

In the Environment Court of New Zealand
Auckland Registry

I Mua I Te Kōti Taiao O Aotearoa
Ki Tāmaki Makaurau

ENV-2023-AKL-160

Under the Resource Management Act 1991

In the matter of An application for a direct referral to the Environment Court under section 87G of the Act for an order granting the applicant's resource consent applications to construct and operate a new asphalt plant at 54 Aerodrome Road, Mt Maunganui, together with an application for consent to authorise the continued operation of the existing asphalt plant on the site pending construction of the new plant

Between **Allied Asphalt Limited**

Applicant

And **Bay of Plenty Regional Council and Tauranga City Council**

Consent Authorities

Statement of Evidence of Jim Maddock

29 February 2024

Counsel acting:
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Qualifications and experience

- 1 My full name is James (Jim) Brownlow Maddock.
- 2 I hold a NZ Certificate of Science, and a NZ Diploma of Technology.
- 3 I work in the business Industrial Waters Solutions Ltd ("IWS") that I established 30 years ago. This work involves environmental auditing, stormwater and trade waste monitoring, trade waste solution design and construction, stormwater treatment design, environmental management system development and resource consents. Through IWS I have advised other asphalt manufacturing sites and heavy industrial and manufacturing sites on matters of pollution prevention. Some of the other related industries include the concrete industry, transport operations and chemical manufacturing. Several of these projects have been for the Fulton Hogan Group, at their asphalt and concrete based manufacturing units.
- 4 My role in relation to Allied Asphalt Limited's (**Allied**) application for resource consents for a new asphalt plant and the continued operation of an existing plant pending construction of the new plant at 54 Aerodrome Road, Mt Maunganui (**Application**) has been to provide advice in relation to the management of pollution risks, trade waste treatment and stormwater treatment. I drafted the addendum to the TCC request for further information, which appears at Appendix [5] of the Response to TCC from Beca.
- 5 My assessment is based upon the proposal description attached to the planning evidence of Mr Craig Batchelar as Appendix 1.
- 6 In preparing this statement of evidence I have considered the following documents:
 - (a) the AEE accompanying the Application;
 - (b) submissions relevant to my area of expertise;
 - (c) the relevant Tauranga City Council and Bay of Plenty Regional Council design guidance documents relevant to my area of expertise;
 - (d) the section 87F report;
 - (e) Beca Infrastructure and Services Assessment (22 November 2022)
 - (f) The proposed draft consent conditions.

- (g) Information from the suppliers of proprietary trade waste and stormwater treatment devices.

7 I have visited the site and met with Iwi representatives at the Application Site.

Code of Conduct for Expert Witnesses

8 I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2023 and that I have complied with it when preparing my evidence. Other than when I state I am relying on the advice of another person, this evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Scope of evidence

9 I have prepared evidence in relation to:

- (a) the existing environment of the Application Site as it is relevant to my area of expertise;
- (b) the key findings of the assessment of effects;
- (c) matters raised by submitters on the Application;
- (d) matters raised in the Bay of Plenty Regional Council and Tauranga City Council s87F report; and
- (e) Proposed conditions of consent.

The existing environment

10 The land and water receiving environments that are impacted by the controls on site are comprehensively described in the infrastructure reports related to the site development as detailed in Mr van Zyl's evidence.

Assessment of effects

11 The Assessment of Environmental Effects is discussed in detail within the consent application documents.

12 With regard to the assessment of stormwater effects, I support the conclusions drawn in the formal AEE. I confirm that in my opinion the treated stormwater discharge from the proposed development will have a minimal effect on the natural receiving environment.

- 13 The design work completed by IWS is an extension of the approach described in the Infrastructure and Services Assessment Report prepared by Beca, as part of the consent application. The Infrastructure and Services Assessment Report indicated that detailing of the stormwater and trade waste treatment solutions was to take place as a later stage of the development process.
- 14 In summary, stormwater being discharged from the site drains to the stormwater network in Aerodrome Road, making its way west to an open drain on the boundary of the airport. This then drains to the west and south-west into the Tauranga Harbour.
- 15 The detailed design process commences with the control of pollution at its source. This focuses on the containment of work areas that store or use chemicals or environmentally hazardous materials.
- 16 Higher risk activity areas that produce a contaminant load that would be detrimental to the stormwater treatment process are segregated. The industrial washwater and coincidental rainwater collecting in this area are treated as a trade waste. This runoff is collected, buffered (for flow control), treated and discharged at a controlled flow rate to the Tauranga City Council wastewater network. The proposed location of the Trade Waste Treatment Plant along the southern boundary is outside the flood hazard zone. The risk of inundation of trade waste areas by rainfall has been considered in the design. Surplus clean stormwater is able to be diverted and treated in the Stormwater Treatment Plant, and then discharged to the stormwater system. This mechanism also ensures that collected contaminants are not lost into the stormwater. Agreement in principle for this has been given by the Trade Waste Section of the Tauranga City Council, with further details to be provided during later stages of the design process that will occur if consents are granted for the development to proceed.
- 17 There is a broad range of contaminants that will be included within the stormwater runoff from the industrial activity areas. It is not often that a single treatment solution will address the removal of all these contaminants in an effective and maintainable manner. Therefore, a multi-stage treatment solution is proposed to achieve the best practicable treatment quality. This multi-stage treatment approach is an emerging solution approach across industrial sites.
- 18 In addition to the treatment quality, the design process looks at the ease and effectiveness of maintenance and the collateral loss of spent media from the treatment devices, as the latter requires disposal at a controlled

waste facility. The area available on the site and the depths of the site drainage networks also impact on design detail.

- 19 In addressing the contaminants of concern, the following treatment stages are promulgated.
 - (1) Heavy sediment removal at the head of the network.
 - (2) Medium-sized sediment removal and gross pollutant removal.
 - (3) Floating layer and some emulsified oil removal.
 - (3) Fine sediment removal.
 - (4) Extended heavy metals removal in a media absorption process.
- 20 Part of the treatment network will require the stormwater to be lifted by pump, to gain sufficient height for the water quality treatment volume and flow to pass through the various stages of treatment process.
- 21 Roof water is captured for a non-potable water supply. This also has a stormwater detention effect.
- 22 With a potential flooding depth on site of up to 300 mm in the north-east corner of the site, the various stages of the stormwater treatment solution will be designed to isolate the collected contaminants within the devices in the event of a flooding situation.
- 23 In my opinion, the approach to stormwater treatment outlined above represents a Best Practicable Option approach for the site. It could also be said that this is a precautionary approach to stormwater quality treatment. This comment is based on an understanding of the performance of each of the treatment stages as standalone items. The understanding of each individual item is then extrapolated to provide a qualitative understanding of the overall level of treatment.
- 24 These multi-stage systems are being increasingly used in industrial sites around the country, and their performance is being carefully analysed. These industries include asphalt, concrete and marina hardstands (for vessel maintenance). As this is an emerging solution, further time is required to confirm the precise performance of a treatment suite for a certain type of industry. There remains an element of experience and judgement in the development of this treatment suite.
- 25 On the basis of the performance data available to date for the various stages in the proposed treatment system, I expect the trigger levels provided in the draft consent conditions by the Bay of Plenty Regional Council are achievable with this treatment solution.

- 26 Detailed design of the environmental controls, including the trade waste and stormwater treatment solutions, is currently underway with the project civil engineers. This process can respond to any conditions required as a result of the consenting process.

Matters raised by submitters

- 27 Submissions on the stormwater quality matters were general in nature. One submitter called for regular stormwater discharge monitoring. This is addressed within the controls described in the consent application, and the consent conditions.

One specific submission (number 41) opposed the introduction of stormwater into wastewater. My response is that, for the protection of the overall stormwater quality at the site, it is necessary for specific, small higher-risk areas to be segregated for treatment and discharge to the wastewater network.

Matters raised by s87F report

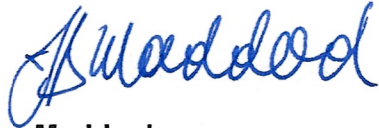
- 28 There are no matters in the S87F report that require further comment from me.

Proposed consent conditions

- 29 I have reviewed the proposed consent conditions for the Stormwater Discharge and the minor changes proposed by the applicant. I regard the proposed conditions as being appropriate.
- 30 Comprehensive monitoring of stormwater quality is both proposed by the applicant and requested by the Regional Council as a condition of the consent. The proposed condition, which includes an active Operations and Maintenance Plan, gives sufficient flexibility for the collection and transfer of performance and management information between the parties.
- 31 The use of an Environmental Management Plan, which includes the Operating and Maintenance Plan, will be an ongoing requirement to ensure that the structural controls at the site remain effective.

Conclusion

- 32 In my opinion the structural controls proposed for the site represent a Best Practicable Option approach. Along with an active Environmental Management Plan, this is the appropriate way to manage the continuous improvement sought by the consenting authorities.



Jim Maddock

Dated this 29th day of February 2024