BEFORE THE ENVIRONMENT COURT
I MUA I TE KOOTI TAIAO O AOTEAROA

ENV-2023-AKL-000160

AT AUCKLAND

UNDER	the Resource Management Act 1991 (the Act)
IN THE MATTER	of a direct referral under section 87G of the Act of applications for resource consents by Allied Asphalt Ltd associated with the construction and operation of an asphalt plant
BETWEEN	**ALLIED ASPHALT LIMITED**
	Applicant
AND	**BAY OF PLENTY REGIONAL COUNCIL**
	Consent Authority
AND	**TAURANGA CITY COUNCIL**
	Consent Authority

STATEMENT OF EVIDENCE OF DR EMILY VICTORIA WILTON ON BEHALF OF BAY OF PLENTY REGIONAL COUNCIL AND TAURANGA CITY COUNCIL – HEALTH RISK ASSESSMENT

DATE: 22 MARCH 2024

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INTRODUCTION

1. My full name is Dr Emily Victoria Wilton. I am an air quality scientist and director of Environet Limited, a company I established in 2000, which provides consulting services in air quality science and policy.

2. Prior to this I was employed by Environment Canterbury as an Air Quality Scientist for eight years.

3. I have a Bachelor of Science, majoring in Chemistry and Psychology from the University of Canterbury, and a Masters in Applied Science (Air Quality) with First Class Honours from Lincoln University. I have a PhD in Visibility from Canterbury University. My Masters' thesis evaluated management measures for reducing particulate pollution in Christchurch and my PhD thesis identified the causes of daytime brown haze in Christchurch.

4. I am a member of the Clean Air Society of Australia and New Zealand and have served on the New Zealand Branch Committee for 26 years including four years as president. I am currently co-chair of the Biomass Burning Special Interest Group. In 2022 I was awarded the CASANZ Clean Air Medal. I am a Certified Air Quality Practitioner (CAQP) and abide by the CASANZ code of ethics.

5. I have over 30 years' experience in air quality including health risk assessments. I developed the framework for the national risk assessment methodology used in HAPINZ 2. Prior to that I carried out risk assessments for health impacts for urban towns and nationally including the health cost component of the Section 32 review on the introduction of National Environmental Standards for PM_{10}. I have recently authored a report reviewing the health risk assessment carried out for the Mount Maunganui area by ESR for Tauranga City Council (**TCC**) and Bay of Plenty Regional Council (**Regional Council**). At the time of filing this evidence, that report has been finalised but not yet authorised for public release by the Councils. I expect that to occur over the next few days, at which time I will file a supplementary brief of evidence attaching that report, which I consider provides some relevant context for the assessment of the applicant's proposal.

6. I am familiar with the location of the subject site having viewed the premises from Aerodrome Road on 5 March 2024 but I have not had an opportunity to visit the premises at this time. I will seek to arrange this prior to hearing, although I do not consider it critical to my understanding of, and ability to assess, the health risk aspects of the proposal.

7. I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2023 and I agree to comply with it. I confirm that the issues addressed in this statement of evidence are within my area of expertise, except where I state I am relying on the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from my expressed opinion.

SCOPE OF EVIDENCE

8. I have been engaged by the Regional Council to provide expert evidence in these direct referral proceedings. I did not provide any input into the officer's report because the applicant did not provide a health risk assessment as part of the original application. However, in response to submitter concerns the applicant engaged Dr Lynnette Denison to prepare a health risk assessment as part of the further information circulated by the applicant on 30 January 2024. I have reviewed the evidence of Jennifer Simpson (Air Quality) and Dr Denison (Health Risk Assessment) together with key aspects of the applicant's evidence to enable me to obtain a full understanding of the proposal, relevant to my area of expertise.

9. I understand that the air quality, health risk assessment, and planning experts will be caucusing subsequent to the filing of this evidence and as a result I expect to refine matters further, including the wording of conditions, through that process.

10. In this evidence I will cover the following matters:

    (a) Some contextual observations about the health impacts of air quality in the wider Mount Maunganui Airshed (**MMA**)**;**

    (b) A review of the health risk assessment undertaken by Dr Denison in relation to the applicant's proposal;

(c) My own assessment of the key health risk considerations arising from the applicant's proposal including pollutant and odour effects.

BACKGROUND

11. Air pollution is one of the greatest environmental risks to health. Improving air quality can reduce the burden of disease from stroke, heart disease, lung cancer, and both chronic and acute respiratory diseases, including asthma (World Health Organisation, 2024).

12. The main air contaminants of concern in New Zealand are particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) and less than 10 microns in diameter (PM_{10}) as concentrations of these contaminants exceed National Environmental Standards (NES) and air quality guidelines particularly in urban areas. Concentrations of NO_2 are also emerging as an issue of increased significance owing to improved understanding of the impacts of exposure.

13. The impact of exposure to air contaminants in the Bay of Plenty Region has been quantified for a range of health endpoints for 2016 in the HAPINZ 3 model (Kuschel et al., 2022). That study estimated premature mortality impacts of around 135 per year (adults aged 30+ years) for $PM_{2.5}$ and 130 per year for NO_2.

14. In the Bay of Plenty Region, concentrations of PM_{10} exceed the NES in both the Rotorua and Mount Maunganui Airsheds and concentrations of $PM_{2.5}$ also exceed the WHO annual average guideline of 5 $\mu g/m^3$ in both airsheds. Health impacts of particulate matter include acute effects of respiratory and cardiopulmonary related conditions, which increase the risk of hospitalisation and premature mortality. In children, increased respiratory allergy symptoms, bronchitis symptoms and, to some extent, wheezing symptoms are associated with exposure to $PM_{2.5}$. Health impacts also include the development of a number of cardiovascular conditions including ischemic heart disease, congestive heart failure, cerebrovascular disease, myocardial infarction, hypertension, and peripheral vascular disease (Health Canada, 2016a). Children are particularly susceptible to increased risk of asthma diagnosis, as well as asthma exacerbation-related hospital visits (including hospital admissions

and emergency room visits), as a result of long-term exposure to $PM_{2.5}$ (Health Canada (2016a)).

15. Exposure to $PM_{2.5}$ during pregnancy has been associated with increased risk of adverse birth outcomes in infants (reduced birth weight, increased risk of low birth weight, small for gestational age, preterm birth). Associations have also been found between long term exposures and neurological and developmental effects (Health Canada 2016a).

16. The main source of PM_{10} and $PM_{2.5}$ in the Rotorua airshed is solid fuel burning for domestic heating (Wilton, 2023b). Industrial activities including at Port of Tauranga (**POT**) are the main anthropogenic sources of PM_{10} in the Mount Maunganui airshed. The main sources of $PM_{2.5}$ are industrial activities (including at POT) and shipping, and for NO_2 the main sources in Mount Maunganui are shipping, transport, and cargo handling activities at POT (Wilton, 2023a). Industrial activities (non-Port related) are estimated to be responsible for around 5% of the annual NOx emissions (Wilton, 2023).

17. Monitoring of NO_2 concentrations in the MMA commenced in August 2023 at Whareroa Marae. The average concentration from 18 August 2023 to 31 January 2024 was 8.5 $\mu g/m^3$ and compares with an annual average concentration of 10 $\mu g/m^{3.}$ Roadside monitoring of NO_2 by Waka Kotahi at Maunganui Road and Golf Road intersection (Hewletts Road intersection on SH2) gives annual average concentrations around 34 $\mu g/m^3$ (Environmental Science and Research, 2023). The model used to estimate NO_2 concentrations in the HAPINZ 3 evaluation assumes significant dispersion occurs within 200 metres of the road (Kuschel et al., 2022) with concentrations decreasing to the background concentrations (e.g., values used in ESR report for urban areas of Mount Maunganui of around 6-8 $\mu g/m^3$) beyond 200 metres. The model does not take into account the contribution of shipping to NO_2 in the MMA

18. Health impacts of exposure to NO_2 include respiratory impacts with associations being found with premature all-cause mortality, respiratory mortality, chronic obstructive pulmonary disease (COPD), and acute lower respiratory infection. Epidemiological studies indicate that children, especially asthmatics, are more at risk of respiratory health outcomes from both short and long-term exposure to NO_2. Older adults appear to

be more sensitive to short-term effects of NO_2 on respiratory hospital admissions, ERVs and other medical visits, as well as all-cause and respiratory mortality. Older adults also have increased risks for cardiovascular mortality and morbidity in epidemiological studies (Health Canada, 2015).

19. An analysis of trends in contaminant concentrations in the MMA was carried out by the Regional Council in 2023. That report noted that a ten year period was typically required to be able to assess trends in air quality data. Statistical techniques were utilised to examine any initial indications within data. Results showed significant improvements in SO_2 concentrations in the airshed with step changes occurring in 2020 with the introduction of the MARPOL Annex VI regulations. For PM_{10} there was inadequate data to assess trends and at most sites consistent improvements were not evident in the preliminary data (first four years of the ten required). The exceptions were Whareroa Marae, which has shown a consistent decrease in annual average PM_{10}, and Rail Yard South which experienced different air flows as a result of the installation of a wind fence. I have not seen any robust analysis that concludes improving concentrations of PM_{10} or $PM_{2.5}$.

HRA FOR MOUNT MAUNGANUI AIRSHED (MMA)

20. In 2023 ESR undertook an analysis of the impact of air quality in the MMA on the health of residents in the surrounding area. The quantified impacts for premature mortality in their report range from 19 to 26 premature deaths per year depending on the model used. Hospital admissions, asthma impacts, and restricted activity days are also estimated. They conclude a moderate degree of uncertainty in the quantitative analysis. A qualitative analysis of the impacts of SO_2 conclude that additional health impacts are likely occurring as a result of acute exposures.

21. The approach of quantification of the burden of disease associated with exposure to air contaminants used in the ESR report is accepted internationally. The method also relies heavily on the approach of HAPINZ 3 which has undergone extensive international review although some additional assumptions were required for application to the Mount

Maunganui area. I agree with the approach used to provide an estimate of the scale of impact for Mount Maunganui.

22. The report uses air quality data from monitoring sites to estimate exposures in surrounding areas. This is the method used in health risk assessments and is appropriate as long-range transport of particulate, including fugitive dust sources, is known to occur over significant distances including across continents. The MMA is the most comprehensively monitored airshed in the country and thus extrapolation distances (up to five kilometres) are significantly less than what is typical for risk assessments.

23. I have been provided with a letter entitled a "review of ESR Air Pollution Health Risk Assessment for Mount Maunganui Airshed" dated 23 September 2023 prepared by Tonkin and Taylor (Dr Lynn Denison) which was circulated to the parties as part of the package of information distributed by the applicant on 31 January 2024. I agreed with some of the matters raised in Dr Denison's review and sought to understand the significance of these in my review. Dr Denison expresses concern that the PM_{10} CRF has not been subject to adequate external review processes. I do not share that concern given my understanding that the CRF derivation used by ESR was part of the same research that derived the $PM_{2.5}$ and NO_2 study and was detailed in HAPINZ 3 which was extensively peer reviewed.

24. My soon to be published review (which will be produced in evidence) provides a more detailed assessment of the ESR HRA.

DR DENISON'S HRA FOR ALLIED ASPHALT

Approach

25. The HRA undertaken by Dr Denison for the applicant considers only the impact of the discharge (existing plant) and proposed discharge (new plant) on health impacts in the MMA. This uses the same risk assessment approach as for the ESR report in that estimates of health impacts are made based on multiplying the CRF by baseline mortality by concentration but adds an additional divided by 100,000 so the unit is estimated health impact per 100,000 people rather than estimated health impact for a specific population.

26. The Denison approach also differs from the ESR approach in that the concentration data are just for the Allied plant (as modelled by Jenny Simpson) at a particular receptor (as opposed to concentrations arising from all sources) and different CRFs have been used. I have not assessed the suitability of the concentrations data outputs from the modelling. This work has been undertaken by Mr Murray who concludes that the data outputs are suitable.

27. Advantages of the Denison approach are that it enables the impact of spatial variability in concentrations of contaminants from the discharge to be assessed. However, it does not take into account cumulative impacts of the Allied Asphalt plant in conjunction with other discharges in the airshed. The cumulative health impacts of air discharges into the Mount Maunganui Airshed are assessed in the ESR report which indicates around 19-29 premature deaths per year area.

28. Because the Denison assessment does not consider the cumulative impacts the risks presented seem very small. There are many sources of air pollutants in the MMA contributing to degraded air quality and the impacts of these sources collectively have a notable impact on health (as indicated by the ESR report) and are unacceptable, as indicated by concentrations in excess of National Environmental Standards (NES). I do not consider the approach taken by Dr Denison, whereby the assessed risk is just compared to an "acceptable" criterion to be adequate in the context of a polluted airshed with cumulative impacts. Dr Denison [52] refers to an approach to assessing risk which considers only the incremental risk not the total risk. I disagree with this approach noting that effect is defined under the RMA and includes "*any cumulative effect which arises over time or in combination with other effects"*.

29. In my view the most appropriate approach to considering both the application for air discharge and the cumulative health impacts of air quality in the airshed is to consider the airshed polluted and to require improvements in all significant industrial dischargers including Allied Asphalt on the basis that it is contributing to a collective issue. I concur with the use of the "acceptable" criterion as a guide but with the key focus being on extent of improvement and achievement of a best practicable option (**BPO**).

30. Despite my different opinion as to the appropriate approach for assessment, in my view the applicant's proposal is broadly consistent with the concept of focusing on improvements and adoption of BPO, as the new plant includes technology and fuel switching to improve its contribution to degraded air quality in the MMA. However, it also proposes to claim the benefit of a proportion of this mitigation by increasing annual production rates. The main question in my view is to what proportion of the technological improvements should go to the environment by way of reduced health impacts and what extent should be claimed by the industry in terms of increased production ability? Additional technical questions are whether the approach represents BPO and ensuring a technology/ fuel switching option that results in the greatest improvements overall in terms of health impacts.

31. One issue to consider is the extent to which health benefits associated with improvements in PM_{10}, $PM_{2.5}$ and SO_2 are offset by increased NO_2 for the proposed diesel fuel option for the new plant. Similarly, what is the impact of increases in concentrations of other contaminants including benzene as a result of increased production? These are issues I expect to be explored further in caucusing. I find Dr Denison's presentation of risk, without the inclusion of background, to be appropriate for this purpose as it enables a more complex assessment of contaminant trade off impacts including at different receptors. I also note some queries with specific calculations which I would like to clarify with Dr Denison through caucusing.

Concentration Response Functions (CRF)

32. I have reviewed the CRFs used by Dr Denison in the assessment and note the following points.

33. If the relative impact of proposed versus existing plant for a single contaminant is the focus, the selection of CRF has minimal bearing, provided the impact of the discharge on its own is not unacceptable, as the relativity will remain constant. If there are trade-offs between contaminants required, for example, the Denison HRA suggests fuel switching results in decreases in PM_{10}, $PM_{2.5}$ and SO_2 and increases in NO_2, then the CRFs used become more important to assess the change in risk.

34. The CRFs used for NO_2 in Dr Denison's HRA (Table 4.8) were 0.02 per 10 µg/m^3 increase in annual average NO_2 for all-cause mortality and long-term exposures (from Huangfu & Atkinson, 2020) and 0.007 for all-cause mortality and short term exposures (I have assumed Orellano et al., 2020 but missing in text). Other CRFs used in Dr Denison's risk assessment include COPD mortality and respiratory hospital admissions. Note in Dr Denison's evidence CRFs are reported per 1 µg/m^3 and I have converted to per 10 µg/m^3 for consistency with the ESR report and Hales (2021).

35. In deriving the CRFs for long term effects of NO_2, Huangfu & Atkinson, 2020 identify substantial heterogeneity (diversity of impact) for most outcomes in the review as a limitation that requires explanation. This is an indication that there is more uncertainty around the CRF value used

36. The two pollutant model NO_2 CRF for premature all-cause mortality used in the sensitivity analysis was Hales et al., (2021) at 0.097 (New Zealand) per 10 µg/m^3 increase in NO_2. This is the only CRF for premature mortality associated with NO_2 derived in a New Zealand study and compares to 0.05 in Brunekreef et al., (2021) two pollutant model CRF (also with $PM_{2.5}$ at 0.08). In the single pollutant model for the same review Brunekreef et al., (2021) found a CRF for NO_2 of 0.09. Thus selection of CRF has a big impact on the estimated risk.

37. In my view there is uncertainty as to the most appropriate CRF for long term NO_2 exposure. Reasons for a higher CRF for NO_2 in New Zealand that may be relevant for $PM_{2.5}$ do not appear to hold for NO_2[1]. There are other CRFs for NO_2 of this magnitude however, and the study has been extensively peer reviewed. I note further uncertainties in using a CRF from a two-pollutant model when considering individual pollutant impacts. The two-pollutant model used for New Zealand integrates contaminants which have different exposure classification methods. This further confounds interpretation (Chen & Hoek, 2020).

38. In my view the issue of NO_2 CRF would benefit from expert caucusing as it has implications for the extent to which increases in NO_2 concentrations

[1] Chen & Hoek, (2020) in the review for WHO (2021) guidelines indicate the possibility of a nonlinear relationship resulting in higher impacts at lower concentrations. For NO_2 a small number of studies reviewed by Huangfu & Atkinson, 2020 found little evidence to reject the assumption of linearity across the concentration range.

from diesel use might offset health benefits associated with improvements in primarily PM_{10} and $PM_{2.5}$ but also SO_2.

39. For PM_{10} and $PM_{2.5}$ Denison uses CRFs for premature all-cause mortality and long-term exposures of 0.04 and 0.08 respectively per 10 µg/m^3 increase in annual average concentration. These compare with 0.111 and 0.105 for PM_{10} and $PM_{2.5}$ (two pollutant model) respectively from HAPINZ 3 (Kuschel et al., 2022) and Hales (2021). Denison uses the latter CRFs in a sensitivity analysis for the Allied Asphalt HRA. As with the NO_2 assessment, the selection of CRFs has a bearing on the calculations of extent of overall impact in the case of diesel use.

40. For SO_2 the impacts are based on short term exposures and the CRFs are much less than for PM_{10}, $PM_{2.5}$ and NO_2 in terms of quantified effects (e.g., 0.005 daily all-cause mortality per 10 µg/m^3 increase). A significant reduction in concentrations is anticipated with a fuel switch to diesel or natural gas but the impact on reduced risk of all-cause premature mortality per 100,000 people is low relative to particulate at 0.01 x 10^{-5} (as illustrated in table 4.13 of Dr Denison's HRA). This compares with Dr Denison's calculated reduction in premature mortality risk for PM_{10} of around 0.07 x 10^{-5} (Whareroa Marae) to 1.6 x 10^{-5} (most affected residential location) for example. The increase in risk for the same health endpoints associated with NO_2 from diesel ranges from 0.02 x 10^{-5} to 0.11 x 10^{-5} at Whareroa Marae and 0.1 x 10^{-5} to .4 x 10^{-5} at the most impacted residential receptor depending on the CRF used. Thus the reduced health risk of improvements in SO_2 concentrations are relatively low compared with particulate.

HEALTH IMPACTS – KEY CONSIDERATIONS

41. The air quality evidence of Jenny Simpson and Robert Murray indicate that the proposal will result in an improvement in emissions and maximum ground level concentrations of PM_{10}, $PM_{2.5}$ and SO_2, compared to the existing plant, as a result of technology and fuel switching proposed by the applicant.

42. As I have explained above, as a general policy approach for management of a polluted airshed, in my opinion management measures are recommended to reduce all contaminants in the MMA but with specific focus on PM_{10}, $PM_{2.5}$, NO_2 and SO_2. I have considered the

measures proposed as part of this application and consider that the impact of fuel switching away from waste oil will be of benefit to the airshed as it reduces concentrations of particulate and SO_2 as well as low level concentrations of a range of contaminants which contribute to a complex pollutant mix. In my opinion significant dischargers in a polluted airshed (where cumulative effects are not acceptable) should be required to adopt BPO to do their bit to improve air quality and reduce health risks.

43. In the case of Allied Asphalt the benefit of the BPO improvements are being split between the airshed (in the form of improved air quality) and benefit to the industry through increased production. The latter is significant and the extent to which it erodes potential improvements in the airshed requires consideration in my view. A condition limiting the maximum annual tonnage to less than the 300,000 tonnes per year proposed would be more beneficial to air quality and would reduce the associated health risks.

44. A further issue that requires evaluation is that the main contaminant which is not reduced for the proposed new plant is NO_2 if diesel is used. Depending on which CRFs are used there appear to be scenarios which exist under which the impact of increased in NO_2 outweighs the health benefits of improvements in particulate in some locations. However, I understand the conditions would restrict diesel use. My view is that the natural gas option is preferable.

45. There are difficulties in making comparisons between health impacts of different pollutants and in evaluating whether improvements in concentrations of one contaminant will offset increases in concentrations of another. This is because impacts occur because of a pollutant mix. Ideally concentrations of all contaminants should be improving.

46. At face value, however, the impacts of improvements in $PM_{2.5}$ and PM_{10} presented in the Denison HRA appear to offset the increase in risk associated with NO_2 for most CRF choices but if the Hales (2021) CRF is used the increased impact of NO_2 at Whareroa Marae using diesel appears to be less than the improvement associated with PM_{10} or $PM_{2.5}$ if the WHO CRFs are used. The choice of the appropriate CRF is an issue I would like to explore further at caucusing.

47. It would also be of value if experts could agree on an approach to quantifying the overall impact of the proposed discharge including for diesel fuel in caucusing. Additionally, there are some uncertainties in the HRA that would benefit from clarification in caucusing. Increases in benzene and dioxin also occur as a result of increased production so should also be discussed, and the increased risk associated with this discharge should also be considered.

ODOUR

48. The ESR report concludes that odour is an established issue for Mount Maunganui and notes that for the year ending 2021 the Regional Council received 512 odour complaints from the area. The majority of these complaints were reported to be from pet food, bitumen and rotten egg (hydrogen sulphide). The report concludes that offensive and objectionable odours are reducing the quality of life and adversely impacting on the wellbeing of residents in and around the MMA.

49. Asphalt plants are known to be a source of odorous discharge. Autelitano & Giuliani (2018) note that odours from asphalt plants can severely limit the usability of the neighbouring territory.

50. Dr Denison at [108] notes that for some pollutants in the proposed discharge the odour threshold is lower than the level at which health effects would be observed and consequently the community may smell odour before the contaminant reached concentrations where they may impact on health. At [209] Dr Denison states that there are studies in the literature linking odour and depression, anxiety and stress but concludes that these studies were done near different sources of odour and that for many the associations were weak and not consistent between studies.

51. I concur with Dr Denison's statement that there are associations between odour and depression, anxiety and stress. It seems unlikely that conclusions from the studies might not apply to impacts of odour from hot mix asphalt (HMA) plants (as implied by noting they were based on different sources of odour) as it is clear from submissions and the ESR report that the bitumen smell in the MMA is causing odour annoyance. Sucker et al., (2009) conclude that exposure-symptom associations are strongly influenced by hedonic tone and symptom reporting is exclusively mediated by annoyance.

52. Odour is increasingly considered an issue that can have a significant negative impact on both quality of life and economic activity. The Good Practice Guide for Assessing and Managing Odour (Ministry for the Environment, 2016) section 2.3 notes that "*people can develop physiological effects from odour even when their exposure is much lower than that typically required to cause direct health effects. This effect is sometimes termed 'odour worry' and is due to effects brought on by stress or the perception that if there is a smell it must be doing physical harm*."

53. Further analysis in the ESR report compares hourly average hydrogen sulphide (H_2S) emissions to odour thresholds and concludes that industrial emissions of H_2S have regularly caused offensive odours at Whareroa Marae. Asphalt production is a potential source of H_2S but it is unclear the extent to which it contributes to existing H_2S concentrations at that site.

54. Adverse effects of odour will continue to impact on the Mount Maunganui residents until the new plant is operational. However, odour modelling suggests a significant decrease in odour once the new plant is operational. Mr Murray has noted the potential for increased odour with the use of Reclaimed Asphalt Paving (RAP) and has suggested inclusion of a condition to minimise potential future odour issues. Subject to adequate controls on RAP it is my view that health impacts associated with odour will improve under the proposal.

CONCLUSIONS

55. There is a risk that approaching an HRA on the basis of incremental rather than cumulative impacts in the context of a polluted airshed will not result in overall improvements to the airshed.

56. It is my view that the proposed plant should be required to result in overall improvements in health as the current plant is contributing to airshed degradation in a polluted airshed.

57. The applicant's technology adoption and fuel switching is broadly consistent with the concept of focusing on improvements and adoption of BPO. However, the proposed increase in plant production may offset potential air quality improvements and associated health benefits that

might occur. I consider this to be an appropriate discussion point for caucusing.

58. In my view additional constraints on daily production or the adoption of additional mitigation may be required if the proposed asphalt plant were to operate for significant periods using diesel owing to the impacts of increased NO_2. I have reviewed the condition recommended by Ms Petricevich to address this issue and consider it to be appropriate.

Dr Emily Wilton
22 March 2024