

22 February 2017

Microbeads Consultation  
Ministry for the Environment  
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**RE: Submission on managing plastic microbeads in personal care products**

**1.0 Introduction**

- 1.1 Christchurch City Council staff (Council staff) thank the Ministry for the Environment for the opportunity to make a submission on the proposed regulation to ban the manufacture and sale of plastic microbeads in personal care products. This submission is in support of the proposed ban.
- 1.2 The submission comprises three parts:
- background on the submission
  - comments on the Ministry's plastic microbeads proposal
  - concluding remarks.
- 1.3 Should you require any further information, please contact Helen Beaumont by telephone at 03 941 5190 or by email at [helen.beaumont@ccc.govt.nz](mailto:helen.beaumont@ccc.govt.nz).

**2.0 Background**

- 2.1 Christchurch provides wastewater services to 368,000 residents through a network of eight wastewater treatment plants:
- Christchurch treatment plant in Bromley, serving the urban Christchurch area
  - Lyttelton treatment plant, serving Lyttelton, Corsair Bay, Cass Bay and Rapaki
  - Six small treatment plants serving communities across Banks Peninsula: Akaroa, Diamond Harbour, Duvauchelle, Governors Bay, Tikao Bay and Wainui.
- 2.2 All eight treatment plants discharge tertiary treated wastewater. All but two of the wastewater treatment plants discharge their treated effluent to the marine environment – the exceptions being the Wainui and Tikao Bay treatment plants from which treated effluent is discharged to land.
- 2.3. About 61.5 million cubic metres of raw wastewater flows into the district's eight wastewater treatment plants per year with 99 percent going to the Christchurch wastewater treatment plant in Bromley.

- 2.4. The biosolids drying facility at the Bromley wastewater treatment plant produces around 5000 dry tonnes biosolids per year from approximately 20,000 tonnes of dewatered sludge from the city's treatment plants.
- 2.5. No tests have been conducted to date to determine the extent to which plastic microbeads are present in either the dried biosolids or the treated effluent discharge from any of the city's wastewater treatment plants.

### 3.0 Submission

#### ***Proposed ban***

3.1 We are aware that:

- plastic microbeads from personal care products can enter the wastewater network when rinsed or removed
- some proportion of plastic microbeads will remain in the effluent that is discharged to land or water from wastewater treatment plants
- aquatic organisms, both freshwater and marine, may ingest plastic microbeads, mistaking them for food
- in 2014 the New York Office of the Attorney General sponsored a study to determine the extent to which plastic microbeads were being discharged from wastewater treatment plants, in which it was concluded:

*'Treatment plants are not designed to remove microbeads from the wastewater stream, and treatments potentially effective at removing microbeads are unproven. Even if effective treatment technologies are found to be available, the potential cost and time necessary to retrofit wastewater treatment plants with such technology is likely to be substantial. Prevention of use in personal care products is a more efficient approach to address the emerging problem of microbead pollution in New York's waters.'*

- studies have demonstrated that plastic microbeads can sorb organic contaminants which, when ingested by aquatic organisms, may subsequently enter the human food chain
- plastic microbeads are also in products such as household cleaning products and are not limited solely to the personal care products category.

3.2 We support a ban on the manufacture and sale of personal care products with plastic microbeads.

#### ***Scope***

3.3 Given that there are products other than personal care products that can contain plastic microbeads we urge the Government to broaden the scope of the ban to include product categories such as household and commercial cleaners, for which the use of plastic microbeads is not critical for human health. It is our view that where the inclusion of plastic microbeads is non-essential for human health or safety reasons, as is the case with personal care products, applicable product categories should also be subject to the same ban as that for personal care products.

3.4 We also submit that the ban should cover not only the sale and manufacture of microbeads in the relevant product categories but also the importation of those product categories. We

see no reason to allow products with plastic microbeads to be imported when the sale and manufacture of those same products is banned.

- 3.5 We are aware that plastic microbeads can have medical applications and consider that products with plastic microbeads in this category should not be included in a ban.

#### **Administration and enforcement**

- 3.6 The proposal for the plastic microbeads ban includes a section on administration and enforcement. We are satisfied with the assignment of the Environmental Protection Authority as the agency for enforcing, monitoring and evaluating the proposed regulations.
- 3.7 We suggest that if, as the proposal suggests, numerous breaches of the ban could occur in particular from smaller New Zealand retailers any enforcement should be carefully phased in with a robust education and communication initiative to ensure that retailers are fully aware of the requirements of a ban on the sale of affected products.

#### **Timeframe**

- 3.8 It is proposed that regulations to ban the manufacture and sale of products containing plastic microbeads come into force in 2018. We consider that this time frame is appropriate for the ban on sales, in order to allow for retailers to become fully informed about the requirements. However, if, as is stated in the proposal, no plastic microbead-containing products are manufactured in New Zealand, we do not see the need to delay implementation of the regulations to ban the manufacture of microbeads until 'sometime in 2018'. We suggest that this ban comes into effect immediately following the passing of the legislation.

#### **Additional submission points**

- 3.9 The proposal describes plastic microbeads but does not indicate whether the description in the proposal would be used in the regulation banning the manufacture and sale of products containing plastic microbeads.
- 3.10 We are aware that some overseas plastic microbead regulations have allowed for the use of 'biodegradable' plastics. We are also aware that only recently has a standard been developed standard for determining the biodegradability of plastic microbeads.<sup>1</sup>
- 3.11 Given limited degree to which 'biodegradable' plastic microbeads have been tested to determining the extent to they break down in the environment we recommend that the microbeads regulations include a definition such as that used in California's legislation:

*"Plastic microbead" means an intentionally added solid plastic particle measuring five millimeters or less in every dimension.<sup>2</sup>*

#### **4.0 Concluding Remarks**

- 4.1 In summary, Council staff make the following submission.
- We support the proposed ban on the manufacture and sale of personal care products containing plastic microbeads.

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<sup>1</sup> American Society for Testing and Materials, 2015. *ASTMD799-15 Standard Test Method for Determining Aerobic Biodegradation of Plastics Buried in Sandy Marine Sediment under Controlled Laboratory Conditions*. 'This test method is applied to determine the extent of biodegradation of a plastic exposed in the laboratory to a sandy sediment kept wet with seawater.'

<sup>2</sup> Assembly Bill 888, signed into law 8 October 2015;  
[https://leginfo.ca.gov/faces/billNavClient.xhtml?bill\\_id=201520160AB888](https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB888)

- We recommend expanding the scope of the proposed regulations to include other products containing plastic microbeads other than products which are essential for human health or safety.
- We suggest that the ban include importation of affected product categories.
- We support the administration, enforcement and monitoring of the proposed regulation by the Environmental Protection Authority.
- We support the proposed timeframe for the ban on sales of products containing plastic microbeads, but recommend that the ban on manufacturing of these products is brought forward.
- We recommend that the regulations include the following definition:  
*Plastic microbead means an intentionally added solid plastic particle measuring five millimetres or less in every dimension.*

4.2 If you require clarification of the points raised in this submission, or additional information, please contact Helen Beaumont, Head of Strategic Policy, phone 03 941 8812, email [helen.beaumont@ccc.govt.nz](mailto:helen.beaumont@ccc.govt.nz).

Yours faithfully



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