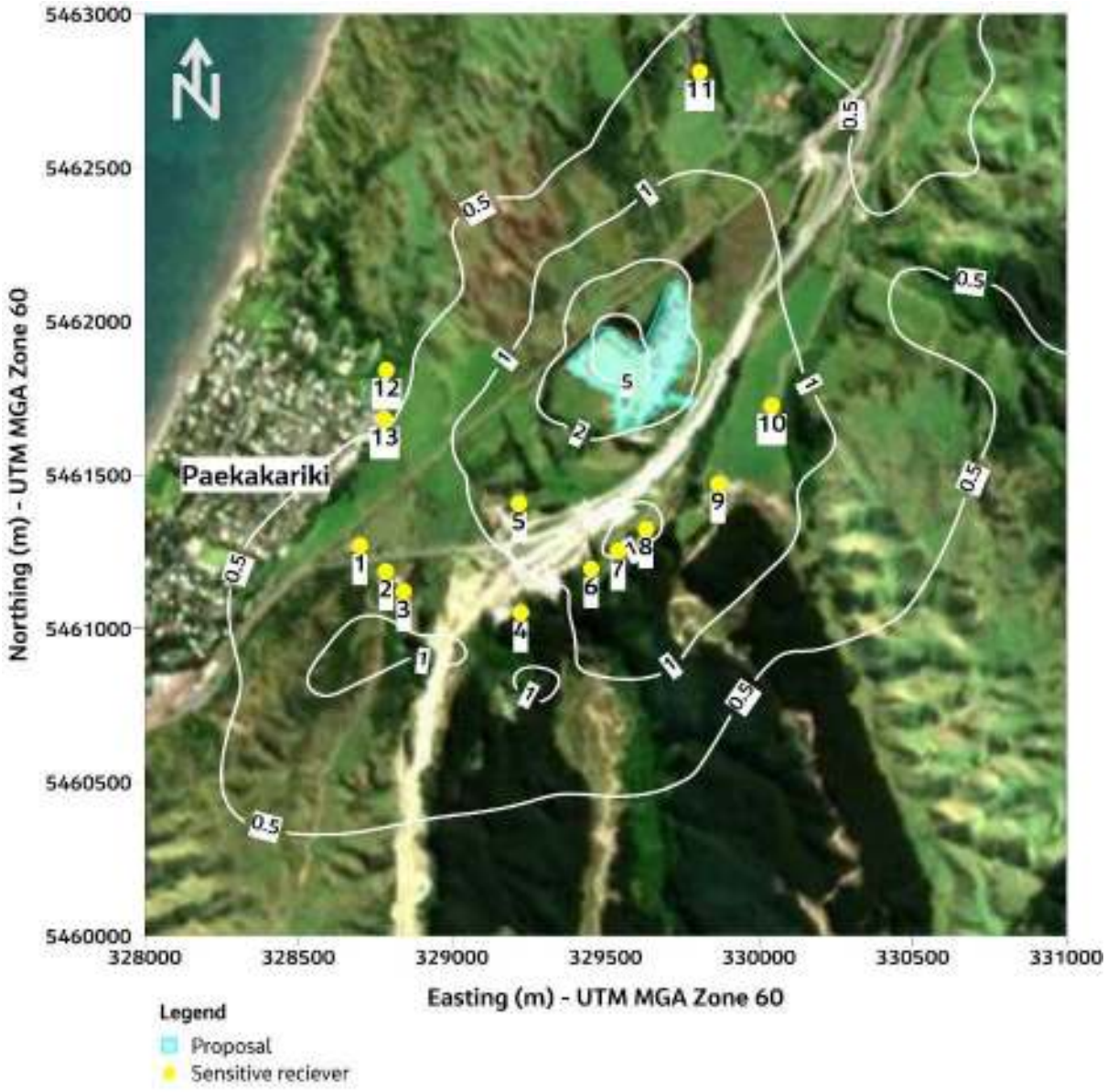


Figure Error! No text of specified style in document..2: Predicted 99.5th percentile 1-hour averaged Odour (OU/m3) GLCs (chronic) due to MAP



Appendix E: Correspondence

McNab, Kate

From: Turi Hippolite <turi.hippolite@ngatitoa.iwi.nz>
Sent: Thursday, 30 July 2020 1:58 PM
To: EASTHAM, Dale
Subject: Re: Cultural comment sought - Fulton Hogan

Thanks Dale

No further concerns from us

Ngā mihi,
Turi Hippolite
Resource Management Advisor
Te Rūnanga o Toa Rangatira.
Waea pūkoro: 0226837714
turi.hippolite@ngatitoa.iwi.nz

From: EASTHAM, Dale <Dale.Eastham@fultonhogan.com>
Sent: Thursday, 30 July 2020 10:43 AM
To: Turi Hippolite <turi.hippolite@ngatitoa.iwi.nz>
Subject: RE: Cultural comment sought - Fulton Hogan

Morena Turi,

Firstly, thank you for your response to my enquiry. Fulton Hogan places great importance on having input to such projects from mana whenua/ mana moana representatives, and it is good to talk to you on this proposal.
You raise several good points, and I will try to answer them as best I can below:

- Post-activity use of the site – The land is owned by NZTA and managed currently by the HEB/CPB collective group – we will be operating as a sub-contractor within a specific area that is to be prepared for us. As such, we do not have much influence over the rehabilitation of the land once we are complete. I am told that NZTA plans to use the property as a weighbridge depot once the Transmission Gully project is complete, but haven't seen anything in writing to confirm that. For reference, in the aerial image below, our operations will be entirely within a bunded area shown by the red lines. I would fully support your position in any other circumstance, but I fear I have little to no say over that in this particular case.
- Regarding post-activity use of the site, what I can say with certainty is that Fulton Hogan will be wholly & totally responsible for clean-up of any spills or contaminants within our area of responsibility, ensuring that any run-off is managed to avoid environmental impact, and that high-risk actions like refuelling of equipment will be done in such a way that spills are captured, contained or cleaned up immediately.
- No toxic materials will be produced by this activity. The inputs for the asphalt are bitumen (non-toxic but treated as if it is at all times & contained appropriately) and aggregate. The plant is powered by diesel which is stored in double-skinned and purposed built units that are an integral part of the equipment. The aggregate will come from quarries within the Wellington Region, and we are planning to recycle some existing road asphalt/surfacing material into this rather than see it go to landfill. The only discharges from this activity are noise and air discharges in the form of particulates & odour. All three of these discharges are being modelled currently by independent experts to establish if any additional controls are needed, given the sensitive surrounding environment.
- Stormwater from the site will be contained by the bund shown in red on the image below and directed to a purpose-built stormwater pond that is already set up on the property. You can see it on the image, but you can make out some of the surface drains that lead towards it at the bottom-centre of the image.

- No earthworks will be carried out by Fulton Hogan as part of the activity. The plant is brought in by truck and set up on the compacted bare surface (although we may lay down & compact some gravel as a top surface above the current bare ground).

I hope that answers your concerns Turi, but please feel free to respond with any follow-up or additional questions you may have – more than happy to help.

Kia pai to ra,

Dale

Dale Eastham | **North Island Environmental Manager** | **Fulton Hogan Ltd** | 54 Aerodrome Road, Mount Maunganui, Tauranga 3116| Private Bag 12016,Tauranga Mail Centre,Tauranga3143, New Zealand| Phone +64 7 575 6157| +64 27 212 4142| Web www.fultonhogan.com

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From: Turi Hippolite <turi.hippolite@ngatitoa.iwi.nz>
Sent: Wednesday, 29 July 2020 2:46 PM
To: EASTHAM, Dale <Dale.Eastham@fultonhogan.com>
Subject: Re: Cultural comment sought - Fulton Hogan

Kia ora Dale

Thanks for contacting Ngati Toa regarding the proposed asphalt plant to service the TG project. Ngati Toa understands that the area was previously used as a pugmill site, although the area is not directly on a site of significance the surrounding area has cultural significance to Ngati Toa.
Ngati Toa is particularly interested in adverse effects to the natural environment and recovery works such as planting programs once the duration of the asphalt plant has finished.
Are toxic/contaminated materials being generated as a byproduct of this activity an if so how are they discarded?
Any adverse effects to nearby streams through discharging contaminated storm water?

If any earthworks are to be undertaken an Accidental Discovery Protocol should be implemented.

Ngā mihi,
Turi Hippolite
Resource Management Advisor
Te Rūnanga o Toa Rangatira.
Waea pūkoro: 0226837714
turi.hippolite@ngatitoa.iwi.nz

From: EASTHAM, Dale <Dale.Eastham@fultonhogan.com>
Sent: Tuesday, 14 July 2020 3:30 PM
To: Turi Hippolite <turi.hippolite@ngatitoa.iwi.nz>
Subject: FW: Cultural comment sought - Fulton Hogan

Kia ora Turi, thank you for the quick korero just now – please see the email below.

As mentioned, I'll be on-site with council staff next Thursday, so if you would like to have a look around I would be happy to have a chat – although theres not much there right now except piles of gravel!

Call me anytime if you have questions.

Nga mihi,

Dale

Dale Eastham | **North Island Environmental Manager** | **Fulton Hogan Ltd** | 54 Aerodrome Road, Mount Maunganui, Tauranga 3116| Private Bag 12016,Tauranga Mail Centre,Tauranga3143, New Zealand| Phone +64 7 575 6157| +64 27 212 4142| Web www.fultonhogan.com

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From: EASTHAM, Dale
Sent: Thursday, 2 July 2020 4:49 PM
To: 'turi.hippolite@ngatitoa.iwi.nz' <turi.hippolite@ngatitoa.iwi.nz>
Subject: Cultural comment sought - Fulton Hogan

Kei te rangatira, tēnā koe,

My name is Dale Eastham, I am one of Fulton Hogans environmental management team and am seeking to speak with someone regarding a consent application I am preparing that relates to the Transmission Gully roading project, specifically, a site at its northern end where we are setting up an asphalt plant to service the project.

Fulton Hogan has not previously had much involvement in this work, but is now preparing to step in and help finish the work from where it currently stands. At a site just north of Paekakariki HEB contractors have set up a large aggregate storage and processing operation. It is well-suited to servicing the TG project due to its proximity, and we are hoping to relocate one of our mobile asphalt plants there to minimise heavy vehicle traffic on the highway.

Mobile asphalt plants (pictured below) are semi-mobile installations that run on diesel to produce road surfacing materials from aggregate and bitumen. We are seeking resource consent from both Greater Wellington Regional Council and Kapiti Coast District Council for this and I would like to seek input from yourselves as to the cultural aspects of this work.

The air emissions from the plant are going to be modelled for dispersion over the local area and we will be paying especial attention to the potential for run-off from the area. I am inviting the councils to view the site and provide their feedback, and would be happy to do the same for one of your representatives.

I am happy to provide any information you would like to see in order to assess what is needed, and am available on the phone number below to discuss at your convenience.

Nā māua noa, nā

Dale

Dale Eastham | **North Island Environmental Manager** | **Fulton Hogan Ltd** | 54 Aerodrome Road, Mount Maunganui, Tauranga 3116| Private Bag 12016,Tauranga Mail Centre,Tauranga3143, New Zealand| Phone +64 7 575 6157| +64 27 212 4142| Web www.fultonhogan.com

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McNab, Kate

From: Kristie Parata <admin@teatiawakikapiti.co.nz>
Sent: Friday, 21 August 2020 12:51 PM
To: EASTHAM, Dale; Mahina-a-rangi Baker
Subject: RE: Cultural comment sought - Fulton Hogan

Kia ora kōrua,

Mahina, Dale just called to see if you were available for a chat, Dale is hoping to lodge the consent next week, and is happy to talk you through it if that's easier.

I note the email thread below, and am forwarding this to see how our Taiao unit might be able to engage with Fulton Hogan in the near future?

I have advised Dale about the very heavy workload in front of us, and said I would pass on the message and bring this to your attention via email.

Nāku noa, nā,

Kristie Parata | Kaimahi - Admin
Ātiawa ki Whakarongotai Charitable Trust
W: (04) 293 1538
T: 10 Parata Street / PO Box 509, Waikanae 5250
R: Mon, Tues, Thurs & Fri – 10.30 am – 2.00 pm

ĀTIAWA KI WHAKARONGOTAI

Facebook: https://www.facebook.com/TeAtiawaKiKapiti
Website: http://teatiawakikapiti.co.nz/

From: EASTHAM, Dale [mailto:Dale.Eastham@fultonhogan.com]
Sent: Thursday, 30 July 2020 2:19 pm
To: Kristie Parata; Mahina-a-rangi Baker
Subject: RE: Cultural comment sought - Fulton Hogan

Kia ora again,

I just thought I would touch base again – I realise we've not yet reached the 2nd July, but I plan on coming through the area on the 12th & 14th July and wanted to offer to meet with any representative to discuss concerns if it would be helpful.

Nga mihi,
Dale

From: Kristie Parata <admin@teatiawakikapiti.co.nz>
Sent: Tuesday, 14 July 2020 4:57 PM
To: EASTHAM, Dale <Dale.Eastham@fultonhogan.com>; Mahina-a-rangi Baker <taiao@teatiawakikapiti.co.nz>
Subject: RE: Cultural comment sought - Fulton Hogan

Kia ora Dale,

Thank you for your enquiry and I can confirm you are emailing the correct addresses. I am just acknowledging your email and advising of likely timeframes for engagement.

As this is a Taiao (Environmental) unit enquiry, a member from our Taiao team will be in touch as soon as possible. I advise that due to their heavy workload they have a standard one-month turn around on responding to correspondence; your enquiry will be lodged from date received (2 July) in their register and you should expect a response in early August, and from there they will outline our standard process forward.

Ngā mihi!

Nāku noa, nā,

Kristie Parata | Kaimahi - Admin
Ātiawa ki Whakarongotai Charitable Trust
W: (04) 293 1538
T: 10 Parata Street / PO Box 509, Waikanae 5250
R: Mon, Tues, Thurs & Fri – 10.30 am – 2.00 pm

Facebook: https://www.facebook.com/TeAtiawaKiKapiti
Website: http://teatiawakikapiti.co.nz/

From: EASTHAM, Dale [mailto:Dale.Eastham@fultonhogan.com]
Sent: Tuesday, 14 July 2020 3:43 p.m.
To: Mahina-a-rangi Baker <taiao@teatiawakikapiti.co.nz>; Kristie Parata <admin@teatiawakikapiti.co.nz>; tari@teatiawa.iwi.nz
Subject: FW: Cultural comment sought - Fulton Hogan

Kia ora,

Possibly the email below went to an address that is no longer used. I have spoken again to GWRC & they advised I try these ones instead.

If there is someone I could speak to about the proposal below, I would love to have a quick korero with them.

Nga mihi,

Dale Eastham

From: EASTHAM, Dale
Sent: Thursday, 2 July 2020 4:47 PM
To: 'taiao@teatiawakikapiti.co.nz' <taiao@teatiawakikapiti.co.nz>
Subject: Cultural comment sought - Fulton Hogan

Kei te rangatira, tēnā koe,

My name is Dale Eastham, I am one of Fulton Hogans environmental management team and am seeking to speak with someone regarding a consent application I am preparing that relates to the Transmission Gully roading project, specifically, a site at its northern end where we are setting up an asphalt plant to service the project.

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I am happy to provide any information you would like to see in order to assess what is needed, and am available on the phone number below to discuss at your convenience.

Nā māua noa, nā

Dale

Dale Eastham | **North Island Environmental Manager** | **Fulton Hogan Ltd** | 54 Aerodrome Road, Mount Maunganui, Tauranga 3116| Private Bag 12016,Tauranga Mail Centre,Tauranga3143, New Zealand| Phone +64 7 575 6157| +64 27 212 4142| Web www.fultonhogan.com

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