



IN THE MATTER

of the Resource Management Act 1991 (“RMA” or “the Act”)

AND

IN THE MATTER

of applications under section 88 of the Act to the **Tasman District Council** by **Tasman Bay Asphalt Limited** for resource consents for an Asphalt Plant (**RM201000, RM201002, RM201018**)

EVIDENCE OF JARROD du PLESSIS ON BEHALF OF TASMAN BAY ASPHALT LIMITED (OPERATIONS)

1. INTRODUCTION

1.1 My full name is Jarrod du Plessis. I am the business manager of Tasman Bay Asphalt Limited (the Applicant or TBAL). I am authorised to give evidence on behalf of TBAL.

1.2 TBAL has applied for:

- (a) Land Use consent to construct and operate an Asphalt Plant and build an acoustic barrier (RM201000);
- (b) Discharge Permit to discharge contaminants from an Asphalt Plant to air (RM201002); and
- (c) Land Use Consent to undertake earthworks within 10 metres of the toe of the Waimea stopbank (RM201018).

Purpose and scope of evidence

1.3 The purpose of my evidence is to address:

- (a) Summary

- (b) The Applicant company
- (c) Operation of the Asphalt Plant and associated transportation
- (d) How the asphalt product is used
- (e) Functional need for the location
- (f) Stopbank restoration and realignment works
- (g) Commitment to site restoration
- (h) Lease and Sub-lease arrangements
- (i) Engagement with iwi and submitters
- (j) Issues raised in s 42A recommendation report
- (k) Conclusion

2. SUMMARY

- 2.1 The application is for a Marini Carbon T Box 130 continuous mix asphalt plant to be installed at a site leased by Tasman District Council to Downers New Zealand Ltd at Bartlett Road, Tasman. For assessing the effects of the proposed asphalt plant, the plant's 130 tonnes per hour theoretical maximum production rate has been used, based on 10 hours per day operation. However, the plant will only run at that maximum production rate occasionally.
- 2.2 The asphalt plant will only remain in this location for the time that there is a nearby gravel source available. We have volunteered a condition that once all gravel crushing/extraction stops in the Waimea River Park, the plant will be shifted within 6 months (or twenty years whichever is earlier).
- 2.3 Generally, the asphalt plant will operate during the day, but occasionally it needs to operate into the evening to supply projects that must be undertaken at night. TBAL volunteers conditions limiting operation of the asphalt plant and associated transportation beyond 6.30 pm to 30 days per year.

- 2.4 Benefits of the asphalt plant include security of supply and lower cost asphalt for use in a range of roading and development applications, employment of an additional 2.5 FTE in specialised roles, and revenue for the Waimea River Park.
- 2.5 The asphalt plant has a functional need to locate in the application site, in order to be near the aggregate source and so as to be in an airshed with capacity for discharges.
- 2.6 The proposal includes realignment and restoration of an area of stopbank. These works will be managed in accordance with an Erosion, Sediment and Dust Control Plan, and a Soil Contamination Accidental Discovery Protocol.
- 2.7 TBAL proposes to implement a Restoration and Access Plan for the site and is committed to handing back a site in better condition than it is currently.

3. THE APPLICANT COMPANY

- 3.1 TBAL was incorporated on the 4th of June 2021. The company is wholly owned by Asphalt and Construction Ltd which is a civil construction company operating from the Tasman Region since the 8th of June 2016. The applicant company has been set up to pursue this endeavour on behalf of Asphalt and Construction Ltd.

4. OPERATION OF THE ASPHALT PLANT AND ASSOCIATED TRANSPORTATION

- 4.1 The asphalt plant that TBAL is looking to operate at this location is called a Marini Carbon T Box 130. It is a modular asphalt plant designed to be relocated when required. This type of asphalt plant is comprised of 4 distinct modules which are themselves designed to be carted by truck. The dimensions of each module are designed to fit inside a standard 40-foot shipping container. The Marini Carbon T Box 130 is one of three modular plants available in this range from Marini. The other options are a 50t per hour and 160t per hour. The Carbon T Box 130 was deemed the most suitable.
- 4.2 The key components of the asphalt plant are:
- (a) five aggregate feeder bins;
 - (b) mixing/drying drum;
 - (c) the baghouse filter; and

(d) asphalt storage bin/loadout silo.

- 4.3 Raw aggregate is processed into ready to lay asphaltic concrete by the asphalt plant using a combination of blending and drying aggregate then adding binder (hot bitumen) to form the asphaltic concrete of various specifications.
- 4.4 Raw aggregate will be generally sourced from existing aggregate extraction operations along the Waimea River. The Waimea River is a source of almost all of the aggregate that is required to make asphalt. This is due to the hardness of the aggregate. Generally, only river/river berm won aggregate is suitable. Most of the aggregate will be sourced in the Waimea River Park. The other asphalt plant operating in the Nelson region also sources most of its aggregate from the Waimea River Park. Very occasionally, aggregate may be imported from further afield. This could consist of a fine crusher dust not able to be processed on site or a harder aggregate.
- 4.5 The aggregate will then be stockpiled on the site and used as required. It will be transported from the stockpiles onsite to the feeder bins by front end loader. Once the aggregate is loaded into the feeder bins it will be processed by the asphalt plant.
- 4.6 This process takes place by mixing the different aggregates together, drying them, adding the required amount of bitumen, and then loading it onto the trucks or storing it in the silo for loading out later (within hours). The asphalt plant uses continuous mixing technology, which means that the aggregate enters a revolving drum, and is dried as it moves down the drum then coated in bitumen and mixed to produce asphalt.
- 4.7 The asphalt exhaust gases are filtered by the “baghouse” sitting on top of the drum. As the hot exhaust rises it is forced through the filter which is a collection of special bags. The filter is very efficient at removing dust (which is reused back in the asphalt) and particulate matter. The baghouse filter is recognized as a very efficient form of filter and generally considered best practice with the technology available currently. They are simple to maintain and do not suffer mechanical failure.
- 4.8 The asphalt plant uses automotive grade diesel fuel, not recycled fuel (used in some other operations).

Output

- 4.9 The asphalt plant can theoretically run at a maximum capacity of 130 tonnes per hour. This plant can also run as slowly as 70 tonnes per hour, as the output can be varied.
- 4.10 For assessing the effects of the proposed asphalt plant, the 130 tonnes per hour theoretical maximum production rate has been used, and assessed based on operating 10 hours per day. However, the plant will only run at that maximum production rate occasionally. The production rate is variable. It will generally be lower than 130 tonnes, and less than 10 hours per day.
- 4.11 The applicant's business case assumes production of around 8800 tonnes per year. If this volume were spread evenly over the course of a year (based on 52 weeks/year and 6 operating days per week) it would equate to 28 tonnes/day, but production will in practice be variable across the year.
- 4.12 This plant would supply the Nelson/Tasman regions. It would be uneconomic for the plant to supply other areas that have an existing asphalt plant. The Nelson/Tasman asphalt market is around 35,000 tonnes laid per year. I have assessed this figure based on discussions with industry and prior knowledge of the only existing functional asphalt plant in Nelson/Tasman. This plant could theoretically produce that entire amount in 27 days working at maximum capacity for 10 hours per day.
- 4.13 As production will be at around 8800 tonnes per year, the effects assessments are highly conservative.
- 4.14 The consent conditions would enable the plant to operate at a maximum capacity of 400 tonnes per day. This capacity would likely only be reached occasionally, such as when there is a large project that requires a significant amount of asphalt. These types of events do not occur every day. For other projects the volume of asphalt required is less, as will be the number of truck movements per day. On other days, there may be no production.
- 4.15 The technical report for the Nelson Marlborough Heath Board stated that the proposed size of the diesel tank is inadequate for an asphalt plant capable of production of 130 tonnes per hour. This is incorrect. The diesel is correctly sized when you consider the following:
- (a) TBAL will not be producing 130 tonnes of asphalt every hour of every day. We cannot load that much out (as per traffic conditions). Six litres per tonne of fuel

consumed x 400 tonnes of asphalt per day is 2400 litres, so the tank will supply roughly 2 days operation at that rate.

- (b) We have deliberately opted for a smaller diesel tank at this location so it can be moved in an extreme event. At 840 g per litre of diesel, a 54,600 litre tank would weigh nearly 46 tonnes – we could not move that if required with easily/readily available equipment in an extreme flood event – i.e., less than 24 hours’ notice. A 5,000 litre tank would weigh 4.2 tonnes which is far more practical to shift at short notice – for example Lift and Shift – (local trucking/crane operator) have 7 trucks locally that can move 4.2 tonnes.

Duration of the activity

- 4.16 The Waimea River gravel source is expected to be exhausted in approximately nine years’ time (that is when the Tasman District Council expect the resource to be extinguished). The asphalt plant will only remain in this location for the time that there is a nearby gravel source available. We have volunteered a condition that once all gravel crushing/extraction stops in the Waimea River Park the plant will be shifted within 6 months (or twenty years whichever is earlier).

Production hours and variability

- 4.17 A typical working day for Tasman Bay Asphalt will encompass a peak production around 7.15-9 am, then a more regular pattern of trucks through the day. Generally loading out of asphalt onto trucks will cease around 2 pm in the winter (due to lack of daylight for the asphalt team to lay the product), and 4-5pm in the summer months. Once the product is made, it still needs to be laid on a site by the team meaning working hours and personal constraints can limit the load out time and planning of such.
- 4.18 This would be typical if the weather is fine and not inclement. In the rain the asphalt plant will not be operating – this is due to client-driven specification rather than production constraints. The ground should be dry when asphalt is laid.
- 4.19 It is possible that during winter the asphalt plant may operate for only 2 – 3 days per week as laying of asphaltic concrete is constrained by minimum ground temperatures and a dry surface. Both local authorities and the NZTA have a recognized sealing season from November to March inclusive, which is a function of both ambient air temperature, ground

temperatures and more settled fine weather. This is when the bulk of their tendered work will happen. This is also when most of the 30 days of evening work will be performed.

4.20 Asphalt is generally laid during a period of 7 am through to 5.00 pm throughout the year. Due to factors including staff availability, transport availability as well as the locations at which it is laid (residential streets, driveways etc.), working during the recognized 'daytime' is considered the most appropriate. However, there are times and projects where working at night is advantageous. This is normally exclusively done in the summer months when ground temperatures allow. Working at night also has operational advantages in the case of busy intersections or roundabouts where traffic management is made easier when dealing with decreased traffic flows at night.

4.21 Whilst the ideal outcome from a production perspective would be consent conditions allowing asphalt to be produced and transported from site anytime in a 24-hour window, the minimum number of evenings that are required to provide a reliable supply for a range of projects and conditions is 30 evenings. On that basis, the applicant has proposed that the asphalt plant and transportation of asphalt is allowed to operate:

- (a) until 6.30 pm Monday to Friday and 6 pm on Saturdays; and
- (b) until 9 pm (asphalt plant) and 10 pm (transportation of asphalt) on 30 evenings per year.

4.22 Allowing asphalt to be carted from this site up until 10pm for 30 evenings/year will, with some prior planning, allow an asphalt crew working on a project to receive asphalt and complete most projects where asphalt is required at night.

Transportation of asphalt

4.23 Asphalt is generally transported on trucks requiring a class 4 license. They are covered with a special tarpaulin to keep the product hot on its journey. It is rare to cart asphalt on truck and trailers. The problem with trailers towed behind trucks is they are more problematic to tip into the machine laying the material. Some trucks have a special box fitted to the deck to allow easier disbursement into a wheelbarrow onsite. These 'hotboxes' are fully covered and lined to keep the air off the product and preserve the heat of the asphalt. Ideally the air does not come into contact with the product as it is transported, because this reduces heat loss. As the material is required to be covered and to keep the air from

contacting it, it is very hard to distinguish between a truck carting asphalt or aggregate if it was to pass you in the street.

- 4.24 The most likely destinations for the asphalt are Nelson or Richmond. Limited quantities may go to Motueka, Richmond South or Golden Bay. The most likely route that will be taken by trucks carrying asphalt from the plant is from the State Highway onto Pugh Road, however, the asphalt product cannot be stored for long once it has been produced if it is on the back of an uninsulated truck deck, and a timely supply is needed at roading projects to ensure they can proceed as scheduled. As a result, it is important that trucks transporting the asphalt have a range of route options for reaching their intended destinations, in case one route becomes unavailable (e.g., due to roadworks or an accident).
- 4.25 A recent project that the applicant supplied on the Tākaka Hill is a good example of why the applicant needs some flexibility to operate to 10 pm for a certain number of evenings per year. The work needed to be completed at night due to the closures specified by the client. This was to reduce impact to the users of the road, as the Tākaka Hill is the only road into and out of Golden Bay.

5. BENEFITS OF THE ASPHALT PLANT

Product is required for roading and urban development

- 5.1 Asphalt is more durable than chipseal surfaces – for high stress areas (intersections, roundabouts), it is more suitable. Asphaltic Concrete technology has come a long way – with population growth and increasing demand for smooth quiet roads the demand for asphalt will only increase – it is a smoother, quieter option than chipseal and more economic than a concrete pavement.
- 5.2 Asphalt is needed for development and maintenance of roads in Nelson and Tasman as well as in residential and industrial developments including at Port Nelson.
- 5.3 This asphalt plant will be located close to the growth centered in the Tasman Region.

Employment

- 5.4 The asphalt plant will employ an additional 2.5 full time equivalent workers. All are specialized roles paying above average remuneration.

Additional asphalt supplier

- 5.5 Currently there is only one supplier of asphalt in the Nelson Tasman Region. Historically (3 years ago) there had been two, however one has closed (this was a smaller older plant located in the Richmond airshed). The current asphalt plant serving the Nelson/Tasman region is in suburban Tāhunanui. The now closed asphalt plant was at the end of Beach Road in Richmond.
- 5.6 One company now owns all asphalt plants north of Christchurch. Those plants are located in Nelson, Blenheim, and Greymouth. The average price of asphalt in Nelson is around \$235 per tonne, in Blenheim it is around \$225 per tonne and in Greymouth it is around \$227 per tonne (all excluding GST). In comparison, in Christchurch where there are multiple asphalt plants, the price for the same product is around \$168 per tonne plus GST, despite the cost of production being largely the same. The difference is that Christchurch has multiple plants and a healthy marketplace. I expect a correction of between \$15-20 per tonne if the new plant is installed.
- 5.7 A new plant in the region adds resilience to the supply of this product locally allowing redundancy in case one plant suffers a failure and product is needed to repair roads in an emergency.
- 5.8 Currently the region is vulnerable to a breakdown of the only existing asphalt plant. A secondary supply is important for the region. On 23 November 2021 the existing asphalt plant suffered a mechanical failure. It meant no asphalt could be produced from the period of 7 am to 4 pm on 24 November (the plant was operational by the evening). Whilst it was only out of production for one day, this meant arrangements had to be made to bring asphalt from Blenheim to enable roadworks within Nelson and Tasman to progress, adding a huge number of road miles to the work. Numerous projects were delayed for the day.

Waimea River Park revenue

- 5.9 The sole source of revenue for the Waimea River Park is from lease payers. The asphalt plant will provide an extra source of revenue contributing to the Waimea River Park development fund for the length of the lease.

6. FUNCTIONAL NEED FOR LOCATION

- 6.1 Asphalt plants can be set up in a variety of locations but ideally the location will be within or very close to the aggregate source. The need for this proximity has become more pressing due to awareness of the need to reduce CO₂ from land transport. Consideration

must also be given to the road network servicing the plant – transportation and traffic effects can be minimised by reducing the amount of product carted to the site to be processed.

- 6.2 Asphalt needs to be made from aggregate that meets certain parameters for strength and durability. Generally (as is the case in Nelson/Tasman), this type of rock is sourced from rivers. The current asphalt plant supplying Nelson uses aggregate that is crushed in the Waimea River Park and transported into Nelson to be processed into asphalt. Establishing the plant in the proposed location means less truck movements on the local roads and lower CO₂ emissions (compared to establishing the plant elsewhere). The need for an asphalt plant close to existing crushing sites also means existing infrastructure can be utilized and be grouped with similar activities – i.e., existing crushing operations along that side of the Waimea River Park.
- 6.3 There is also a functional need to discharge combustion products, and this requires an airshed that can accommodate the plant's air discharges.
- 6.4 Alternative sites have been explored, however all others needed to have source aggregate carted into the site. All alternative sites also had constraints around locations being closer to sensitive noise receptors or air quality limitations receptors. The following characteristics made this site the best of the options investigated:
- (a) Proximity to the source material.
 - (b) It is an existing gravel processing site, allowing grouping of similar activities.
 - (c) It is outside the Richmond air shed.
 - (d) It is not vulnerable to sea level rise.
 - (e) It is outside the river stopbank and in a location not at risk of a 100 year flood.
 - (f) It will not add to further intensification/industrialisation of the Waimea Plains.
 - (g) It is further away from sensitive receptors than all other sites evaluated.

6.5 Gravel Extraction from the Waimea River Park is scheduled to end in 9 years. Once all crushing stops in the Waimea River Park, the consent would provide for shifting the asphalt plant to another location. In the meantime, this site will prove a largely “ready to go” area with existing similar use and infrastructure that can be utilized to produce asphalt.

7. STOPBANK RESTORATION AND REALIGNMENT

7.1 The proposal includes realigning an area of stopbank. This part of the project is due to the existing issues underneath the existing plant. It is recognized that once the existing crushing plant is removed, the stopbank should be shaped and rebuilt through the centre where it is currently nonexistent.

7.2 The area that the current plant occupies is highly modified, as evident by the various concrete foundations visible. Once the restoration work is complete the stopbank will be in a more functional state than it is currently.

7.3 The earthworks will be managed in accordance with an Erosion, Sediment and Dust Control Plan (ESDCP). I attach a draft ESCDP that outlines the actions and methods that will be undertaken as **Appendix 1**.

7.4 The earthworks will also comply with a soil contamination accidental discovery protocol to manage potentially contaminated soil, as described in Mr O’Cain’s evidence, and with an archaeological accidental discovery protocol.

8. COMMITMENT TO SITE RESTORATION

8.1 TBAL is committed to handing back a site in better condition than it is currently. We propose to implement a Restoration and Access Plan for the site. A draft Restoration and Access Plan is attached to my evidence. We have sought feedback on this Plan from submitter iwi and the Council.

9. LEASE AND SUB-LEASE

9.1 Downer has an existing lease agreement with TDC for the site, which has expired but is currently being re-negotiated. TBAL is negotiating a sub-lease agreement with Downer. The quantum of both leases will not be determined until a decision is made on this application.

9.2 The stopbank to the north of the site is currently inaccessible. Council wishes to allow pedestrian access onto the stopbank then linking to the north. The applicant has produced a revised site plan that provides for this access. This will improve the existing access to the public.

10. ENGAGEMENT WITH IWI AND SUBMITTERS

Iwi

10.1 Submissions on the application were lodged by Te Ātiawa, Ngāti Koata and Ngāti Rārua. TBAL sought to engage with these iwi as to their concerns and also requested (and offered to assist with preparation of) a cultural impact assessment. For reasons that are not clear to me, this has not been possible. The sequence of engagement with submitter iwi is attached as **Appendix 2**.

10.2 TBAL would like to address the issues raised in the submissions of Ngāti Rārua, Te Ātiawa and Ngāti Koata. I hope that some of those concerns have been addressed by the additional technical evidence about the effects of the proposal, in particular effects on water, and by the Access and Restoration Plan. TBAL will respond to any remaining issues that Ngāti Rārua, Te Ātiawa and Ngāti Koata identify in evidence, or which are communicated to TBAL prior to the hearing.

10.3 TBAL also contacted all statutory acknowledgement iwi, and received a “proof of consultation” document from Ngāti Kuia (attached as **Appendix 3**) that included the following recommendations:

- (a) Adherence to Ngāti Kuia’s Accidental Discovery Protocol.
- (b) The final earthworks management plan, including erosion and sediment controls, is provided to Ngāti Kuia at least five working days prior to commencing any earthworks.
- (c) As far as practicable avoid the discharge of sediment or sediment laden runoff into waterways.
- (d) Mitigate the leaching of chemicals into the ground/groundwater and advise Ngāti Kuia as to how this will be achieved.
- (e) Native planting and the removal of weeds on the perimeter of the plant.

- (f) Provide an assessment of the health of the waterway and aquifer and any possible effects the operation of this plant will have on it.

10.4 Those matters have been addressed in TBAL's technical evidence or in the proposed conditions.

Submitters

10.5 Below is a list of engagement with submitters that I have personally been involved with:

- (a) 10 June 2021 – Dave Sampson – Ranzau School Principal – met at the School to discuss the proposal and to understand how the School uses the Hope Community Hall. Advised that the application would be notified shortly.
- (b) 14 June 2021 – Steven Sutton (neighbour/horticulturalist) – met at his property at the end of Eden's Road to discuss the proposal and understand concerns. Advised that the application would be notified shortly. Requested that Mr Sutton identify any issues and offered to consider how to mitigate them.
- (c) 21 June 2021 – Steven Sutton – phone call to check if he had compiled a list of issues/or not. Mr Sutton advised he would be lodging a submission.
- (d) 29 June 2021 – Matthew Hoddy – Vailima Orchard Limited – met at the company's yard on Main Road Hope to discuss the proposal. Advised that the application would be notified shortly.
- (e) 28 September 2021 – Ian Kearney – Sport Fishing Trust – arranged to meet but meeting did not proceed as Mr Kearney did not attend.

11. ISSUES RAISED IN S 42A RECOMMENDATION REPORT

11.1 At 9.37, the s 42A report states that the writer is not able to assess whether financial contributions should be a condition of any consent until the applicant clarifies the extent of continuing gravel crushing at the site. I understand that Downer proposes to use a temporary gravel crushing plant infrequently (approximately 1 week crushing every four months). I have no additional information about Downer's intentions.

- 11.2 At 12.27 – 12.28 the s 42A report refers to the management of dust from operations (as opposed to earthworks). TBAL will manage dust: working surfaces will be sealed or damp, and handling minimized, which is also important for dust control.
- 11.3 At 12.53, a condition of consent has been suggested to limit the temperature of the plant to minimize the emissions of volatile organic compounds. I assume this refers to council's proposed condition 7 which requires asphalt product exiting the asphalt mixing drum to not exceed 175 degrees Celsius. I confirm that the asphalt plant can operate to that requirement.
- 11.4 At paragraph 6.1 of Mr Fon's report, he recommends truck movements should be limited to the period between 7 am and 9 pm. I have addressed the reasons why evening truck movements are necessary on occasion above, and TBAL has offered to limit evening truck movements to 30 nights per year. On that basis, it is necessary to have truck movements until 10 pm (on those 30 nights) to allow TBAL to supply projects working into the evening/night.
- 11.5 Proposed condition 10 of the air discharge consent is: The asphalt plant shall feature a separate asphalt mixing mill or drum or another configuration featuring physical separation between aggregate drying and the mixing of the aggregate with bitumen and recycled asphalt pavement. It is unclear to me what this condition is aimed at, but it is not achievable with the proposed asphalt plant model, which is a continuous mix plant. The aggregate drying and mixing are not physically separate – all are in the same drum and the aggregate dries as it moves down the drum, then it is coated with bitumen and mixed.

12. CONCLUSION

12.1 The asphalt plant is an appropriate use of the site at Bartlett Road. The site will be left in a better condition than it is currently, and public access will be enhanced. The asphalt plant will have a range of benefits to the region.

Jarrood du Plessis

10 December 2021

Appendix 1



Bartlett Road – Bund rebuild
EROSION & SEDIMENT CONTROL PLAN
ESCP001

Project Name:	Bartlett Road
Project No:	RM201000&RM201018
Principal:	Tasman Bay Asphalt Ltd
Date:	December 2021
Reviewed By:	DRAFT



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1. Introduction

This Erosion and Sediment Control Plan (ESCP) has been prepared to detail the expected erosion, sediment and dust control measures to be used during the earthworks at the proposed site

TBA provides the following best practice erosion, sediment and dust control methodologies for the proposed works to minimise the risk of:

- erosion and sedimentation occurring from the earthwork activities;
- potential adverse impacts to receiving environments from erosion and sedimentation; and
- breaching environmental obligations.

The project involves earthworks being carried out on an existing stopbank on the Waimea River. Initial construction works on the stop bank are expected to be completed within 3 weeks, allowing for weather and resource availability.

2. Reference Documents

TBA have referenced the following documents during the development of this ESCP:

- Resource consent RM201000,
- Resource consent RM201018
- Resource consent RM201002
- Nelson Tasman Erosion and Sediment Guidelines, July 2019;

Tasman Bay Asphalt (TBA) will execute the works on the site in accordance with existing resource consents RM201000 & RM201018 & RM201002. These consents require that the ESCP sets out the practices and procedures to be adopted in order that compliance with the consent conditions is achieved and require that the ESCP includes, as a minimum¹:

- a) An aerial image of the site detailing, as a minimum, the location of
 - i. Property boundaries
 - ii. Surface waterbodies
 - iii. Roads
 - iv. All erosion, sediment and dust control measures, and
 - v. Stormwater management measures and the direction of stormwater flows
- b) Detailed drawings and specifications of all designated erosion and sediment control structures
- c) Construction timetable for the erosion and sediment control works, bulk earthworks, re-stabilisation of exposed ground and any planting
- d) Maintenance, monitoring and reporting procedures,
- e) Rainfall response and contingency measures including procedures to minimise adverse effects in the event of extreme rainfall events and/or the failure of any key erosion and sediment control structures and
- f) Hydrocarbon spill response and contingency measures

¹ Condition 14.

3. Site Description & outline of works



The proposed area is adjacent to the Waimea River which is a significant waterway in the Tasman area. The section of river that the works are next to is west of the photo. The surrounding area is primarily used as a gravel processing area however public access is available outside the existing gated site.

The dominant soil profile observed over the majority of the area consists of well sorted gravels, cobbles and layers of sand and silt or silt and clay. The existing vegetation is dominated by wind sown grasses.



There are possibly cultural heritage sites within the project area, Accidental Discovery Protocols will be implemented should works uncover any archaeological sites under the direction of the Iwi Monitor.

4. Description of Works

TBA will carry out the proposed works as four key tasks within 1 distinct construction area in the following sequence:

1. Gate off public access to the work area – reinforce existing gates and fix any points where the existing gates are compromised
2. Monitor, obtain and check 2 separate forecasts indicating a weather window free from significant rain and flood event.
3. Remove existing derelict crushing plant.
4. Setout and rebuild the bund with suitable fill. Construct under supervision as required.
5. Remove gates

All works are expected to be completed within 3 weeks, depending on weather and resource availability. The work will require a favourable weather window of 3 weeks. The additional material needed to rebuild the bund will be won from site. The quantity required will be shifted from its existing position to the bund site once. This will minimise disturbance and minimise risk of runoff from recently disturbed soil. If temporary piles are needed they will be located away and will be protected from overland flow, wind and traffic. All stockpiles will be kept tidy and with a stable slope.

Each task is described in more detail in the following sections.

4.1. Gate off area

TBA will carry out the works in the following sequence: Stage 1, 2, 3, 4 and then 5.

Step	Proposed Works
1	Set up 2m high gates across the width of the reserve with signs facing to the public detailing the works with 24hour contact information.

4.2. Weather forecasting – check and sign off

Monitor two reliable forecasts. Check and discuss with TDC Rivers Engineer on a suitable window for the work – agree and resource adequately.

4.3. Construction works

TBA will follow the same basic methodology as described below whilst making some minor adjustment to the scope of work as/when required.

Step	Proposed Works
1	Remove existing plant (if not already completed by others)
2	Remove concrete foundations and dump to waste
3	Set out new bund alignment
4	Utilise existing onsite source of material to rebuild the missing bund, Compact in 200mm layers, use NDM or other approved method to confirm compaction
5	Shape new bund as needed to comply with resource consents
6	Hydroseed (high viscosity) the exposed soils where it will be grassed
7	Apply fertilizer to areas to be grassed & monitor for strike

5. Erosion and Sediment Controls

TBA plan erosion, sediment and dust control based on the following fundamental principles to minimise adverse effects of erosion and sedimentation, adapted from *Nelson Tasman Erosion and Sediment Control Guidelines (2019)*:

- Implement an evolving ESCP;
- Minimise disturbance – area and time;
- Ensure personnel have appropriate experience and training;
- Install perimeter controls;
- Protect watercourses;
- Protect the land surface from erosion;
- Minimise sediment leaving site; and
- Stabilise exposed areas.

The key focus for this ESCP includes good works planning, restricting disturbance (time and area) and rapid and progressive stabilisation to minimise the risk of sediment generation and movement. Due to the changing nature of earthworks, climate and site conditions, the type, quantity and location of erosion, sediment and dust control measures change as the project progresses. Certain controls will be installed and decommissioned as required to accommodate newly opened areas, stabilised areas, change in hydrology and vegetation cover, rainfall events and availability of resources. All controls will be constructed, in accordance with best practice detailed in the *Nelson Tasman Erosion and Sediment Control Guidelines* and be in place for as long as there is potential for sediment movement away from the works area.

5.1. Erosion Controls

The controls provided in Table 1 over page will be implemented throughout the worksite to minimise the risk of erosion occurring. These controls focus on either managing water (surface water or overland flow) or stabilising surfaces. Please note, some of the controls are temporary and may only be required periodically during a particular activity or event.

Table 1: Controls to be implemented onsite to control erosion.

<i>Surface water Control</i>	Silt ponds	Ensure existing silt ponds are still functional, guide water to these
	Sediment sump socks	Used to capture sediment, sediment traps may be used throughout the worksite to reduce water velocity from dirty water diversion off existing surfaces
	Surface roughening	Where applicable, exposed topsoil awaiting further cover will be roughened to reduce overland flow velocity and erosion potential.
<i>Surface Stabilisation Controls</i>	Topsoiling	As soon as possible, exposed fill may be covered with topsoil before further stabilisation to minimise soil particles becoming mobile. – For example the Waimea Plains side of the stop bank.
	Hydromulching and hydroseeding	Hydromulch products (wood fibre mulch, and tackifier), grass seed and fertiliser may be applied using a hydroseeder unit (cannon and hose application) or mobile trailer tank following topsoil application. This will protect underlying soil and assist with a rapid grass seed germination.

5.2. Sediment Controls

The controls in Table 2 will be implemented throughout the worksite to minimise the risk of sedimentation occurring within or outside of the worksite. Please note, some of the controls are temporary and may only be required periodically during a particular activity or event.

Table 2: Controls to be implemented onsite to control sediment.

<i>Silt Ponds</i>	There are multiple silt ponds on the river side of the site, we will utilise them by making any overland flow drain to these ponds.
<i>Sediment sump socks</i>	Used to capture sediment, sediment traps may be used throughout the worksite to reduce water velocity from dirty water diversion off existing surfaces.
<i>Vegetation Buffer</i>	The works are uphill from the waterway – we will make every effort the leave the existing river side buffer undisturbed to allow this existing grass/vegetation to be utilised to its full extent to filter sediment as the water moves towards the river
<i>Sediment Trap</i>	Modular sediment traps will be placed within the existing overland flow drain along the norther boundary of the work site to filter sediment-laden water. The sediment traps are made of hay bales wrapped with geofabric.
<i>Stabilised entrance way/exit</i>	The worksite entrance way/exit, will be stabilised with aggregate to keep stormwater networks free of sediment and identify a specific access point to minimise erosion from vehicle and machinery movement.

6. Staged Construction

Erosion, sediment and dust control best practice guidelines encourage staging construction to minimise exposed area at any one time. Works are being carried out as per the sections identified. We intend to fully complete the project in one establishment.

7. Contingency Planning – Extreme Rainfall Event

To prepare for an extreme rainfall event (for example a Q₁₀₀ event), TBA will carry out an ESDC inspection to ensure adequate controls are in place and operable. This will identify required repairs to existing controls and whether additional controls are required.

Other contingency actions will include ensuring:

- Any exposed soil, including stockpiles, cut and fill batters or stormwater drains, are stabilised;
- Capacity and no obstructions within drains or sediment sumps;
- Any sediment fences are erect and there are no holes or built-up sediment upslope of fence;
- Any geofabrics are properly secured; and
- Removing any machinery from the vicinity of any watercourses or drains.

All earthworks will cease prior to any extreme rainfall events. We will have identified a suitable window to complete the work. We are also building up on an existing bund and not degrading the existing stopbank network in any way – rather improving it.

8. Monitoring

TBA is implementing robust processes and procedures to continually improve onsite ESDC performance by carrying out ESDC, surface water quality and weather monitoring as detailed below. Copies of all monitoring procedures and other documentation are available on request.

8.1. Erosion and Sediment Control Monitoring

The erosion, sediment and dust control measures will be inspected daily. The purpose of each inspection is to ensure the measures are operating correctly and for general maintenance to avoid, minimise or repair any damage. Inspections are carried out weekly, prior to rainfall and following rainfall.

Observations will be recorded and available for inspection at any time.

8.2. Weather Monitoring

TBA will carry out the following weather monitoring to assist with planning works, preparing for adverse weather conditions and reporting on adverse weather events:

- Local weather forecast – checked daily (rain radar, 3 and 5 day forecasts).

9. Reporting

TBA will advise the TDC of the following as per resource consent conditions:

- At least three days prior to the commencement of works on-site;
- Placement of erosion, sediment and dust control measures;
- At least 24 hours prior to decommissioning of erosion, sediment and dust control measures; and
- any ESCP amendments.
- Construction programme amendments.

All information recorded and reported internally will be available to TDC on request.

10. Review of ESCP

TBA will review this ESCP as required or at the request of the TDC until the project is completed. The purpose of the review is to ensure TBA is adequately managing erosion and sediment movement on site to minimise the risk of discharging sediment from site within water or as dust. The review provides an opportunity to change processes and controls onsite to improve erosion, sediment and dust control. TBA will carry out the review in consultation with TDC and any other specialist persons required.

11. Roles and Responsibilities

An experienced team implements the erosion, sediment and dust control methodologies and measures to ensure all relevant aspects of the project are taken into consideration. This approach ensures adequate resources, commitment and expertise are incorporated into erosion, sediment and dust control planning and execution from start to finish of the project (design through to decommissioning).

The TBA construction team include:

Project Manager:

Jarrold du Plessis

Site Foreman:

To be confirmed

12. Summary

This ESCP provides the proposed erosion, sediment and dust control measures to be implemented at the Bartlett Road site during the works.

The key aim of this ESCP is to minimise potential of erosion and generation of dust and sediment-laden water using a variety of erosion and sediment controls and achieve compliance with consent conditions. Controls will likely change as the project progresses and in relation to weather and resource availability.

TBA implement this ESCP with an experienced and competent team that will monitor project progression and amend erosion and sediment control as required.

Appendix 2

Appendix 2: Iwi engagement

1. I have worked with an Iwi Monitor before in the region when undertaking work in the road reserve and that area is known to be of cultural significance to local iwi. Geoff Mullen is the representative that I would arrange to work with onsite. TBAL sought assistance in engaging with interested iwi from Geoff Mullen.
2. I met Geoff on the proposed site on 30 March 2021 and asked for his feedback on the best way to approach iwi about this proposal. Geoff was able to provide a list of iwi that may be interested and up to date contact details for their representatives. Geoff advised there are 8 iwi that TBAL should consult. Geoff helped to prepare a culturally appropriate letter, which was sent on 27 April 2021 to Ngāti Koata, Ngāti Tama, Te Atiawa, Rangitāne, Ngāti Kuia, Ngāti Rarua, Ngāti Toa, Ngāti Apa (represented by Ngāti Kuia). We received no response. We re-sent the letter on 04 June 2021 asking for input. We received one request to meet from Te Ātiawa on 4 July 2021 (the day prior to submissions closing). I met with their representative onsite that day to discuss the proposal.
3. Below is a list of all engagement with iwi:
 - (a) 27 April 2021 – email to Ngāti Koata, Ngāti Tama, Te Atiawa, Rangitāne, Ngāti Kuia, Ngāti Rarua, Ngāti Toa, Ngāti Apa (represented by Ngāti Kuia) requesting views on the proposal.
 - (b) 4 June 2021 – email to same iwi, requesting view on the proposal.
 - (c) 4 July 2021 – onsite meeting with Te Ātiawa representative.
 - (d) 13, 17 and 20 September 2021 – letter and emails to Te Ātiawa, Ngāti Koata and Ngāti Rārua arranging to meet/discuss their submissions.
 - (e) 28 September 2021 – on-site meeting with Te Ātiawa, Ngāti Koata and Ngāti Rārua. Discussion of proposed consent term, archaeological relevance of the site, the existing state of the site, uses of the site and surrounding area. The representative for Ngāti Rarua (Aneika Young) indicated that a cultural impact assessment (CIA) was appropriate. The next step was for Aneika to discuss preparation of the CIA with the representatives of Ngāti Koata and Te Ātiawa.

- (f) 5 October 2021 – email to Ngāti Rārua following up on on-site meeting
- (g) 5 October 2021 – email – Ngāti Kuia confirmed it wished to provide a “proof of consultation” document and review the application. On same day, TBAL commissioned Ngāti Kuia to provide a “proof of consultation” document.
- (h) 2 November 2021 – Ngāti Kuia provided “proof of consultation” document.
- (i) 5 October 2021 – email Ngāti Rārua – sent discharge assessment & site plan.
- (j) 15 October 2021 – email to Ngāti Rarua – follow up requesting feedback on discharge assessment and site plan: “I was wondering how you were going with the information I sent and whether I need to supply anything else to assist you with your review of our proposal.” Response received from Ngāti Rarua (Rowena Cudby) that her understanding was that Aneika was going to discuss preparation of a CIA with Ngāti Koata as the next step, and that she would follow up with Aneika to check on progress. I confirmed that my understanding was that a CIA was likely needed and asked Rowena to let me know if I could assist in preparation in any way.
- (k) 22 October 2021 – email, Ngāti Rarua, Te Ātiawa advising of a probable December hearing date and requesting information about concerns raised in submissions to enable these to be addressed prior to hearing.
- (l) 8 November 2021 – phone call – Ngāti Rārua – follow up – not returned
- (m) 8 November 2021 – phone call – Ngāti Koata – follow up – not returned
- (n) 8 November 2021 – phone call – Te Ātiawa – follow up – not returned
- (o) 15 November 2021 – phone call – Ngāti Rārua – follow up – not returned
- (p) 15 November 2021 – phone call – Ngāti Koata – follow up – not returned
- (q) 15 November 2021 – phone call – Te Ātiawa – follow up – not returned

- (r) 24 November 2021 – phone call – Te Ātiawa to request update on CIA. Te Ātiawa responded by email (same day) saying “seems that there was a slight mix up. Daren advised that Aneika offered to do the CIA with input from other iwi. I did not receive any further response from Ngāti Rarua or Ngāti Koata.
- (s) 28 November 2021 – email Jane Bayley to submitter iwi offering to make Chris Bender (discharge assessment author) available for a workshop to discuss any concerns. Response from Ngāti Rārua on 29 November 2021 “I do not have capacity to attend further meetings between now and Xmas, but if there is any written information following this meeting I am happy to review it.” As no submitters wished to attend a workshop, there was no workshop held.
- (t) 29 November 2021 – email to Ngāti Rārua, Te Ātiawa and Ngāti Koata providing draft Access and Restoration Plan and seeking feedback. No responses.

Appendix 3

Proof of Consultation



Ngāti Kuia
Te Iwi Pakohe

26 October 2021

In the matter of: Proposed asphalt plant Waimeha

Applicant: Tasman Bay Asphalts

Affected Party: Te Rūnanga o Ngāti Kuia Trust (TRONK) and Ngāti Apa ki te Rā Tō

This document serves as proof that the applicant has consulted with Ngāti Kuia and Ngāti Apa ki te Rā Tō regarding the application and outlines the relationship of the iwi and the degree of effect. This is not to be considered as an affected party approval for the purposes of the Resource Management Act 1991.

Invoice Number: INV-0689

Te Rūnanga o Ngāti Kuia Trust

The Project: The establishment of a new asphalt plant along the Waimeha awa, on the site of an old gravel extraction and processing plant.

The Association: Ngāti Kuia are the descendants of the first people to inhabit Waimeha and is the only iwi in Te Taihū to originate in this rohe.

Ngāti Kuia is an Iwi made up of marriages between early iwi such as the Kurahaupō tribes Ngāi Tara and Tumatakōkiri after various migrations into Te Taihū. Ngāti Apa would also come to settle in the Waimeha intermarrying with Ngāti Kuia.

Waimeha (incorrectly recorded as Waimea) means brackish water referring to where the freshwater meets saltwater in the estuary.

The ancestors of Ngāti Kuia established extensive kūmara cultivations along the Waimeha spanning over 1000 acres. In modern times the modified agricultural soil associated with the gardens have been identified.



Ngāti Kuia and Ngāti Apa ki te Rā Tō had numerous pā and pahi (campsites) along the banks of the Waimeha awa and at the junction of the Wairoa and Wai-iti rivers.

Kokopu, inanga, kēkēwai, koura and kahawai were traditionally harvested from the river. The river environs were also used for birding, harvesting species such as kākā; kereru and tui. It was also a good source of flax used in weaving. The main pā was just behind what is now Appleby School. The area remains culturally significant to Ngāti Kuia and Ngāti Apa ki te Rā Tō to this day.

Cultural Effects: As mentioned above, the Waimeha catchment was extensively used and of great significance to Ngāti Kuia and Ngāti Apa ki te Rā Tō. Any disturbance such as earthworks in the area will pose the risk of accidental discovery i.e. taonga (protected objects), koiwi tangata (human remains) and evidence of occupation such as modified soils used for agriculture and middens.

The disturbance of any of these will affect the cultural values of Ngāti Kuia. It is understood that this is a highly modified area, but that does not completely eliminate the risk of accidental discovery.

Any pollution in the air has the potential to affect the wellbeing of whanau. This includes the effects of global warming and breathing in particulate matter which has been known to cause adverse health effects in people. Any pollution in the environment has the potential to affect our delicate ecosystem which is home to taonga species and species culturally harvested from the mahinga kai of Waimeha.

Environmental Effects:

the proposed area for this plant is 200 metres from the Waimeha river. The production of asphalt includes bitumen as a binder which is made up of various oils and chemicals. The question raised here is can seepage from the cleaning of machinery and rain runoff into the ground water be avoided at the plant?

There will be air pollution associated with the operation of this plant, including the discharge of carbon dioxide into the air, contributing to the greenhouse effect and global warming. Including particulate matter, small particles suspended in the air, particulate matter air pollution has been known to have adverse health effects.

Sulphur dioxide (SO₂) will also be discharged, this has been known to adversely affect plant growth and foliage when accumulated in high concentrations.

Understanding that the discharge into the air will not exceed air quality standards, cumulative effect and maximum air quality limits are still taken into account.

Recommendations:

1. Adherence to Ngāti Kuia's Accidental Discovery Protocol (attached).
2. The final earthworks management plan, including erosion and sediment controls, is provided to Ngāti Kuia at least five working days prior to commencing any earthworks.
3. As far as practicable avoid the discharge of sediment or sediment laden runoff into waterways.
4. Mitigate the leaching of chemicals into the ground/groundwater, and advise Ngāti Kuia as to how this will be achieved.
5. Native planting and the removal of weeds on the perimeter of the plant.
6. Provide an assessment of the health of the waterway and aquifer and any possible effects the operation of this plant will have on it.