

GHD Principal
Senior Technical Director – Waste Infrastructure
Level 15, 133 Castlereagh St
Sydney NSW 2000

Dear Mr Gamble

Request for Information – Moss Vale Sewage Treatment Plant

I respond to your letter dated 20 February 2024, regarding the capability of Moss Vale sewage treatment plant (STP) to potentially treat discharged process water containing microplastics.

I reiterate the Council resolution of 15 November 2023 to oppose the proposed Plastics Recycling Facility SSD in its current location and form. These fundamental concerns reflect the emerging draft vision for the Southern Highlands Innovation Park and broader community sentiment.

Nonetheless, Council provides the following information in a culture of cooperation with the Department of Planning, Housing and Infrastructure's State Significant Development assessment processes.

The current Moss Vale STP has no specific treatment element in the process to remove microplastics. The total particulates element of Council's trade waste policy is not aimed at controlling microplastics.

The Moss Vale Sewer Treatment Plant (STP) is due for major augmentation by 2026, primarily catering for growth and increasing hydraulic capacity. Again, with this design, there is no specific treatment mechanism for microplastics removal.

Having consulted with Council's current STP designer, their advice is that the microplastics would predominantly settle into the biosolids (estimated around 90%), with the filters catching the majority of solids. Any plastics that bypass the filters, would feed back to the head of the plant via the backwash process and keep circulating until they drop into the

We're with you

sludge. It is expected the remaining ~10% could eventually make its way to the environment in the treated effluent, which is not uncommon across Australia.

Based on the design load at Moss Vale STP of 405kg/d dry biomass, it is feasible that between 400g – 4kg of microplastics is already being received at Moss Vale STP.

Based on the 40mg/l maximum concentration of microplastics proposed to discharge into Council's sewer from Plasrefine, this could add another 400g/day (based 10kL/day discharge) doubling Council's microplastic uptake or increasing by as little as 10%.

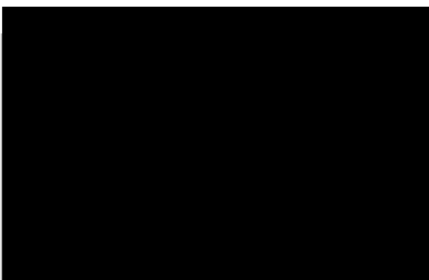
Microplastics are an emerging and complex contaminant and currently there is no legislative requirement to manage the complete removal of microplastics in wastewater. Council endeavors to continue meeting its environmental licence conditions and working with the EPA as legislative requirements are updated.

Once it is attainable and practical to measure microplastics in wastewater, it likely that requirements will be imposed and thresholds introduced by the EPA.

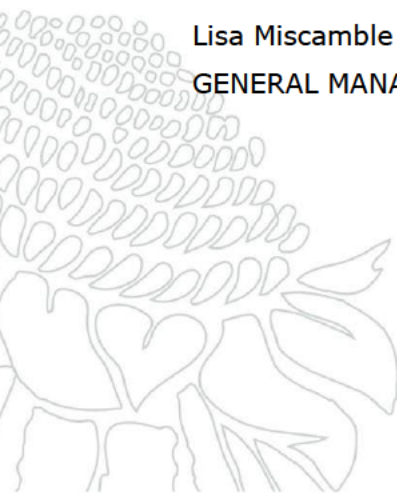
The logistics of removing all microplastics in wastewater is understood to not yet be possible (Williams et al., 2020*). Given the complexity of this emerging issue, any industrial-scale source for microplastics should be addressed at the source rather than at the treatment.

Should you require any additional information please contact Graeme Mellor, Manager Waste Services, Shaun Robinson, Manager Assets or Deniz Kilic, EM Strategic Outcomes on [REDACTED] during business hours Monday to Friday.

Yours Sincerely



Lisa Miscamble
GENERAL MANAGER



*Williams M, Pham K, Mulder R, Pring N, Hickey M and Mardel J (2020) Microplastic quantification in wastewater: Wastewater influent and effluent trends over a 10 month period, CSIRO for NSW EPA.

