

Regulatory Impact Statement

Agency Disclosure Statement

This Regulatory Impact Statement has been prepared by the Ministry for the Environment (MfE). It provides an analysis of options to prevent the sale and manufacture of “wash-off” products containing plastic microbeads. Microbeads are synthetic, non-biodegradable plastic beads, used in personal care products such as bath products, facial scrubs and cleansers, and toothpastes. There is increasing global evidence that, because they are not biodegradable, they have negative effects on the marine environment.

From 16 January to 28 February 2017, the New Zealand Government consulted on a proposal to prohibit the manufacture and sale of personal care products which contain microbeads in New Zealand. The Government proposed to do this by regulation under the Waste Minimisation Act (WMA) 2008.

The key constraints with regards to the analysis presented in this paper are:

- timeframe for implementation
- uncertainty around the importation of microbead-containing products
- uncertainty in estimating operational and financial impacts

The Government originally proposed regulations banning personal care products which contain microbeads, to be implemented in mid-2018. After consultation, the Government is now proposing to widen the scope of the ban, and to have the proposed regulations enter into force on the 30th May 2018. This creates a relatively tight timeframe for implementation, and relies on the process for making regulations proceeding without any delays.

There are gaps in our knowledge of the full operational compliance cost to industry to reformulate products and remove any existing stock from sale on the entry into force date. In relation to cosmetic products, submissions from industry indicate that the proposed timeframe will be sufficient. In relation to other abrasive cleaning products, there does not appear to be products currently on the market, but we have not undertaken comprehensive research so there is uncertainty. In relation to the cost of enforcement, it is difficult to predict how much enforcement activities will cost because we do not know how many complaints may be made to the Environmental Protection Authority (EPA). The EPA believes there will likely be few complaints, if any.

Under the Trans-Tasman Mutual Recognition Arrangement (TTMRA), any goods produced in or imported into Australia that may be lawfully sold in Australia may also be sold in New Zealand (and vice versa). Therefore, a good containing microbeads that is legally able to be sold in Australia is legally able to be sold in New Zealand. There is uncertainty about how much microbead-containing products would be imported from Australia following the entry-into-force date. The amount is likely to be low and reduce over time, because Australia is phasing-out microbeads through voluntary self-regulation.

Shaun Lewis – Director, Mana Honohono – Investments and Partnerships

Background

1. In January 2017, the Government released a public consultation document on a proposed ban of plastic microbeads in personal care products using the Waste Minimisation Act 2008. A pre-consultation Regulatory Impact Statement was also prepared.¹ This Regulatory Impact Statement accompanies the Cabinet policy decision paper for making regulations, and is informed by the results of consultation.

Status quo and problem definition

2. The proposed regulations aim to prevent plastic microbeads from entering marine environments via “wash off” products. Mostly these products are bath products, facial cleaners and toothpastes, but they may also be used on household, car or industrial cleaning products. Microbeads are plastic beads (generally polyethylene) less than 5mm in size, manufactured for specific purposes, including for use in personal care products (such as bath products, facial cleaners and toothpastes). They are added to products for visual appearance, exfoliating, cleansing or abrasive cleaning purposes.

Environmental harms

3. Plastic microbeads that enter the marine environment are expected to be present in both the water column and sediment. They can be mistaken for food and ingested by marine organisms or ingested passively during filter feeding. Plastic also absorbs toxic substances². The microbeads can bioaccumulate in marine organisms, with adverse impacts such as internal damage and starvation, and adverse effects on animals that consume them, including humans.
4. Microbeads do not biodegrade and are very difficult to remove. Once in the marine environment, they have a cumulative impact on ecosystems, as their quantity builds up.

The method of disposal is a problem

5. Although they contribute to a small proportion of total plastic pollution, microbead-containing products are a target of Government and industry intervention in many countries because they are designed to be washed “down the drain” and therefore directly enter the freshwater and marine environment through effluent from wastewater treatment plants. In addition, microbeads are an unnecessary ingredient for the purposes of exfoliating, since several natural alternatives are available.
6. Research suggests³ that around 90 per cent of microbeads are removed or captured from wastewater effluent before it is discharged. However, a considerable number of microbeads still enter the marine environment.

¹ <http://www.mfe.govt.nz/waste/waste-strategy-and-legislation/waste-minimisation-act/proposal-ban-sale-and-manufacture-of>

² UNEP. (2015) Plastics in Cosmetics: Are We Polluting the Environment through our Personal Care? Retrieved from <http://unep.org/gpa/documents/publications/PlasticinCosmetics2015Factsheet.pdf>

³ Eunomia. (2016). Study to support the development of measures to combat a range of marine litter sources, page 256.

The New Zealand market for microbead-containing products

7. The NGO survey 'Beat the Microbead' suggested that, as at September 2015, there were around 100 personal care products for sale in New Zealand that contained microbeads. These products are imported into New Zealand and sold by domestic retailers. Advice from the New Zealand Cosmetic, Toiletry and Fragrance Association is that New Zealand industry does not manufacture personal care products that contain microbeads. We have since found that there is one manufacturer of a small amount of heavy-duty hand cleanser.
8. According to overseas reports and anecdotally, microbeads are also used in household, car or other cleaning products. From a limited number of enquiries, we have found no such products currently manufactured or for sale in New Zealand (although there was at one time a toilet bowl cleaner containing microbeads). In Australia, a recent survey also found no cleaning products on the market other than cosmetic products.

Industry efforts to phase out microbeads

9. The Food and Grocery Council of New Zealand have advised that many brands either have no personal care products containing microbeads or will phase out microbeads from the market in the next few months. Foodstuffs New Zealand announced that its stores are microbead-free from 1 July 2017. The Warehouse has a policy of not stocking personal care products containing microbeads.
10. Submissions from the cosmetics industry confirmed that personal care products containing microbeads are being phased out internationally, and that this will flow through to New Zealand. However, it is likely that not all retailers have taken action yet.
11. New Zealand's supply of microbead-containing products is affected by developments in Australia. In Australia, the industry representative body ACCORD has established an initiative ("Beadrecede") to survey and support industry to phase out microbeads by 1 July 2018, as agreed with the Government. According to officials in Australia, good progress is being made towards the phase-out target date. This will have a flow-on effect in the longer term with less products entering New Zealand via Australia. Ministry officials are monitoring their progress to assess the impact on the New Zealand market.
12. In the absence of any Government action, it is likely that the decline in the use of microbead-containing products would continue. However, the pace of this decline would most likely be slower, and there is the small possibility that microbead-containing products could reappear in the future.

Objectives

13. The primary objective is to prevent microbeads from entering New Zealand's marine environment. In achieving this objective it is also desirable to ensure that costs for New Zealand businesses and consumers are minimised.

Criteria for option assessment

14. The following criteria arise from the problem definition above, and are used to assess each option against the policy objectives.
 - a) The effectiveness of the option in preventing microbeads from entering New Zealand's marine environment.

- b) Minimising costs to industry, consumers and the Government.

Options and impact analysis

15. The following four options have been considered to reduce the harms of microbeads:

- a) Status Quo – not implementing any government intervention;
- b) Industry self-regulation agreement – this is the approach taken in Australia, whereby industry commits to phasing out microbeads, agrees a timeframe with the Government, and reports to officials on progress. The Government commits to regulating if the target is not met.
- c) Regulatory action (WMA) – introduction of regulations to control or prohibit the manufacture and sale of products containing microbeads; and
- d) Regulatory action (WMA and Imports and Exports (Restrictions) Act 1988) – Option C alongside introduction of restrictions on the importation of products containing microbeads into New Zealand.

These options are set out below in Table 1: Options and Impact Analysis

	Description	Criteria 1: Effectiveness Primary criteria	Criteria 2: Costs Secondary criteria
Option A Status Quo	Actions taken by industry, prompted by environmental concerns and consumer demand. No Government intervention.	Provides partial certainty that most microbeads are captured.	Self-imposed compliance cost. No cost to Government.
Option B Industry self-regulation agreement	Industry agrees timeframe with Government (similar to Australia).	Provides partial certainty that most microbeads are captured. Risk of rogue companies, but the impact would be minimal.	Besides compliance cost, imposes additional cost on industry to conduct outreach to industry. Minimal cost to government.
Option C Regulatory action (Waste Minimisation Act 2008)	Control or prohibition of the manufacture and sale of personal care products and abrasive cleaning products containing microbeads	Provides certainty that most microbeads are captured. Timeframe clear. Environmental Protection Authority enforcement in case of non-compliant businesses.	May be a higher compliance cost on some smaller businesses to meet timeframe. Cost to Government to develop regulations and enforce.
Option D Regulatory action (Waste Minimisation Act 2008 plus Imports and Exports (Restrictions) Act 1988)	Regulation that prohibits the domestic manufacture and sale, and import of personal care products that contain microbeads	Provides certainty that the maximum microbeads are captured. Timeframe clear. Customs and Environmental Protection Authority enforcement necessary. Customs enforcement not feasible.	Highest cost option for Government. Difficult to enforce at the border. Impact on industry similar to option C.

Costs and benefits of phasing out microbeads – all options

16. The costs to consumers and industry of phasing out plastic microbeads are similar across all the options:

- Consumers – minimal impact on consumers because of the variety of alternative ingredients available across a range of price points.
- Manufacturing – The manufacturing industry in New Zealand is not extensive.⁴ The cost of the alternative ingredients may be slightly more expensive, but the real cost involved to make changes are research and development, including chemist time, sales staff time and trial products with alternative ingredients. The average cost of this is about \$10,000.

⁴ As of 20 July 2017, the Ministry knew of one manufacturer of cleansing products containing microbeads, and was aware of potentially four more such companies. Officials will be communicating with all of them.

- Importers and suppliers – the costs of change are minimal and administrative. Consultation confirmed that the vast majority of cosmetic products in New Zealand are imported. Internationally the trend is away from plastic microbeads, encouraged by bans overseas. Costs would accrue to any importers who are unaware of the regulations and/or are slow to offload stock, but there seems to be high awareness amongst this group.
- Retailers – Costs are likely to be minimal because there is high awareness amongst this group. Some have proactively taken steps to remove microbead products. Smaller retailers will incur costs if they still have stocks of microbead-containing products when the regulations enter into force. These smaller retailers will need to dispose of these stocks.

Benefits

17. Eliminating plastic microbeads from being sold on the New Zealand market will help keep the New Zealand marine environment healthy and resilient. The benefits are difficult to measure because they occur over a very long time period.
18. Many of the benefits associated with eliminating microbeads would accrue without Government intervention due to voluntary phasing out by industry, encouraged by bans in the USA, Canada and other countries. The proposed New Zealand regulation supports this intent, ensuring the market responds swiftly, mitigating the risk of re-introduction in the future, and encouraging innovation. The proposed ban would prevent New Zealand from becoming a dumping ground for microbead-containing products manufactured elsewhere.

Option A: Status quo

19. Retaining the status quo would mean that products containing microbeads could still be legally manufactured and sold in New Zealand. The removal of microbeads from products in New Zealand would be dependent on voluntary industry actions, international manufacturers and consumer choice.
20. The international trend is seeing personal care product manufacturers switching to safe alternatives to microbeads or setting self-imposed timeframes to remove microbeads from their products. As consumer awareness of the harmful effects of microbeads on marine environments matures, the market would continue to move away from importing and selling personal care products that contain microbeads.
21. Retaining the status quo does not impose additional costs on businesses and consumers above those associated with voluntary and market based phase out of microbeads in personal care products. Nor does it impose a cost to Government associated with the management of microbeads in New Zealand.
22. This option would largely achieve the primary objective. However, the timing of the phase-out would be uncertain, and there may be a small subsidiary market for microbeads that remains or could reappear in future. There is also a possibility that excess product that will be banned from sale in countries that have imposed a ban may find a market in New Zealand.
23. There is some uncertainty around the scope of industry led action. It is likely that industry efforts would focus on personal care products only. Nevertheless, this scope would still capture the vast majority of microbeads.

Option B: Industry self-regulation agreement

24. This intervention would involve leveraging off current voluntary action from the main business and industry associations that import personal care and cleaning products into New Zealand, to phase out microbeads by a certain agreed date.
25. Besides compliance costs, there would be an additional cost to industry to implement and monitor a voluntary commitment. This is because an effective voluntary commitment would require a greater commitment, collaboration amongst industry and more organised action than the status quo. There would also be a small cost to government in reporting to Ministers.
26. In comparison with regulatory options, this option is less certain to ensure that the marine environment is protected from the impacts of microbeads. While the main market for personal care products would be captured by voluntary action, a subsidiary market may not be captured.

Option C: Regulatory action (WMA) – introduction of regulations to control or prohibit the manufacture and sale of products containing microbeads

27. Section 23(1)(b) of the WMA allows regulations to be developed for controlling or prohibiting the manufacture or sale of products that contain specified materials, for example personal care products that contain microbeads.

Enlarged scope

28. Many submitters urged the Government to broaden the scope of the ban to all microbead-containing products that are washed down the drain such as household and car cleaning products. Consequently MfE officials made some enquiries to identify such products. Some suggested products do not seem to be sold in New Zealand and/or they may contain synthetic polymers (e.g. sunscreen, hairspray) but not in the form of solid plastic. Cosmetic make-up was suggested, but this is a “wipe-off” product (not a “wash-off” product). No household or car cleaning products were found that are currently available although there has been in the past (a toilet bowl cleaner, which is no longer advertised online). This echoes the results of a survey in Australia which found a similar result.
29. The scope of the proposed ban has been widened to include all abrasive cleaning products so as to prevent any new microbead-containing cleaning products entering the market. Officials will continue to investigate the market and communicate with the industry (cleaning product suppliers).
30. MfE considers it necessary to specify the purpose of the microbeads, so as to make the law clear and practical. To not specify the purpose would make the law too broad to satisfy the statutory requirements. There would be a significant risk of unintended consequences, since there is such a wide range of products (and potential future products) containing a wide variety of polymer ingredients that could be confused with plastic. Other jurisdictions have also come to this conclusion.
31. Specifying the purpose means that some ingredients that would otherwise meet the definition of a plastic microbead may not be captured. However, we are confident that the vast majority of plastic microbeads would fall within the proposed specified scope.
32. Appendix One lists types of products and shows whether or not these are captured by the proposed ban.

Change in timing

33. The consultation document proposed that the new regulations could enter into force around mid-2018, to allow businesses sufficient lead-in time to prepare. The majority of submitters supported this, and some encouraged an earlier timeframe. The Waste Advisory Board also encouraged an earlier timeframe, but noted that a too-short implementation timeframe for the ban could result in stocks of imported products being exported offshore.
34. Due to this feedback, an entry-into-force date of six months after the publication date is now proposed. Given a regulation gazette date of 30 November 2017, the entry-into-force date will be 30 May 2018. This relies on the process for making regulations proceeding without any delays.

Arguments for regulatory action under the WMA

35. This option will provide greater certainty, relative to the status quo, that the harms of microbeads on the marine environment are prevented in a timely way. Regulation would provide both businesses and consumers with certainty by providing a precise date after which products containing microbeads cannot be manufactured or sold in New Zealand.

Limitations to regulatory action under the WMA

36. Regulations made under the WMA would not prohibit the import for personal use of products containing microbeads into New Zealand. We believe it is unlikely that microbeads would be imported and used by consumers in New Zealand.
37. Under the TTMRA, any goods produced in or imported into Australia that may be lawfully sold in Australia may also be sold in New Zealand, and vice versa. This principle operates regardless of different standards, or other sale-related regulatory requirements between New Zealand and Australia. A sales ban would therefore not apply to any product containing microbeads coming into New Zealand from Australia under the TTMRA. However, given the 'Beadrecede' programme in Australia, it is unlikely that many such products will be imported from Australia after the Australian phase-out date of 1 July 2018.
38. If regulations are to be pursued, they must be consistent with New Zealand's international obligations. The ban could be seen to be a de facto quantitative restriction on imports, which could be inconsistent with New Zealand's obligations under the General Agreement on Tariffs and Trade (GATT) 1994. However, certain exceptions to this rule exist, and a country may adopt measures that would otherwise breach their obligations if those measures are "necessary to protect human, animal or plant life or health" or "relating to the conservation of exhaustible natural resources". The risk that the ingestion of microbeads causes to marine life and the potential risks to human health suggest that the sales ban could come within these exceptions.

Costs to Government

39. The WMA provides offences for contravening a regulation and allows an enforcement officer to be appointed for the purposes of ensuring compliance with regulations. The EPA has been identified as best placed to undertake enforcement for any regulations. This will be the first time that the EPA will have enforcement powers under the WMA. The EPA has estimated it would require additional set up costs of \$50,000 and on-going costs to cover the additional enforcement role. The enforcement strategy will be to respond to

complaints from the public. Actions include seizing goods or prosecuting a sale. The EPA predicts that the number of prosecutions would be few, if any.

40. There will also be some cost to MfE of developing these regulations. A 2011 study found on average the cost of making and promulgating a regulation in New Zealand was \$530,000 between 1990 and 2010⁵. In addition, there is an opportunity cost for MfE and wider central Government agencies in developing these regulations at the expense of other areas of need.

Costs to business

41. There will be a compliance cost to suppliers and retailers who may need to remove stocks from sale. The larger industry players have already begun phasing out these products, encouraged by bans in the USA, Canada and other countries. It is not clear if smaller businesses are undertaking the same actions – some of these smaller businesses may find themselves with microbead-containing products that they cannot sell.

Option D: Regulatory action (WMA plus Imports and Exports (Restrictions) Act 1988) – introduction of regulations to control or prohibit the manufacture and sale of goods containing microbeads and restrictions for the importation of goods containing microbeads into New Zealand.

42. Regulations that provide for either an absolute or conditional prohibition on the import of personal care products containing microbeads could be progressed via an order in council under the Imports and Exports (Restrictions) Act 1988. Because of our international trade obligations, such a measure would need to be progressed alongside the regulation of manufacture and sale under the WMA to avoid discriminating against imported products.

Arguments for regulatory action under the Imports and Exports (Restrictions) Act 1988

43. This option provides a higher degree of legal certainty that no personal care products containing microbeads would be allowed to enter New Zealand. All key pathways for personal care products containing microbeads to be distributed in New Zealand would be closed.
44. Import bans are excluded from the scope of the TTMRA. This means that this option would therefore also legally prevent products containing microbeads coming into New Zealand from Australia under the TTMRA.

Limitations to regulatory action under the Imports and Exports (Restrictions) Act 1988

45. If regulations are to be pursued, they must be consistent with New Zealand's international obligations. Quantitative restrictions on imports are inconsistent with New Zealand's international trade law obligations under the GATT 1994. However, certain exceptions to this rule exist for measures which are "necessary to protect human, animal or plant life or health" or "relating to the conservation of exhaustible natural resources", as previously described. As outlined for Option C above, the risk that the ingestion of microbeads causes to marine life and the potential risks to human health suggest that the sale ban could come within these exceptions.

⁵ Wilson, N., Nghiem, N., Foster, R., Cobiac, L., & Blakely, T. (2012). Estimating the cost of new public health legislation. *Bulletin of the World Health Organization*, 90(7), 532-539.

Costs to Government

46. This option would include the costs of development and enforcement for two sets of regulation – both for the WMA and for the Imports and Exports (Restrictions) Act 1998. As noted for option C, a 2011 study found on average the cost of making and promulgating a regulation in New Zealand was \$530,000 between 1990 and 2010⁶. Option D would also incur further opportunity costs to be MfE and the Ministry of Business, Innovation and Efficiency (MBIE) (as well as other central Government agencies such as the Parliamentary Counsel Office), in developing these regulations at the cost of other areas of need.
47. This option is will also incur significant costs for the New Zealand Customs Service (Customs NZ), due to the need for physical inspection of all shipments that could possibly contain microbeads. These increased costs (to MfE, MBIE and Customs NZ) mean that this option is not feasible.

Costs to business

48. As for Option C above, there is a compliance cost to suppliers and retailers who may need to remove stocks from sale. Businesses that have already begun phasing out these products will be unaffected.

Conclusion and Recommendations

49. MfE acknowledges the lower costs to Government of Option B (self-regulation by agreement), and that industry are motivated to self-regulate due to consumer demand and the flow-on effects of overseas legislation.
50. However, MfE's preferred option is Option C (WMA regulation). This is because a ban provides greater certainty of scope and clarity of timeframes. Regulation would support a level playing field, as outlined above. Affected New Zealand retailers and manufacturers who have already taken action may have been partly motivated by the Government's initial announcement to regulate, and subsequent public consultation.

Consultation

A total of 16,223 submissions were received as outlined in Table 2:

Table 2: Submitters to the proposal to ban plastic microbeads

Submitter	Number
Individuals	16,184
Business/Industry	22
NGOs	7

⁶ Wilson, N., Nghiem, N., Foster, R., Cobiac, L., & Blakely, T. (2012). Estimating the cost of new public health legislation. *Bulletin of the World Health Organization*, 90(7), 532-539.

Submitter	Number
Local government	4
Others	4

Results of public consultation

51. A total of 16,223 submissions were received. All supported the ban (or supported it in part). Some industry submitters supported the intent of the ban but considered that regulation is unnecessary because they were already in the process of phasing out microbeads. The key themes arising from the submissions all focused on creating a more rigorous, wide-ranging and urgent policy. These included defining the scope of the ban on microbeads, microbeads in other products, and the timing of the ban. A summary of submissions has been prepared.
52. Appendix Two sets MfE's response to the key proposals made by submitters during consultation. To follow is a discussion about scope, which is the main issue that emerged from consultation.

Results of consultations with central agencies

53. The following agencies were consulted with during the development of this analysis: the Treasury, the Department of Conservation, the New Zealand Customs Service, the Ministry for Primary Industries, the Ministry of Foreign Affairs and Trade, the Ministry of Health, the Ministry of Business, Innovation and Employment, Te Puni Kōkiri, and the Environmental Protection Authority.
54. The Department of Conservation supports the proposal. MBIE and MFAT had comments in relation to the international obligations. The Ministry of Health advised that an exemption for therapeutic products is necessary so this has been included.

Waste Advisory Board

55. The Waste Advisory Board is established under the WMA to provide independent advice on matters under the WMA. The Waste Advisory Board indicated support for the proposal, and suggested that the beneficial impact of the ban would be strengthened if the scope of captured products were to be widened. The Board gave useful advice regarding implementation, timeframes and public education. The Board also encouraged the establishment of a broader work programme on the wider issue of marine pollution from microplastics.

Implementation

Implementation of Option C – regulations under the WMA

56. Under this option, regulations would be developed through an Order in Council under section 23 of the WMA. This would establish controls and prohibitions on the manufacture and sale of cleaning products containing microbeads. It is anticipated that regulations could come into force on 30 May 2018.
57. The Secretary for the Environment would appoint the EPA as an enforcement officer under the WMA. Guidance on what the regulations are and how industry can comply will

be developed, and made available before the regulations come into force. Enforcing compliance with the regulations would be carried out by the EPA. The EPA advises that its ongoing activities will primarily consist of responding to complaints from the public and taking appropriate actions. The degree of their activities will need to be prioritised against other responsibilities, since no new funding has been allocated. Depending on the number of complaints, the EPA may require additional funding through the Budget process.

58. A small amount of heavy-duty hand cleansers that contain microbeads are currently manufactured in New Zealand. These products will need to be reformulated. MfE will proactively communicate with this manufacturer, as well as other industry stakeholders, to ensure they are aware of the Government's decision to regulate once Cabinet decisions have been made. This will mitigate the risk that industry stakeholders are caught unawares, and to ensure they have as much time as possible to adapt.
59. Retailers will incur costs if they still have microbead stocks when the regulations enter into force. These costs can be minimised through good communications with retailers including small businesses. There is a small risk that a smaller retailer may be caught unawares and come to the attention of the EPA. If there is a proof of purchase, the EPA would be obliged to investigate the retailer and a prosecution could ensue. It will therefore be important to communicate the regulations to all retailers well ahead of the entry into force date.

Monitoring, Evaluation and Review

60. Under the preferred option, the EPA will monitor the number of non-compliance incidents, and industry responses. This will ensure that any issues around the appropriateness of the regulations can be identified.
61. As the responsible policy agency, MfE monitors the effectiveness of the overall WMA regime. Part of this ongoing monitoring, evaluation and review may include evaluation of how effective the EPA is in enforcing the implementation of the proposed regulations.

Appendix One: Products Matching the Proposed Criteria

Proposed microbeads regulations - which products match the proposed criteria to be banned? NB the criteria will be further refined at drafting stage				
Legal criteria:	Contains intentionally added plastic particles less than 5mm, and..	.. solid, water insoluble, and..	..are in a “wash-off” product, and..	...for the purpose of exfoliating, cleansing or other abrasive cleaning (of any surface)
Products containing plastic microbeads:				
Facial and body cleansers, exfoliants	yes	yes	yes	yes
Bubble bath containing glittery* microbeads for visual effect	yes	yes	yes	See note below
Toothpaste	yes	yes	yes	yes
Household/car cleaning products	yes	yes	yes	yes
Products that may contain polymers (ie, not plastic) and/or potentially nanoplastics:				
Hairspray	no	no	yes	no
Cosmetic make-up	potentially	uncertain	No	no
Denture adhesive/ fixative	uncertain	uncertain	Yes	no
Sunscreen	potentially	uncertain	yes	no
Washing powder	no	no	yes	no
* NB glitter in wash-off products could include glitter made from plastic or from polymers bonded with another material (e.g. aluminium). The regulation will be drafted to capture any such microbeads added for visual effect.				

Appendix Two: MfE response to submitters' points made during public consultation

Scope of the proposed ban on microbeads – MfE response to submitters' points made during public consultation (including the Waste Advisory Board)		
This table discusses several points made by submitters to the public consultation round. It is intended to provide more detail on the analysis of the key issue of scope.		
Submitter	Submitter's comment	MfE's analysis
Waste Advisory Board and various submitters including Greenpeace, NZ Product Stewardship Council, The Warehouse Group	Broaden scope to include all microbead products likely to be rinsed down the drain, eg industrial car washes. Microbeads used in airblast cleaning, oil and gas exploration, textile printing and automotive moulding. NZPSC listed a range of commercial products.	MfE officials contacted some of the submitters for more information and looked for examples of actual products on the New Zealand market, as well as overseas product descriptions available online. MfE compiled a list of the types of products found that contain plastic or synthetic polymer ingredients. We concluded that many of the uses for "microbeads" are either not sold as products that are washed down the drain, or are not in solid form, and are therefore out of scope. The only evidence found for cleaning products was a toilet bowl cleaner, which is now no longer advertised on the website of the producer. Nonetheless, MfE recommended the scope be broadened to include cleaning products in order to make the law fair across industries and to keep such products off the NZ market into the future.
Waste Advisory Board	Include products distributed for free, eg soaps and shampoos for hotel guests.	This cannot be addressed through the WMA regulations if there is no sale involved. The issue can be addressed by publicising the ban to the hotel industry so they know not to buy the products to distribute. It is possible that some may import such products lawfully from Australia, but we believe that this would be unlikely because their clientele may raise concerns.
Packaging Council of NZ	Ensure definition does not capture "small particles added to, or arising in, the manufacture and reprocessing of all products, such as fine particles associated with the manufacture or laundering of microfiber fabric, recycled plastic or other recycled materials".	Noted. The definition will be considered further at the stage of drafting the regulations (post-Cabinet policy decisions). In New Zealand the cosmetics industry uses the term "wash-off" rather than "rinse-off", so we have adopted this term but they mean the same thing.
US Personal Care Products Council (PCPC) Shiseido Japan Cosmetic Industry	Support US definition, "any solid plastic particle that is less than five millimetres in size and is intended to be used to exfoliate or cleanse the human body" that were included in "rinse-off" cosmetic products.	

Association Cosmetic Toiletry and Fragrances Assoc		
Shiseido	The definition should not capture cosmetic make-up that may be washed down the drain with soap/cleanser at the end of the day.	MFE discussed with the Cosmetics Toiletry and Fragrances Association, did some field research to see what products are available, and considered evidence from overseas. We found some pressed powder foundation and eye shadows that contain polyethylene. Cosmetic make-up of this type is intended to be wiped off and disposed of in a bin (although some is undoubtedly washed off). On balance, MFE concluded that these products are not the target for the regulations, and should be kept out of scope in order to keep the law clear, fair and proportionate. If make-up were to be included, we would logically have to research all products containing polymer ingredients, which would be unrealistically complex and time-consuming.
College of William and Mary (Jason McDevitt)	The submitter is part of a Technical Advisory Group designing a standard for sustainable plastics - "Ecocyclable". Submitted that the US definition of the microbead material is too narrow and hinders innovation.	MFE contacted the submitter to find out more. The points made are valid, and MFE initially considered including an exemption in the regulations to allow new types of properly biodegradable plastic microbeads to be developed. The broader purpose would be to avoid having a definition in the law that could discourage innovations more generally. However, in view of the complexity of the concept, we decided not to pursue it at this stage. MFE will look for ways to encourage innovations more broadly.
Greenpeace	Definition of microbead should be "all solid water-insoluble microplastic ingredients", and include "so-called biodegradable" plastics (meaning not properly biodegradable). Size of particle should be anything less than 5mm in any dimension.	Noted. The definition will be considered further at the stage of drafting the regulations (post-Cabinet policy decisions).
Packaging Council	Recommends specifying the chemical compositions, and size (up to 5mm) and the types of products (eg personal care)	
US Personal Care Products Council (PCPC) Shiseido	Supported US law, "any solid plastic particle that is less than five millimetres in size and is intended to be used to exfoliate or cleanse the human body" and designed as a "rinse-off" product.	
Several submitters	Support for exemption for medically essential purposes.	MFE followed up with the Ministry of Health, and an exemption is recommended.