Resource Consent Applications for Asphalt Plant

Mount Maunganui
Prepared for Allied Asphalt Ltd
19 December 2022

Document Quality Assurance

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Appendices

1.0 Introduction

Allied Asphalt Limited (AAL) is applying for resource consents to establish a new, technically advanced asphalt plant to replace its existing asphalt plant at 54 Aerodrome Road, Mount Maunganui. The site has been used for asphalt manufacturing since 1970. The asphalt plant was last replaced in 1997.

Compared with the existing asphalt plant the proposed new asphalt plant will have several significant advantages including:

- Lower emissions of air pollutants;
- Lower energy consumption;
- Lower greenhouse gas emissions;
- Alternative fuel capability.

The site redevelopment that will accompany the establishment of the new plant will result in improved management of stormwater quality through diversion of potentially contaminated water to trade waste, and improved treatment of stormwater runoff. Traffic safety and efficiency within the site will also be improved by the introduction of a one-way flow through the site.

Resource consents are required under the Bay of Plenty Regional Natural Resources Plan for:

- Air Discharge;
- Stormwater Discharge;
- Disturbance of potentially contaminated land;

Resource consents are required under the Tauranga City Plan for:

- Height limit exceedance;
- Noise limit exceedance;
- Storage of hazardous substances;
- Disturbance of potentially contaminated soil;
- Activity in an area susceptible to flooding from intense rainfall.

This application includes renewal of the air discharge permit to allow the existing asphalt plant to operate until the replacement plant is commissioned.

2.0 Applicant and Property Details

Application forms are included in Appendix 1.

The summary details relating to the applicant and subject site are as follows:

Applicant Name:	Allied Asphalt Ltd (AAL) (Fulton Hogan Ltd /Downer NZ Ltd joint venture NZ Limited Company, incorporated in April 1970 Company Number 190731)
Address for Service:	Private Bag 12016 Tauranga Mail Centre Tauranga 3143 New Zealand
Property Address	54 Aerodrome Road, Omanu 3116
Legal Description	SA32D/706 Lot 1 DP 36048/ SA32D/707 and Lot 2 DP 36408/ SA32D/706
Map reference/s NZTM:	-37.66745617907745, 176.20266694973193
Google Map Reference	https://goo.gl/maps/EC14KQUxUr6x11my6

3.0 Site and Locality Description

3.1 Site

3.1.1 Physical

Detailed information on the site characteristics and existing activities is included in the technical appendices and summarised briefly below.

The property is flat in contour.

The site is occupied by an asphalt manufacturing plant with ancillary buildings, areas used to store aggregate and materials, and an office. Asphalt manufacturing was established on the site in 1970.

Access is from a driveway to Aerodrome Road with a two-way heavy vehicle crossing, shared with the Fulton Hogan regional office and depot.

Figure 1 Two-way heavy vehicle crossing shared with the Fulton Hogan

A site plan showing existing development on the site is contained in Appendix 2 and reproduced at a reduced scale in Figure 1 below.

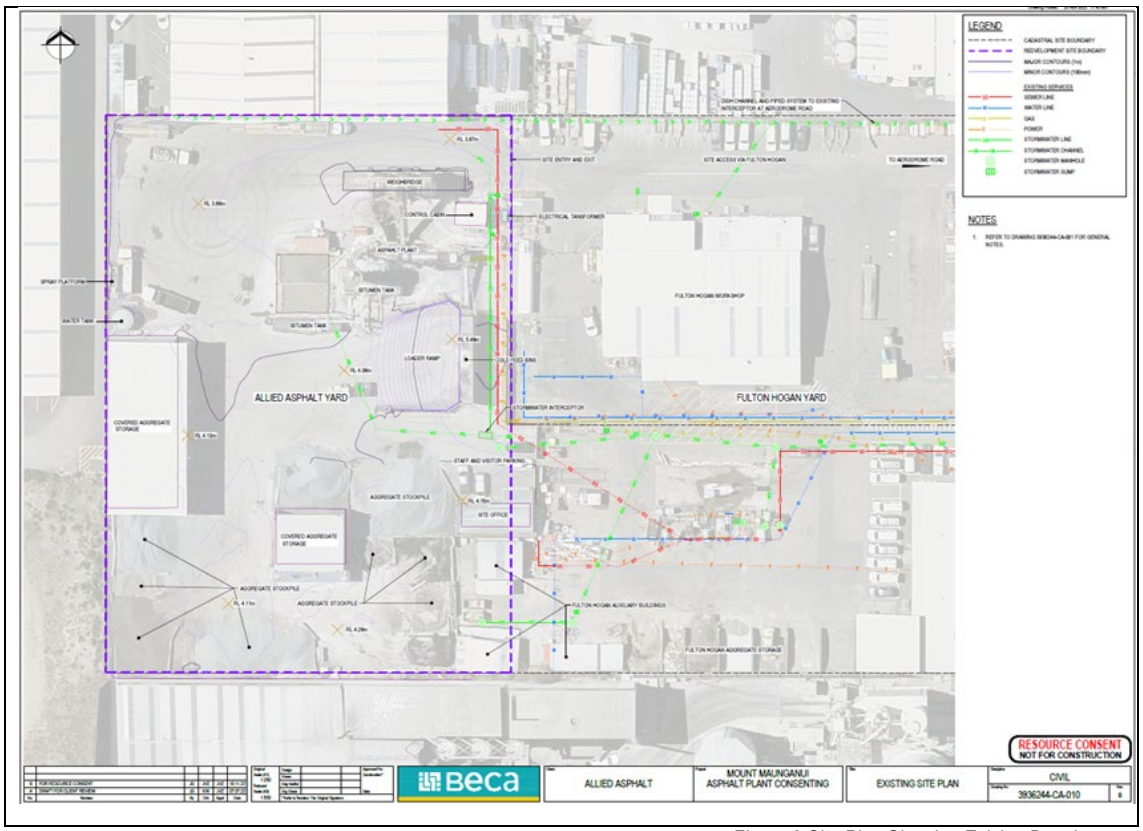

Figure 2 Site Plan Showing Exising Development

3.1.2 Legal

The site is comprised of land in two titles, with frontage and access off Aerodrome Road:

- Lot 1 DP 36048 1.1974ha
- Lot 2 DP 36408 6526m^2

Certificates of Title are shown in Appendix 3 and 4 below with the individual titles outlined in red in the images.

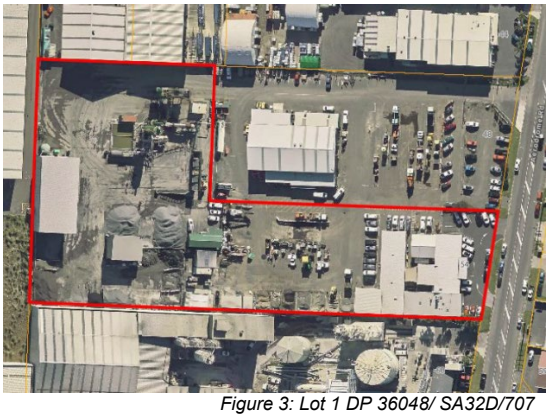

Figure 3: Lot 1 DP 36048/ SA32D/707

Figure 4: Lot 2 DP 36408/ SA32D/706

The asphalt plant site is leased by AAL from Fulton Hogan Ltd. The area occupied by the asphalt manufacturing operation is approximately 7,200m^2

3.2 Locality

The locality is within a large established industrial area, locally referred to as the 'Mount Industrial Area shown in Figure 5 below.

Figure 5: Locality Plan

The Mount Industrial Area is strategically located adjacent to the airport, port, rail, and arterial roads, and is separated from sensitive residential activities The industrial area developed from the late 1950s onwards following the establishment of the Mount Maunganui Wharf.

The Mount Industrial Area is zoned Industrial in the Tauranga City Plan and allows a full range of industrial uses to facilitate manufacturing, processing, storage, packaging, wholesale distribution, bulky goods display, marine-related activities, and complementary activities[1].

Aerodrome Road is characterised by a mix of service, warehousing and manufacturing activities. Neighbouring sites are used for a civil works depot (Fulton Hogan), cement manufacture (HR Cement), warehousing (Steel and Tube Roofing Products) and vehicle maintenance (Tyre Works Mega).

The site access is onto Aerodrome Road which is two lane local industrial road.

The site access is approximately 125m from the intersection with Hewlett's Road (State Highway 2), which is a 6-lane arterial road.

Tauranga Airport is approximately 300m to the south of the site.

The East Coast Main Trunk railway (ECMT) is approximately 600m to the east of the site.

The nearest residential area is approximately 650m to the east of the site, State Highway 2 and the ECMT.

There are some ancillary residential uses (worker accommodation) within hangar buildings at the Tauranga Airport approximately 400m to the south.

Detailed information on the site characteristics and activities in the locality are included in the Appendices (Air Quality, Transportation, Noise, Landscape and Visual Assessments)

4.0 Existing Asphalt Plant

4.1 Asphalt Plant Operation

A detailed description of the existing plant and operation is included in Appendix 4 and summarised below.

The plant is a 'drum mix' asphalt plant. Aggregate and other materials are dried, heated, and mixed with a liquid bitumen binder in a drum in a continuous process to produce hot mix asphalt. Air from the drum is extracted via an induced draught fan to a venturi water scrubbing section and centrifugal water/dust separator.

The components of the existing plant are illustrated in Figure 6 and 7 below.

[1] Tauranga City Plan 18A Purpose of the Industrial Zones

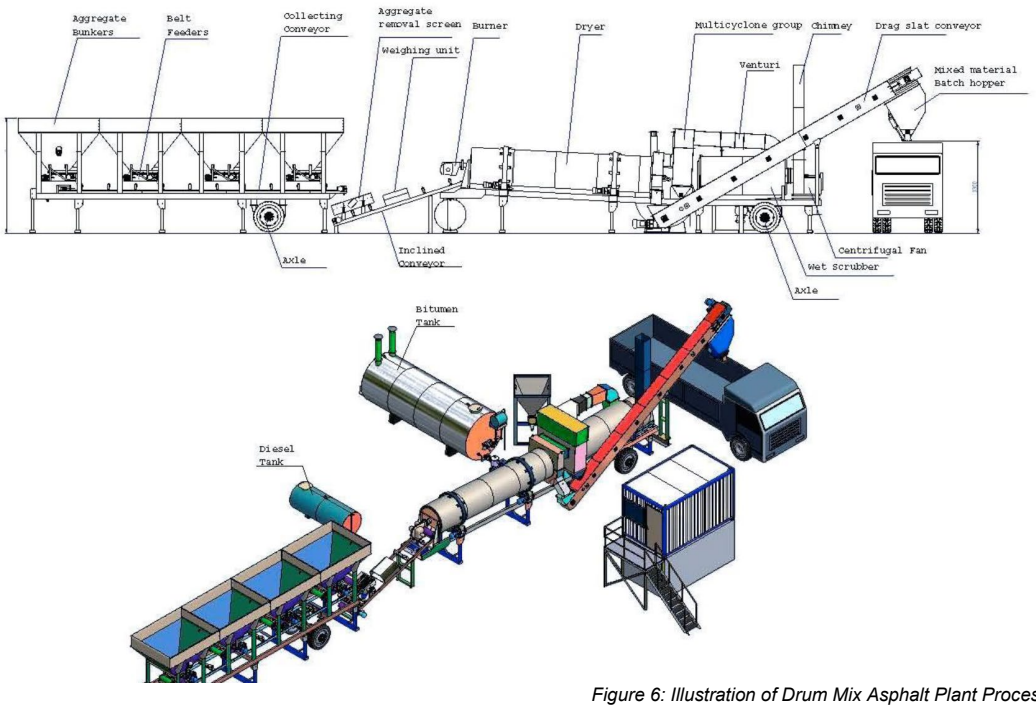

Figure 6: Illustration of Drum Mix Asphalt Plant Process

Figure 7: Photograph of Existing Plant

The existing plant has a processing capacity of up to 80 tonnes per hour of hot mix asphalt. The actual rate of processing depends on aggregate type and moisture content, product type, and product tonnage required. Production typically averages 50 to 60 tonnes/hour.

The existing plant burner is fuelled by used lubricating oil (ULO).

4.2 Land Use

Asphalt plant operations were first established on the site in 1970 following the grant of a planning consent by the Mount Maunganui Borough Council in February 1970 under the Town and Country Planning Act 1953.

The reasons why planning consent was needed are not stated in the Council decision. However, it is likely to be because "*Tar manufacture, refining and mixing*" were defined as "*Industries Requiring Segregation Because of Noxious or Dangerous Aspects*" under the Mount Maunganui Borough District Scheme 1964.

Various additions (storage shed, filler silo, control room, and cyclone structure) were made to the original asphalt plant through to 1985.

The plant was repositioned and upgraded at its current location on the site in 1997. Land use consent was not required at that time. The asphalt manufacturing activity was a permitted activity under the Tauranga City Transitional District Plan. The 18m tall stack was below the maximum permitted height limit of 20m applicable at that time.

Various additions (storage shed, truck wash, and storage hoppers) were made to the plant through to 2005. These were permitted activities and did not require resource consent.

4.3 Air Quality

Air quality management for the existing plant is described in the Air Quality Assessment (See Appendix 5) and summarised below.

The plant operates under air discharge permit 64720 granted in 2004 by BOPRC. A copy of the permit is shown in Appendix 6.

The air discharge permit allows the discharge of particulate matter, volatile organic compounds, sulphur dioxide and steam to air from the asphalt manufacturing plant.

Discharge permit conditions include (in summary):

- Avoiding a dust nuisance from the yard and aggregate stockpiles;
- Minimum stack height of 18m to give adequate dispersion;
- Minimising smoke emissions after 15-minute start up period;
- Total particulate emissions from the stack not to exceed 250 mg/m^3;
- Mass discharge from the stack not to exceed 4.2 kg per hour;
- Sulphur content of fuel not to exceed 2% w/w.

The air discharge permit expired on 30 November 2020. An application to renew the permit for the existing plant was made by AAL on 12 May 2020 (RM20-0301).

The Regional Council issued a request for further information on 5 August 2020. This included a request for further assessment and consideration of Best Practicable Options and mitigation measures. The Regional Council also requested that the applicant consider upgrading the current abatement system (emission control) to a more efficient system.

This request was followed by a decision from AAL to undertake complete replacement of the existing plant. The application was placed on hold while investigation, design and planning for a replacement plant was carried out.

This current application includes renewal of the air discharge permit to allow the existing asphalt plant to operate until the replacement plant is commissioned. The Air Quality Assessment in Appendix 5 updates the air quality assessment provided in the May 2020 renewal application to address air quality management during the transition period to the replacement plant being commissioned, including demolition of the existing plant.

A continuation of the existing expired discharge permit conditions is sought in a new short term discharge permit, but with the additional requirement of a Site Management Plan. The existing asphalt plant will continue to operate under the existing air discharge permit until the new discharge consent is granted as provided under Section 124(3) of the RMA

With the time required to obtain resource consent and to complete detailed design, manufacture, shipping, installation and commissioning of the new plant, it is anticipated that the existing plant will need to continue operating until at least the end of 2024. but this is ultimately dependant on the timing of granting of consent and delivery time when orders are placed subsequently.

A term of 2 years is sought from the commencement of the air discharge permit. for the existing asphalt plant.

4.4 Stormwater Management

Stormwater management for the site is described in the Stormwater section of the Infrastructure and Services Assessment (See Appendix 8) and summarised below.

The site is almost entirely impervious with sealed accessways, equipment pads, highly compacted work areas, and various buildings and minimal vegetated areas. There is no significant discharge by ground soakage.

In a rain event, the internal stormwater network conveys the majority of surface water from the site to a stormwater interceptor that connects to the adjacent Fulton Hogan site stormwater system. This system discharges at two locations to the public stormwater network in Aerodrome Road.

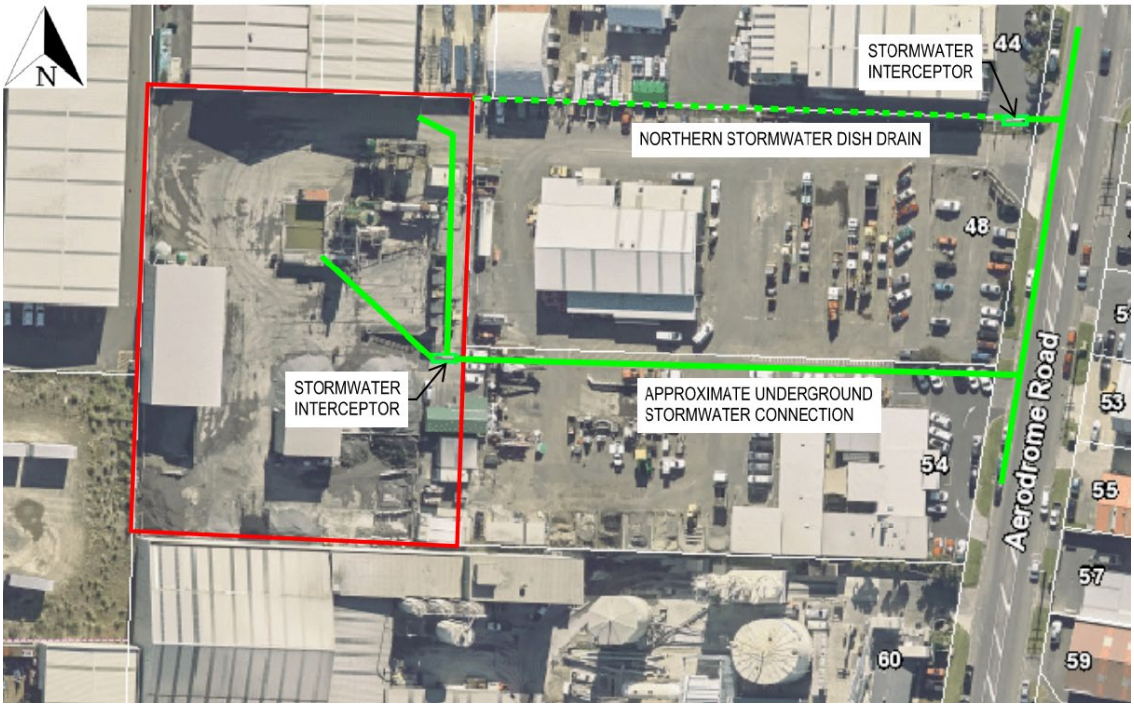

Figure 8: Existing stormwater network

The public stormwater network runs through 1.1km of pipe to the west to a stormwater swale at the end of Seawind Lane, prior to discharging to Tauranga Harbour a further 800m away.

Figure 9: Stormwater Discharge Location

The discharge from the public stormwater network is authorised under a Comprehensive Stormwater Discharge Consent 66823 held by Tauranga City Council. Discharges to the Public Stormwater Network are managed through the Stormwater (Pollution Prevention) Bylaw 2015.

These issues are addressed further in Section 8.4 of the AEE.

4.5 Hazardous Substances

Hazardous substances management for the site is described in the Hazardous Substances Assessment (See Appendix 9) and summarised below.

The maximum quantities of hazardous substances used on site are:

Substance	Maximum Quantity
Diesel	1,250 litres
Bitumen Release	400 litres
LPG	210 kg
Soda Ash	1,000 kg
Fatty Amine Derivative	1,000 litres
High Calcium Lime	50 tonnes
Used Lubricating Oil	50,000 litres
Other: cleaners, lubricants, coatings	< 20 litres

Non-hazardous substances include standard bitumen (80 tonnes), cellulose fibre (22 tonnes) and small quantities of hydraulic fluid (containers <50 litres).

All required certifications under the Hazardous Substances and New Organisms Act (HSNO) are in place.

4.6 Traffic Management

Traffic management for the existing operation on the site is described in the Integrated Transportation Assessment (ITA) in Appendix 11 and summarised below.

The asphalt plant has access along the northern property boundary which accommodates two-way flow.

4.7 Environmental Management Plan

The Environmental Management Plan (EMP) for the existing Asphalt Plan is included in Appendix 4.

The EMP sets out responsibilities and requirements for the management of:

- Environmental hazards;
- Discharges to stormwater;
- Discharges to air;
- Energy;
- Waste;
- Incident and emergency response;

- Chemical Storage;
- Communications to staff and contractors;
- Complaints.

5.0 Proposed Asphalt Plant

5.1 Overview

The objective is to establish a new, technically advanced asphalt plant that has several advantages compared to the existing plant, including:

- Lower emissions of air pollutants;
- Lower energy consumption;
- Lower greenhouse gas emissions;
- Alternative fuel capability.

Although the new plant will have greater throughput capacity than the existing plant, increasing capacity is not the reason for the plant upgrade. Production volumes are expected to be similar to current volumes. The increased capacity will reduce the number of operating hours needed to produce asphalt for local projects, with increased overall efficiency and reduced emissions.

The site redevelopment will result in improved management of stormwater quality through diversion of potentially contaminated water to trade waste, and improved treatment of stormwater runoff. Traffic safety and efficiency will also be improved by the introduction of a one-way flow through the site.

5.2 Site and Building Layout

A site plan and elevations for the proposed Asphalt Plant are shown in Appendix 5 and reproduced in the figure below at a reduced scale and described further below.

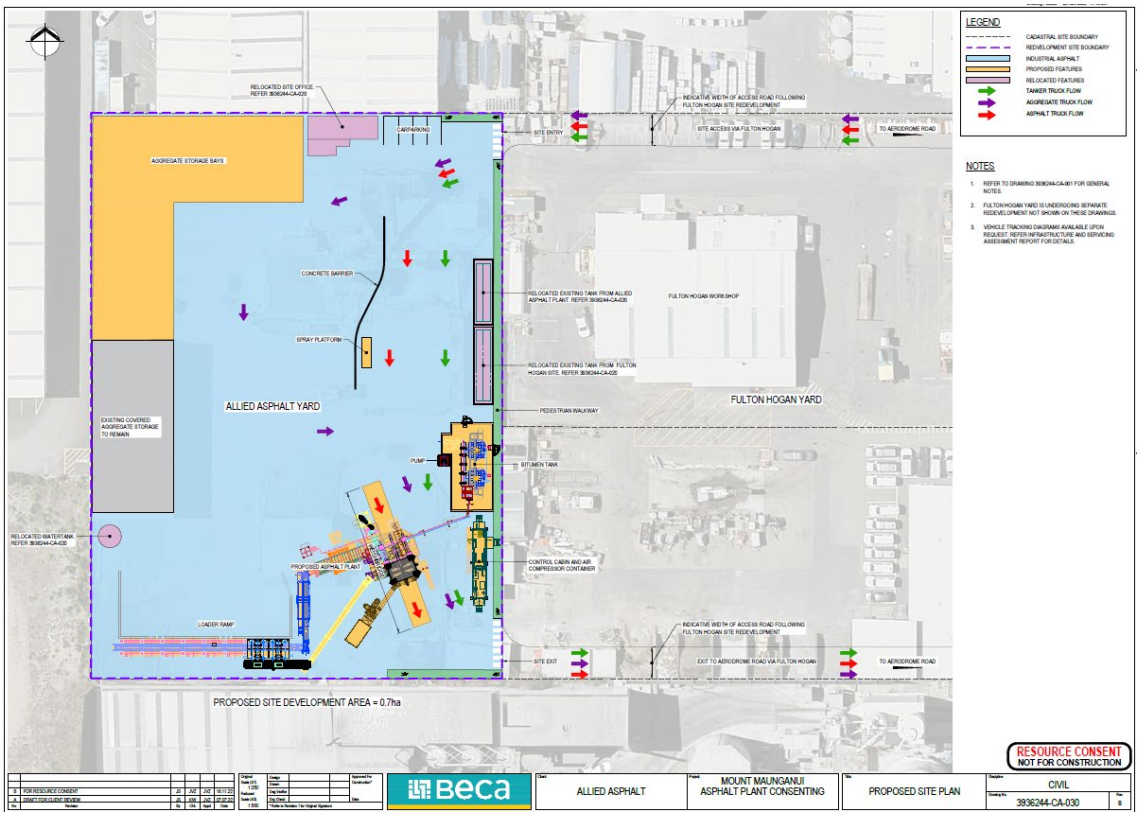

Figure 10: Site Plan Showing Proposed Development

5.3 Asphalt Plant Description

The proposed plant is a Marini Top Tower 2500 'batch plant'. A plant specification is included in Appendix 5.

The maximum output rate from the plant will be 200 tonnes per hour.

The batch plant process comprises the following:

- Aggregate is collected from stockpiles on site and loaded into the cold feeders with a loader. Six 11 m^3 cold feed hoppers will be used to feed virgin aggregate, two 8 m^3 hoppers will be used to feed RAP and one 3 m^3 fibre hopper will be used to feed paper fibre for use in certain types of asphalt mixes.
- The aggregates are fed via a conveyor belt into the dryer drum for moisture extraction and heating to the correct temperature, ready for mixing and coating with bitumen. The dryer drum is a rotating cylinder with a series of flights on the inside which lift the aggregate material and heat it through contact with the hot air produced by a burner. The design ensures the aggregate is not exposed to high temperatures in the flame zone. Exhaust gas from the drying drum is extracted and passed through a cyclone and baghouse.
- Once dried, the aggregates reach a temperature of 150-175°C and are then transported to a vibrating screen via a bucket elevator. The vibrating screen separates materials by meshes sizes. Once separated, the hot aggregates are fed into the appropriate compartment and are kept hot until they are ready to be weighed and mixed with bitumen and filler.

- The mixer consists of an armoured hopper with two rotating arms with paddles. The counter-rotation of the two arms mixes the aggregates, bitumen and filler until a homogeneous asphalt mix is produced. The mixing unit and storage bins are enclosed, and air from the mixing bins is ducted back to the drying drum where volatiles are further reduced by combustion, prior to passing through the baghouse. Emissions from the load out operations are extracted to a 'bluesmoke' aerosol treatment system before being reintroduced to the stack discharged via the baghouse stack.
- After mixing, the asphalt is discharged from the mixer in the storage bin or directly onto the trucks positioned below the hot asphalt storage silo and loaded by gravity for dispatch.

A more detailed description of the asphalt production process is set out in the Air Quality Assessment in Appendix 6.

Specimen elevations and images of the Marini Top Tower 2500 are shown below.

Figure 11: Specimen Asphalt Plant Image

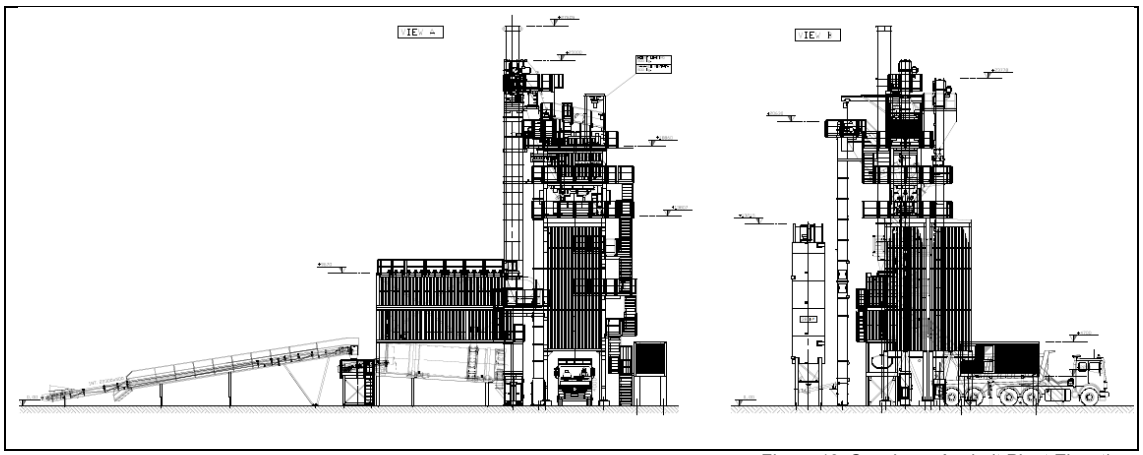

Figure 12: Specimen Asphalt Plant Elevations

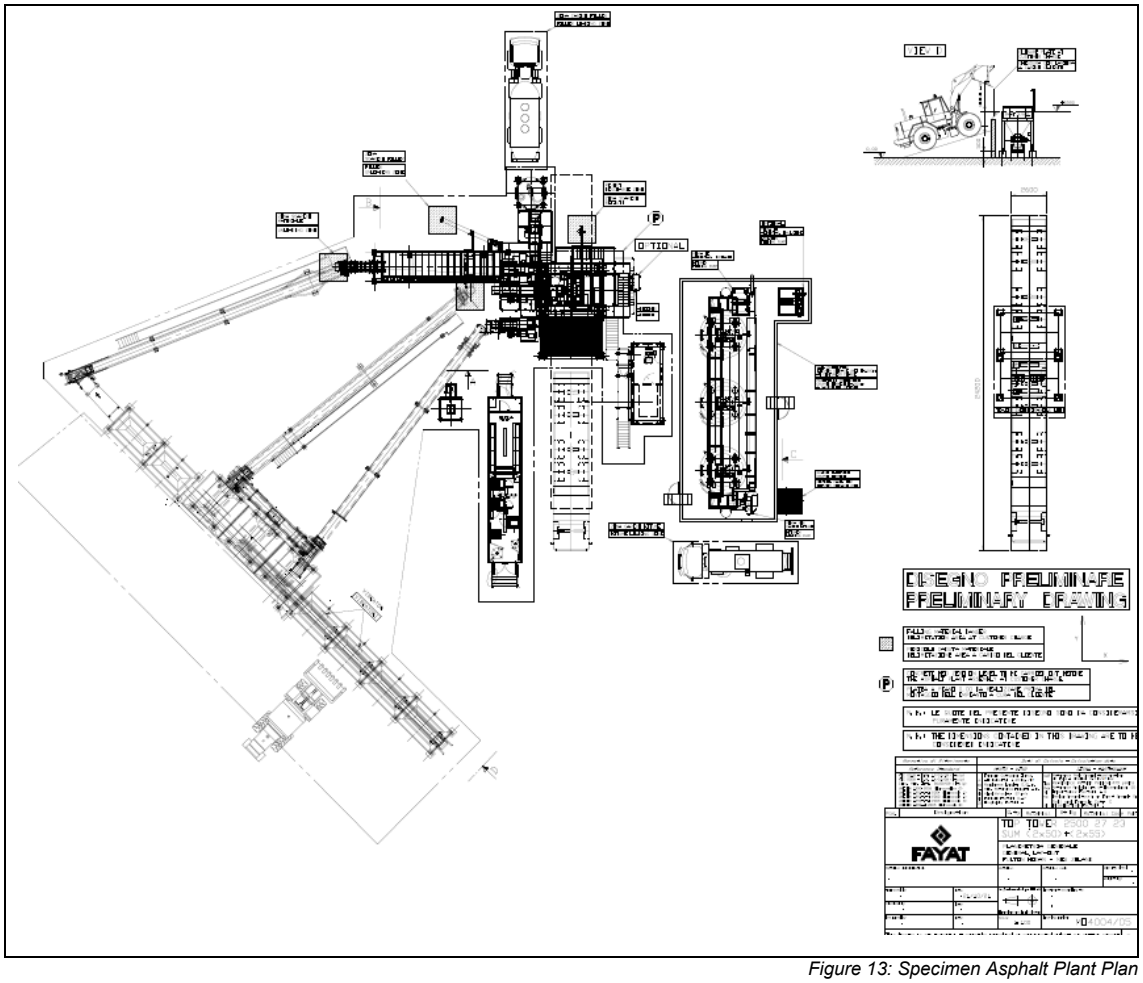

Figure 13: Specimen Asphalt Plant Plan

The plant will have a taller stack (27.6 m) compared to the existing plant (18 m). The taller stack will result in improved dispersion and dilution of emissions compared to the existing plant.

The new plant will have a larger burner (13.4 MW) than the existing plant (7 MW) and will therefore burn fuel at a higher rate. However, there will be longer periods of time when the plant is not operating, and no emissions are occurring. Overall fuel efficiency will be higher.

The proposed plant burner will have multi fuel capacity capable of using ULO, diesel or natural gas, but with scope for conversion to other non-fossil fuels.

The plant will have five covered bays in the existing covered storage shed storing aggregate, premium all passing (PAP) aggregate, recycled asphalt pavement (RAP) and sand. The ability to store and use RAP is important in diverting this material from landfill and reducing the need for virgin raw materials.

Additional covered storage bay for storage will be installed on the northern boundary of the site, alongside five existing uncovered bays for slag and coarse aggregate.

The covered bays will provide protection from wind to reduce windblown dust as well as reduce the moisture content of the materials for production. Lower moisture content reduces energy use for aggregate heating, and greenhouse gas emissions.

Recycled water dust suppression systems (sprinkler system) will be used to reduce entrained dust around aggregate storage and handling areas.

The plant will have storage silos for recovered fines and for lime storage and dispensing. A bag filtration system will be installed on each of the silos to minimise the discharge of dust or lime during filling.

Three operational bitumen tanks are proposed. These will store straight-run bitumen and bitumen used for asphalt manufacture and chip sealing. The tanks will include two 60,000 L vertical tanks and one 40,000 L horizontal asphalt plant bitumen supply tank. Discharges to air from bitumen tanks will be passed through a water bath system to remove odour and blue smoke aerosols.

Bitumen tanks will be electrically heated, with failsafe thermostats to prevent overheating. Bitumen will be stored at 160°C with a failsafe temperature of 170°C and polymer bitumen will be stored at 180 °C with a failsafe temperature of 190°C.

One 50,000 L fuel tank will be located on site for fuel.

Kerosene, diesel and other solvents will not be used as asphalt release agents on truck beds prior to loading of asphalt. A biodegradable release agent will be used.

A waste asphalt stockpile will be established on site for the storage of production and paving waste, prior to being removed from site for processing into RAP.

5.4 Operations

Hours of operation will occur as necessary to accommodate project demands, including 24-hour operation where required. The nature of roading work, and particularly Waka Kotahi and local government contracts, often requires asphalt production at night to minimise traffic disruption.

Typically, hours of operation will be business hours of 7am-6pm on weekdays.

Up to four staff are expected to operate from the site at any one time.

5.5 Air Quality

Air quality management for the new asphalt manufacturing is described in the Air Quality Assessment (AQA) in Appendix 6.

The AQA assesses the effects of contaminant emissions from:

- Fine particulate matter (PM_{10} and $PM_{2.5}$) from the combustion of fuels, from the drying, tumbling and screening of aggregates and from the condensation of organic contaminants volatilised during the manufacture of asphalt.
- Products of combustion of fuel: Sulphur dioxide (SO_2)., Oxides of nitrogen (NO_X), and Carbon monoxide (CO)
- Volatile organic compounds from the heating of bitumen (benzene, acetaldehyde and formaldehyde)
- Odour from the mixing of bitumen with heated aggregate, from the warm storage of bitumen and from the storage and handling of hot-mix asphalt.
- Dust from site operation such as vehicle movements and materials handling
- Dust from demolition and construction

The effects of discharges to air from the asphalt plant stack have been assessed using dispersion modelling and compared with health-based air quality assessment criteria to assess the potential for adverse effects on human health.

A qualitative approach to assessing nuisance dust impacts from the construction and operational emissions from the proposal has been taken.

The overall finding is that the cumulative effects of emissions of PM_{10}, $PM_{2.5}$, SO_2, NO_x, CO, VOCs and trace metals from the proposed plant will be well below relevant air quality assessment criteria. For most contaminants, the air quality effects of the proposed asphalt plant will be much lower than the effects of the existing plant due to improved air pollution control and a taller stack, which will increase dispersion and dilution of emissions.

With appropriate dust management measures, the effects of dust from the construction and operation of the proposed asphalt plant are likely to be less than minor.

The assessment of odour effects indicates that with the improvements to odour control, the frequency, intensity and duration of odour likely to be experienced beyond the boundary of the site is such that that offensive or objectionable odour will be unlikely.

Given the need for operational flexibility, the assessment has assumed that the stack emissions occur continuously to represent the maximum envelope of effects that would be authorised by the consent. For contaminants with assessment criteria for longer term averaging periods (three month and annual), this is likely to substantially overstate the AAL asphalt plant's contribution to ground level concentrations.

Anticipated daily operating hours and forecasted production volumes will be well below the maximum capacity of the plant, being approximately 25% of the maximum capacity.

5.6 Greenhouse Gas Emissions

The proposed plant replacement contributes to reducing greenhouse gas emissions (GHG) through the following:

- Improved efficiency of the plant with computer monitored and optimised management software, reduced energy consumption for both the burner and conveyor equipment, and through recirculation and retention of hot combustion gases;
- Reduced plant operating times and energy use to produce equivalent volumes;
- Additional covered aggregate storage to reduce moisture content and energy use for aggregate heating;
- Capability to produce lower carbon low temperature asphalt;
- High recycled asphalt (RAP) percentage (up to 40%) providing a more sustainable solution through aggregate and bitumen recovery;
- Location of the plant remaining within close proximity to bitumen import points and central to the market means road transport emissions are minimised;
- Capability to switch to low or zero carbon fuels (e.g., biofuels, hydrogen, wood dust) once this technology is available with security of supply and is affordable.

A GHG Emissions Plan is proposed to enable periodic reviews of asphalt plant technology and adoption of the best practicable option.

5.7 Stormwater

The proposed stormwater management for the site is described in the Stormwater section of the Infrastructure and Servcies Assessment (See Appendix 8) and summarised below.

5.7.1 Flood Risk Management

The primary stormwater system (pipework) will be designed for a 10-year rainfall event peak flow discharge.

Surface run-off from the hardstand areas will be collected by catchpits at low points and will discharge via the existing public stormwater network to Tauranga Harbour.

Surface run-off from the covered aggregate storage bins will be collected via roof gutters and directed into rainwater reuse tanks with an overflow system. Water will be reused as non-potable supply (e.g., for use in washdown areas).

The secondary stormwater system will be designed for a 100-year rainfall event taking into account the effects of climate change for the year 2130 based on the RCP 8.5 median scenario.

The design considers where water will flow (secondary flow paths) during this large rainfall event:

- The majority of works, including the new plant, will be located outside the floodable areas and overland flow paths;
- Existing overland flow paths will be maintained by diverting them around the proposed infrastructure (aggregate storage bins, relocated site office);
- The site office will be relocated alongside the northern boundary within the existing minor overland flow path. The building will be elevated on piles to achieve a minimum freeboard of 0.3m above the 1% AEP design storm.

The overall flooding risk affecting the site is low.

5.7.2 Water Quality

The AAL site currently shares a stormwater system with the adjacent Fulton Hogan site. For source quality control, in future the AAL and Fulton Hogan sites will have independent stormwater systems. This will allow for better management and clear ownership and responsibility between the two parties.

The stormwater management techniques, in general, will include:

- Avoidance - through source control practise and environmental procedures through selecting material/products, more modern/efficient plant and machinery, and training/awareness of staff/visitors as part of the site induction process and specific training.
- Remedies - with regular maintenance of interceptor/treatment devices and exposed areas to be included in the site operations and maintenance plans, bunding of higher risk areas and directing flow to trade waste, storage practises, and emergency spill procedures.
- Mitigation – with catch pit interceptors, oil separators and a proprietary treatment device.

Water quality treatment is proposed via a proprietary treatment device positioned in the northeast corner of the redevelopment site that removes suspended solids (to a limit) and reduces hydrocarbons.

There is not enough space on the site to provide low-impact design options such as swales with vehicle loadings and ground conditions are unsuitable for permeable paving. A high-water table level limits low-impact design options, including infiltration to the ground. The water quality of the overland flow is not expected to change as site operations are not changing.

Water quality treatment will initially begin with catchpits that will allow coarse material to settle out of suspension as it passes through the catchpit zones. Oil separators will be used as required. Catchpits will be strategically placed around the site at points where grades fall to a low area.

The connection to the public stormwater network is proposed from the quality treatment device along the northern boundary of the Fulton Hogan shared accessway.

A trade waste connection is proposed to the asphalt plant weighbridge and bunded areas surrounding the bitumen and oil tanks where there is higher risk of contamination of stormwater. The trade waste will be routed through a treatment device (proposed to be an oil and grit separator, or similar) to achieve the required discharge quality.

Potential contamination from a hazardous substances spill event will be managed through storing the substances in a secondary containment bund (liquids) and appropriate design and maintenance of containers (See below).

5.8 Hazardous Substances

A Hazardous Substances Assessment (HSA) is included in Appendix 9.

The main hazardous substances stored and used in the asphalt manufacturing process are fuel (diesel, recycled oil, LPG) and products directly associated with asphalt manufacture (bitumen release, soda ash, and lime). These hazardous substances are already used in the existing asphalt plant and no new hazardous substances will be introduced as part of the new proposal and layout.

The main risks relate to the environment and human health. The environmental risk is primarily associated with the storage of waste oil (refined oil) and fatty amine derivative (cool pave). The human health risk is primarily associated with the storage of waste oil and lime.

Risks are related to the leaks and spills of liquid hazardous substances, accidental release from storage tanks during transfer, unloading and refuelling, and release of any dust during the dispensing of lime.

The potential effects on the environment can be managed through storing the hazardous substances in a secondary containment bund (liquids) and appropriate design and maintenance of containers. In addition, surface run-off can be captured by a suitable and controlled treatment system to avoid release of contaminants to the environment. These overarching management controls can cover potential discharges to the surrounding and receiving environment, stormwater and wastewater networks.

Once the new facility is complete, and prior to operation of the processes, the final design will be reviewed against the HS Regulations and signed off by a Compliance Certifier.

With appropriate management, as described above, the risks associated with the storage of hazardous substances at the site are assessed as low.

The cumulative adverse effects and residual risks of the hazardous substances land use are acceptable and potential environmental effects can be adequately addressed by the requirements of the Hazardous Substances and New Organisms Act 1996 (HSNO) and the Health and Safety at Work (Hazardous Substances) Regulations 2017 (HS) Regulations.

5.9 Contaminated Land Management

A Preliminary Site Investigation (PSI) report is included in Appendix 10.

A desk-based review of publicly available information sources and client supplied information was undertaken in conjunction with a site walkover.

Based on the information reviewed, the following Hazardous Activities and Industries List (HAIL) have occurred on the site

- Asphalt or bitumen manufacture or bulk storage
- Chemical and fuel storage associated with the asphalt manufacture process

In addition, wood treatment, preservation or bulk storage associated with the historic use of the neighbouring property for timber treatment processes has occurred along the site's eastern boundary.

The proposed area of the upgrades will involve an estimated up to 1500 m^3 of soil disturbance associated with re-grading the existing hardfill surface, building foundations and trenching for service connections.

A Contaminated Soils Management Plan (CSMP) is recommended to outline safe working practices for soil disturbance activities in the site and measures to protect the environment from any contaminants that may be present, including emphasis on hygiene and minimising contact with potentially contaminated soil or dust, maintaining effective erosion and sediment controls, accidental discovery protocols and stockpile requirements. This will be prepared by a Suitably Qualified and Experienced Contaminated Land Practitioner (SQEP), to reflect the findings of investigation results at the site.

Investigations of soil and groundwater are underway to confirm what, if any, contaminants are present at the site at the time of lodging this application.

5.10 Transport Management

A Transportation Assessment is included in Appendix 11.

The amount of asphalt manufactured is based on market demands and is unlikely to change as a result of the plant upgrade. Similarly, the number of staff and vehicle movements associated with the site are unlikely to change. Therefore, the associated parking demand and number of trips generated is unlikely to change from what are currently generated.

The new plant has a higher theoretical capacity. If the plant was to operate at its capacity in the future, an additional up to 22vph and 152vpd are expected. This increase is not expected to result in any adverse material effects on the surrounding road network, and the demand is ultimately dictated by the regional market for roading materials.

The vehicular access to the asphalt plant will be provided via a single access along the northern side of the site. At the same time as upgrading the asphalt plant, it is proposed to improve access

to the plant by providing a second access along the site's southern boundary. This will enable trucks to be able to circulate one-way through the site.

The proposed southern access will integrate with the existing entrance to the parking spaces in front of the office. As such, the number of vehicle crossings onto the road network will not increase however this vehicle crossing will be widened to accommodate the larger vehicles associated with the asphalt plant.

The proposed access configuration is shown on Figure 14 below:

Figure 14: Vehicle Access Tracking on Aerodrome Road

The proposed access to the asphalt plant will be enabled by removal of existing office and administration buildings currently being used by Fulton Hogan. This forms part of a wider rearrangement of the Fulton Hogan office and depot site which is not part of this application.

No crashes have been reported that involve the subject site, pedestrians or cyclists. As such, no specific road safety issues have been identified in relation to the subject site.

An assessment of the proposed asphalt plant upgrade against the transportation rules of the City has not identified any areas of non-compliance. As such, it is concluded that there are no traffic engineering or transport planning reasons to preclude approval of the proposed development.

5.11 Noise Management

An Assessment of Noise Effects is included in Appendix 12.

Noise from AAL's replacement asphalt plant will readily comply with the residential zone limits in the Tauranga City Plan (the TCP). The character of noise generated by the new asphalt plant will be similar to the existing plant.

At the closest residential receivers, the level of noise will not cause any adverse effects.

Noise received in the adjacent industrial zoned properties is calculated to exceed the 65 dB LAeq limit by between 1 to 4dB. This is a minor exceedance which will not cause adverse effects.

5.12 Environmental Management Plan

A draft Environmental Management Plan (EMP) is included in Appendix 5 summarising the operating requirements needed to meet the required environmental performance outcomes.

A final EMP will be prepared that will take into account relevant resource consent conditions.

5.13 Geotechnical Hazards

A Preliminary Geotechnical Appraisal is included in Appendix 15.

The potential geo-hazards identified at the site are commonly encountered within the area. Site specific geotechnical investigations and design will be required to develop appropriate foundations for the proposed development.

5.14 Infrastructure

An Infrastructure and Services Report is included in Appendix 8 setting out proposals for access, three waters and utilities to service the asphalt plant. New and updated services and connections will be provided in compliance with the NZ Building Code and Council's Infrastructure Development Code.

The proposed services plan from the report is shown in the figure below.

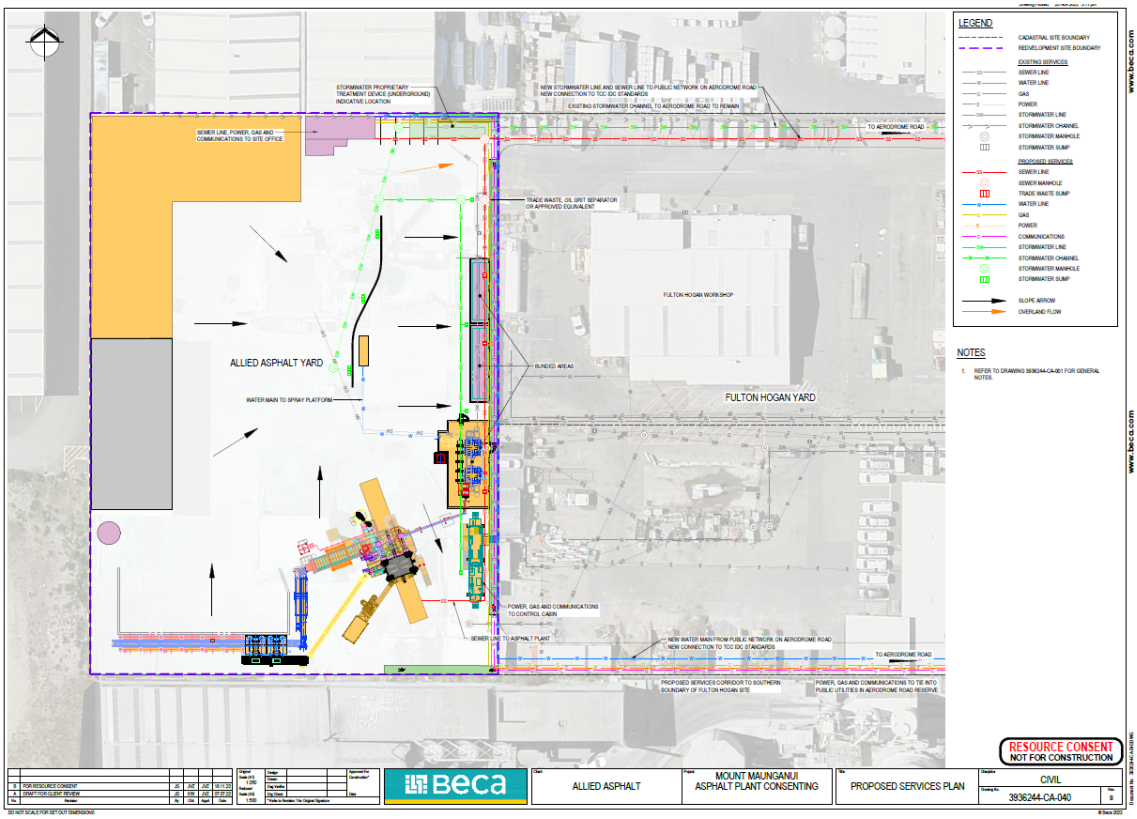

Figure 15: Proposed Services Plan

5.15 Construction Management

5.15.1 Programme

The proposed upgrade work programme has three stages:

- Enabling works – clearance of stockpiled aggregate to existing ground level. Removal of existing infrastructure (site office and aggregate shed) in the proposed footprint of the new asphalt plant;
- Construction – construction of the new asphalt plant offline from the existing site processes, plant assembly, including new asphalt plant infrastructure, bitumen tanks, new aggregate loading bays, stormwater and wastewater infrastructure and dry service connections;
- Decommissioning of old plant and construct new storage bays – once the new plant is commissioned, commence decommissioning and removal of the existing plant. This stage also includes the construction of more aggregate storage bays in the southern vicinity of the site.

With relatively high ground water, there may be a need for dewatering of services trenches and foundation excavations. Specific requirements will be identified once the engineering design details are known.

5.15.2 Erosion and Sediment Control Plan

An Erosion and Sediment Control Plan (ESCP) has been prepared to describe how earthworks associated with the construction of a new Asphalt Plant within the Aerodrome Road site can be effectively managed to mitigate any potential sediment discharge risk and avoid adverse effects from land disturbance activities (See Appendix 13). The ESCP takes into account the recommendations of the AQA for management of dust during construction.

5.15.3 Construction Noise

The Assessment of Noise Effects in Appendix 12 includes as assessment of construction noise.

The assessment predicts that short-term exceedances of the construction noise standard could occur during the project construction. The exceedances will occur at adjacent industrial zoned sites. Irrespective of the non-compliances no adverse noise effects will occur.

5.15.4 Construction Management Plan

A Construction Management Plan will be provided to the council prior to commencement of the works.

5.16 Landscape

An assessment of Landscape and Visual Effects is included in Appendix 14 addressing the effects of the permitted activity height exceedance of the emissions stack/tower.

No landscaping is proposed on the site, which is not directly visible from the street and would not provide purposeful mitigation.

5.17 Term

A term of 35 years from the date of commencement is sought for the air discharge permit. The investment in the new technology will be in excess of $15 million. A long term will enable an appropriate return on this investment.

Periodic reviews during the air discharge consent term will ensure that the contaminants discharged by the applicant are at a level which on the best scientific and technical information available constitutes the best practicable option of minimising adverse effects on the environment.

The term for a stormwater discharge consent is determined by the Comprehensive Development Consent held by Tauranga City Council (Expiry on 31 October 2047).

Land use consents will not expire once given effect.

6.0 Tauranga City Plan

6.1 Planning Maps

6.1.1 Zoning

The site is zoned Industrial (Planning Map L16).

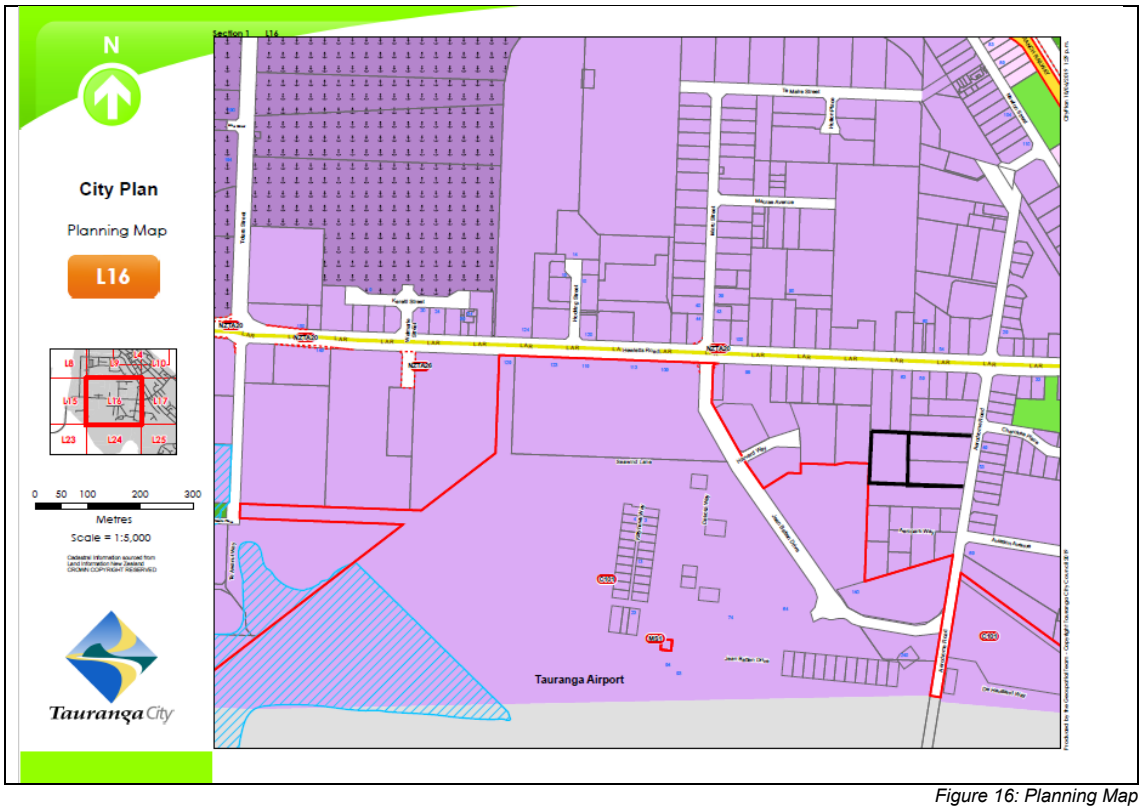

Figure 16: Planning Map

6.1.2 Policy Overlays

The site sits outside the *Specified Airport Slopes and Surfaces* for Tauranga Airport.

The site is within a *Viewshaft Protection Area* (Mauao viewshaft from the Tahuwhakatiki Marae Viewing Point)[2] (See Figure 16 below).

[2] City Plan Viewshaft Protection Areas Map 16

Figure 17 Viewshaft Protection Area

The *Viewshaft Protection Area* map identifies the height that a building or structure could be built to, above the existing permitted height of the zone in which the activity is proposed to be located[3].

The proposal will be below the viewshaft 'floor' for the Viewshaft Protection Area, which is 16m above the permitted 16m height limit, or 32m above ground level.

6.2 Activities

The Asphalt Plant activity is defined as an "*Industrial Activity*" and is a permitted activity[4]:

> *"Means buildings or land used for the manufacture, dismantling, processing, assembly, treating, testing, servicing, maintenance, storage or repairing of goods, products, articles, materials or substances and includes premises on the same land used for:*
>
> *a. The selling of goods by wholesale;*
>
> *b. The provision of amenities for employees;*
>
> *Which are incidental to any of those industrial operations."*[5]

The activity is not defined as an "*offensive trade"*:

> *"Means the following activities or processes: Blood or offal treating; Bone boiling or crushing; Dag crushing; Fellmongering; Fish cleaning and curing; Flax pulping; Flock manufacturing or teasing of textile materials for any purpose; Gut scraping and teasing; Refuse disposal; Storage, drying, or preserving of hides, bones, hoofs or skins; Tallow melting; Tanning; Wood pulping; Wool scouring."*[6]

6.3 Standards

Rule	Compliance	Activity Status
8A.12.1.1 Building Height Industrial Zones	Exceeds maximum height of 16m.	Discretionary Activity (Rule 18A.16 a i)

[3] City Plan Section 7 Viewshaft Protection Areas Index – Viewshaft Protection Area (Note on Plan)

[4] Rule 18A.11 Activity Status Table

[5] Definitions Chapter 2

[6] Definitions Chapter 2

Rule	Compliance	Activity Status
4B.2 Transportation	Complies All applicable transportation rules within Chapter 4 of the City Plan. See Transportation Assessment – Appendix 11.	Permitted Activity
4E.2.3 Commercial and Industrial Zones - Noise	Exceeds 55dbA Leq on neighbouring industrial sites by 1-4 dbA	Restricted Discretionary Activity 4E3
9A.3 Permitted Activity Rules: Hazardous Substances	Hazardous facilities that store or use hazardous substances will hold quantities that greater than the effects ratio specified for Discretionary Activities [7]. Storage of hazardous substances was provided under the resource consent granted in 1970. The specific substances and quantities were not specified in the application of consent, so to remove any doubt over compliance a resource consent is being sought. See Hazardous Substances Assessment – Appendix 9.	Discretionary Activity (Rule 9A.6)
9B.2 General Provisions for Subdivision and All Land Use Consents 9B.2.1 Applicability to Subdivision and Land Use 9B.2.2 Specific Requirements for Use, Development and Subdivision of Potentially Contaminated Land	The use, development (including remediation) or subdivision of contaminated land is a Restricted Discretionary Activity. See Preliminary Site Investigation – Appendix 10.	Restricted Discretionary Activity (Rule 9B.3)
12G.3 Permitted Activity Rules – Services	Complies Individual connections are provided to a Council-owned wastewater system; water system; and stormwater system.	Permitted Activity

[7] 9A.3 Permitted Activity Rules: Hazardous Substances

Rule	Compliance	Activity Status
	See Infrastructure Assessment - Appendix 8.	

6.4 Decision Criteria

6.4.1 Height Exceedance

As a Discretionary Activity, decisions are guided by the relevant purpose, objectives, and policies of the City Plan: Natural Features and Landscapes Chapter and Industrial Zones Chapter.

The Natural Features and Landscapes chapter has the following objectives, and policies, with the key clauses underlined.

6A.1.9 Objective – Urban Landscape Character

The City's urban landscape character values are maintained and enhanced.

6A.1.9.1 Policy - Maintenance and Enhancement of Landscape Character in Urban Areas

By ensuring that subdivision, use and development does not adversely affect the landscape character values of urban areas by:

a. *Maintaining and enhancing the characteristics and elements that determine the character and amenity of the surrounding area;*
b. *Ensuring the bulk and scale of the built form is compatible with that anticipated in the surrounding area;*
c. *Maintaining and enhancing amenity between different land uses by screening, buffering or otherwise providing an appropriate interface treatment;*
d. *Achieving a high amenity interface between private and public space;*
e. *Protecting and enhancing natural waterways and drainage patterns;*
f. *Protecting areas of cultural or heritage value;*
g. *Maintaining and enhancing indigenous vegetation, notable trees and heritage trees;*
h. *Recognising that the landscape character values in urban growth areas will change through the subdivision, use and development process;*
i. *Managing the interface between urban activities and adjoining landscapes to maintain the integrity of identified outstanding natural features and landscapes and important amenity landscapes;*
j. *Ensuring the effects of activities maintain and enhance the factors, values and associations of outstanding natural features and landscapes and/or important amenity landscapes.*

The Industrial Zone has a general objective that is given effect in part through the height rule, with the key clauses underlined.

18A.5.1 Objective - Location of Industrial Land Use:

Industrial land use and development is clustered in specific locations throughout the City to provide convenient and efficient access to the transport network, avoid conflict with sensitive land use, and provide for both efficiency and a choice of means of access for employees.

6.4.2 Hazardous Substances

As a Discretionary Activity, decisions are guided by the relevant purpose, objectives, and policies of the City Plan: Hazardous Substances and Contaminated Land Chapter.

The Hazardous Substances chapter has the following detailed objectives, and policies:

9A.1 Objectives and Policies: Hazardous Substances

9A.1.1 Objective - Prevention or Mitigation of Adverse Environmental Effects and Minimisation of Risk

Adverse environmental effects and/or risks to human health, property and/or the receiving environment associated with facilities and activities involving the manufacture, storage, use, transportation and/or disposal of hazardous substances are prevented or mitigated.

9A.1.1.1 Policy - Location of Hazardous Facilities

By ensuring that facilities involving the manufacture, storage, use, disposal and transportation of hazardous substances are located so the risk to the wider environment is prevented or mitigated. In particular, facilities should avoid locating adjacent to water bodies, residential areas or other sensitive receiving environments unless the potential adverse effects of any failure of the facility, storage device or systems can be avoided.

9A.1.1.2 Policy - Design and Management of Hazardous Facilities

By ensuring that facilities involving the manufacture, storage, use, disposal or transportation of hazardous substances are designed, constructed and managed to prevent or mitigate adverse environmental effects and minimise risks to the environment.

9A.1.1.3 Policy – Risk Management

By ensuring that all hazardous substances facilities have emergency contingency plans or strategies capable of avoiding, remedying or mitigating adverse environmental effects upon failure of the facility, primary storage device or accidental spill or release during handling or transfer.

9A.1.1.4 Policy - Storage and Use of Hazardous Substances

By ensuring that the storage or use of hazardous substances does not result in cumulative adverse effects, particularly through increased risk to the natural or physical environment, or to the safety, health or well-being of people and communities.

6.4.3 Contaminated Soil

As a Restricted Discretionary Activity, decisions are guided by the relevant matters of discretion:

9B.3.1 Restricted Discretionary Activities - Matters of Discretion and Conditions

The Council restricts the exercise of its discretion to the methods adopted for remediation or management, containment or removal of contaminated soils. Details to include:

a. *The nature and extent of contamination;*
b. *The risk posed by contaminants to public health and safety;*
c. *The effects of contamination on built structures, ecological and amenity values, soil quality, surface and groundwater quality and the wider environment;*
d. *The approach to the remediation and mitigation measures proposed to avoid adverse effects on public health, safety and the environment;*
e. *Any Site Management Plan prepared to address contaminated sites.*

6.4.4 Noise

4E.3.1 Restricted Discretionary Activities – Matters of Discretion and Conditions

The Council restricts the exercise of its discretion to the following matters:

a. *The sensitivity of the receiving environment to the effects of the noise and the effects that noise will have on potential receivers, especially where the affected activity has a component where people need to sleep or concentrate;*
b. *The character of the locality or activities within the zone (including traffic and pedestrian activity) and level of background noise;*
c. *The location of the activity in relation to any nearby residential activities and the extent to which the noise generated will affect the amenity values of those surrounding residential activities;*
d. *The extent to which the design and location of the principal activity and any ancillary activities incorporate noise mitigation and management techniques to reduce noise levels;*
e. *Whether the activity will contribute to the cumulative effects of noise.*

6.5 Proposed Plan Change 27 - Flooding from Intense Rainfall

6.5.1 Overview

Plan Change 27 introduces a new rule framework to manage the effects of flooding in intense rainfall events on people, properties and infrastructure.

Proposed rules apply to "…*all activities within overland flow paths, flood plains and flood prone areas…".*

Plan Change 27 has legal effect from Monday, 16 November 2020. This means that all resource and building consent applications, where required, should have regard to the proposed objectives, policies and rules from the date of public notification. Submissions on Plan Change 27 have been heard and decisions have been issued. There are several appeals, including appeals that challenge the method for assessing flood susceptibility.

6.5.2 Flood Hazard Maps

Non-statutory maps published by the council show the site affected by floodable areas and overland flowpaths as on Figures 18 and 19 below[8]:

Figure 18: Plan Change 27 - Flood Prone Areas

Figure 19: Plan Change 27 Overland Flow Paths

The site and access are within areas delineated as "Flood Prone Area" (pale blue<300mmm/dark blue>300mm), Minor Overland Flowpath (pale purple) and Major Overland Flowpath (deep purple).

6.5.3 Rules

New business activities and industrial activities are a Restricted Discretionary Activity in an overland flowpath, and a permitted activity in flood prone areas[9].

While the asphalt plant itself is not located within any of the delineated flood affected areas, the access, yard, and stockpiles are within flood prone areas and overland flow paths.

The activity is a Restricted Discretionary Activity.

6.5.4 Decision Criteria

The relevant matters of discretion[10][11][12] that address flooding risk are (in summary):

- Protecting buildings, systems, and goods on the site;
- Mitigating effects on other land and Council infrastructure, including displacement effects;
- Safe evacuation during flood events;
- Mitigating effects of the mobilisation of stored materials and parked vehicles in overland flow paths during a flood event.

[8] The Plan Change 27 Viewer maps are non-statutory and can be reviewed to take account of any property-specific information.

[9] Table 8D.1: Flood Hazards Activity Status (Overland Flowpath, Floodplain and Floor Flood Prone Area)

[10] 8D.4.2.2

[11] 8D.4.2.3

[12] 8D.4.2.4

6.6 Activity Status Conclusion

Applying the bundling principle, the activity requires resource consent as a Discretionary Activity under the City Plan.

The flood hazard and contaminated soils consent requirements are discrete matters that should be assessed under the restricted discretionary activity matters of discretion.

7.0 Regional Natural Resources Plan

7.1 Air Quality

7.1.1 Plan Status

The Regional Air Plan has been reviewed and replaced by Plan Change 13 (Air Quality) to the Regional Natural Resources Plan. Plan Change 13 was notified in 2018. The provisions of Plan Change 13 (Air Quality) relevant to this application are beyond appeal[13] and are treated as operative.

7.1.2 Activity Status

Under *Rule AIR-R15 Specific activities* the discharge of contaminants into air from asphalt or bitumen manufacture or processing is a Discretionary Activity.

“Asphalt or bitumen manufacture or processing” covers all components of the manufacture or processing on the site that produce emissions, including delivery and yard activities, bulk goods handling, and burning equipment.

Alternatively, the delivery and yard activities, and bulk goods handling associated with asphalt manufacture could be considered separately as “General Activities” under Rule AIR R16, in which case, the activity status would be unchanged (Discretionary), and the same matters would be considered for resource consent.

The regional plan does not address greenhouse gases or climate change[14]. It is recognised that consent authorities may, from 30 November 2022, have regard to the effects of discharges into air of GHGs on climate change in considering an application for a discharge permit. On that basis, discharges into air of GHGs from the asphalt plant should also be assessed as a Discretionary Activity.

7.1.3 Decision Criteria

The criteria for assessing applications for discharge permits are set out in policies *Air P3 Management of Discharges* and *Air P4 Matters to Consider.*

AIR-P3 Management of discharges — Te whakahaere i ngā tukunga

[13] Only rule AQ R22 Handling of bulk solid materials remains under appeal, and this rule is not relevant to the current proposal.

[14] Introduction to Plan Change 13 (Air Quality) to the Regional Natural Resources Plan.

Activities that discharge contaminants to air must be managed, including by use of the best practicable option, to:

(1) safeguard the life supporting capacity of the air, protect human health, and avoid, remedy or mitigate adverse effects on cultural values, amenity values, and the environment

*(2) avoid the discharge of contaminants at a rate or volume that may cause an exceedance or breach of the **ambient air** quality standards of the National Environmental Standards for Air Quality (or its replacement or amendment)*

(3) avoid reduction in visibility where it may cause adverse effects on vehicle, aircraft, or ship safety

*(4) avoid, remedy or mitigate the discharge of contaminants that may cause adverse effects on regionally significant **infrastructure** or **regionally significant industry**.*

*For the purposes of this Policy AIR-P3(4) **regionally significant industry** means industry based on the use of the natural and physical resources which have benefits that are significant at a regional or national scale. These may include social, economic, or cultural benefits.*

AIR-P4 Matters to consider — Ngā take hei whiriwhiri

Have particular regard to the following matters when considering the acceptability of any discharge of contaminants to air:

*(1) The proximity of **sensitive areas** to the discharge including the effect of new activities discharging contaminants into air near established **sensitive areas.***

*(2) Areas where the discharge may cause an exceedance or breach of the **ambient air** quality standards of the National Environmental Standards for Air Quality or exceed the Health-based Guideline Values in Table 1 of the Ambient Air Quality Guidelines (or their replacements or amendments).*

(3) Adverse effects on air quality values identified in the relevant iwi and hapū resource management plans during assessments of resource consent applications.

(4) The effect of the prevailing weather conditions, including rainfall, wind speed and wind direction.

*(5) The effect of the discharge on human health, cultural values, amenity values, the environment, and regionally significant **infrastructure**.*

(6) Cumulative effects.

*(7) Whether a change to an activity expressly allowed by an existing resource consent will cause a net increase of **particulates** into an **airshed** in breach of the ambient air quality standard for **particulates** of the National Environmental Standards for Air Quality.*

(8) The operational requirements and locational constraints relevant to the discharge and/or activity, for example for rural production activities.

(9) Any other recognised air quality guidelines or standards (not listed) that are appropriate to the discharge.

(10) The FIDOL factors (frequency, intensity, duration, offensiveness, location) when determining adverse effects in relation to odour and dust discharges.

*(11) The investment of existing **infrastructure** that mitigates adverse effects of discharges of contaminants to air.*

(12) The nature of the background receiving environment.

Several policies in Air P4 above refer to standards, guidelines, and values in other regulatory instruments and these are outlined below.

7.1.4 National Environmental Standards – Air Quality

Policy AIR-P4 Matters to Consider requires that *'particular regard'* must be given to areas where the discharge may cause an exceedance or breach of the ambient air quality standards of the National Environmental Standards for Air Quality (NESAQ), gazetted in 2004.

The AQA (See appendix 6) assesses compliance with the NESAQ, which is addressed further in Section 11.1.5 below.

In summary, there is no impediment to the granting of this consent under the NESAQ regulations.

7.1.5 Ambient Air Quality Guidelines

Policy AIR-P4 Matters to Consider requires that '*particular regard*' must be given to areas where the discharge may exceed the health-based Guideline Values in Table 1 of the Ambient Air Quality Guidelines (or their replacements or amendments) when considering the acceptability of any discharge of contaminants to air.

The primary purpose of the guidelines is to promote sustainable management of the air resource in New Zealand. The guideline values published are the minimum requirements that outdoor air quality should meet to protect human health and the environment. The guidelines provide values for contaminants that are commonly discharged from industrial sources.

The AQA (See appendix 6) assesses compliance with the Guidelines. In summary, the discharges do not exceed the guideline values.

7.1.6 Other recognised air quality guidelines or standards

Policy AIR-P4 Matters to Consider requires '*particular regard*' to be given to *"other recognised air quality guidelines or standards (not listed)"* that are appropriate to the discharge when considering the acceptability of any discharge of contaminants to air.

The **Good Practice Guide for Assessing Discharges to Air from Industry** outlines good practice recommendations for assessing air quality in New Zealand, mainly for the purpose of resource consent applications. The air quality assessment follows the Good Practice Guide.

Using recycled lubricating oil as a fuel for heating equipment has the potential to discharge some trace metals for which there are no standards or guidelines under New Zealand legislation. The Good Practice Guide recommends overseas sources of guidelines for contaminants which are not regulated in New Zealand, with preference given to the **California Office of Environmental Health Hazard Assessment Reference Exposure Levels (OEHHA)**[3]. Criteria from the OEHHSA have been applied in the AQA

The **Good Practice Guide for Atmospheric Dispersion Modelling** provides protocols for modelling the dispersion of discharges to air from industrial complexes in New Zealand. The guide includes advice on which dispersion model to use. In more complex atmospheric and topographical conditions, advanced puff or particle models and meteorological modelling may be required to maintain a similar degree of accuracy.

Air quality modelling used in the AQA follows the Good Practice Guide by using the CALMET/CALPUFF modelling suite.

Discharges have also been assessed against the **World Health Organisation global air quality guidelines 2021** in the AQA (See Appendix 6).

7.1.7 Iwi and hapū resource management plans

*Policy AIR-P4 Matters to Consider requires that '*particular regard' must be given to '*air quality values*' identified in the relevant iwi and hapū resource management plans.

The Tauranga Moana Iwi Management Plan 2016-2026 is a Joint Environmental Plan for Ngāti Ranginui, Ngāi Te Rangi and Ngāti Pūkenga (Iwi Plan).

The Iwi Management Plan contains the following Air Quality Policy:

> *"POLICY 24*
>
> *Manage the effects of rural and urban air discharges on the health and wellbeing of our people*
>
> *24.1 Involve Iwi and hapū in resource consent processes for industrial air discharges close to marae, papakainga, kura kaupapa or kohanga reo.*
>
> *24.2 Work with Toi te Ora – Public Health Service and Bay of Plenty Regional Council to advocate for:*
>
> *a) More air quality monitoring sites within Tauranga Moana.*
>
> *b) A compliance audit of permitted discharges to air.*
>
> *c) A review of air discharge rules, in particular buffer distances from marae, papakainga, kura kaupapa, kohanga reo or dwelling*
>
> *d) Enforcement action for non-compliance of consented air discharges, particularly those near marae, papakainga, kura kaupapa, kohanga reo or dwelling."*

The Iwi Plan contains the following *Policy Explanation*

> *"Engagement feedback highlighted continued concern about air discharges, particularly near marae, kaumatua flats and kohanga reo. This is because our young and elderly are at particular risk of health problems. New actions are included within this section to ensure that Tauranga Moana and Iwi are involved with consent processes for air discharges and that Council carries out more air quality monitoring. Currently, there are only two live air monitoring sites within Tauranga Moana."*

The Iwi Plan identifies the proximity of *marae, papakainga, kura kaupapa, kohanga reo* as matters for consideration in resource consent processes.

The Plan states that it does not attempt to articulate values, interests and aspirations of individual Iwi and hapū and that this will vary from Iwi, hapū and whānau.

There are no marae, papakainga, kura kaupapa, or kohanga reo in close proximity to the site. There are three marae within 5 kilometres of the site that have *papakainga, kura kaupapa, and or kohanga reo*.

Marae	Hapu	Wharenui	Location	Distance from Site

Whareroa	Ngati Kuku, Ngai Tukairangi	Rauru ki Tahi	Taiaho Place, Mount Maunganui	1.58km
Hungahungatoroa (Whakahinga)	Ngāi Tukairangi	Tāpuiti	Hungahungatoroa Road, Matapihi	3.27
Waikari	Ngati Tapu	Tapukino	Waikari Road, Matapihi	3.75 km

The Ngai Tukairangi and Ngati Tapu Hapu Management Plan 2016 (Hapu Plan) recognises that Whareroa Marae is impacted by surrounding activities[15].

For resource consents, the Hapu Management Plan states that"

> *"…resource consent applicants should consult with hapu regarding the HMP prior to consent lodgement to identify potential cultural and/or environmental issues. Regarding known potential cultural and environmental issues, Council staff will contact the hapu representatives (contact details held by TCC and BOPRC)."*[16]

7.2 Land Management

7.2.1 Earthworks

Earthworks are limited to site preparation works and at 1,500m^3, will be less than the permitted activity limits where the exposed area being no greater than 1 hectare and volume being no greater than 5,000 m³.[17]

The earthworks will comply with the permitted activity standards under Rule LM R1 of the RNRP, which generally seek to minimise sediment entering water bodies. A draft Erosion and Sediment Control Plan (ESCP) has been prepared to ensure compliance with the standards on an ongoing basis (See Appendix 13). The ESCP incorporates measures to control airborne dust during construction, consistent with the AQA.

7.2.2 Contaminated Land

The site is identified by the BOPRC as a "Verified HAIL Site"[18][19]. The Preliminary Site Investigation (Appendix 10) confirms the HAIL classification and because the presence of soil contamination has not been assessed, recommends consent as a restricted discretionary activity under DW R25 of the RNRP is applied for conservatively.

Disturbance of a contaminated site is a Restricted Discretionary under Rule DW R25. The Regional Council restricts its discretion to the following matters:

[15] Chapter Two - Ma Wai Tenei Take

[16] Chapter Nine: Consultation, Engagement and Contribution to Decision Making

[17] Rule LM R1

[18] LUR-TGA-00027 Asphalt or bitumen manufacture or bulk storage (excluding single-use sites used by a mobile asphalt plant)

[19] Verified HAIL Site - information suggests an activity or industry on the HAIL has occurred and the use has been confirmed, but there is insufficient information to quantify adverse effects or risks to people or the environment from the known activity or industry. https://www.boprc.govt.nz/environment/pollution/contaminated-land#30981-3

(a) The remediation processes to be employed.

(b) Degree and extent of off-site discharges.

(c) Reporting, information and monitoring requirements.

(d) The duration of the consent.

(e) The administration charges under section 36 of the Act.

(f) Matters to achieve DW O16, DW P22 and DW P23, and DW M48 and DW M52.

The requirements of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health are addressed in Section 11.

7.3 Discharges to Water and Land

7.3.1 Stormwater Discharges (BOPRC)

As already described, the internal stormwater network on the application site discharges to the public stormwater network in Aerodrome Road. The public stormwater network runs through 1.1km of pipe to the west to a stormwater swale at the end of Seawind Lane, prior to discharging to Tauranga Harbour a further 800m away.

Discharges from the public stormwater network at Mount Maunganui to the Tauranga Harbour are generally authorised under a Comprehensive Stormwater Discharge Consent 66823 (CSDC) held by Tauranga City Council. A comprehensive discharge consent effectively '*shifts control of the consented discharges from the Regional Council to the TLA*'[20].

Condition 7.1 of the CSDC requires the preparation of a Catchment Management Plan for the *Mount Industrial and Sulphur Point Catchment Area*.

A Stormwater Catchment Management Plan (SCMP) for the Mount Industrial Catchment was prepared in 2014. The primary issue in the Mount Maunganui catchment is flooding, due to the land being low lying with a high watertable and being subject to tidal influences, with localised flooding issues. The secondary issue is the quality of stormwater runoff from industrial land use and industrial processes. With limited space for retrofitting large treatment devices in a largely developed catchment, the SCMP recognises that the most appropriate water quality management solutions are on-site mitigation (source control). The SCMP includes cultural impact assessments for iwi/hapu whose rohe include the Mount Industrial Catchment.

Condition 7.3 of the CSDC requires management measures to be identified in the CMP, with five yearly reviews.

Comprehensive Stormwater Discharge Consent 66823 contains the following Advice Note:

> *"9 This consent does not authorise discharges into the consent holder's system from high risk facilities/sites as identified in Schedule 4 of the Bay of Plenty Regional Water and Land Plan unless a separate discharge consent is obtained, transferred to the consent holder, and included as part of this comprehensive stormwater consent."*

[20] Stormwater Strategy for the Bay of Plenty Region, 2005

Concrete batching plants and asphalt manufacturing plants are listed as a *high risk facility* in Schedule 4. The reason for the *high risk classification* is:

> *"The risk of spillages associated with hazardous substances used in these industries can be high."*

Therefore, the CSDC does not authorise the stormwater discharge from the asphalt plant site into the public stormwater network.

Under *DW R20 Permitted – Discharge of Stormwater to Surface Water*, discharge of stormwater to surface water is a permitted activity subject to meeting specified conditions relating to water quality, and flooding and erosion risk.

An assessment of the stormwater discharge from the asphalt plant site into the public stormwater network against the permitted activity standards under Rule DW R20 is included in the Infrastructure Assessment in Appendix 8. The assessment is that the discharge will meet the permitted activity standards under Rule DW R20, other than

> *(d) The rate of discharge shall not exceed 125 litres per second for a 10 minute duration 10% AEP storm event (10 year return period storm).*

Resource consent is required under Rule DW R20 for Restricted Discretionary Activity because the rate of discharge is 210 litres per second for the 10 year return period storm.

The Regional Council restricts its discretion to the following matters under Rule DW R20:

> *(a) Management and maintenance of the stormwater system to achieve the rule conditions.*
>
> *(b) Measures to avoid, remedy or mitigate the adverse effects of the stormwater discharge on:*
>
> *(i) Erosion or land instability.*
>
> *(ii) Water quality.*
>
> *(iii) Flooding of land owned or occupied by another person.*
>
> *(iv) Aquatic ecosystems, indigenous flora and fauna, and the migration of fish species.*
>
> *(v) Users of the water body, including recreational use.*
>
> *(vi) Sites of significance to tangata whenua.*
>
> *(c) The administrative charges under section 36 of the Act.*
>
> *(d) Monitoring requirements.*
>
> *Explanation/Intent of Rule*
>
> *To provide for discharges of stormwater to water where the volume of discharge is greater than that considered to be minor, as specified in DW R20, but where the adverse effects are known or can be predicted and can be controlled through appropriate resource consent conditions. Where the discharge of stormwater to surface water does not comply with DW R20 and is not a restricted discretionary activity under DW R21, it is a discretionary activity under DW R8. Refer to Flow Diagram DW 1 to assist reading of this rule.*

7.3.2 Infrastructure Development Code (TCC)

The Infrastructure Development Code (IDC) is principally concerned with standards for assets that vest in the council. The IDC sets the design criteria for all Stormwater Management Systems[21]. The IDC also recognises private drainage and that a Building Consent must be obtained for their installation or alteration[22].

For commercial and industrial connections to the public stormwater network, pollutants and contamination issues must be identified and managed to the satisfaction of Council though the Building Consent Process[23].

7.3.3 Stormwater (Pollution Prevention) Bylaw 2015 (TCC)

Discharges to the Public Stormwater Network are managed through the Stormwater (Pollution Prevention) Bylaw 2015.

A Pollution Prevention Plan may be required where a site is deemed to be high risk under Schedule 4 of the Water and Land Plan. As noted already, asphalt manufacturing plants are listed as high risk under Schedule 4 because *the risk of spillages associated with hazardous substances used in these industries can be high.*

The Pollution Prevention Plan must include:

- A plan showing site layout, stormwater and wastewater drainage, and relevant buildings and outdoor spaces (including their use);
- A site assessment identifying all actual and potential sources of stormwater pollution;
- Methods in place to control contamination of the public stormwater network;
- Methods and timeframes proposed to control contamination of the public stormwater network;
- A description of the maintenance procedures in place and proposed;
- Spill prevention and spill response procedures.

If another plan has been prepared which addresses these issues, it may be used in place of a Pollution Prevention Plan. In this case the Site Management Plan addresses these issues, and a separate Pollution Prevention Plan is not considered necessary.

7.3.4 Dewatering During Construction

With relatively high ground water, there may be a need for dewatering of services trenches and foundation excavations.

Dewatering of building and construction sites is not a permitted activity on an industrial site[24], requiring consent as Discretionary Activity.

[21] DS-5.4.2 Stormwater Management Systems

[22] DS-5.8.5 Private Drainage

[23] DS-5.8.13 Commercial and Industrial Connections

[24] Rule 42 Permitted – Take of Water and Discharge of Sediment Contaminated Water from the Dewatering of Building and Construction Sites

Specific requirements for dewatering will be identified once the engineering design details are known and a specific resource consent will be sought at that time. This is minor and discrete matter that is not needed to understand the overall nature of the proposal.

7.4 GHG Emissions

Under the Resource Management Amendment Act 2020, consent authorities may now have regard to the effects of discharges into air of GHGs on climate change in considering an application for a discharge permit or coastal permit.

The Amendment Act provides for regional policy statements, regional plans and district plans to consider any emissions reduction plan or national adaptation plan under the Climate Change Response Act 2002. Such consideration has not been undertaken in any of the relevant planning instruments, with the change being so recent (from November 30, 2022).

Central government is working on a national policy statement and national environmental standard to support council decision-making on greenhouse gas (GHG) emissions from industrial process heat, but as yet no national guidance has been produced. Without any specific regulation or national guidance currently being in place, consideration has been given to the proposals set out in consultation on the NES or NPS in 2021.

The preferred option from the consultation document is to

> *"…require industrial sites (above a certain threshold) to prepare and implement a GHG emissions plan to encourage energy efficiency and the uptake of best practices, and transition fossil fuel assets to low emissions energy sources over time[25].*

The preferred option would require industry to submit a GHG emissions plan as part of a resource consent application – both for new assets and existing assets through re-consenting processes.

The purpose of the GHG emissions plan is to demonstrate how a site currently minimises and/or will reduce GHG emissions over time through improving energy use and adopting relevant best practices. Where the GHG emissions plan identifies that the best practice or low emission option is not technically and economically feasible, the onus is on the applicant to provide supporting evidence to demonstrate this through the consent process.

Best practice would include Best Available Technology (BAT) documents, NZ Publicly Available Specifications (PAS) and other standards of reference or guidance developed by the Energy Efficiency and Conservation Authority (EECA).

Proposed national direction will set out specific requirements for the content of the GHG emissions plans. To help industry prepare their site-specific GHG emissions plans, guidance and templates will be developed and potentially referred to as matters of discretion, along with a link to the relevant section on EECA's website where the materials would be listed.

Guidance is intended to help streamline the process to prepare GHG emissions plans, reduce compliance costs for industry and deliver the desired outcomes in terms of GHG emission reductions.

The existing and proposed AAL asphalt plants exceed the low GHG emitting site threshold and would be subject to the GHG emissions plan requirements if the national direction adopts the preferred option as indicated.

[25] 40 Phasing out fossil fuels in process heat: national direction on industrial greenhouse gas emissions

8.0 Assessment of Environmental Effects (Section 104(1)(a))

8.1 Overview

Having regard to the nature of the proposal and relevant regional and district plans and national standards, the effects requiring assessment for this application are:

- Air Quality
- Greenhouse Gas Emissions
- Water Quality
- Landscape and Visual
- Flood Hazards
- Hazardous Substances
- Soil Contamination
- Transportation
- Noise
- Infrastructure and Services
- Geotechnical
- Construction
- Cultural

8.2 Air Quality

8.2.1 Assessment

An Air Quality Assessment (AQA) is included in Appendix 6.

The AQA provides a comprehensive assessment of the potential effects of emissions to air from the construction and operation of the proposed asphalt manufacturing plant, and the continued operation of the existing plant until the new plant is commissioned. Principal findings are summarised below.

The site is located in the Mt Maunganui industrial area and is well separated from surrounding sensitive land uses, the nearest of which are the worker accommodation units within airport hangers located on De Havilland Way, approximately 400 m to the southeast and the preschool on 1 MacDonald Street, located approximately 440 m northeast of the Site. Other sensitive activities in the vicinity include the residences and schools located further northeast in Omanu, and Whareroa Marae which is located approximately 1.4 km to the west of the Site.

The local meteorology recorded at Tauranga Airport 1.2 km southwest of the site shows that the prevailing wind direction is from the west-southwest.

The Bay of Plenty Regional Council (BOPRC) operates seven air quality monitoring stations within the Mt Maunganui Airshed. The closest monitor is located at De Havilland Way to the southeast of the site, at a location heavily influenced by local stock food handling operations.

The nearest ambient monitor that is expected to represent background industrial air quality is located 1.3 km northwest at Totara Street, which records ambient concentrations of particulate matter ($PM_{2.5}$ and PM_{10}) and sulphur dioxide (SO_2). These measurements were used to develop suitable background concentrations for assessment of impacts to air.

A range of contaminants are discharged to air from operation of the existing and proposed asphalt plant including:

- Fine particulate matter (PM_{10} and $PM_{2.5}$) from the combustion of fuels, from the drying, tumbling and screening of aggregates and from the condensation of organic contaminants volatilised during the manufacture of asphalt.
- Products of combustion of fuel: Sulphur dioxide (SO_2), Oxides of nitrogen (NO_X), and Carbon monoxide (CO)
- Volatile organic compounds from the heating of bitumen (benzene, acetaldehyde and formaldehyde)
- Odour from the mixing of bitumen with heated aggregate, from the warm storage of bitumen and from the storage and handling of hot-mix asphalt.
- Dust from site operation such as vehicle movements and materials handling
- Dust from demolition and construction

Emissions from the existing and proposed plants were evaluated in an atmospheric dispersion modelling study, using a meteorological dataset for three modelling years (2014, 2015 and 2016).

Proposed Asphalt Plant

The predicted ground level concentrations, using conservative assumptions, indicate that the cumulative effects of emissions of PM_{10}, $PM_{2.5}$, SO_2, NO_2, CO, VOCs and trace metals from the proposed plant are well below relevant air quality assessment criteria. For most contaminants, the air quality effects of the proposed asphalt plant are lower than the effects of the existing plant due to improved air pollution control and a taller stack, which will increase dispersion and dilution of emissions.

The Mt Maunganui Airshed is classified as 'polluted' with respect to PM_{10} concentrations under Regulation 17 of the NESAQ. However, the incremental effect of the emissions from the proposed asphalt plant are small and are significantly lower than the existing asphalt plant. The decommissioning of the existing plant will more than offset the consented PM_{10} emissions to the airshed and will result in a net reduction in consented PM_{10} mass emissions.

The existing plant has been the subject of a number of complaints to the BOPRC relating to odour in recent years, and BOPRC confirmed an incidence of offensive or objectionable odour from the existing plant in 2019. This is consistent with the results of odour dispersion modelling, which suggests the potential for odour effects in the residential area northeast of the site. This area may also be impacted by odour emissions from the nearby Higgins asphalt plant.

Dispersion modelling demonstrates that the odour effects of the proposed plant will be significantly less than the current plant and well below odour modelling assessment criteria. The

assessment of odour effects indicates that, with the improvements to odour control, the frequency, intensity and duration of odour likely to be experienced beyond the boundary of the site is such that that offensive or objectionable odour is unlikely.

As the discharges to air are well below relevant air quality assessment criteria, it is concluded that subject to conditions, effects will be no more than minor.

Existing Asphalt Plant

The existing plant has also been evaluated in the dispersion modelling assessment. The cumulative effects of emissions of PM_{10}, $PM_{2.5}$, SO_2, NO_2, CO, VOCs and trace metals from the existing plant are well below relevant air quality assessment criteria for the continuous operation at the maximum production rate.

The operation of the existing plant has been the subject of odour complaints from the community located to the northeast of the site. Modelling of the maximum production rate on a 24 hour basis does suggest that 99.5th percentile 1-hour average odour concentrations higher than the MfE guideline could occur at the nearest receptors to the northeast of the site.

Modelling for the typical production rate for typical operating hours of 7am – 12pm shows that the MfE guideline is met for the 99.9th percentile 1-hour average odour concentrations at all receptors.

Replacement of the existing plant with the proposed vertical batching plant is expected to significantly reduce the propensity for odour to be generated during production through separation of the burner and bitumen mixing operations and installation of specialised odour emissions treatment for bluesmoke aerosols.

During the last operating phase of the existing plant through to replacement, air discharge effects will be minimised by ensuring all systems are maintained to achieve the highest level of performance.

8.2.2 Recommendations

A set of recommended conditions for the air discharge are set out in Appendix 17 for the new Asphalt Plant addressing:

- Performance Standards
- Contaminant Discharge Controls and Limits
- Monitoring
- Air Quality Management Plan
- Complaints Log
- Mātauranga Māori Environmental Monitoring Plan
- Reporting
- Greenhouse Gas Emissions Plan
- Review of Best Practicable Option for Minimising Discharges of Contaminants to Air
- Review of Consent Conditions

The recommended conditions include a requirement that the Consent Holder shall at all times maintain an Air Quality Management Plan (AQMP) and shall ensure that all consented activities are conducted in general accordance with the AQMP.

For the existing asphalt plant, continuation of the existing expired discharge permit conditions (See Appendix 7) is sought for a 2-year period, with an additional condition requiring an Air Quality Management Plan to provide further assurance on how compliance will be achieved.

8.3 Greenhouse Gas Emissions

8.3.1 Assessment

GHG emissions associated with the supply chain for asphalt manufacturing and use include emissions from:

- Production of raw materials inputs of aggregate, bitumen and modifiers
- Transportation of raw materials to the production facility
- Production of asphalt mix at the asphalt plant
- Transportation of asphalt to construction sites
- Application, use and maintenance of asphalt product as part of the transport network.

For the air discharge permit application, GHG emissions from the production of asphalt mix at the asphalt plant is the relevant scope for consideration.

Other components of the supply chain are either unrelated to the air discharge consent, remote from and beyond the control of the applicant, and in many cases subject to other policy and regulatory requirements relating to GHG emissions.

For the production of asphalt mix at the asphalt plant:

- There is currently no viable technical alternative to using fossil fuels as the heat source for the production of asphalt.
- Efficiency of the plant will be improved with computer monitored and optimised management software, reduced energy consumption for both the burner and conveyor equipment;
- The new asphalt plant adopts the most up to date burner technology with related energy efficiency and reductions in GHG emissions:
    - Hot combustion gases will be recirculated;
    - Hot storage bins will have improved heat retaining qualities and use less energy;
    - New horizontal bitumen tanks will be better insulated and use less energy.
- Additional covered aggregate storage will reduce moisture content and energy use for aggregate heating;
- High recycled asphalt (RAP) percentage (up to 40%) will provide a more sustainable solution through aggregate and bitumen recovery;
- The plant will have capability to:
    - produce lower carbon low temperature asphalt;
    - switch to low or zero carbon fuels (e.g., biofuels, hydrogen, wood dust) once this technology is available with security of supply and is affordable.

The applicant has considered alternatives and determined that the selected plant is the best practicable option based on current technology.

The use of recycled asphalt (RAP) in the production of asphalt is a significant opportunity to reduce GHG. The new asphalt plant adopts the most up to date technology which increases the capacity to use RAP, with the potential for up to 40% of the content of manufactured asphalt coming from RAP where specified by customers. Plants currently available with higher RAP potential (up to 100%) are much larger in scale than the proposed plant[26].

Location of the plant remaining within close proximity to bitumen import points and central to the market means road transport emissions are minimised;

Future opportunities to reduce GHG emissions from the asphalt manufacturing process are likely to come from new technology that will:

- Enable a transition to low or zero carbon fuels for process heat (e.g., biofuels, hydrogen, wood dust) once this technology becomes readily available and affordable, with long term security of supply.
- Allow increases in the proportion of RAP, and production of other lower carbon asphalt products (such as lower temperature asphalt), subject to roading agencies and other customer procurement specifications.

8.3.2 Recommendations

The decommissioning of the current plant and establishment of the new plant will be the first key step towards GHG emissions reduction.

Consistent with the proposed national direction, it is recommended that within 5 years of the plant commencing operations that a GHG Emissions Plan be prepared by a suitably qualified and experienced practitioner in accordance with any national standards applicable at that time.

Amendments arising from any review would be for the purpose of improving the efficacy of GHG emission reduction measures, consistent with consent conditions, and submitted in writing to the Council prior to any amendment being implemented.

8.4 Water Quality

8.4.1 Assessment

An assessment of water quality effects is included in the Infrastructure and Services Assessment in Appendix 8.

A new stormwater system will be installed on site including a proprietary treatment device and a new stormwater line and connection to the public network on Aerodrome Road.

Potential contamination from a hazardous substances spill event will be managed through storing the substances in a secondary containment bund (liquids) and appropriate design and maintenance of containers.

[26] https://marini.fayat.com/en/products/batch-plants/master-tower

A trade waste connection is proposed to divert runoff from the asphalt plant weighbridge and bunded areas surrounding the bitumen and oil tanks, where there is a higher risk of contaminated runoff.

In assessing effects of the stormwater discharge, consideration should be given to the consented environment which includes the granted Comprehensive Stormwater Discharge Consent (CSDC), and the intention that any private discharge consent is transferred to the Tauranga City Council as CSDC consent holder and made subject to the same terms and conditions.

The rate of discharge will be unchanged from that for the existing site, which is largely impermeable. There is no known erosion, land instability or flooding effect caused by the existing discharge.

Management and maintenance of the upgraded stormwater system will be addressed through the Environmental Management Plan to ensure that the water quality standards are met on a continuing basis.

The management of cumulative effects on aquatic ecosystems, indigenous flora and fauna, and the migration of fish species are addressed as part of the CSDC and associated management plan which are subject to monitoring and review conditions. The site discharge will not have any additional effects with a high level of water quality treatment being provided on site.

The discharge will have no effects on users of the water body, being a public stormwater network with no recreational use.

A Cultural Effects Monitoring and Mitigation Plan is a requirement of the CSDC. The stormwater management plan is required to record the cultural values of iwi and hapu with mana whenua over the catchment area and the related receiving environment and detail how such cultural values are integrated into stormwater management in the applicable area.

CIAs were prepared by Ngai Tukairangi, Ngati Kuku, and Ngati Tapu for the Mount Maunganui Industrial Area, with the primary recommendations relevant to this application being (in summary):

- Protection of the mauri of Tauranga Harbour, and its water quality and ecology;
- On site management of contaminants by private industry, including extra precautions for high risk industries;
- Prevention of toxic waste impacting the harbour;
- Use of low impact natural systems for water treatment wherever possible;
- Careful management of sediment from earthworks during construction;
- Regular and robust compliance monitoring.

These requirements are met by the proposal, noting that space limits create a constraint on using natural methods of stormwater management. A highly specified technical solution is instead proposed, combining diversion to trade waste for higher risk contaminants with best practice proprietary devices for other runoff treatment.

With mitigation treatment in place, effects will be no more than minor.

Sediment discharges during construction are addressed in the Erosion and Sediment Plan (See Construction Effects).

8.4.2 Recommendations

The adverse effects of the discharge are known and can be controlled through appropriate resource consent conditions. Once granted the discharge consent will be transferred to the Tauranga City Council and included as part of the comprehensive stormwater consent and made subject to the same conditions including:

- 8 Stormwater Quality and Receiving Environment Water Quality Parameters;
- 9 Discharge Monitoring and Reporting;
- 13 Review of Conditions;
- 14 Term of Consent (Expiry 31 October 2047).

The Infrastructure Assessment identifies that the proposed stormwater system design is indicative with the final layout to be confirmed at later design stages. A detailed engineering design will be required for building consent prior to construction, which should include certification of compliance of the system with the CSC Stormwater Discharge Quality Parameters (CSC Conditon 8.1 Table 3).

8.5 Landscape and Visual

8.5.1 Assessment

A Landscape and Visual Assessment is included in Appendix 14.

The site is located in the Mount Maunganui Industry Zone and is surrounded by Industry Zone land. The Mount Maunganui Industrial area is established and built out. The site and its setting are characterised by established industrial activities, uses and structures, including some large-scale infrastructure and towers supporting the wider Mount Maunganui Industrial area and the Port of Tauranga.

The proposal includes the construction and operation of an asphalt plant, which includes a large-scale tower up to a height of approximately 27.6m. The permitted height limit in the Industry Zone is 16m.

The site layout includes the storage of materials, with production and operations including a large-scale tower within an existing asphalt plant and vehicle compound.

The site is not located within any specific landscape overlay and there are no known landscape values that require protection. The closest Outstanding Natural Features and Landscapes are Mauao, 3km to the north and the southern reaches of the Tauranga Harbour, 1.2km to the south.

The height of the proposal is below the 32m high floor of the protected viewshaft of Mauao from the Tahuwhakatiki Marae viewing point.

Effects are assessed as follows:

- The overall effects of the proposal on the landscape character of the site and the Aerodrome Road area are **Very Low** *neutral.*
- The overall effects of the proposal on the visual amenity values of the local industrial area and motorists are **Very Low** *neutral.*

- The overall effects of the proposal on the visual amenity values of the closest residential area are **Very Low** *neutral.*
- The overall effects of the proposal on the visual amenity values of the Whareroa marae area are **Very Low** *neutral.*
- The overall visual and shading effects of the plume are **Very Low** *adverse.*
- The overall effects of the lighting and glare are **Very Low** *adverse***.**

The exceedance of the 18m height standard of the Industry Zone will not be a prominent feature within the environment. Where visible, the proposal will be seen within the context of the surrounding industrial land uses and structures, including the wider Mount Maunganui Industrial area and the Port of Tauranga.

The site is well suited for the proposal and any landscape and visual amenity effects arising from the proposal on the receiving environment are acceptable.

8.5.2 Recommendations

A lighting strategy has been prepared to ensure the safe operation and use of the site during night-time hours. The proposed lighting includes a series of wall and pole mounted flood lights located around the plant and aggregate stores. It is recommended that the flood lights are installed with back screens which restrict lighting to within the site boundaries, reducing light spill outside of the site.

It is recommended that the proposed plant infrastructure be coloured in a recessive grey colour, ensuring that it is seen as a visually recessive feature within the environment. Resene Jumbo Grey is often used as a mid-grey colour for tall structures, such as communication towers and is similar in colour to weathered concrete or galvanised steel.

8.6 Flood Hazards

8.6.1 Assessment

An assessment of flood hazard effects is included in the Infrastructure and Services Assessment in Appendix 8.

The primary stormwater system (pipework) will be designed for a 10-year rainfall event for the post-development peak flow discharges.

The secondary stormwater system will be designed for a 100-year rainfall event while taking into account the effects of climate change as of the year 2130 based on the RCP 8.5 median scenario. The post-development stormwater run-off rate does not exceed the pre-development run-off rate.

The design considers where water will flow (secondary flow paths) during this large rainfall event:

- The changes to the overland path will be limited to the site with no additional impact to people or buildings beyond the site.
- There will be no change in displacement effects on other land and Council infrastructure.

- Flood depth is below 300mm, and the building floor (office) levels have been set accordingly. With shallow, low velocity flows evacuation during flood events will not cause a safety risk to people.
- No stored materials or parked vehicles will be mobilised during a flood event.

Flood hazard effects arising from the proposal will be negligible or positive, given there will be no increase in the existing risk and the proposed office will protected from flooding.

8.6.2 Recommendations

The proposal should proceed in general accordance with the application plans, subject to final confirmation of a safe floor level at the time of building consent.

8.7 Hazardous Substances

8.7.1 Assessment

A Hazardous Substances Assessment is included in Appendix 9.

All hazardous substances proposed to be stored as part of the new asphalt manufacturing plant are already stored and managed as part of the current facility.

As already stated, storage of hazardous substances associated with asphalt manufacturing was enabled under the original land use consent granted in 1970. Specific substances and their quantities were not specified in the application or consent. To remove any doubt over compliance a resource consent is being sought.

Based on the quantities of substances to be stored and the associated risk classification of the substances, the main risks relate to the environment and human health.

The environmental risk is primarily associated with the storage of waste oil (refined oil) and fatty amine derivative (cool pave). The human health risk is primarily associated with the storage of waste oil and lime. These risks relate to the potential leaks and spills of liquid hazardous substances, accidental release from storage tanks during transfer, unloading and refuelling, and release of any dust during the dispensing of the lime.

These potential effects on the environment will be managed through storing the hazardous substances in a secondary containment bund (liquids) and appropriate design and maintenance of containers. Surface run-off can be captured by a suitable and controlled treatment system to avoid release of contaminants to the environment. These overarching management controls will cover potential discharges to the surrounding and receiving environment, stormwater and wastewater networks.

Based on recommendations being actioned prior to the commencement of the operations of the new plant, the risk associated with the storage of hazardous substances at the site is assessed as low.

Hazardous substances effects arising from the proposal will be negligible or positive. There will be no increase in the existing risk, and the upgraded stormwater disposal system, with diversion of runoff from higher risk operational areas to trade waste, will avoid contaminants entering the stormwater system.

8.7.2 Recommendations

The final design will be reviewed and certified for compliance against the applicable hazardous substances regulations once the new facility is complete, and prior to operation of the processes.

A final Environmental Management Plan will be submitted for certification incorporating detailed procedures and protocols to minimise hazards, including an Emergency Response Plan.

8.8 Soil Contamination

8.8.1 Assessment

A Preliminary Site Investigation (Contaminated Land) Report is included in Appendix 10.

The investigation assesses historical aerial photography and regional and district council records to determine land uses since 1940 to the present day.

The investigation identifies that the entire site associated with the proposed asphalt plant upgrade is a Hazardous Activity or Industry List (HAIL) site.

This classification is primarily associated with HAIL E2 - Asphalt or bitumen manufacture or bulk storage, with the auxiliary HAIL activity A17 associated with the storage of chemicals and fuels. HAIL A18 is also included as historic wood treatment and bulk storage has likely occurred along the site's eastern boundary.

Soil disturbance is required in the 'piece of land' at a volume which exceeds the permitted activity provisions of Regulation 8(3) of the NESCS. Remaining permitted activity criteria outlined in Regulation 8 are anticipated to be achieved during the construction of the new asphalt plant.

On the basis of the exceedance of the PA soil disturbance volumes and having no DSI being undertaken, as a discretionary activity under Regulation 11 of the NESCS is required. Further testing is being undertaken as precaution and a DSI will be prepared.

As no soil sampling has been undertaken to assess the presence of contamination, consent as a restricted discretionary activity under DW R25 (Rule 35) of the RNRP is applied for disturbance of contaminated land.

A Conceptual Site Model was developed to describe the relationship between sources of contamination, the human and environmental receptors that may be exposed to those contaminants in the context of the continued commercial/industrial land use of the site and its development, and the pathways by which those receptors may be exposed. A commercial/industrial land use has been chosen as the most appropriate for this assessment given the context of the upgrades and the site's continued asphalt plant use.

Exposure pathways requiring consideration are

- Exposure of workers to contaminants in soils during the upgrade works – dermal contact, ingestion or inhalation of dust/vapours.
- Contaminants in surface water discharging into the stormwater system.

8.8.2 Recommendations

A Contaminated Soils Management Plan (CSMP) is recommended to outline safe working practices with soil disturbance in the site including emphasis on hygiene and minimising contact with potentially contaminated soil or dust, maintaining effective erosion and sediment controls, accidental discovery protocol and stockpile requirements. The management measures in the CSMP will be informed by the contaminant types and concentrations found by the site investigation.

It is recommended that the requirement of a CSMP to be produced by a SQEP and supplied to TCC and BOPRC is included as a resource consent condition.

The geotechnical assessment identifies that an old topsoil layer may need to be removed in the vicinity of new structures. Any spoil requiring offsite disposal will require sampling in order to classify the material for appropriate disposal.

Specific management controls such as a project Erosion and Sediment Control Plan (ESCP), Environmental Management Plan (EMP) will be in place to manage the sediment and runoff discharge pathway.

8.9 Transportation

8.9.1 Assessment

A Transportation Assessment is included in Appendix 11.

The amount of asphalt manufactured is based on market demands and is unlikely to change from the current operation as a result of the plant upgrade. Similarly, the number of staff and vehicle movements associated with the site are unlikely to change. Therefore, the associated parking demand and number of trips generated is unlikely to change from that currently generated.

The new plant has a higher theoretical capacity. If the plant is operating at capacity, additional trips up to 22vph and 152vpd are expected. This increase is not expected to result in any adverse material effects on the surrounding road network.

There are four existing vehicle crossings to the site on Aerodrome Road, with two vehicle crossings serving the asphalt plant being 10m wide. Sufficient sight distance is available at each vehicle crossing location and one-way operation of the access ensures that reverse manoeuvres are not necessary, including allowing for trucks to drive through the site in a forward direction. The access arrangements are suitable for the proposed asphalt plant upgrade and comply with the City Plan requirements and will need. to comply with standards in the council's Infrastructure Development Code when they are constructed.

An assessment of the proposed asphalt plant upgrade against the transportation rules of the City has not identified any areas of non-compliance. As such, it is concluded that there are no traffic engineering or transport planning reasons to preclude approval of the proposed development.

Transportation effects are assessed as less than minor, having regard to the existing environment and permitted baseline.

8.9.2 Recommendations

Upgraded vehicle crossings will be required to comply with standards in the councils Infrastructure Development Code.

8.10 Noise

8.10.1 Assessment

An assessment of noise effects is included in Appendix 12.

This report considers potential operational noise effects for the closest industrial and residential zoned receivers.

The assessment predicts noise emissions from the new asphalt plant and compares the resulting levels to the relevant noise limits in the Tauranga City Plan. Ready compliance is predicted for residential zone receivers.

The assessment calculates cumulative asphalt production noise, including loader and truck movement noise. The primary noise source is the asphalt plant. Secondary noise sources are the loader and trucks transporting raw materials and finished asphalt product.

Compliance is predicted for typical production (up to 250T per day) but with minor non-compliances predicted for industrial zone receivers at maximum production (1,000T per day).

Modelled noise levels for a 1,000T per day scenario are illustrated in Figure 20 below[27].

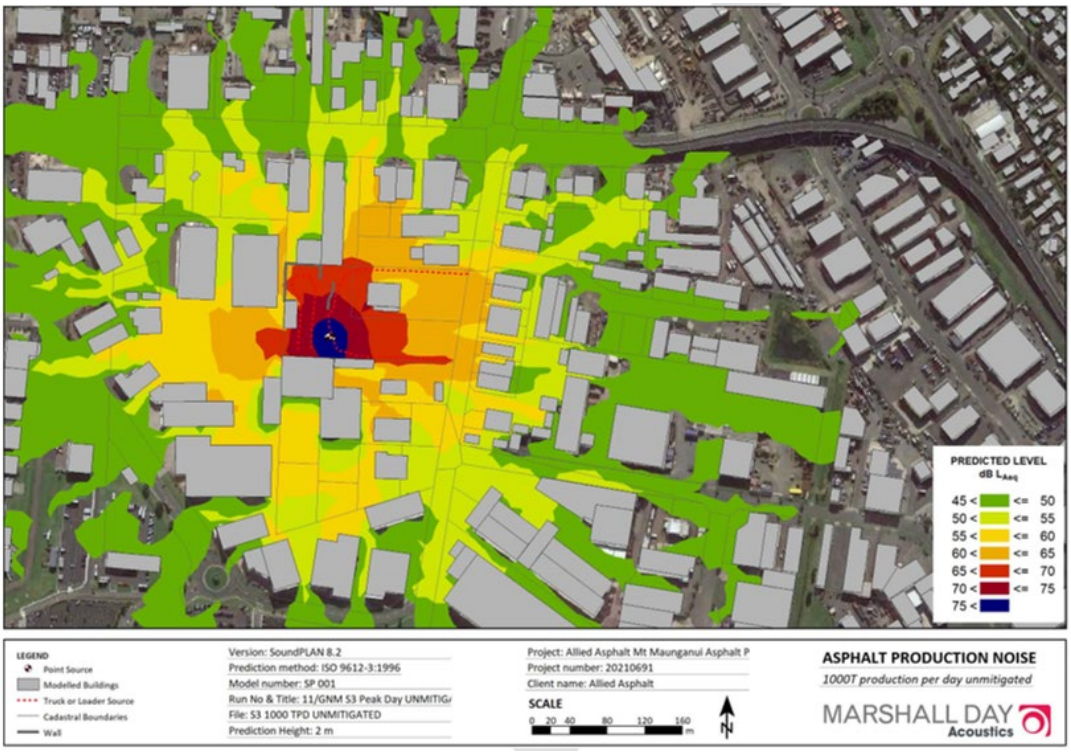

Figure 20 Modelled noise levels for a 1,000T per day scenario

[27] See Appendix E of Noise Assessment

Given the site is in an existing established industrial zone with low sensitivity, and considering the calculated noise levels and noise character, the assessment concludes that noise, including at full production, will remain reasonable with no adverse noise amenity effects.

The assessment also calculates construction noise levels for the project. Typical construction techniques are assumed. The assessment predicts short term exceedances of the relevant limits. No adverse effects are expected to occur given the industrial zone setting.

8.10.2 Recommendations

The noise assessment proposes compliance with City Plan noise rules, other than provision in the land use consent for minor exceedance at the immediate industrial site boundaries to accommodate production at full capacity.

8.11 Infrastructure and Services

8.11.1 Assessment

An Infrastructure and Services Assessment is included in Appendix 8.

The assessment includes consideration of stormwater, wastewater, water utilities, energy and communications.

Stormwater

Water quality and flood hazard effects are addressed in Sections 8.4 and 8.6 above.

The stormwater network is shown indicatively on the site plan, with final layout to be confirmed at later detailed design stages.

Wastewater

The existing private wastewater network connects the site office to the public wastewater network on Aerodrome Road through the adjacent Fulton Hogan site.

The relocated site office to the northern boundary will require a wastewater connection. It is proposed the existing wastewater pipe in this area will be extended to the relocated site office. This proposed connection will not increase the flow to the public wastewater network.

A new trade waste line will be extended to the containment area for the weigh bridge and asphalt process area and associated treatment device.

Water

The existing water network connects to the public water supply.

A rainwater reuse tank (from the covered aggregate storage) is used to reduce the demand for public water supply.

The existing rainwater reuse tank for the covered aggregate bins is to be relocated to the south to allow for the construction of new aggregate storage bins along the north-west boundary.

A backflow prevention device will be installed on the water supply line at the boundary. The arrangement and location of backflow prevention device will be confirmed in detailed design stages.

Firefighting requirements are met. The site is not expected to require an internal sprinkler system. This will be confirmed by a suitably qualified fire specialist in future detailed design stages.

Electrical, Gas and Communications

A new dry services corridor (power, gas, communications) will be installed along the southern boundary of the adjacent Fulton Hogan site, from Aerodrome Road to Allied Asphalt.

Infrastructure and Services Effects

The proposed site upgrading will not place any significant demand on services beyond that of the exising plant.

8.11.2 Recommendations

The final design of infrastructure and services should be confirmed at future detailed design stages.

8.12 Geotechnical

A Preliminary Geotechnical Appraisal is included in Appendix 16.

The potential geo-hazards identified at the site are commonly encountered within the area. The identified foundation mitigations concept options are similar for the different constraints identified and reflect construction options that are widely used and therefore considered manageable during future development phases.

Foundations for new structures are expected to be influenced by seismic liquefaction effects and may require ground improvements, potentially comprising excavation and replacement of near surface soils, to achieve an adequate bearing capacity. This treatment may also be required to remove an old topsoil layer that appears to be present across the site.

Either deeper ground improvement or pile foundations may be considered where the performance of shallow foundations were insufficient.

8.12.1 Recommendations

The available information is adequate to understand geotechnical constraints in support of the resource consent but are not sufficient for detailed design of the new asphalt plant.

Site specific geotechnical investigations and design will be required at detailed design stage to develop appropriate foundations for the proposed development.

8.13 Construction

8.13.1 Assessment

The proposed upgrade works are split into the following three stages

- Enabling works – clearance of stockpiled aggregate to existing ground level. Removal of existing infrastructure (site office and aggregate shed) in the proposed footprint of the new asphalt plant.

- Construction – construction of the new asphalt plant offline from the existing site processes including new asphalt plant infrastructure, bitumen tanks, new aggregate loading bays, stormwater and wastewater infrastructure and dry service connections
- Decommissioning of old plant and new storage bays – once the new plant is commissioned, commence decommissioning the existing plant. This stage also includes the construction of more aggregate storage bays in the southern vicinity of the site

An Erosion and Sediment Control Plan (ESCP) has been prepared to describe how earthworks associated with the construction of a new Asphalt Plant within the Aerodrome Road site can be effectively managed to mitigate any potential sediment discharge risk and avoid adverse impact on the environment from land disturbance activities (See Appendix 13). The ESCP also incorporates measures to control airborne dust during construction, consistent with the AQA.

A Contaminated Soils Management Plan (CSMP) is recommended to outline safe working practices with soil disturbance in the site including emphasis on hygiene and minimising contact with potentially contaminated soil or dust, maintaining effective erosion and sediment controls, accidental discovery protocol and stockpile requirements

The Assessment of Noise Effects includes an assessment of construction noise. The assessment predicts that short-term exceedances of the construction noise standard could occur during the Project's construction. The exceedances will occur at adjacent industrial zoned sites. Irrespective of the non-compliances no adverse noise effects will occur given the low sensitivity of the industrial receiving environment.

Traffic effects from the construction phase will be negligible with the local industrial road network having appropriate capacity and capability.

8.13.2 Recommendations

A Construction Management Plan must be provided to the council prior to commencement of the works to confirm the final programme dates and duration, appropriate contact information and measures to be implemented by construction contractors including;

- erosion and sediment control,
- Dewatering, including any additonal compliance or consenting requirements
- traffic management.
- noise management.

8.14 Cultural

8.14.1 Assessment

Engagement has occurred with mana whenua on the proposal and is ongoing. Engagement first occurred on the proposal to reconsent the discharge permit for the existing plant, with a further meeting to discuss the proposed replacement plant and subsequent information sharing.

Mana whenua consider the effects of the activity to be significant and adverse because the activity is seen as contributing to the cumulative adverse effects of industrial uses in the Mount

Maunganui Industrial area that already exceed a culturally acceptable level, given the status of the Mount Industrial Area as a polluted airshed.

Mana whenua's preference is for removal of heavy industry including the AAL asphalt plant from Mount Industrial Area to reduce cumulative effects on air quality. "Heavy industry" is seen as including any industry that contributes to pollution in the airshed. While the benefits of improved technology applied in the proposal are recognised, any contribution to on-going pollution is not supported. The installation of the tall emissions stack is also seen as a visual eyesore.

Mana whenua are seeking relocation of heavy industry to other locations further away from sensitive activities to reduce cumulative effects (referred to as "managed retreat"). Individual companies can only control their own effects, not those of others, and manawhenua are looking to Councils to address the heavy industry issue as a public policy issue.

There is concern that granting consent for the activity will continue and consolidate long term use by heavy industry in the area, against this direction. Long term consents are opposed, with mana whenua seeking a maximum term of 10 years if consent were to be granted.

AAL has considered alternative sites as requested by manawhenua and concluded that the current site is the preferred site, with other site options having significant disadvantages. The current site is appropriately zoned, strategically located to source inputs and to service the region's development needs and is appropriately separated from sensitive activities. A long term consent is sought, but with periodic reviews to ensure that the best practicable option for emissions control is in place for the duration of the consent.

An investigation into the potential for instigating managed retreat for pollutant industries from Totara Street south of Hewletts Road has been instigated by the Tauranga Moana Advisory Group in 2020. The investigation is at scoping stage and relates to pollutant industries from Totara Street south of Hewletts Road in proximity to Whareroa Marae and includes Balance, NZ Oil Services and the Lawter NZ sites (all within 500m of the Marae).

The development of broader public policy on industrial land use at Mount Maunganui is occurring through the Mount Spatial Plan (MSP) and Mount Industrial Planning Study (MIPS)[28],

The MSP is seeking to deliver a 30-year blueprint that provides strategic direction for existing and future growth needs of the area, forming the basis for the coordination of decision making within and across multiple agencies in a growth context.

The MSP will include a 10-year implementation plan for growth in the Mount Maunganui/Arataki area, providing direction in relation land use, movement, open space and public realm, 3-waters infrastructure and culture and identity, having regard to key opportunities and challenges such as hazards and climate change impacts.

The MSP has a primary focus on commercial and residential land uses (and including the interface with industrial uses), from Mauao to Arataki, including Mount Manganui, Bayfair and Omanu. A final spatial plan and implementation strategy is proposed to be completed by August 2023.

The MIPS is looking to plan for the future of the industrial area and identify a programme of actions, which considers current issues and the needs of all stakeholders. Those issues include future land use, cultural and social impacts, natural hazards, air quality, transportation and economic growth. Engagement with stakeholders will occur early in 2023, integrated with the Mount Spatial Plan, followed by identification of options and recommended actions by mid-2023.

[28] Mount Maunganui Planning and Delivery Programme, Report to Tauranga City Council Strategy, Finance and Risk Committee meeting Agenda 5 December 2022

The SmartGrowth Industrial Land Study project is also investigating potential locations within the western Bay of Plenty subregion to meet the future demand for new industrial land over the next 30+ years. A technical investigation is due to be completed in March next year and will input to the SmartGrowth Joint Spatial Plan for the subregion. The timeframe for the Joint Spatial Plan is unknown.

The outcomes from this investigation work are unknown and will not be available for consideration for this application and, as such, they are not relevant considerations. While managed retreat may be a topic of discussion, it is fundamentally at odds with the operative Industrial zoning, and there are no processes in train to address existing use rights that would continue in the event of a zone change.

A more practicable option would be an increased focus on improved management of effects of activities. Since the establishment of the Mount Maunganui Airshed there has been an increased focus on consenting, monitoring and enforcement by the Regional Council. Businesses are reducing emissions through improved site management and upgrading plants as technology improves. The effect has been seen in monitoring with less exceedances being recorded.

While only mana whenua can assess cultural effects of the activity, a resource consent may be granted on any condition that the consent authority considers appropriate.

There are several opportunities for manawhenua to exercise kaitiakitanga through the implementation of the resource consents, including through the development of Mātauranga Māori Environmental Monitoring Plan as a condition of the air discharge permit. MMEMP would establish a methodology to monitor cultural values of the natural environment within and around the site for the duration of the discharge permit (35 years).

Implementation of the MMEMP would include the following:

- An initial monitoring survey to be undertaken by manawhenua prior to works associated with the Asphalt Plant replacement commencing; and
- Unless otherwise agreed with Manawhenua, ongoing monitoring survey at least every two years on average thereafter.

The applicant proposes further measures within the land use consent to enable manawhenua to be directly engaged in the management and monitoring of the asphalt plan, including:

- Engagement in the final design of the stormwater management system and ESCP.
- Karakia at the commencement of construction.
- Cultural monitoring of earthworks, including the application of accidental discovery protocols.

It is likely that these proposals will be developed further through ongoing engagement with manawhenua.

8.14.2 Recommendation

Include cultural conditions in the consent conditions subject to further consultation and engagement generally as set out in Section 10.4 below,

8.15 Summary of Assessment of Effects

Any actual and potential effects on the environment of allowing the activity are assessed as generally less than minor, subject to appropriate conditions being imposed.

Mana whenua have assessed cumulative cultural effects of the activity as being more than minor. The consent authority can impose conditions it considers appropriate to mitigate these effects. Several culturally based conditions are proposed that will enable the exercise of kaitiakitanga for the duration of the consent.

9.0 Consideration of Alternative Locations and Methods (Schedule 4 – Clause 6)

9.1 Schedule 4 Information

Schedule 4 Information required in application for resource consent

Clause 6 Information required in assessment of environmental effects

> *(1) An assessment of the activity's effects on the environment must include the following information:*
>
> > *(a) if it is likely that the activity will result in any significant adverse effect on the environment, a description of any possible alternative locations or methods for undertaking the activity:*
> >
> > *….*
> >
> > *(d) if the activity includes the discharge of any contaminant, a description of—*
> >
> > *(i) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and*
> >
> > *(ii) any possible alternative methods of discharge, including discharge into any other receiving environment:*

9.2 Effects on the Environment

9.2.1 Significant Adverse Effect (Clause 1A)

The activity includes the discharge of contaminants to air and water which requires consideration of alternative methods of discharge.

The activity is a permitted activity in the Industrial Zone and physical effects are assessed as being no more than minor.

Mana whenua have assessed the cultural effects of the activity as significant and adverse because the activity is seen to contribute to the cumulative effects of industrial uses in Mount Maunganui Industrial area that already exceed a culturally acceptable level. Their vision is for

managed retreat of all heavy industrial activities from Mount Maunganui. Granting consent for this activty will continue and consolidate long term use by heavy industry at this location.

There is also a similar concern within the broader community, as represented by 'Clear the Air[29]' about activities that create a risk to air quality and human health, however well that activity and its discharges can be managed.

In this context, it is appropriate to consider alternative locations or methods for undertaking the activity.

9.2.2 Discharge of any Contaminant

The activity includes the discharge of contaminants to air and water.

A description of possible alternative methods of discharge, including discharge into any other receiving environment is required.

9.3 Scope of Consideration

In meeting the requirement to consider alternatives an applicant is not required to undertake a full assessment or comparison of alternatives, or clear off all possible alternatives, or demonstrate its proposal is best in net benefit terms. The requirement is for a '*description of the alternatives considered and why they are not being pursued*[30]'.

9.4 Alternative Locations

Alternative locations have been considered as set out in the table below.

Option	Description	Comments
1	Existing Allied Asphalt Site at Aerodrome Road, Mount Maunganui	Advantages: • Existing ownership and investment • Close proximity to inputs, including bitumen that comes across the Port. • Highly accessible to development sites with the wider region. • Proximity to workforce • Separation from sensitive activities - nearest residential zone 650m. Disadvantages • Located within a polluted airshed
2	Fulton Hogan Quarry at Poplar Lane, Papamoa	Advantages

[29] https://sites.google.com/cleartheair.org.nz/clear-the-air-mount-maunganui/our-purpose

[30] Tauranga Environmental Protection Society Incorporated v Tauranga City Council [2020] NZEnvC 43 [Environment Court]

Option	Description	Comments
		• Relatively remote from sensitive activities – nearest residential zone approximately 3.5km to the west, Disadvantages • Greater distance from inputs of raw material, urban construction sites, and urban workforce • Zoned Rural and a Non-complying activity. • Some isolated rural dwellings nearby (within 500m)
3	Rangiuru Business Park, Rangiuru	Advantages • Remote from sensitive activities - nearest residential zone at Paengaroa 4.5km. • Located on rail line. Disadvantages • Zoned Industrial and a Restricted Discretionary Activity due the activity being defined as one of *'high risk facilities in terms of potential stormwater contaminant'*[31]. • Greater distance from inputs of raw material, • Sites not yet available – Stage 1A titles are anticipated to be available late 2023[32]. • Local area prone to inversion layers in colder months which would prevent effective air dispersion of emissions • Height exceeds permitted limit of 20m
4	Tauriko Business Estate	Advantages • Permitted land use activity • Close to urban construction sites, and urban workforce. Disadvantages

[31] https://eplan.westernbay.govt.nz/eplan/#Rules/0/12/1/10325/0

[32] https://rangiuru.co.nz/location/

Option	Description	Comments
		• Close to sensitive activities – nearest residential zone at Pyes Pa West and future urban development nearby on upper Belk Road • Greater distance from inputs of raw material. • Sites not yet available in new stage – Stage 4 titles are subject to a rezoning plan change. • Land and wind profiles would not be conducive to effective air dispersion of emissions. • Height exceeds permitted limit of 16m

The application site is the preferred location because of:

- Existing ownership and investment.
- Appropriate zoning.
- Separation from sensitive activities.
- Accessibility to development sites with the wider region.
- Proximity to workforce.
- Central to market, minimising road transport for inputs & products.

9.5 Alternative Methods

9.5.1 Plant Selection

The analysis undertaken in selecting the proposed Marini Top Tower 2500 asphalt plant is set out in Appendix 4: *Technical memo – Asphalt Plant Selection Process January 2022*.

The existing plant was not considered as an alternative as it does not employ the best practicable options for technology.

Asphalt plant options from four suppliers were considered. Key criteria for selection of the proposed plant include:

Efficiency

- A higher production rate per hour allowing for smaller storage silos and reduced waiting times for trucks thus improving efficiency and reducing the number of trucks required.
- Efficient use of available space by positioning the baghouse over the mixing drum. This also reduces the amount of concrete required for the plant foundations.

- A variable speed drive on the drying drum for maximum heat exchange efficiency in the aggregate drying process.

Cost effectiveness

- Waste reduction allowed for in a batch plant when compared to a continuous mixing drum plant.
- A diverse range of asphalt products, and smaller production runs make a batch plant the more cost-effective solution.
- Ability to use higher recycled asphalt product (RAP) content as well as less fuel for drying and heating makes it more cost effective.

Environmental sustainability

- A larger baghouse surface area to better handle higher aggregate moisture contents and RAP contents, while still achieving a high standard of dust filtration.
- The installation of the filter above the dryer drum offers a significant reduction in both the overall energy consumption due to the reduced number of screw conveyors and the thermal energy losses.
- Higher RAP percentages providing a more sustainable solution through aggregate and bitumen recovery.

Delivery

- A fully containerized plant designed for standard international shipping allowing for easier handling and transport when delivered.

Price

- The price was determined by the plant specification to meet NZ standards and production requirements for each manufacturer. Primary contributors to the price of the plant included international shipping, physical plant itself and also seismic strengthening costs to meet New Zealand standards.

9.5.2 Use of Low Contaminant Emission Fuels

The existing asphalt plant uses used lubricating oil (ULO) as fuel for its burner, although can also use diesel.

The new plant offers potential to use natural gas, in addition to ULO and diesel. Natural gas is a cleaner burning fuel producing lower contaminant levels.

The AQA identifies that use of ULO will allow the plant to operate while meeting relevant air quality criteria.

Potential changes in fuel availability and cost over the life of the plant mean it is important to maintain maximum optionality in the fuels that the plant can operate with.

10.0 Measures Proposed or Agreed to by the Applicant (Section 104 (1) (ab))

10.1 Proposed Air Discharge Conditions

Proposed conditions for the Air Discharge Permit are set out in Appendix 16.

The proposed conditions include:

- Performance Standards
- Contaminant Discharge Controls and Limits
- Monitoring
- Air Quality Management Plan
- Complaints Log
- Mātauranga Māori Environmental Monitoring Plan
- Reporting
- Greenhouse Gas Emissions Plan
- Review of Best Practicable Option for Minimising Discharges of Contaminants to Air
- Review of Consent Conditions

For the existing asphalt plant, continuation of the existing expired discharge permit conditions (See Appendix 5) is sought for a 2-year period, with the additional requirements of an Air Quality Management Plan, Complaints Log and Reporting to provide greater assurance of compliance being achieved on an ongoing basis.

10.2 Proposed Stormwater Discharge Conditions

It is understood that a stormwater discharge consent will have the same terms and conditions by inclusion in the comprehensive stormwater consent.

Advice Note 9 to the CSDC 66823 states:

> *"This consent does not authorise discharges into the consent holder's system from high risk facilities/sites as identified in Schedule 4 of the Bay of Plenty Regional Water and Land Plan unless a separate discharge consent is obtained, transferred to the consent holder, and included as part of this comprehensive stormwater consent."*

10.3 Proposed Land Use Conditions

10.3.1 Hazardous Substances

The final design must be reviewed and certified for compliance against the applicable hazardous substances regulations once the new facility is complete, and prior to operation of the processes.

10.3.2 Contaminated Soils

A Contaminated Soils Management Plan (CSMP) must be prepared and provided to the council prior to commencement of the works outlining safe working practices with soil disturbance in the site including emphasis on hygiene and minimising contact with potentially contaminated soil or dust, maintaining effective erosion and sediment controls, and stockpile requirements.

10.3.3 Environmental Management Plan

A final Environmental Management Plan must be submitted for certification once the new facility is complete, and prior to operation of the processes, incorporating detailed procedures and protocols to minimise hazards, including an Emergency Response Plan.

10.3.4 Landscape

Proposed plant infrastructure must be coloured in a recessive grey colour, ensuring that it is seen is a visually recessive feature within the environment.

Flood lights must be installed with back screens which restrict lighting to within the site boundaries, reducing light spill outside of the site.

10.3.5 Noise

The consent holder must ensure that operational noise complies with Rule 4E.2.3(b) of the Tauranga City Plan when measured at the site boundary of any other industrial activity in the same zone, except at the following adjacent sites where the following limits will apply.

Address	Daytime and Night-time Noise (dB L_{Aeq})	Night-time Noise (dB L_{AFmax})
14 Harvard Way	69	85
67 Hewletts Road	66	85
44 Aerodrome Road	66	85
60 Aerodrome Road	67	85

Operational noise from the consented activity must be measured in accordance with NZS 6801:2008 Acoustics – Measurement of Sound and assessed in accordance with NZS 6802:2008 Acoustics – Environmental Noise, or any superseding codes of practice and/or standards.

10.3.6 Construction

A Construction Management Plan must be provided to the council prior to commencement of the works to confirm the final programme dates and duration, appropriate contact information and measures to be implemented by construction contractors including:

- erosion and sediment control plan;
- traffic management;
- noise management.

10.4 Proposed Cultural Conditions

Cultural conditions should be included in the consent conditions generally as follows, subject to further consultation and engagement:

Air Discharge Permit (See Appendix 11)

- Manawhenua engagement in the preparation of an Air Quality Management Plan
- Provision for a Mātauranga Māori Environmental Monitoring Plan;

Stormwater Discharge

- The consent will be subject to the same terms and conditions (including term, review and cultural conditions) as those included in the CSDC granted to Tauranga City Council.

Land Use Consent

- Manawhenua engagement in the final design of the stormwater management system and final ESCP;
- Invitation for karakia at the commencement of construction works;
- Cultural monitoring of earthworks including application of Accidental Discovery Protocols

11.0 Statutory Assessment (Section 104(1)(b)

The following statutory documents which are relevant to the assessment of this proposal:

- Part 2 and Section 104 of the RMA
- National Policy Statement (NPS)
- National Environmental Standards (NES)
- Bay of Plenty Regional Policy Statement (RPS)
- Natural Resources Regional Plan (NRRP)
- Tauranga City Plan including relevant plan changes (City Plan)
- Iwi Planning documents
- Any other matters relevant and reasonably necessary to determine the application.

11.1 Resource Management Act 1991

11.1.1 Part 2 Purpose and Principles

Consideration of an application for a resource consent and any submissions received includes a range of matters under Section 104 (1), all of which are subject to Part 2 (Purpose and Principles of the RMA).

Case law dictates that:

> *'If it is clear that a plan has been prepared having regard to Part 2 and with a coherent set of policies designed to achieve clear environmental outcomes, the result of a genuine process that has regard to those policies in accordance with s 104(1) should be to implement those policies in evaluating a resource consent application. Resort to pt. 2 in such a case would likely not add anything. It could not justify an outcome contrary to the thrust of the policies.'*[33]

In this case, the applicable plans provisions have been prepared having regard to Part 2 and there is a coherent set of policies designed to achieve clear environmental outcomes. Resort to Part 2 will not add anything.

11.1.2 New Zealand Coastal Policy Statement 2010

The application site is not within the 'Coastal Environment' as mapped in the Regional Coastal Environment Plan[34]. Stormwater from the site discharges to a public drainage network that discharges to the CMA.

The applicable NZCPS policy is:

> *Policy 23 Discharge of Contaminants*

[33] *R J Davidson Family Trust v Marlborough District Council* [2018] NZCA 316 at [74].

[34] RCEP Map 12a Omanu

(4) In managing discharges of stormwater take steps to avoid adverse effects of stormwater discharge to water in the coastal environment, on a catchment by catchment basis, by:

(a) avoiding where practicable and otherwise remedying cross contamination of sewage and stormwater systems;

(b) reducing contaminant and sediment loadings in stormwater at source, through contaminant treatment and by controls on land use activities;

(c) promoting integrated management of catchments and stormwater networks; and

(d) promoting design options that reduce flows to stormwater reticulation systems at source.

Stormwater discharges into coastal waters via surface run-off and piped discharges are identified as issues in the RCEP[35]. However, the RCEP does not control land use or land-based activities unless these involve the discharge of contaminants directly into the coastal marine area[36], which is not case with this application.

In this case, stormwater discharges are managed under the Natural Resource Regional Plan and a comprehensive catchment-based discharge consent is currently in place.

Discharges to of contaminants to air are not addressed under the NZCPS. Discharges of contaminants to air in the CMA are addressed in the Regional Air Plan (now the Air Quality Chapter of the Natural Resource Regional Plan).

11.1.3 National Policy Statement on Urban Development 2020

The NPS-UD recognises the national significance of:

- having well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future
- providing sufficient development capacity to meet the different needs of people and communities.

The most immediate implication is the recent changes made to District Plans to give effect to the NPS-UD requirement to enable increased urban densities in residential zones of Tier 1 Councils including Tauranga. Therefore, the potential is for increased urban densities in the residential receiving environment nearest the proposed asphalt plant, and the implication that there may be more people impacted by potential noise and air discharges from the proposed asphalt plant.

The definition of effect includes any potential effect of low probability which has a high potential impact. The noise and air quality assessments are that these effects will be less than minor, and that there will be net improvement in air quality. All residential areas are more than 500m from the site. 500m is identified in the Air Quality Assessment as the appropriate separation distance between asphalt plants and sensitive receptors for land use planning purposes.[37] Any increase in net residential density will not result in a significant increase in the risk of adverse effects.

[35] 1.3 Water Quality Issue 13 and Issue 15

[36] 1.3 Water Quality Advisory Note 1

[37] Appendix 6 AQA 2.2 Receiving environment and sensitive receptors

11.1.4 National Policy Statement for Freshwater Management 2020

Requirements of the NPS-FW include[38]:

Manage freshwater in a way that 'gives effect' to Te Mana o te Wai:

- *through involving tangata whenua*
- *working with tangata whenua and communities to set out long-term visions in the regional policy statement*
- *prioritising the health and wellbeing of water bodies, then the essential needs of people, followed by other uses.*

Improve degraded water bodies and maintain or improve all others using bottom lines defined in the Freshwater NPS.

The application includes proposals to reduce the potential for contaminant discharges to stormwater runoff from the site to the public stormwater network that discharges to the CMA.

Consideration has been given to the requirements of hapu as expressed through CIA in the Mount Maunganui Stormwater Management Plan, which include (in summary):

- Protection of the mauri of Tauranga Harbour, and its water quality and ecology;
- On site management of contaminants by private industry, including extra precautions for high-risk industries;
- Prevention of toxic waste impacting the harbour;
- Use of low impact natural systems for water treatment wherever possible;
- Careful management of sediment from earthworks during construction;
- Regular and robust compliance monitoring.

These requirements are met by the proposal, noting that space limits create a constraint on using natural methods of stormwater management. A high specification technical solution is instead proposed, combining diversion to trade waste for higher risk catchments of the site with best practice proprietary devices for other runoff treatment. The discharge to the public stormwater network will comply with relevant water quality standards[39].

11.1.5 Resource Management (National Environmental Standards for Air Quality) Regulations 2004

The NESAQ are designed to protect public health and the environment by setting concentration limits and differ from the New Zealand Ambient Air Quality Guidelines (NZAAQGs) in that they set an allowable level of exceedance and cover only one time period for averaging for each contaminant.

The NESAQ include concentration thresholds and permissible excursions relevant to emissions from the AAL site. These are presented in the Table below.

[38] https://environment.govt.nz/acts-and-regulations/national-policy-statements/national-policy-statement-freshwater-management/#requirements-of-the-freshwater-nps

[39] CSC Stormwater Discharge Quality Parameters (CSC Conditon 8.1 Table 3).

Contaminant	Threshold Concentration	Averaging Time	Permissible Exceedance
Particulate matter(PM_{10})	50 g/m^3	24-hour	One in a 12-month period
Nitrogen dioxide(NO_2)	200 g/m^3	1-hour	9 in a 12-month period
Carbon monoxide	10,000 g/m^3	8-hour	One in a 12-month period
Sulphur dioxide	570 $\mu g/m^3$	1 hour	None

Table 7.3: New Zealand Ambient Air Quality Standards (NESAQ) from 1 September 2005 (as Amended 2011)

The NESAQ uses the term “airshed”, which defines where air quality must be monitored and for polluted airsheds determines the basis for certain decisions on resource consents.

Regional Airshed Notice for the Mt Maunganui Industrial Area

The Ministry for the Environment (MfE) has gazetted airsheds for managing air quality, which are generally in populated areas where the NESAQ for fine particulate matter (PM_{10}) is being breached or is likely to be breached.

The Bay of Plenty Regional Council gazetted a Regional Airshed Notice for the Mt Maunganui Industrial Area (notice number 2019-go4960) in November 2019. The airshed’s gazette notice was enacted based on ambient air monitoring conducted by BOPRC measuring exceedances of the PM_{10} NESAQ in the airshed. The extent and boundary of the Mt Maunganui Airshed is provided in Figure 21 below;

Figure 21: Mt Maunganui Airshed (source BOPRC website)

The airshed is classified as ‘polluted’ with respect to PM_{10} concentrations under Regulation 17 of the NESAQ.

Regulation 17

The application site is located within the Mt Maunganui Airshed and as such Regulation 17 of the NESAQ applies to this consent application.

Regulation 17 of the NESAQ states that:

> *(1) A consent authority must decline an application for a resource consent (the proposed consent) to discharge PM_{10} if the discharge to be expressly allowed by the consent would be likely, at any time, to increase the concentration of PM_{10} (calculated as a 24-hour mean under Schedule 1) by more than 2.5 micrograms per cubic metre in any part of a polluted airshed other than the site on which the consent would be exercised.*
>
> *(2) However, subclause (1) does not apply if---*
>
> *(a) the proposed consent is for the same activity on the same site as another resource consent (the existing consent) held by the applicant when the application was made; and*
>
> *(b) the amount and rate of PM_{10} discharge to be expressly allowed by the proposed consent are the same as or less than under the existing consent; and*
>
> *(c) discharges would occur under the proposed consent only when discharges no longer occur under the existing consent.*
>
> *(3) Subclause (1) also does not apply if—*
>
> *(a) the consent authority is satisfied that the applicant can reduce the PM_{10} discharged from another source or sources into each polluted airshed to which subclause (1) applies by the same or a greater amount than the amount likely to be discharged into the relevant airshed by the discharge to be expressly allowed by the proposed consent; and*
>
> *(b) the consent authority, if it intends to grant the proposed consent, includes conditions in the consent that require the reduction or reductions to take effect within 12 months after the consent is granted and to then be effective for the remaining duration of the consent.*

The discharges from the proposed asphalt plant are predicted to increase 24-hour average PM_{10} concentrations within the polluted Mount Maunganui Airshed by up to 2.8 $\mu g/m^3$ (i.e., by more than 2.5 $\mu g/m^3$).

The discharges of PM_{10} from the new asphalt plant are not subject to an existing resource consent (resource consent 62740 authorises discharges to air from the existing plant only) and therefore subclause (2) is not applicable.

However, under the proposed consent conditions AAL will cease operating the existing asphalt plant once the proposed plant is commissioned. The discharges of PM_{10} from the existing asphalt plant, which are greater than those from the proposed plant, will be removed from the airshed. The removal of the PM_{10} contribution from the existing plant will more than offset the new emissions from the proposed plant.

Therefore, under clause 3, there is no impediment to the granting of this consent under Regulation 17 of the NESAQ.

<u>Regulation 20</u>

Regulation 20 of the NESAQ states that:

(1) A consent authority must decline an application for a resource consent to discharge carbon monoxide into air if the discharge to be expressly allowed by the resource consent—

(a) is likely, at any time, to cause the concentration of that gas in the airshed to breach its ambient air quality standard; and

(b) is likely to be a principal source of that gas in the airshed.

(2) A consent authority must decline an application for a resource consent to discharge oxides of nitrogen or volatile organic compounds into air if the discharge to be expressly allowed by the resource consent—

(a) is likely, at any time, to cause the concentration of nitrogen dioxide or ozone in the airshed to breach its ambient air quality standard; and

(b) is likely to be a principal source of oxides of nitrogen or volatile organic compounds in the airshed.

All ambient air quality standards for CO and NO_x are predicted to be complied with for both the existing and proposed plant. As a result, the restrictions on granting consent for the discharge under Regulation 20 are not applicable.

Regulation 21

Regulation 21 of the NESAQ states that:

> *A consent authority must decline an application for a resource consent to discharge sulphur dioxide into air if the discharge to be expressly allowed by the resource consent is likely, at any time, to cause the concentration of sulphur dioxide in the airshed to breach its ambient air quality standard.*

The AQA details the predicted ground level concentrations from the operation of the proposed plant, which in the maximum case complies with the ambient air quality standard. As a result, the restrictions on granting consent for the discharge under Regulation 21 are not applicable.

11.1.6 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health

Hazardous Activity Industry List

The site is classified as a Hazardous Activity Industry List site (HAIL) which means the land could potentially be contaminated.

The site is identified on the BOPRC contaminated land database as 'Asphalt or Bitumen Plant', described as *"Asphalt or bitumen manufacture or bulk storage (excluding single-use sites used by a mobile asphalt plant)*". The site classification is "Verified HAIL Site".

A Verified HAIL Site means[40]:

…information suggests an activity or industry on the HAIL has occurred and the use has been confirmed, but there is insufficient information to quantify adverse effects or risks to people or the environment from the known activity or industry.

The Preliminary Site Investigation (Appendix 10) confirms the HAIL classification.

[40] https://www.boprc.govt.nz/environment/pollution/contaminated-land

Being a HAIL site, this is “piece of land” to which the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES) applies.

Activity Status

The requirements of the NESCS apply where the following activities (‘trigger activities’) are undertaken on the ’piece of land’:

- Soil disturbance: Includes any soil disturbance such as scraping, levelling, trenching and earthworks.
- Fuel storage removal or replacement: Including replacing a whole system; removal or replacement of an underground part of the system; and/or taking away or returning soil that was associated with the removal or replacement of the system for the purpose of management, sampling, investigation, remediation or validation.
- Soil sampling: Sampling soil for the purposes of determining soil contaminant concentrations in the HAIL areas.
- Subdividing the land: Subdivision of the property including title changes.
- Changing land use to a use that reasonably likely to harm human health.

Soil disturbance will be required to regrade the site level, allow for the new concrete foundations for the proposed project works, as well as the installation of new service connections through open trenching.

Under Regulation 8(3) of the NESCS, soil disturbance of up to 25 m^3 per 500 m^2 and disposal of up to 5 m^3 per 500 m^2 ‘piece of land’ is allowed as a permitted activity.

The maximum disturbance and disposal permitted activity thresholds for the 7,300 m^2 ‘piece of land’ are 365 m^3 and 73 m^3 respectively. It is understood that excavated spoil material (mainly consisting of compacted hardfill) is proposed to be retained onsite. The estimated disturbance volume is up to 1500m^3 and therefore exceeds the permitted activity threshold.

Whilst remaining permitted activity criteria outlined in Regulation 8 are anticipated to be achieved, because of the exceedance of soil volumes and the absence of a Detailed Site Investigation (DSI), a discretionary activity consent under Regulation 11 of the NESCS is required.

The majority of excavated hardfill will be reused for reforming the site surface or as product for reuse in roading infrastructure (recycled aggregate).

The activity is not changing and the risk to human health is also unchanged, other than for the period of construction where a ESCP and CSMP will be applied to ensure risk is maintained to a low level. The environmental and human health risk will be low with these measures in place.

11.2 Discharge to Air of Greenhouse Gases

11.2.1 Climate Change Amendments to the Resource Management Act

The climate change amendments took effect on 30 November 2022 and repeal sections of the RMA that limit the circumstances in which:

- Regional councils may have regard to the effects of discharges into air of greenhouse gases on climate change in making rules to control the discharges of GHGs

- Consent authorities may have regard to the effects of discharges into air of GHGs on climate change in considering an application for a discharge permit or coastal permit.

Therefore, BOPRC can now have regard to the effects of discharges into air of GHGs on climate change in considering the application for the asphalt plant air discharge permit.

11.2.2 National Environment Standard and National Policy Statement

A planned National Environment Standard and National Policy Statement will set out nationally consistent policies, rules and requirements. These will guide regional council decisions on industrial GHG emissions. Guidance will be provided to support implementation of the NPS and NES including on applying the best practicable option, as well as links to available technical standards and best practice.

Drafting of the national direction is in progress. The intention was that the NES and NPS would be in place ahead of the climate change amendments coming into force on 30 November 2022. However, final decisions are now scheduled to be made by Cabinet in the first half of 2023[41].

Proposed consent conditons include provision for a Greenhouse Gas Emission Plan to be prepared to apply the best practicable option (BPO) to their discharging activities. The proposed asphalt plant incorporates current BPO technology.

11.3 Bay of Plenty Regional Policy Statement

Consideration of the proposal against the objectives and policies of the RPS is included in Appendix 17. The key conclusions are summarised below.

11.3.1 Air quality

The adverse effects of odours, chemical emissions and particulates will be mitigated by the application of best practicable option technology[42].

11.3.2 Energy and Infrastructure

The new plant will reduce greenhouse gas emissions through the use of modern and efficient heating systems and provides a platform for ongoing introduction of low carbon technology.

The new plant will provide a resilient platform for progressive introduction of low carbon, renewable energy technology to the manufacturing process over the life of the plant.[43]

11.3.3 Integrated Resource Management

Consultation with consent authority, community groups and manawhenua has identified a high level of concern about the asphalt plant operation and its contribution to emissions, including odour.[44]

[41] https://environment.govt.nz/acts-and-regulations/regulations/discharge-to-air-of-greenhouse-gases/

[42] RPS Policy AQ 2A, Policy AQ 3A:

[43] RPS Policy EI 1B, Policy EI 2B

[44] RPS Policy IR 4B

A precautionary approach has been taken by modelling of air quality effects based on full scale production that is well above typical operating levels, which is appropriately conservative in this case.[45]

The application considers all environmental effects as an integrated whole. Climate change effects have been included as factors in stormwater assessment (increased flood risk) and air quality monitoring (changed weather patterns).[46]

11.3.4 Iwi Resource Management

Recognising the Treaty in the exercise of functions and powers under the Act, the application process has included early engagement and consultation with manawhenua. Active protection will be provided through proposed consent conditions.[47]

Consultation has identified relevant resource management issues. Engagement is ongoing in an endeavour to resolve issues.[48][49]

Iwi and hapū resource management plans have been taken into account.

The proposed upgraded plant will significantly reduce contaminant emissions, enhancing the mauri of air and water, both of which are degraded.[50]

11.3.5 Water Quality and Land Use

The requirements of the CSDC and associated Stormwater Management Plan will be met by the proposed management of stormwater runoff. and site management during construction. Discharge effects will be managed on the site.[51]

The stormwater discharge consent will be incorporated into the CSC, where periodic reviews apply.

11.3.6 Natural Hazards

Natural hazard risks from flooding and land instability have been assessed as low after the completion of development, subject to appropriate mitigation.[52]

11.3.7 Urban Growth

The proposal is an urban activity within defined urban limits. Council has provided for industrial land in appropriate locations to meet the economic and social growth needs of the subregion.[53]

[45] RPS Policy IR 1B

[46] RPS Policy IR 3B

[47] RPS Policy IW 3B

[48] RPS policy IR 4B

[49] RPS Policy IW 2B and IW 5B

[50] RPS Objective 17 and Policy IW 5B

[51] RPS Policy WL 1B, WL 7B, WL 8B

[52] RPS Policies 3B and 9B

[53] RPS Policies UG 14B and UG 16B

11.4 Regional Natural Resources Plan

Consideration of the proposal against the relevant objectives and policies of the RNRP are included in Appendix 17. The conclusions are summarised below.

11.4.1 Air Quality

The proposal will mitigate adverse effects on cultural values, amenity values, and the environment by adopting best practice technology and processes[54].

The predicted ground level concentrations, using conservative assumptions, indicate that the cumulative effects of emissions of from the proposed plant will be well below relevant air quality assessment criteria. The proposal will result in a net reduction of particulates into the Mount Maunganui airshed.[55]

Sensitive areas have been considered in the AQA, and appropriate separation distances are provided. There will be no areas where the discharge may cause an exceedance or breach of the relevant standards or guidelines.

The proximity of marae, papakainga, Kura Kaupapa, kohanga reo have been considered in the AQA and appropriate separation distances are provided.

Adverse effects from discharges of hazardous substances and hazardous air pollutants to air will be mitigated using the best practicable option. The conditions include periodic reviews of technology and processes to ensure best practice is maintained for the life of the plant.[56]

11.4.2 Water Quality

The Mount Maunganui Industrial Area has an existing CSDC and SMP in place. The discharge consent will be transferred into this consent and be subject to the same terms and conditions.

SW systems on the site will be upgraded and will ensure compliance with water quality standards. The proposal mitigates adverse effects on cultural values, amenity values, and the environment by adopting best practice technology and processes.

SW discharge will be to an existing public stormwater network. The land use is existing and not changing, other than by improved management systems. There will be no increase in runoff rate or volume. There is no known erosion or scour issues attributed to the site.

Discharge to land is not appropriate in this case due to space restrictions, impervious areas, heavy vehicle loads and high watertable.[57]

11.4.3 Contaminated Land

The activity will not be changing in a way that will increase risks to human health and the environment.

[54] RNRP Air P1

[55] RNRP Air P3

[56] RNRP Air P4

[57] RNRP DW O8, DW O9, DW O10, DW O11, DW O12, DW O13, DW O15, DW P15

There will be minimal disturbance of the land which will be strictly managed under a CSMP, in accordance with the direction of a SQEP.

Nationally accepted environmental and health guidelines, standards for soil contamination have been applied in the assessment.[58]

11.5 Tauranga City Plan

Consideration of the proposal against relevant objectives and policies of the City Plan are included in Appendix 17. The conclusions are summarised below.

11.5.1 Industrial Land Use

The application site will provide convenient and efficient access to the transport network, avoid conflict with sensitive land use, and provide for both efficiency and a choice of means of access for employees.[59]

The proposal will maintain the landscape character of the locality, which is characterised by large industrial buildings and structures. The proposal is not readily visible from surrounding zones and will not compromise amenity. Building form is appropriate and use of recessive colours will reduce its visibility.[60]

11.5.2 Landscape

The proposal will not have a significant adverse effect on the landscape character values of the urban area. The site is well suited for the proposal and any landscape and visual amenity effects arising from the proposal on the receiving environment are acceptable.

The stack structure exceeding the 18m height standard of the Industry Zone will not be a prominent feature within the environment. Where visible, the proposal will be seen within the context of the surrounding industrial land uses and structures, including the wider Mount Maunganui Industrial area and the Port of Tauranga.

The site is not located at the interface between different land uses, private and public space, nor any outstanding natural features and landscapes or important amenity landscapes. The stack will not encroach into any protected view shaft.[61]

11.5.3 Flooding

Overland flowpaths will be maintained.

The proposed asphalt plant is located outside the mapped floodable area. Aggregate storage is resilient and not affected by flooding. The buildings in the floodable are not habitable but provide the required freeboard in any event.

[58] RNRP DW O16, DW P22, DW P23, DW P24

[59] 8A.5.1 Objective - Location of Industrial Land Use

[60] 18A.6.1.1 Policy – Bulk and Scale of Buildings in Industry Zone

[61] 6A.1.9.1 Policy - Maintenance and Enhancement of Landscape Character in Urban Areas

Flood flows are less than 300mm depth in an extreme event and there is no significant evacuation safety issue to be addressed.

Flood risk will not be transferred to others.[62]

11.5.4 Hazardous Substances

Potential effects on the environment will be managed through storing hazardous substances in a secondary containment bund (liquids) and appropriate design and maintenance of containers, upgraded stormwater disposal system, including diversion of runoff higher risk operational areas to trade waste that will avoid contaminants entering the stormwater system and downstream water bodies.

There will be no increase in risk to the natural or physical environment, or to the safety, health or well-being of people and communities.[63]

11.5.5 Contaminated Land

The activity will not be changing in a way that will increase risks to human health and the environment.

There will be limited disturbance to the land which will be strictly managed under a Contaminated Soils Management Plan.[64]

11.5.6 Transport

The proposal will maintain the safe and efficient function of the transport network. Traffic generation will not change from that of the existing consented activity.

The proposed access arrangement with one way flow will enhance the safety of pedestrian and vehicle movements within the site and mitigate adverse effects on the safe and efficient operation of the transport network.[65]

11.5.7 Noise

Given the site is in an existing established industrial zone with low sensitivity, and considering the calculated noise levels and noise character, noise levels will remain reasonable, with no adverse noise amenity effects.

Non-residential activities will not be affected by noise from the asphalt plant.[66]

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[62] 8D.1.1.2 Policy - Overland Flowpaths – General, 8D.1.1.4 Policy – Flood Prone Area – General. 8D.1.1.6 Policy - Impervious surfaces

[63] 9A.1.1.1 Policy - Location of Hazardous Facilities, 9A.1.1.2 Policy - Design and Management of Hazardous Facilities, 9A.1.1.3 Policy – Risk Management, 9A.1.1.4 Policy - Storage and Use of Hazardous Substances

[64] 9B.1.2 Objective - Managing Risks for Contaminated Land, 9B.1.2.1 Policy – Prevention or Mitigation of Adverse Effects for Contaminated Land, 9B.1.2.2 Policy – Management Measures for Contaminated Land, 9B.1.2.3 Policy – Risk Management for Use of Contaminated Land

[65] 4B.1.2.1 Policy – Use of Land, 4B.1.2.2 Policy – Maintaining Road Function, 4B.1.2.4 Policy – Access Visibility

[66] 4E.1.1.1 Policy – Noise from Non-Residential Activities

11.5.8 Infrastructure

Roads and three waters are connected to Council owned systems. Demand on infrastructure will be unchanged, other than the addition of a trade waste discharge which will comply with the trade waste bylaw.[67]

11.6 Iwi and hapū resource management plans

11.6.1 Tauranga Moana Iwi Management Plan

The Tauranga Moana Iwi Management Plan 2016-2026 is a Joint Environmental Plan for Ngāti Ranginui, Ngāi Te Rangi and Ngāti Pūkenga (Iwi Plan).

The Iwi Plan includes range of policies that address the effects of urban land use and development on the health and wellbeing of Tauranga Moana, with the following policies being directly applicable to the application:

> *POLICY 26*
>
> *Manage the effects of urban land use and development on the health and wellbeing of Tauranga Moana*
>
> *Action*
>
> *26.1 For industrial areas:*
>
> *a) environmentally safe cleaning products are used to reduce the amount of chemicals used onsite.*
>
> *b) contaminant controls are in place to avoid the risk of chemicals entering water.*
>
> *c) sediment contaminant controls are in place to reduce the amount of sediment entering water.*
>
> *d) enforcement action occurs for non-compliance of consents.*
>
> *POLICY 30*
>
> *Ensure that sites and areas of significance are cared for and protected from disturbance*
>
> *or destruction*
>
> *Action*
>
> *30.1 Accidental Discovery Protocols are in place as a condition of consent for all land disturbance activities (e.g., earthworks).*

Site controls will ensure that risk of chemicals entering water is avoided. Proposed earthworks are small scale and will follow applicable hapu protocols.

The Iwi Plan contains the following water quality policy:

> *POLICY 2 Avoid further degradation of water quality within Tauranga Moa*

[67] 12G.1.1.1 Policy – Services

2.1 Oppose the direct discharge of contaminants, especially wastewater, to rivers and streams. Tauranga Moana Iwi

2.2 Require:

a) additional treatment and/or alternative disposal methods of wastewater and stormwater such as the use of new technology, land-based disposal or greater use of wetlands.

b) local authorities to afford appropriate weight to tangata whenua values when assessing:

i) the costs and benefits of alternative treatment and disposal methods of wastewater and stormwater.

ii) resource consent applications for wastewater and stormwater discharges.

c) a limited duration of no more than 15 years for resource consents associated with wastewater and stormwater discharges.

d) the use of mātauranga-based tools to measure and monitor the cultural impact of discharges.

e) enforcement action for non-compliance of consented discharges.

f) an annual compliance monitoring report of all consented wastewater and stormwater discharges within Tauranga Moana

2.3 Monitor the health of waterways within Tauranga Moana, including:

a) Developing appropriate monitoring tools and indicators to determine the cultural health of waterways.

b) Finding ways to involve Iwi, hapū and whānau in physical and cultural monitoring within their area of interest. This could include collaborating with BOPRC in relation to existing water quality monitoring programmes.

New and significantly upgraded stormwater management is proposed on the site. Stormwater will come within the CSDC management framework for the Mount Industrial Catchment which give effect to the policies and will be subject to the same terms and conditions which include cultural monitoring and reporting.

The Iwi Plan contains the following air quality policy:

"POLICY 24

Manage the effects of rural and urban air discharges on the health and wellbeing of our people

24.1 Involve Iwi and hapū in resource consent processes for industrial air discharges close to marae, papakainga, kura kaupapa or kohanga reo.

24.2 Work with Toi te Ora – Public Health Service and Bay of Plenty Regional Council to advocate for:

a) More air quality monitoring sites within Tauranga Moana.

b) A compliance audit of permitted discharges to air.

c) A review of air discharge rules, in particular buffer distances from marae, papakainga, kura kaupapa, kohanga reo or dwelling

d) Enforcement action for non-compliance of consented air discharges, particularly those near marae, papakainga, kura kaupapa, kohanga reo or dwelling."

The Iwi Plan contains the following *Policy Explanation*

"Engagement feedback highlighted continued concern about air discharges, particularly near marae, kaumatua flats and kohanga reo. This is because our young and elderly are at particular risk of health problems. New actions are included within this section to ensure that Tauranga Moana and Iwi are involved with consent processes for air discharges and that Council carries out more air quality monitoring. Currently, there are only two live air monitoring sites within Tauranga Moana."

The Iwi Plan identifies the proximity of *marae, papakainga, kura kaupapa, kohanga reo* as matters for consideration in resource consent processes.

The Iwi Plan states that it does not attempt to articulate values, interests and aspirations of individual Iwi and hapū and that this will vary from Iwi, hapū and whānau.

There are three marae within 5 kilometres of the site that have *papakainga, kura kaupapa, and or kohanga reo*.

Marae	**Hapu**	**Wharenui**	**Location**	**Distance from Site**
Whareroa	Ngati Kuku, Ngai Tukairangi	Rauru ki Tahi	Taiaho Place, Mount Maunganui	1.58km
Hungahungatoroa (Whakahinga)	Ngāi Tukairangi	Tāpuiti	Hungahungatoroa Road, Matapihi	3.27
Waikari	Ngati Tapu	Tapukino	Waikari Road, Matapihi	3.75 km

The proximity of the air discharges to marae, kaumatua flats and kohanga reo have been a considered in the assessment of environmental effects. Significant separation is provided such that effects will be very low.

11.6.2 Ngai Tukairangi and Ngati Tapu Hapu Management Plan

The Ngai Tukairangi and Ngati Tapu Hapu Management Plan 2016 (Hapu Plan) recognises that Whareroa Marae is impacted by surrounding activities[68] in the Mount Industrial Area.

For resource consents, the Hapu Management Plan states that"

"…resource consent applicants should consult with hapu regarding the HMP prior to consent lodgement to identify potential cultural and/or environmental issues. Regarding known potential cultural and environmental issues, Council staff will contact the hapu representatives (contact details held by TCC and BOPRC)."[69]

[68] Chapter Two - Ma Wai Tenei Take

[69] Chapter Nine: Consultation, Engagement and Contribution to Decision Making

Consultation to identify potential cultural and/or environmental issues has occurred with hapu and is ongoing.

Earthworks that result from any development have the potential to effect significant sites. The protection of waahi tapu in particular and other areas of significance must be ensured. Any removal of earth from the whenua of Ngai Tukairangi and Ngati Tapu must be returned to the rohe.

Earthworks policies are[70]:

- *Any earthworks being conducted in the significant areas identified must have prior consultation with hapu representatives*
- *Any earthworks being conducted within the rohe of Ngai Tukairangi and Ngati Tapu must follow earthworks protocol as outlined by hapu representatives.*
- *That the entire peninsula and coastline from Mauao to Arataki is considered highly significant. Any intended earthworks disturbance of this area must have prior consultation with hapu.*

Proposed earthworks are small scale and will follow best practice to management effects, including hapu accidental discovery protocols. The site is with the Whareroa Block[71] but not listed as a 'significant hapu area' in the HMP.

The impacts of stormwater on the ecology and health of Waipu estuary is of significant concern. Hapu have carried out cultural impact assessment reports relative to stormwater issues and have proposed mitigation options to Tauranga City Council including hapu involvement in monitoring, testing, reporting and providing mitigation programmes.

Stormwater policy statements are[72]:

- *That mitigation and enhancement measures are provided to all storm water discharge waterways.*
- *That cultural indicators are utilised for storm water monitoring and that this component is carried out by hapu and resourced by local or regional council.*
- *That storm water discharge is effectively monitored to ensure compliance is achieved.*
- *That significant storm water incidents are reported to hapu immediately.*
- *That signage is applied to stormwater outfalls to indicate potential contaminants within waterways and beachfront outfalls.*
- *That annual monitoring reports are directly disclosed to hapu*

New and significantly upgraded stormwater management is proposed on the site. Stormwater will come within the CSDC management framework which given effect to the policies and informed by hapu cultural impact assessment.

The hapu seek to maintain and enhance the quality and utilisation of airspace (Te Rangi: the air, sky and cosmos) above their rohe. The hapu aims to become more involved in the decision making that impacts on airspace, specifically, noise, chemical and aesthetic pollution.

[70] 6.1.5 Earthworks

[71] Figure 15 Significant Sites Within Tauranga City

[72] 6.3.3 Storm Water Discharge

Te Rangi policy is

- *That hapu are involved in the process as a Treaty partner for the allocation or use of airspace within our rohe.*

The AEE concludes that air discharges, noise and visual effects will be less than minor.

11.7 Other matters relevant and reasonably necessary to determine the application

No other matters are identified as relevant and reasonably necessary to determine the application.

11.8 Statutory Assessment Conclusion

The proposal is consistent with all relevant statutory instruments.

12.0 Consultation

12.1 Bay of Plenty Regional Council

Consultation with BOPRC personnel has been ongoing since the application was made to renew the air discharge permit for the existing plant in 2019, providing progress updates on design, planning and investigation, and seeking clarification of regulatory requirements.

A draft Air Quality Assessment was provided to BOPRC for preliminary review and feedback.

A pre-application meeting took place on 7 December 2022.

12.2 Tauranga City Council (TCC)

Consultation with TCC personnel was initiated in February 2022 to discuss consenting requirements and potential for joint processing of an application with BOPRC.

A pre-application meeting took place on 7 December 2022.

12.3 Tangata Whenua

Consultation was initiated with mana whenua in 2019 when the application was made to renew the air discharge permit for the existing plant in 2019. Feedback at that time recommended that AAL consider an alternative location remote from sensitive activities.

A Teams hui took place in March 2022 to present the proposal for plant upgrading. An on-site meeting had been proposed but was affected by COVID. Minutes from the hui are included in Appendix 19. Feedback included a further recommendation to consider an alternative location as part of a wider preference for managed retreat of heavy industry from the Mount Industrial Area. but agreeing to further engagement once the technical assessments had been completed. (See hui minutes Appendix 18).

The draft Air Quality Assessment was provided to manawhenua representatives in December 2022, along with request for a further hui to discuss the assessment, undertake a site visit to consider collaborative inputs and discussions around the proposal.

12.4 Te Whatu Ora[73] (TWO)

Consultation with TWO personnel was initiated in February 2022 to discuss their interest in the proposal, and in particular the health issues associated with the discharge permit application.

A draft Air Quality Assessment was provided to TWO in December 2022 for preliminary review and feedback.

A meeting took place on 15 December 2022 to receive initial feedback on the AQA and to discuss the wider scope of the project and consenting issues. TWO indicated interests on other matters including stormwater charge, hazardous substances and noise.

12.5 Clear the Air

Clear the Air Mount Maunganui is a community based environmental conservation charitable trust set up to inform the public about air pollution and associated health risks to people who live/work in or visit Mount Maunganui.

Clear the Air has been in communication with AAL, facilitated by BOPRC. Discussions have taken place on odour complaints resulting in the establishment of direct contact with AAL via an on-line app.

Clear the Air are aware of the application for the upgraded asphalt plant and have been advised that it will be publicly notified.

12.6 Air Quality Working Party (AQWP)

The AQWP was established to share work by BOPRC on air pollution issues in the Mount Maunganui Airshed with tangata whenua, the community and industry.

The AQWP has been provided updates by BOPRC on progress with the AAL application process.

13.0 Notification

The applicant requests that the application be publicly notified:

14.0 Conclusion

AAL is applying for resource consents to establish a new, technically advanced asphalt plant to replace its existing asphalt plant at 54 Aerodrome Road, Mount Maunganui.

[73] Formerly Bay of Plenty District Health Board

The application also includes consent for continued operation of the existing asphalt plant, but only until the new plant is up and running.

Resource consents are required under the Bay of Plenty Regional Plan for:

- Air Discharge (Discretionary Activity);
- Stormwater Discharge (Restricted Discretionary Activty);
- Disturbance of potentially contaminated land (Restricted Discretionary Activty);

Resource consents are required under the Tauranga City Plan for:

- Permitted height exceedance (Discretionary Activity);
- Storage of hazardous substances (Discretionary Activity);
- Disturbance of potentially contaminated land (Restricted Discretionary Activity);
- Noise limit exceedance (Restricted Discretionary Activity);
- Activity in an area susceptible to flooding (Restricted Discretionary Activity);

Any actual and potential effects on the natural and physical environment of allowing the activity are assessed as less than minor, subject to appropriate conditions being imposed.

Mana whenua consider cultural effects of the activity to be significant. While the benefits of improved technology applied in the proposal are recognised, any contribution to on-going pollution is not supported. The installation of the tall emissions stack is also seen as a visual eyesore. Mana whenua preference is for removal of heavy industry, including the AAL asphalt plant from Mount Industrial Area, to reduce cumulative effects on air quality.

Alternative locations have been considered by the applicant. The application site is the preferred location because of:

- Existing ownership and investment;
- Appropriate industrial zoning;
- Separation for sensitive activities;
- Proximity to raw material inputs;
- Accessibility to development sites with the wider region;
- Proximity to workforce.

The proposals are considered to be the best practicable option. Alternative methods have been considered by the applicant in terms of plant selection and use of low contaminant emission fuels.

Proposed resource consent conditons are included in the application to mitigate potential adverse effects. Several culturally based conditions are proposed that will support the exercise of kaitiakitanga for the duration of the consent.

The proposal is assessed as being consistent with all relevant statutory policies

Consultation has occurred with key interested parties.

The applicant requests that the application be publicly notified.

Appendix 1: Application Forms

Appendix 2: Site and Locality Plans

Appendix 3: Certificate of Title

Appendix 4: Existing Asphalt Plant Information

Appendix 5: Proposed Asphalt Plant Information

Appendix 6: Air Quality Assessment

Appendix 7: Air Discharge Permit 64720

Appendix 8: Infrastructure and Services Assessment

Appendix 9: Hazardous Substances Assessment

Appendix 10: Preliminary Site Investigation (Contaminated Land)

Appendix 11: Transportation Assessment

Appendix 12: Assessment of Noise Effects

Appendix 13: Erosion and Sediment Control Plan

Appendix 14: Landscape and Visual Assessment

Appendix 15: Preliminary Geotechnical Assessment

Appendix 16: Proposed Conditions

Appendix 17: Policy Assessment

Appendix 18: Consultation Information