

Environment and Communications References Committee

Inquiry into the threat of marine plastic pollution, 18 February 2016

Questions on Notice

QU 1: COAG

Transcript:

Would you think that COAG would be the appropriate body, mechanism, to incorporate that high tide to the three nautical mile level and then the Commonwealth responsibility? Should it be COAG? What, if anything, has COAG been doing, in your view?

QU 1(a): Is COAG the most appropriate body to assist in coordination of marine and coastal management across State/Territory and Commonwealth jurisdictions?

National Environmental Law Association

COAG is the appropriate body to assist in developing a new framework for coordination of marine and coastal management including management that will impact on the control of MPP. This issue goes to arrangements under our federal system of government and as Council of Australian Governments (COAG) is the peak intergovernmental forum in Australia it is the most appropriate body.

The members of COAG are the Prime Minister, State and Territory Premiers and Chief Ministers and the President of the Australian Local Government Association (ALGA). COAG is not dedicated to any particular sector, which is appropriate given that a range of sectors and stakeholders are interested in use of resources in the marine and coastal environment. Furthermore, the inclusion of ALGA is important given that many measures to control the release of marine plastic pollution to our seas are the responsibility of local government.

COAG has stated that it is committed to a program of reform built on one vision: improving the wellbeing of all Australians, now and into the future. It states that it recognises that the Australian people want to see governments working together to ensure that the Australia of 10, 20 or 50 years' time has adequately addressed the issues that will impact on the quality of life of our children and their children. Under the theme of 'Making Federalism Work' it is stated that '[t]he reform agenda at the heart of COAG's work identifies the economic, social and *environmental* priorities of the nation and sets out clear roles and responsibilities of governments in addressing them' (emphasis added).¹

An alternative to COAG could be a body similar to the now disbanded Natural Resource Management Ministerial Council (NRMMC). The NRMMC comprised Australian, state and territory and New Zealand government ministers with responsibilities for land and water management. The role of NRMMC was said to be to 'better integrate Australia's conservation and sustainable production objectives'² which, in NELA's view, lacks specificity and does not clearly support ecologically sustainable development. Another weakness was that ALGA only participated as an observer.

¹ https://www.coag.gov.au/reform_agenda#Making_Federalism_Work

² <http://archive.nwc.gov.au/home/water-governancearrangements-in-australia/national-arrangements/national-arrangements-natural-resource>

The NRMCC endorsed a Framework for a National Cooperative Approach to Integrated Coastal Zone Management in 2003. In 2006, they prepared the 'National Cooperative Approach to Integrated Coastal Zone Management – Framework and Implementation Plan'³ which identified land and marine-based sources of pollution, managing climate change, introduced pest plants and animals, allocation and use of coastal resources and capacity building as all areas in need of national collaboration. Implementation of the recommendations in these documents has been lacking, which points to the need for a coordinating body at a higher level.

QU 1(b): What has COAG been doing in respect to coastal and marine issues?

National Environmental Law Association

In its most recent Communiqué, under the heading of 'A new economic and Federation reform agenda', COAG committed to close collaboration in areas of shared responsibility, including competition, tax, innovation, infrastructure, cities and regulation, as well as in health and education. Included within the Reform Agenda is Water, Climate Change and the Environment.⁴ Whilst present activities cover fresh water, renewable energy and energy efficiency, there is no mention of coastal or marine issues.

On 13 December 2013, COAG replaced its 22 Standing Councils, Select Councils and governance fora with a set of eight Councils and the decision saw the revocation of the Standing Council on Environment and Water (SCEW). SCEW was a council of ministers responsible for environment and water from the Commonwealth, all states and territories and New Zealand. ALGA was also represented in SCEW. The Commonwealth Minister responsible for the environment chaired the Council. The purpose of the SCEW was 'to promote the protection of the environment and sustainable water management in order to enhance social, human health and economic and environmental outcomes in a sustainable manner for current and future generations'. It provided a forum for governments to agree actions to address key national environmental protection and water management issues and challenges. It also enabled governments to coordinate environment and water related programs and funding. According to the website (scheduled for archiving) work is underway to resolve how its existing work would be handled in the future.⁵

It is notable that SCEW appears to have been focused more on fresh water than the coastal and marine environment. However, the revocation of SCEW indicates the low priority being given to the environment and water within COAG and this extends to the coastal and marine environment.

QU 2: International Law

Transcript

I just want to ask about international law. Do you see any gaps there in relation to the issue of marine plastic pollution with current international law? We heard about the dumping from ships of marine plastic waste. And is there enough international focus on dealing with some of those issues, which are obviously away from Australian waters but end up often in Australian waters, or are there other areas of international law that could be relevant?

³ <http://www.environment.gov.au/resource/national-cooperative-approach-integrated-coastal-zone-management-framework-and>

⁴ https://www.coag.gov.au/water_climate_change_and_the_environment

⁵ <http://www.scew.gov.au/about-us>

QU 2: Are there any gaps in relation to the issue of marine plastic pollution within current international law?

National Environmental Law Association

There are a number of gaps in international law in relation to MPP. The relevant law falls into two categories, namely binding agreements and non-binding declarations, plans etc. We will not discuss non-binding global and regional declarations or plans.⁶

Relevant binding international legal instruments include instruments which are global in scope: the International Convention for the Prevention of Pollution from Ships (MARPOL), which we addressed in our submission, the United Nations Convention on the Law of the Sea (UNCLOS) and the Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matter (the London Dumping Convention).

They also include binding regional agreements, such as those which underpin the Action Plans in most regions in the United Nations Environment Program's Regional Seas Programme. Australia participates in two regional seas programmes, namely, the Pacific Regional Seas Programme and the Antarctic Programme. Of these two programmes, the agreements with potential for addressing MPP include:

- Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (the Noumea Convention) which, together with its Protocols (the Protocol for the Prevention of Pollution of the South Pacific Region by Dumping (which Australia has signed but not ratified) and the Protocol Concerning Co-operation in Combating Pollution Emergencies in the South Pacific Region (which Australia has signed and ratified)) obliges Parties to endeavour to take all appropriate measures to prevent, reduce and control pollution from any source and to ensure sound environmental management and development of natural resources, using the best practicable means at their disposal and in accordance with their capabilities;
- the Antarctic Treaty, together with its Protocol on Environmental Protection, which prohibits "[t]he disposal into the sea of all plastics, including but not limited to synthetic ropes, synthetic fishing nets, and plastic garbage bags"⁷; and
- the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) which, in contrast to other multilateral fisheries conventions, is concerned not only with the regulation of fishing, but also with conservation of the Antarctic ecosystem.⁸

Unfortunately, the collective shortcomings of these binding international and regional agreements mean that they are unlikely to produce significant reductions in MPP. These shortcomings include the following:

⁶ They include the Washington Declaration on Protection of the Marine Environment from Land-Based Activities, the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities, and the East Asian Sea's Regional Action Plan on Marine Litter.

⁷ Protocol on Environmental Protection to the Antarctic Treaty, Article 5 (1).

⁸ Of relevance is Article II (3) which requires that "any harvesting and associated activities in the area to which this Convention applies shall be conducted in accordance with ... the following principles of conservation" which include the "prevention of changes or minimisation of the risk of changes in the marine ecosystem which are not potentially reversible over two or three decades, taking into account ... the effects of associated activities on the marine ecosystem and of the effects of environmental changes, with the aim of making possible the sustained conservation of Antarctic marine living resources."

- No global agreement covers all of the main sources of MPP - land-based, sea-based and microplastic. For example, UNCLOS touches on pollution of the marine environment by land-based sources and extends to sea-based sources on the high seas and external waters, however its enforceability provisions apply only to *wilful dumping* of waste at sea. One regional instrument is more comprehensive in its scope - the Noumea Convention obliges Parties to endeavour to take all appropriate measures to prevent, reduce and control pollution from any source,⁹ however as it is only a regional convention it does not address all sources of MPP affecting Australia.
- Many agreements make express exemptions for major sources of MPP – for example, the London Dumping Convention does not apply to “the disposal at sea of wastes or other matter *incidental to, or derived from the normal operations of vessels, aircraft, platforms or other man-made structures at sea and their equipment*”.¹⁰
- Most agreements contain significant exemptions. For example, UNCLOS does not penalize ships for the “incidental” loss of otherwise-prohibited waste. The disposal of plastics at sea under the Environment Protocol to the Antarctic Treaty does not apply to “the escape of garbage resulting from damage to a ship or its equipment” or “the accidental loss of synthetic fishing nets”, provided “all reasonable precautions” have been taken to prevent such loss.¹¹ These exemptions perpetuate the problem of careless handling of plastics at sea and further limit the treaties’ effectiveness.
- These agreements also lack useful standards. How is compliance to be measured when parties are asked to “endeavour”¹² to use the “best practicable means at their disposal”¹³ or “appropriate measures”¹⁴ to reduce marine pollution “in accordance with their capabilities”?¹⁵

In addition to the issue of clear and measurable standards, enforcement of the requirements under these agreements is inhibited by:

- the difficulty or impossibility of identifying the source/s of MPP (without tracking systems it is very hard to link MPP to a particular ship or other source),
- proving whether the disposal of that MPP was legal or illegal. Some agreements require vessel recordkeeping systems to assist in tracking illegal disposals¹⁶ (most do not); but even with garbage record books the correctness of the records in those books is difficult to verify. Other agreements have different requirements which are equally difficult to satisfy. UNCLOS, for example, requires that a State seeking to enforce an obligation must have witnessed a violator in the overt act of

⁹ Noumea Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, Article 5 (1).

¹⁰ Convention on Prevention of Marine Pollution by Dumping of Wastes and Other Matter, Article III (1)(b)(i).

¹¹ Environment Protocol to the Antarctic Treaty, Article 5.

¹² For example, United Nations Convention on the Law of the Sea, Articles 194 (1), 200, 207 (1).

¹³ Noumea Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, Article 5 (1).

¹⁴ Convention for the Conservation of Antarctic Marine Living Resources, Article XXI (1).

¹⁵ For example, United Nations Convention on the Law of the Sea, Article 194 (1), 199.

¹⁶ For example, Annex V of MARPOL requires vessels that are 400 tons or more, or certified to carry 15 or more passengers, to maintain a garbage record book. Article 5 (6) of Annex IV to the Protocol on Environmental Protection to the Antarctic Treaty requires parties to require the use of garbage record books (“where appropriate”).

illegally disposing of waste or must acquire sufficient evidence to warrant investigation of the suspect vessel.¹⁷

- Even assuming successful enforcement of these standards, penalties are generally not specified or are insufficient to deter unlawful behaviour.

Taken together, the gaps in and between these agreements mean that a significant reduction in MPP is unlikely under the existing international law regime.¹⁸ Of concern is that there seems to be insufficient international focus on addressing these gaps despite increasing awareness of this issue and its significance internationally.¹⁹

NELA is of the view that a coordinated international response is required, spearheaded by a strong new international agreement which specifically addresses marine plastic pollution and the gaps in existing international law. Such an agreement should incorporate enforceable standards, strong tracking, monitoring, reporting, and enforcement mechanisms, adequate penalties and the establishment of jurisdiction for party dispute resolution at an international tribunal. The *Montreal Protocol on Substances that Deplete the Ozone Layer* (the Montreal Protocol) is an example of a similar situation where this approach worked effectively at addressing a problem with strong parallels to the threat posed by MPP.

As Rosencranz et al wrote,²⁰ the international community has become very good at writing agreements - we're less good at making them effective. The challenge posed by MPP and the international community's response to it to date illustrates that. The success of the Montreal Protocol indicates that adopting a similar approach in order to address this threat may be a way forward.

QU 3: Plastic as a hazardous substance and the USA Clean Water Act

Transcript

My question follows on from that—you may need to take this on notice as well. I was going to ask you specifically about the US. Under US law they have a Clean Water Act, which we do not have here in Australia and which does regulate the dumping of pollutants into the ocean. There was the MARPOL international agreement on dumping at sea as well, which we are a signatory to. Could you take on notice—or, if you have a view now, feel free to provide it—whether that legislative instrument in the US is better suited to dealing with the problems of plastic pollution. It is my understanding that in 2008 there was a law passed called the nurdle law—nurdles are the small beads that go to used plastics—which actually classified nurdles as a pollutant. There was a big petition by community groups to get plastic classified as a pollutant. I asked the previous witnesses about classifying plastic as a hazardous substance. Do you believe that that would be a potential avenue to explore?

¹⁷ Matthew Schroeder, "Forgotten at Sea – An International Call to Combat Islands of Plastic Waste in the Pacific Ocean" (2010) 16 *Southwestern Journal of International Law* 265 at 275.

¹⁸ *The Future We Want*, GA Res 66/288, 66th Sess, 123rd Plen Mtg, Agenda Item 19, UN Doc A/RES/66/288 (27 July 2012) [163].

¹⁹ Ibid. In 2012, the Rio+20 United Nations Conference on Sustainable Development recognized marine litter as a major environmental issue that the world must address, with the parties "not[ing] with concern that the health of oceans and marine biodiversity are negatively affected by ... marine debris, especially plastic ..." and calling for action by 2025 to "achieve significant reductions in marine debris to prevent harm to coastal and marine environments."

²⁰ Armin Rosencranz, Paul Kibel, Kathleen D Yurchak, 'The Principles, Structure and Implementation of International Environmental Law' in *Global Change Instruction Program*, University Corporation for Atmospheric Research <<http://www.ucar.edu/communications/gcip/m3elaw/m3overview.html>>.

QU 3(a): Is classification of plastic as a hazardous substance a potential avenue to explore?

National Environmental Law Association

Classification of plastic as a hazardous substance is a potential avenue to explore particularly in relation to nurdles and microbeads. Notably, the National Pollutant Inventory (NPI) does not list plastic as a pollutant²¹ and this could also be explored.

Hazardous substances – Australia

In relation to hazardous substances, in Australia we apply the Hazardous Substances Information System (HSIS) in the context of Work Safe Australia. Substances are classified by an authoritative source such as the European Commission or National Industrial Chemicals Notification and Assessment Scheme in accordance with the Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)] 3rd Edition. Safe Work Australia has published a list of chemicals classified in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (the GHS). This list contains the vast majority of chemicals currently in HSIS.

The HSIS - Guidance Material for Hazard Classifications²² identifies both health and non-health effects. Interestingly, the non-health effects include impact on the aquatic environment, namely,

R50 Very toxic to aquatic organisms

R51 Toxic to aquatic organisms

R52 Harmful to aquatic organisms

R53 May cause long-term adverse effects in the aquatic environment

R54 Toxic to flora. R55 Toxic to fauna

The list includes chemicals that have a hazard statement such as ‘Toxic to Aquatic Life with Long Lasting Effects’. This may provide an opening to include some plastics within the HSIS.

The other context in which hazardous substances arise is in relation to hazardous waste and the *Hazardous Waste (Regulation of Exports and Imports) Act 1989*.²³ Whilst this statute is concerned with the export and import of waste in compliance with Australia’s obligations under the Basel Convention, it is interesting to see Eco toxicity is a basis for considering waste to be hazardous.

Toxic substances – USA

If the approach taken in the USA is taken as an example, plastic beads (nurdles) could be categorised legally as a hazardous substance. Section 8 (b) of the *Toxic Substances Control Act 1976* (TSCA) requires the Environment Protection Agency (EPA) to compile, keep current and publish a list of each chemical substance (the Inventory) that is manufactured or processed, including imports, in the United States for uses under TSCA. The Inventory plays a central role in the regulation of most industrial chemicals in the United States.

The TSCA provides EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain

²¹ National Pollutant Inventory <http://www.npi.gov.au/substances/substance-list-and-thresholds>

²² Work Safe Australia <http://www.hsis.safeworkaustralia.gov.au/Home/GuidanceMaterialHazardousSubstances>

²³ Australian Government Department of the Environment
<http://www.environment.gov.au/protection/hazardous-waste>

substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics and pesticides.²⁴

The TSCA includes plastic in raw form (beads) or ‘nurdles’ in the Inventory.²⁵ The EPA is also considering nanoscale materials.²⁶ A weakness in the USA approach is that it excludes certain substances including food, drugs, cosmetics and pesticides²⁷ and it is not relevant to disposal by consumers. It appears likely that the TSCA will be overhauled in the near future in light of ongoing criticism in this regard.²⁸

For any new substance to be categorised as hazardous it may need to undergo an assessment in terms of their risk to human health or the environment. Notably, in relation to testing of chemical substances and mixtures the TSCA § 2603 (b)(2A) states as follows:

The health and environmental effects for which standards for the development of test data may be prescribed include carcinogenesis, mutagenesis, teratogenesis, behavioral disorders, cumulative or synergistic effects, and any other effect which may present an unreasonable risk of injury to health or the environment. The characteristics of chemical substances and mixtures for which such standards may be prescribed include persistence, acute toxicity, subacute toxicity, chronic toxicity, and any other characteristic which may present such a risk. The methodologies that may be prescribed in such standards include epidemiologic studies, serial or hierarchical tests, in vitro tests, and whole animal tests, except that before prescribing epidemiologic studies of employees, the Administrator shall consult with the Director of the National Institute for Occupational Safety and Health.

QU 3(b): Would a legislative instrument such as a national Clean Water Act modelled on the USA Clean Water Act be better suited to dealing with the problems of MPP than arrangements currently in place in Australia, for example, by facilitating a law such as the California legislation on nurdles?

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Summary

Whilst a national Clean Water Act modelled on the USA *Clean Water Act 1972* (CWA) presents some advantages over current arrangements in Australia in terms of the potential for a nationally consistent approach that involves a partnering with state governments, it would require a complete change to arrangements for environmental regulation in this country. Furthermore, legislative arrangement in the USA is said to be both overly complex and weakened by significant regulatory gaps with the result that there is no strong legislative basis at the national level for targeting marine plastic pollution.²⁹

Upfront it has to be noted that environmental laws passed at the federal level in the USA are backed by the existence of the U.S. Environment Protection Agency (EPA) as a powerful enforcement agency. Implementation of national environmental legislation is also a responsibility of state government and enforcement is often carried out jointly. The CWA is

²⁴ EPA Laws and Regulations <https://www.epa.gov/laws-regulations/summary-toxic-substances-control-act>

²⁵ NELA was unable to access the actual Inventory but located a reference to plastic beads at http://www.fedex.com/ca_english/services/international/customsforms/documents/tsca.html

²⁶ U.S. EPA Reviewing New Chemicals under the Toxic Substances Control Act (TSCA) <https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/fact-sheet-nanoscale-materials>

²⁷ EPA Laws and Regulations <https://www.epa.gov/laws-regulations/summary-toxic-substances-control-act>

²⁸ David M. Herszenhorn and John Schwartz, *Senate Votes to Overhaul Chemical Safety and Ban Beads in Beauty Products* The New York Times, Dec. 19, 2015 http://www.nytimes.com/2015/12/20/us/senate-votes-to-overhaul-chemical-safety-and-ban-beads-in-beauty-products.html?_r=0

²⁹ Jessica R Coulter, ‘Sea Change to Change The Sea: Stopping the Spread of the Pacific Garbage Patch with Small-Scale Environmental Legislation’ (2010) 51 *William and Mary Law Review*, 1959, 1972-1973.

directed to permitting processes of industrial, municipal, and other facilities and plastic pollution has not been classified as a relevant pollutant under the CWA.³⁰ Amendments to the *Californian Water Code* in 2008 (the Nurdle Law) were passed in implementation of the CWA but are limited in application to preproduction plastics. Furthermore, to NELA's knowledge, California is the only state that has taken such a step.

Clean Water Act 1972

The *Clean Water Act 1972* (CWA)³¹ established the structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. In doing so it took the following steps:³²

- gave the EPA authority to implement pollution control programs such as setting wastewater standards for industry;
- maintained existing requirements to set water quality standards for all contaminants in surface waters;
- made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions;
- funded the construction of sewage treatment plants under the construction grants program; and
- recognized the need for planning to address the critical problems posed by nonpoint source pollution.

The EPA's *National Pollutant Discharge Elimination System* (NPDES) permit program established by the CWA controls discharges. Industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. State boards and the regional boards prescribe waste discharge requirements for the discharge of waste in accordance with the NPDES permit program.³³ A violation of a state 'general permit' will also be a violation of the CWA.

Features of the CWA relevant to marine plastic pollution

Importantly, NPDES permits regulate plastic manufacturing, handling, or transportation facilities (as noted in the amendment to the California Water Code mentioned below). The CWA sets out permit requirements for discharges into waters up to 200 miles from United States shores.³⁴ Under the CWA, any industrial facility must meet the stormwater pollution management requirements of the state in which it is operating. Through this process, state water boards ensure that factories are not dumping pollutants into public waterways.

³⁰ In August 2012, a submission to the U.S. EPA was made by the Center for Biological Diversity entitled 'Petition for Water Quality Criteria for Plastic Pollution Under the Clean Water Act, 33 U.S.C. § 1314' https://www.biologicaldiversity.org/campaigns/ocean_plastics/pdfs/Petition_Plastic_WQC_08-22-2012.pdf This petition sought issuance of a new rule containing water quality criteria for plastic pollution and guidance on protecting waters from plastic pollution. Although the U.S. EPA has pledged to take steps to reduce plastic pollution it would seem that the rule has not issued:

http://www.biologicaldiversity.org/campaigns/ocean_plastics/

³¹ 33 U.S.C. §1251 et seq. (1972) U.S. Environmental Protection Agency <https://www.epa.gov/laws-regulations/summary-clean-water-act>

³² 33 U.S.C. §1251 et seq. (1972) U.S. Environmental Protection Agency <https://www.epa.gov/laws-regulations/summary-clean-water-act>

³³ As stated in the Kerkorian Bill 258 that amended the Californian Water Code in 2008.

³⁴ Id. § 1342(a)(1) ("[T]he Administrator may ... issue a permit for the discharge of any pollutant."); see also id. § 1343(c) ("The Administrator shall ... promulgate guidelines for determining the degradation of the waters of the territorial seas, the contiguous zone, and the oceans.").

A limitation in this arrangement is that the EPA lacks regulatory authority to regulate *consumer use* of plastic microbeads. The EPA only has authority to regulate plastic microbeads that enter wastewater from industry, either through effluent guidelines or pre-treatment standards. It has been said that although the EPA is addressing nanoscale materials in other areas under its TSCA authority, this lack of authority will make controlling discharges containing microbeads very difficult in the absence of new legislation.³⁵

In relation to plastic pollution generally³⁶ the CWA only mentions monitoring. It requires the EPA to support state and local programs that monitor ‘floatable material’ in order to protect public health and safety in “coastal recreation waters.”³⁷ “Floatable material” is “any foreign matter that may float or remain suspended in the water column.” (§ 1362(22)(A)). The CWA has more general provisions on monitoring waters for pathogens (§ 1346(a)(1)(A)).³⁸

Amendments to California’s Water Code in 2008

States can invoke the CWA to regulate preproduction plastic pollution. This was done by California in 2008. However, to NELA’s knowledge, California has been the only state to do so.³⁹ In 2008, the *California Water Code* (CWC) was amended to include section 13367 on “preproduction plastics” (see Attachment 1) which are defined as “plastic resin pellets and powder coloring for plastics” and best management practices (BMPs) to control discharge of plastics from a facility. The CWC sets out the minimum requirements that must be followed by the state board to implement BMPs in all permits issued under the NPDES program that regulates plastic manufacturing, handling, or transportation facilities.

However, California’s stormwater permit requirements were only updated to incorporate these requirements on 1 July 2015. It was reported at the time that more than 100 of the nearly 3,000 plastic manufacturing facilities in the state of California would have received or would soon will receive notice of their violation of stormwater permit requirements.⁴⁰

³⁵ EPA lacks authority to regulate plastic microbeads in water, Lexography, May 19, 2015 <http://www.lexology.com/library/detail.aspx?g=f438dd30-50b4-4eac-be78-fca98dd91676>

³⁶ See Coulter, Note 29.

³⁷ 33 U.S.C. § 1346(f) (2006).

³⁸ “[T]he Administrator shall publish performance criteria for ... monitoring and assessment ... of coastal recreation waters ... for pathogens and pathogen indicators.”

³⁹ <http://www.theguardian.com/vital-signs/2015/mar/27/microbead-california-pollution-nurdle-law-plastic>

⁴⁰ <http://www.theguardian.com/vital-signs/2015/mar/27/microbead-california-pollution-nurdle-law-plastic>

APPENDIX 1

California Water Code – Section 13367 on ‘preproduction plastic’⁴¹

- a)** For purposes of this chapter, "preproduction plastic" includes plastic resin pellets and powdered coloring for plastics.
- b)** (1) The state board and the regional boards shall implement a program to control discharges of preproduction plastic from point and nonpoint sources. The state board shall determine the appropriate regulatory methods to address the discharges from these point and nonpoint sources.
- (2) The state board, when developing this program, shall consult with any regional board with plastic manufacturing, handling, and transportation facilities located within the regional board's jurisdiction that has already voluntarily implemented a program to control discharges of preproduction plastic.
- c)** The program control measures shall, at a minimum, include waste discharge, monitoring, and reporting requirements that target plastic manufacturing, handling, and transportation facilities.
- d)** The program shall, at a minimum, require plastic manufacturing, handling, and transportation facilities to implement best management practices to control discharges of preproduction plastics. A facility that handles preproduction plastic shall comply with either subdivision (e) or the criteria established pursuant to subdivision (f).
- e)** At a minimum, the state board shall require the following best management practices in all permits issued under the national pollutant discharge elimination system (NPDES) program that regulate plastic manufacturing, handling, or transportation facilities:
- (1) Appropriate containment systems shall be installed at all onsite storm drain discharge locations that are down-gradient of areas where preproduction plastic is present or transferred. A facility shall install a containment system that is defined as a device or series of devices that traps all particles retained by a one millimeter mesh screen and has a design treatment capacity of not less than the peak flowrate resulting from a one-year, one-hour storm in each of the down-gradient drainage areas. When the installation of a containment system is not appropriate because one or more of a facility's down-gradient drainage areas is not discharged through a stormwater conveyance system, or when the regional board determines that a one millimeter or similar mesh screen is not appropriate at one or more down-gradient discharge locations, the regulated facility shall identify and propose for approval by the regional board technically feasible alternative storm drain control measures that are designed to achieve the same performance as a one millimeter mesh screen.
- (2) At all points of preproduction plastic transfer, measures shall be taken to prevent discharge, including, but not limited to, sealed containers durable enough so as not to rupture under typical loading and unloading activities.
- (3) At all points of preproduction plastic storage, preproduction plastic shall be stored in sealed containers that are durable enough so as not to rupture under typical loading and unloading activities.
- (4) At all points of storage and transfer of preproduction plastic, capture devices shall be in place under all transfer valves and devices used in loading, unloading, or other transfer of preproduction plastic.
- (5) A facility shall make available to its employees a vacuum or vacuum type system, for quick cleanup of fugitive preproduction plastic.

⁴¹ <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=wat&group=13001-14000&file=13367>

- f)** The state board shall include criteria for submitting a no exposure certification pursuant to Section 122.26(g) of Title 40 of the Code of Federal Regulations in all NPDES permits regulating plastic manufacturing, handling, or transportation facilities. Facilities that satisfy the no exposure certification criteria are conditionally exempt from the permitting requirements pursuant to Section 122.26 of Title 40 of the Code of Federal Regulations. The no exposure certification shall be required every five years or more frequently as determined by the state board or a regional board.
- g)** The state board and the regional boards shall implement this chapter by January 1, 2009.
- h)** Nothing in this chapter limits the authority of the state board or the regional boards to establish requirements in addition to the best management practices for the elimination of discharges of preproduction plastic.