



CHRIS MCELWAIN

OBJECT

Submission ID: 218374

Organisation: N/A	Key issues: <i>Other issues</i>
Location: <i>New South Wales 2046</i>	
Attachment: <i>Attached overleaf</i>	

Submission date: 11/25/2024 3:28:58 PM

Dear IPC

Please see the attached letter. It will also be sent by separate email. Regards, Chris McElwain

Commissioners

Independent Planning Commission

25 November 2024

Dear Commissioners

Submission regarding Plasrefine's proposed Moss Vale Plastic Recycling Facility SSD 9409987

Thank you for the opportunity to make a submission regarding the proposed Moss Vale Plastic Recycling Facility SSD 9409987 ("the Proposal") made by and on behalf of Plasrefine Recycling Pty Ltd ("the Proponent").

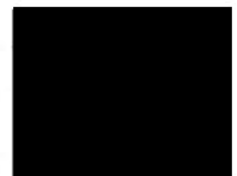
To avoid any doubt, I object to the proposal on the grounds that there has not been sufficient assessment of the impacts of microplastics from the Proposal, or proper consideration of measures to control those impacts.

Executive Summary

As the proposal stands, the only option open to the Independent Planning Commission ("IPC") is to refuse the application. The reasons for these are three-fold. These are set out below.

First, the application has not been accompanied by an essential pre-requisite for consent, being a valid environment impact statement ("EIS"). This is because there is no clear baseline assessment of the aerial, terrestrial, aquatic or sewer levels of microplastics, and there is no assessment of the human-health or environmental risks of microplastics, including how microplastics combine with other pollutants to magnify those impacts. Finally, there is no clear discussion of the technologies, practices or discharge limits set for the emission of microplastics from the Proposal. Tellingly, these matters have been deferred to **after** construction and will only be set prior to the **operation** of the facility.

Second, and following on from these failures, there is not sufficient evidence before the IPC to allow consideration of the essential matters required by s.4.15(1)(b) of the *Environmental Planning and Assessment Act 1979* (NSW) ("the EP&A Act") in relation to the potential air, terrestrial, aquatic and sewer emissions of microplastics from the Proposal, and the associated human-health and environmental risks arising from those emissions. That is, the IPC is not in a position to consider the Proposal's potential emissions of microplastics, and so it is not in a position to consider what measures, if any, will be required to minimise the impacts of those emissions.



Third, the Department of Planning's proposed conditions for a Water Management Plan (B39) and Air Quality Management Plan (B44) are illogical in the legal sense.¹ This means that if the IPC were to attach them to any final consent, the consent itself would suffer from the jurisdictional error of illogicality, and so not be valid. This is because these conditions defer essential considerations that must be considered by the consent authority, and aired for public consideration and submissions, prior to any approval, not after approval and construction of the Proposal. Deferring consideration of these matters to after construction but before operation is too late, as all the fundamental decisions will have been made without legally required assessment, exhibition, submissions and consideration.

As a result, were the IPC to approve the Proposal on the current information before it as the decision-maker, and impose conditions B39 and B44, these failures would amount to jurisdictional errors. When reviewed in Class 4 of the Land and Environment Court's jurisdiction, these errors would be legally fatal to any such approval.

1. Invalid EIS

To be legally valid, applications for state significant developments must be accompanied by an EIS. Further, such EISs must strictly comply with the Secretary's Environmental Assessment Requirements (or "SEARS"),² and substantially comply with the requirements set out in the EP&A Act. In relation to the latter, an EIS is not legally required to canvas every possibility, or each possibility to exhaustive depth, substantial compliance is required.³ The Proponent's EIS, as amended by the further documents submitted on behalf of the Proposal, does not substantially comply with those the SEARS, nor with the general requirement to assess known emissions and their associated risks, here the emission of microplastics.

No baseline data

First, although the Proponent was required to measure and record baseline conditions at the proposed site, including for relevant contaminants,⁴ there has been no assessment of the current baseline conditions of aerial, terrestrial, aquatic or sewer levels of microplastics. Importantly, measures of PM10 and PM2.5 are not the same as the levels of microplastics, as many parts of those former measures are either organic, for example dust or natural materials, and so do not reflect the risk from microplastics.

¹ See generally *Minister for Immigration and Citizenship v SZMDS* (2010) 240 CLR 61

² *Prineas v Forestry Commission of NSW* (1983) 49 LGRA 402.

³ See *Guthega Development Pty Ltd v Minister Administer the National Parks and Wildlife Act* (1986) 7 NSWLR 353 and *Schaffer Corporation Ltd v Hawkesbury City Council* (1992) 77 LGRA 21.

⁴ See the Planning Secretary's SEARS which required that the EIS must contain "a description of the existing environment, using sufficient baseline data", Page 1.

No assessment of human-health or environmental risks of microplastics

Scientists have been investigating the risks and impacts of plastics, including microplastics, for nearly 20 years, and it is now clear that there is a growing peer-reviewed scientific concern about the risks to human-health and the environment from microplastics.⁵ It is now well-understood that microplastics can be lethal to zooplankton and can bioaccumulate in mammals.⁶ Further, there is a growing body of scientific research showing correlation between the presence of microplastics in humans and increased risks of heart attacks and cancer.⁷ Once this threshold has been reached, it is no longer fanciful, or imagined in the Telstra sense,⁸ and so it is for the Proponent to demonstrate that the risks do not exist, or have been assessed, managed and minimised. This discussion must also be publicly exhibited and so open to public submissions. The Proponent has not provided any such assessment to the IPC or opportunity to the public.

2. Absence of evidence allowing the IPC to consider impacts on the aquatic and sewer environment & control measures

The lack of critical and legally required information set out in Point 1 above founds a separate legal point here. That there has not been the legally required assessment of the risks of microplastic discharge to sewer, or risks of impacts on aerial, terrestrial or aquatic receiving environments, is made plain by several documents before the IPC. This assessment is required by section 4.15(1)(b) of the EP&A Act. The details of this are set out below.

First, the original 2021 EIS and associated technical reports contained no assessment of the potential discharge of microplastics to sewer at all. This was noted in the NSW EPA submission on the EIS dated 28 March 2022.

⁵ Claudia Campanale et al, 'A Detailed Review Study on Potential Effects of Microplastics and Additives of Concern on Human Health' (2020) 17(4) *International Journal of Environmental Research and Public Health* 1212.

⁶ Erina Brown et al, 'The Potential for a Plastic Recycling Facility to Release Microplastic Pollution and Possible Filtration Remediation Effectiveness' (2023) 10 *Journal of Hazardous Materials Advances* 100309, 100309.

⁷ Yunxiao Yang et al, 'Microplastics Are Associated with Elevated Atherosclerotic Risk and Increased Vascular Complexity in Acute Coronary Syndrome Patients' (2024) 21(1) *Particle and Fibre Toxicology* 34; Ewa Winiarska, Marek Jutel and Magdalena Zemelka-Wiacek, 'The Potential Impact of Nano- and Microplastics on Human Health: Understanding Human Health Risks' (2024) 251 *Environmental Research* 118535; Oche Joseph Otorkpa and Chinenye Oche Otorkpa, 'Health Effects of Microplastics and Nanoplastics: Review of Published Case Reports' (2024) 39(2) *Environmental Analysis Health and Toxicology* e2024020.

⁸ See *Telstra Corporation Ltd v Hornsby Shire Council* (2006) 146 LGERA 10

In the Proponent's Amended Development Report dated 26 September 2023, it briefly describes using a dissolved air flotation system to treat wastewater from the facility, Page A-7. There is no description of the precise system to be used, or its capacity to remove microplastics, or emission discharge limits.

The Social Impact Assessment dated 19 September 2023 does not purport to contain any scientific or technical assessment of the risks arising from the emission of microplastics from the Proposal. The eight paragraphs in Section 5.6 of the report contain a cursory overview of the science of the risks of microplastics, but make no assessment of the risks arising from the potential discharges of microplastics from the facility. Rather, it characterises community concerns about these risks under health and wellbeing concerns and as "angst, emotional and psychological distress", see Page 73. As a result, it does not address the gaps identified above.

Importantly, although the EPA has now indicated that some matters can be finalised if the Proponent makes an application for an environment protection licence, this does not absolve the Proponent of its own prior obligation to ensure it makes a legally valid application. In other words, in exercising its own discretion under the EP&A Act as to whether or not to grant approval, the IPC is not able to rely on the EPA's deferral of these matters, rather, the IPC must ensure its own exercise of the discretion is valid.

3. Illogicality of proposed Water Management Plan and Air Quality Management Plan conditions

Proposed conditions B39 for the Water Management Plan and B44 for the Air Quality Management Plan are illogical in the legal sense. Primarily, this is because these conditions defer any consideration of risks, and management measures and discharge limits until **after** approval and construction, that is, just prior to operation of the facility. However, this is after the facility has already been built, leaving unlawful uncertainty as to what controls, if any, will be put in place. This illogicality is further compounded because there is no baseline data, no discussion of the risks arising to human health and the environment from microplastics and the capacity of microplastics to magnify other pollutant risks, no proper discussion of the practices or technologies the Proponent will use to manage and minimise the discharge of microplastics, and no finalisation of discharge limits.

This can be contrasted with the extensive assessment and discussion of the noise, vibration and dust impacts and the associated management measures set out in the Proponent's documentation. This is also reflected in the detailed requirements for those impacts, including conditions with specific emission limits, contained in the Department of Planning's proposed conditions for these potential impacts.

It is important to note that the Department of Planning's October 2024 assessment of the Proposal assumes, without clear evidence, that the wastewater treatment system will collect 90% of the microplastics, allowing for a discharge of up to 40 milligrams of microplastics per litre of wastewater

discharged to sewer (see page 46). It also notes that the Proposal will discharge up to 10 KL of wastewater per day. This means that the total discharge of microplastics to sewer each day may be as much as 400 grams per day (or the equivalent of 80 five gram plastic credit cards a day). There is no assessment of whether Wingecarribee Council's sewage treatment plant ("STP") can receive or remove this additional daily flow of microplastics, or what impact this might have receiving waters downstream from Council's STP. In this respect, Council's submission dated 5 November 2024 notes that its STP is not capable of removing microplastics, and the 2026 upgrade does not contain any proposals for such capability (Part 7, unnumbered Page 12). Plainly, it is never acceptable for the Proposal to impose an unassessed impact on a third-party, here the Council, with a view to requiring that third party to control the Proposal's pollution impacts.

Nevertheless, plastic recycling facilities with control measures in place still discharge large amounts of microplastics. Empirical in-field peer-reviewed research show wastewater discharges of microplastics from one UK plastics recycling facility, recycling approximately 22,000 tonnes of plastic a year, notes that despite on-site wastewater controls, significant amounts of microplastics are still discharged in wastewater from site, with little capture of microplastics smaller than 10 microns and almost no capture of microplastics smaller than 5 microns.⁹ This results in up to approximately 5% of the total amount of plastics received for recycling being discharged as microplastics each year. In the case of a facility recycling 120,000 tonnes of plastic per year, some 6,000 tonnes of microplastics would be discharged via treated wastewater streams each year.

4. Nature of this submission

The contents of this submission do not constitute legal advice, and the IPC needs to seek its own legal advice in relation to its consideration of the Proposal. No request for legal advice has been made in relation to this submission, and it is not made by or on behalf of any other person. There is no costs agreement in place in relation to this submission.

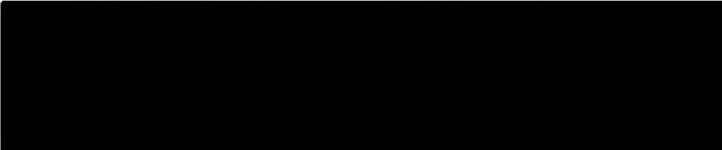
As the Department of Planning has provided the IPC with a draft approval and conditions of consent, the IPC is not able to use lawyers who are employed by or on behalf the Department in obtaining the IPC's own legal advice. This is because the Department's lawyers can only advise their own client, that is, the Department, and so are not able to provide legal advice to the IPC as a statutory and independent corporation tasked with making an independent decision about the Proposal.

⁹ Brown et al (n 4).

5. Conclusion

For the reasons set out above, the Proponent has put the IPC in the position where the IPC has no option other than to refuse the Proposal.

Yours faithfully



Dr Chris McElwain

Background

Dr McElwain is currently a Teaching Fellow at the University of NSW (UNSW), where he teaches environmental and administrative law. The position set out in this submission does not purport to reflect the views of UNSW or any of its agents, affiliates, associates or other employees.

Prior to this, Dr McElwain worked for more than 20 years at the NSW Environment Protection Authority (EPA). During that time, he was part of the legal team that oversaw the development of the *Protection of the Environment Operations Act 1997* (NSW). For the last ten years of his time at the NSW EPA he was a senior manager in the EPA's waste management section, overseeing the administration and regulation of large parts of NSW's waste and recycling operations. During that time he had conduct or supervision of more than 200 investigations, prosecutions and civil enforcement matters. He has Bachelor of Science and a Bachelor of Laws from UNSW, a Master of Laws obtained by research thesis from Osgoode Hall Law School at York University in Canada and a PhD by research thesis, focussing on regulatory theory and the regulation of waste from UNSW.