



SSROC submission on

Cleaning Up Our Act –

Redirecting the Future of Plastic in NSW

For the attention of:

NSW Department of Planning, Industry and Environment (DPIE)
Sent via email to: plastics.plan@environment.nsw.gov.au

Introduction

The Southern Sydney Regional Organisation of Councils (SSROC) is an association of eleven councils. SSROC provides a forum for the exchange of ideas between our member councils, and an interface between governments, other councils and key bodies on issues of common interest. Together, our member councils cover a population of over 1.7 million, or one third of the population of Sydney. Our residents produce around 20% of all NSW household waste, which means that we are key players in the management of waste and recycling and the reduction of landfill.

Our Submission

Our submission includes responses to the most relevant questions to our councils from the NSW Plastic Plan detailed consultation survey at: <https://yoursay.dpie.nsw.gov.au/plastics-plan/detailed-survey>

Key Recommendations

To create the change required the NSW Plastic Plan (Plan) needs to include:

1. **Detailed funding schemes and implementation plans for each target and priority direction.**
2. **Evidence of consultation** (with plastic packaging companies, sorting facilities, recycling facilities, plastic compounders, plastic moulders, manufacturers of both virgin and recycled plastic) **to gain consensus on what types of plastic packaging are either:**
 - a. **difficult to recover in Australia, even if infrastructure was expanded, or**
 - b. **are of such low value for recycling that it would be more efficient for it to be designed out, with a plan developed for how to implement that change.**
3. **More detail and action on what economic incentives, regulatory tools and state-wide behaviour change programs will be used to enable the phase out of the single use plastics detailed in the draft Plan.**

Economic incentives and Extended Producer Responsibility (EPR) schemes and other regulatory tools are particularly needed to reduce the generation of plastic packaging by producers, which accounts for 40% of the global plastic use. Producers need to be incentivised to phase out unnecessary packaging and to ensure that the design of any new packaging is based on what is truly necessary and can be feasibly be collected, sorted and recovered within Australia (now or in the near future). The cost for collecting and recovering that packaging needs to be more equitably shared with producers. Currently, kerbside recycling councils (and in turn ratepayers) bear the cost of collecting and sorting poorly designed and unnecessary plastic through gate and contamination fees in waste contracts. The community ends up bearing the long term environmental and health costs of these products ending up in landfill.

4. **Funding and acceleration of the necessary infrastructure to process and recover plastic products from all waste streams.** The funding for sorting and recovery facilities and the development of end markets, should all be prioritised according to the waste hierarchy of recovering plastic products to their highest possible value use after all other strategies to avoid and reuse have been exhausted.
5. **More detail on the infrastructure and strategies needed to process an increase in compostable packaging items and a clear policy on applications and end markets for processed organic materials (that may include compostable packaging).**
6. **An adequately funded and resourced Plastic Research Network that collaborates with scientists at the CSIRO and Universities to develop evidence-based solutions to reducing plastic consumption and pollution. This Network should prioritise** developing design standards for plastic packaging and recycled plastic products; trialling sustainable alternatives to single use plastic; undertaking research into reducing microplastics generation from all material streams and litter routes; recovery options and end of life markets.

7. **Roll out a consumer education campaign after COVID19 restrictions have lifted to address the significant increase in single use plastic during the COVID19 period.** COVID19 also showed that clear, evidence-based messaging and coordinated interventions from government can rapidly shift businesses and consumers behaviours. This same evidence-based approach and well-resourced intervention is needed on plastic consumption and pollution as it is having the same magnitude of impact on the natural environment and other species; and therefore, the response by all sectors needs to be just as significant to create the change required.

General Comments

Reflecting the Waste Hierarchy in the Plan:

Changing plastic consumption and pollution must start in the design phase to create the shift needed, please change *Figure 1: Stages of the plastic lifestyle* on page 5 to start with Design before the “Generation/Use” stage and adjust accompanying statements such as “the best way to reduce plastic waste is to eliminate it at the point of generation”, as it needs to start at design followed by generation.

In the Outcome 2 section that looks at priorities for collection and processing, the finalised Plan should more closely follow the waste hierarchy of recovering plastic products to their highest possible value use after all other strategies to avoid and reuse have been exhausted. Further research into this is needed for example, for recovering plastic products from the kerbside recycling stream the highest value use once a product is collected and processed at a Materials Recovery Facility (MRF) could be that a product is:

1. Made back into a similar product.
2. Made into another recycled plastic product that could replace the use of virgin plastic or timber.
3. Made into oil (this requires further research it may be a higher order use if it is made back into plastic products or lower order depending on how the oil is produced and used).
4. Asphalt products (provided environmental concerns are addressed).
5. Anything left over after these uses needs to be designed out, when that is not possible energy recovery e.g. Refuse Derived Fuel (RDF) could be explored which is a high energy product that could be used to displace virgin coal resources.
6. Energy recovery from the remaining residual plastic also has the potential to become additional feed stock for future Energy from Waste (EfW) facilities.
7. Where energy recovery is not possible responsible disposal (landfill or incineration for medical waste) could be explored.

The finalised Plan should identify more options for waste avoidance: where in our society can we regulate change to stop plastics from entering the system? Strategies to address this might include:

- Develop guidelines and regulation to dictate which products require packaging and link to appropriate legislation such as the Food Act 2003 (NSW).
- The Food Act may also need to be updated to support food businesses to accept reusable cups and containers from consumers.



- Develop guidelines and regulation for the advertising industry to regulate where packaging is required (e.g. avoid plastic wrap on local newspapers, which primarily benefits the advertising industry).

Consumer Education Campaign on Single Use Plastics Needed Post COVID19: The draft Plan was written before COVID19, during the COVID19 restrictions the consumption of single use plastics and sterile wipes would have rapidly increased in supermarkets, hospitals, food businesses, other industries and by individual consumers. Online shopping (and the single use packaging that often comes with online orders) would have also increased. Food businesses that had made the significant change to supporting customers to bring reusable cups and containers for take away food and beverages have had to go back to single use plastic. Householders have been encouraged to use plastic bags to bag used tissues and wipes; large supermarkets have seen rapid increases in home delivery orders and no longer take back the plastic bags they provided with those orders. In some instances, the increase in plastics consumption may have been necessary to help stop the spread of the virus, highlighting the need for research into alternatives that address those issues without creating another problem in the form of plastic pollution (acknowledging that there are some appropriate uses like packaging of sterile medical supplies).

There are significant losses in NSW's progress in changing both business and consumer behaviour on the consumption of single use plastic that need to be addressed in the finalised Plan: habits take time to change especially during times of heightened concerns about hygiene and safety. When the COVID19 restrictions are lifted, the NSW Government should roll out an education campaign to address the rising consumption of single use plastics and wipes resulting from COVID19 and encourage reusable alternatives. COVID19 also showed that clear, evidence-based messaging from government can create significant changes rapidly from both businesses and consumers. This same evidence-based approach is needed on plastic consumption and pollution as it is having the same magnitude of impact on animal species and the natural environment as COVID19 has had on the human species; it is timely to act on it just as seriously.

Challenges with Compostable Plastics need to be addressed in the Plan:

There is considerable concern amongst SSROC councils about the infrastructure capacity to collect and process a large increase in compostable plastics and other forms of compostable packaging. The Plan needs a clear government policy on how the end product can be applied. There is also a need for standards around compostable plastics to ensure that they do not contaminate other streams and further testing may be required to ensure that they do not generate microplastics. This is especially important given the focus on food and garden organics (FOGO) and food only (FO) collections in the 20YWS issues paper, which may include placing FOGO/FO in compostable bags prior to placing in the organic kerbside bin.

More strategies to address some of the Main Sources of Microplastic Pollution :

Microplastic pollution caused by washing processes of synthetic textiles has recently been assessed as the main source of primary microplastics in the oceans¹ yet it is only briefly mentioned in the Plan and there are no actions discussed to address this growing source of microplastic pollution. With 60% of textiles now made from synthetic sources², design standards, certification for recycled textiles and labelling will need to be developed in consultation with the many different sectors involved in manufacturing, selling and

¹ De Falco, F., Di Pace, E., Cocca, M. *et al.* *The contribution of washing processes of synthetic clothes to microplastic pollution.* *Sci Rep* **9**, 6633 (2019). Located at: <https://www.nature.com/articles/s41598-019-43023->

² Australasian Circular Textiles Association's 2020 Position Paper: *A Circular Economy for the Textiles and Apparel Sector.* Located at: http://acta.global/wp-content/uploads/2020/03/ACTA_PPaper2020_FINAL.pdf



recovering textiles. Improved standards for washing machine filters may also be needed. A huge volume of research and work is needed to address both microplastic pollution from textiles and the lack of recovery of textile waste in NSW and nationally (in Victoria textile waste has the lowest recycling rate of any measured waste stream, with less than one percent (1%) being recycled into new products³; and in the SSROC region textiles are a significant contaminant in the yellow bin recycling stream⁴).

Microplastic pollution from textiles needs to be addressed in the finalised Plan and in NSW 20-year Waste and Resource Recovery Strategy. A clear recommendation from the stakeholders that participated in the Circular Economy Think Tank on Textiles held in November 2019, run by SSROC in partnership with UNSW SMaRT Centre and NSW Circular, was that a national textiles network is needed as well as a data framework for textiles waste; this network may need to be initiated in NSW and then expanded to other states.

Waverley Council has conducted microparticle litter audits of Bondi, Waverley and Tamarama beaches and have found that plastics, particularly polystyrene as well as cigarette butts are large sources of microparticle pollution on those beaches. For instance, their audit found tiny green menthol balls from the plastic filters on menthol cigarette butts showing that even something as small as a plastic cigarette butt filter continues to break down into smaller particles.

Polystyrene boards for water sports (surfing, water skiing) and fishing are commonplace, yet research is needed to assess how much this type of equipment contributes to microplastic pollution. Other outdoor foam products including trampoline mats, playground soft fall, asphalt, outdoor pet houses (that contain crumbly plastic rubber roofs that breakdown easily) as well as synthetic turf on playing fields should all be considered when researching what products are contributing the most to microplastic pollution that could be improved or designed out.

More research on the main sources of microplastic pollution in NSW is needed to justify and enable an evidence-based approach to regulating some of these products and persuading companies to implement changes to their products to reduce microplastic pollution. For example, to justify to tobacco companies that they need to change the plastic filters used in cigarettes, then evidence is needed that they are contributing to plastic pollution and sustainable alternatives need to be trialed.

Disposable Nappies need to be addressed in the Plan:

Disposable nappies are a large source of single use plastic that is not addressed in the Plan despite the large volumes collected in kerbside residual waste. Biodegradable nappies may not fully breakdown in all current residual waste facilities in NSW; if biodegradable nappies breakdown in landfill without 100% gas capture then they are also contributing to greenhouse gas (GHG) emissions. The Plan could address:

- How to work with nappy manufacturers to share the cost and take a more responsible role in dealing with this problematic waste.

³ Australasian Circular Textiles Association's 2020 Position Paper: *A Circular Economy for the Textiles and Apparel Sector*. Located at: http://acta.global/wp-content/uploads/2020/03/ACTA_PPaper2020_FINAL.pdf

⁴SSROC 2019 Waste Audit undertaken by APC available at: <https://ssroc.nsw.gov.au/ssroc-2019-waste-audit/>



- How to incentivise the use of reusable nappies (often referred to as modern cloth nappies (MCN)) including through funding the establishment of nappy library kits for borrowing or rental; as well as looking at how to incentivise reusable nappy laundromat services in both metropolitan and regional cities (wherever there is a laundromat in NSW this service could be included; one example is [Lavenderia](#)). Washing machines may need standards for better filters to reduce the risk of reusable cloth nappies (made from a variety of synthetic and natural fibres) contributing to microplastic pollution.
- Incentivise the development of nappy recycling technology and collection systems in NSW as these items are recycled into their three main materials (paper pulp, plastic, and super absorbent polymer) in other countries.

Support Innovation:

- Incentivise sustainable design: Plastics and packaging manufacturers could design packaging materials that can be recycled indefinitely whilst still maintaining quality; limiting colours, and the polymers used may enable production of recycled plastics with qualities comparable to those of virgin sources.
- Develop rigid plastic packaging container regulation to require plastic resin manufacturers to use at least 25% of recycled resins in their products.
- Consider researching small scale infrastructure that could be used by food businesses with limited space to sterilise reusable cups and containers (For example, a steamer machine that could sit on a bench to sterilise a coffee cup before a staff member filled it up).
- Consider planning controls for new commercial developments for food businesses to have space allocated for small, compact dishwashers to incentivise reuse over disposables.



Outcome 1: Reduce plastic waste generation

Priority direction 1: Harness people power to create a fundamental shift in the way we use plastic

Note: The question numbers in our submission match the detailed consultation survey available online.

Q6. How can government make it easier to use less plastic? Choose all that apply:

- √ Set up plastic-free precincts (areas where businesses and organisations work towards being single-use plastic free): *One potential model is Boomerang Alliance's Plastic Free Places program.*
- √ Support reusable packaging initiatives; please also add "and a favourable regulatory environment to enable this".
- √ Develop infrastructure to help people avoid plastic (like drinking-water fountains to reduce use of single-use plastic water bottles).
- √ Encourage people to make good choices when they think about using or buying plastic.
- √ **Other (please specify):**
 - Support circular design of packaging and products based on mandatory recycled content targets.
 - Support expanded product stewardship schemes.
 - Provide funding for vital reprocessing infrastructure to make recycled plastic more available to downstream remanufacturing processes.
 - Support and explore the expansion of reverse logistics systems such as CHEP's to enable the expanded use and recovery of reusable materials.
 - Provide a separate grant funding program (separate to council BWRP non-contestable funding) to install water refill station infrastructure in public places as discussed in the Case Study on Page 12 of the draft plan. Given that local government or private land participants will be responsible for maintaining this infrastructure, 100% of the initial infrastructure should be funded out of the waste levy.
 - Deliver a NSW Government state-wide education program on the impact of plastic litter and single use plastics (targeting adults and schools), including digital media, streaming services, cinema ads and print media. These resources should be funded out of the waste levy.
 - Provide funding for industry and research bodies on plastic alternatives including compostable bioplastics (produced from renewable biomass sources), including systems to recover and compost this material.
 - Fund soft plastic collection at drop off events and community recycling facilities including sourcing processors and end markets.
 - Provide a separate grant funding program for compostable bioplastic dog poo bags and associated composting solutions. Bayside Council is currently trialling solutions in their off-leash dog parks.
 - Facilitate research into affordable, robust solutions to replace plastic litter collection bags (such as those used by local government and Clean Up Australia Day participants) with more sustainable solutions.
 - Provide an implementation plan and detail the new sources of funding needed in the finalised Plan.

Q7. How can businesses make it easier to use less plastic?

Choose all that apply

- √ Become part of a plastic-free precinct
- √ Engage in reusable packaging initiatives
- √ Avoid making or using plastic where possible
- √ Avoid giving plastic away for free
- √ Use other materials, instead of plastic, where appropriate.
- √ **Other (please specify):**
 - Consider regulation changes under the Food Act to allow for and regulate the use reusable containers.
 - Food outlets could be required to keep single use plastic takeaway packaging behind the counter, and to provide it only when requested for takeaway items at a set charge (similar to supermarkets charging for plastic bags). Alternatively, food outlets could offer a discount to customers that bring their own reusable container (similar to keep cup initiatives) or eat in.
 - Collection and recycling of plastic should be required at food courts, shopping centres, cinemas, sports stadiums, school, university and college campuses, which should require more source separation.
 - Businesses should be incentivised and rewarded for reducing plastic packaging.
 - Establish partnerships with Chamber of Commerce organisations across the state and other business sector groups to deliver education programs and provide resources for businesses that use high volume of single use plastics.

Priority direction 2: Set design standards for plastic consumer items

Q8. Do you support government introducing mandatory design standards for certain plastic products? If 'Yes' what products or materials should have mandatory design standards? If 'Yes' what mandatory design standards would significantly reduce plastic waste generation?

Yes, mandatory design standards are needed for a variety of plastic products to gradually eliminate the use of plastics that are difficult to recycle and ensure that plastic products are designed so that they are made from recycled plastic and can be recovered, melted and repurposed again at the end of life stage within Australia.

Mandatory design standards are urgently needed for:

- Plastic packaging (especially for food and beverages, but also for plastic packaging used to transport goods as this volume of waste is growing with the increase in online shopping), particularly soft plastics, polystyrene, expanded polystyrene, composite packaging (more than one type of plastic or plastic with another material) and coloured plastics.
- Plastic used in the manufacture of electronic items and in the packaging of these products, including soft plastics and expanded polystyrene.
- Plastic used in toys, games and sports items. Many toys contain tiny parts that easily become litter and cannot be recycled in kerbside recycling.
- Plastic used in construction, landscaping and furniture (stadium seating, garbage bins, bollards, decking, construction materials, traffic control equipment, railway sleepers etc.) could all be made from recycled plastic recovered from Australian sources rather than from imported virgin plastic; mandatory design standards would facilitate this and create local jobs.



- Products that do not require plastic packaging – provide guidelines where plastic packaging is not essential and sustainable alternatives when packaging is needed.
- Coloured plastic – discuss with plastic manufacturers which colours such as black should be avoided in product design to increase recyclability.

Difficult to recycle plastics such as PVC and some coloured plastics should be phased out in design standards in consultation with Material Recovery Facilities (MRFs), plastic processors and manufacturers. Recently, SSROC, UNSW SMaRT Centre and NSW Circular have undertaken phone interviews with some manufacturers of recycled plastics as part of our Circular Economy Think Tank Series (Think Tank series) to look at how to recover more plastics from the kerbside recycling stream particularly polypropylene (PE), high density polyethylene (HDPE), polystyrene (PS) and expanded polystyrene (EPS). There was broad consensus amongst MRFs, plastic processors and manufacturers that PVC in food and beverage packaging needs to be phased out as it contaminates the mix and poses additional safety risks. More consultation with MRFs, plastic processors and manufacturers is needed to design out difficult to recover packaging products; for example, a plastic processing facility suggested:

“State and federal government need to standardise plastic packaging; e.g. a cap on a coke bottle is made from HDPE; and a cap on a Powerade drink bottle is made from PP - when you are processing this stuff this creates contamination problems because there is no way to easily separate the two different types of caps; so end products become a mixture of recycled polymers which can impact end uses; if they said every cap has to be either HDPE or PP (not both) that would be very helpful.”⁵

Design standards for recycled plastic products and clear consumer labelling are needed now that there is a growing number of recycled plastic products on the market. For example, there are a number of recycled plastic timber substitutes with varying amount of recycled plastic content and some containing high amounts of imported wood flour. Composite timber products also may not be recyclable at the end of their life whereas some 100% recycled plastic landscaping products can be melted down and recycled repeatedly. Labelling or certification standards and a consumer education campaign should be funded and prioritised to enable consumers including government agencies to make informed choices on these products.

Specifications for minimum recycled content in products must be established and met by industry before industry are allowed to claim a product has recycled content. This provides certainty to suppliers and purchasers of products with recycled content that the term ‘recycled content’ is not being used as ‘green wash’ or as a way for industry to falsely meet procurement standards or capitalise on unsubstantiated claims. The standard should distinguish between imported recycled plastic and recycled plastic sourced from Australia.

As an example, specifications for minimum recycled content in road-making products have been agreed successfully through a joint initiative between SSROC and Transport for NSW (TfNSW), who are preparing for a joint procurement of civil works materials with recycled crushed glass to stimulate end markets and infrastructure investment. Drawing on established TfNSW and AUS-SPEC specifications for allowable percentages of recycled crushed glass in various asphalt materials, engineers advised on the preferred range of this

⁵ Quote from phone interviews with processor of recycled plastic as part of SSROC, NSW Circular and UNSW SMaRT Circular Economy Think Tank Series. Final report will be shared with DPIE when available, expect July 2020.



glass in each material, including a minimum that suppliers would need to meet to be able to claim their product contains recycled crushed glass. This model could be effectively applied to a range of plastic products to provide certainty to the market, give consumers confidence, and prevent industry from capitalising on false claims.

Importers and brand owners who import products must be held accountable for adopting or encouraging their suppliers to adopt design standards or minimum recycled/recyclable content requirements, by incentivising meeting targets or through penalties when targets are not met.

Many types of plastic packaging are being used for consumer goods without any clear labelling or directions for the consumer on whether it can be recycled within Australia; the Australasian Recycled Label (ARL) should be rolled out to all plastic packaging where appropriate. As new packaging is developed to meet the target of a minimum of 30% recycled plastic then this will require design standards and specific labelling, as well as a consumer awareness campaign. The finalised plan should address this as part of the actions required to meet that target.

Page 13 of the draft Plan mentions the APCO industry target “to shift to 100% of all packaging being recyclable, reusable or compostable by 2025.” Whilst admirable, until we have the facilities in NSW to collect and process these materials, they may still end up in landfill. The target should be amended to indicate “recyclable, reusable or compostable using collection systems and processing technologies readily available in NSW. As an example, EPS is currently recyclable, but the systems are not in place to make it economically and logistically feasible for all SSROC councils.

Priority direction 3: Phase out key single-use plastic items

Q9. Do you support the phase out of lightweight plastic bags? (less than 35 microns and including ‘degradable’ and ‘compostable’ plastics)

Yes - Near term: Many retailers are already making this transition, demonstrating that industry and community support for this policy has laid the groundwork for a state-wide ban. The same regulations on lightweight plastic bags must apply to retailers of all sizes, especially considering that bags from smaller retailers, such as convenience stores, tend to end up as litter. It is particularly imperative that a phase-out includes standard, degradable, biodegradable, and compostable plastic bags, as these are similarly problematic, and that the government establish standardised criteria and regulation on industry use of the terms degradable, biodegradable, and compostable plastics.

Q10. Do you support the phase out of heavier/boutique plastic bags?

Yes - Near term: The phase-out of plastic bags should apply to all types of single-use plastic bags. At a minimum, supermarkets should charge for these (many do already) and offer cardboard boxes at checkout, as Aldi and Bunnings currently do. Other retail outlets such as department stores will need encouragement to transition to paper bags and other alternatives. Given enough notice, retailers will have time to respond with alternatives and schemes to encourage responsible consumption among consumers. Consultation with supermarkets may be needed to resolve what types of reusable bags or take back options are most effective for home delivery services (a growing trend with COVID19) that can also



address hygiene concerns about taking back plastic bags from consumers. If plastic bags have to be used are lightweight bags a better alternative if customers cannot return them.

Q11. Do you support the phase out of plastic straws?

Yes - Near term: With the exception that less mobile or disabled people who require a straw should have access to them and this needs to be discussed with disability advocacy organisations. Retail and hospitality venues should not offer them unless requested for an essential reason and they should be kept behind the counter, ideally, they are phased out of supermarkets and retail stores stocking party supplies as well. Straws are a priority for an education campaign.

Q12. Do you support the phase out of disposable plastic plates and bowls?

Yes - Medium term: We support a planned phase-out of these items to allow for the collection systems and infrastructure needed to process alternative certified compostable bowls and plates. Government could offer funding to enable businesses to transition to systems utilising reusable bowls and plates, and fund the urgently needed infrastructure, collection, and education systems to enable such a significant change in takeaway food containers.

Voluntary adoption by restaurants and food businesses of returnable take out containers (perhaps with a redeemable deposit) should be encouraged by NSW Government Grants for trials, economic incentives and case studies. This is currently available to a very limited extent and should be expanded. Hygiene standards for such a service will also need to be documented in NSW Government guidelines.

Q13. Do you support the phase out of disposable plastic cutlery?

Yes - Near term (but medium term may be more realistic): Alternatives exist (washing reusable cutlery if not used for takeaway, with bamboo, wood or bring your own options for takeaway food) but not the processing infrastructure to compost them. Food businesses may need tax incentives and be supported by a consumer behaviour change state program to make this substantial shift. Food delivery service Deliveroo, for example, has introduced a tick box on its app so that customers need to opt in to receive disposable cutlery, which has reduced cutlery use by over 90%. This model should be made mandatory for all food delivery services and takeaway food orders. As with Q12, funding is urgently needed for infrastructure to process compostable alternatives and also for collection and education systems.

Q14. Do you support the phase out of disposable plastic stirrers?

Yes - Near term: Disposable plastic stirrers are rarely necessary. In controlled environments such as hospitals, plastic could be replaced with wooden or compostable stirrers combined with on-site processing of compostable waste. Hospitals could be supported (financially and otherwise) to explore the adoption of food waste dehydrators or similar that could deal with both their food waste and disposable cutlery and stirrers. As with Q12 and 13, funding is urgently needed for infrastructure to process compostable alternatives and also for collection and education systems.

Q15. Do you support the phase out of disposable plastic cups?

Yes - Near term:

Disposable plastic cups should be phased out entirely in favour of reusable and BYO cups wherever possible. In controlled environments such as food venues and hospitals, reusable cups should be mandated for stay-in customers and, where necessary, compostable cups if supported by an appropriate collection and recovery system. In controlled environments such as events, the WISE or Globelet reusable cup systems have been very successful to replace disposable cups. In uncontrolled environments, BYO cup models such as Responsible Cafes, Green Caffein, and The Cup Exchange (TCX) have been effective. See comments above for hospital and medical applications. Again, collection systems, processing capacity, clear legislation on end use and processing conditions (i.e. whether they can be processed with FOGO collections), a clear labelling system to Australian compostable certification, end of waste guidelines, and end markets for compostable products need to be better established before they can be introduced on a wide scale. Meanwhile, technology to sort and recycle cups with multiple materials, such as paper on the outside and plastic lining on the inside, must be supported to increase recovery. There should also be clear guidelines on the use and processing of Polylactic Acid (PLA) versus fibre-based compostable materials linked to processing capacity as technology able to process these varies. UNSW SMaRT Centre has made Caesarstone using disposable coffee cups as a key input.

Q16. Do you support the phase out of expanded polystyrene (EPS) food and beverage containers?

Yes – Medium Term: This lightweight material is a major source of plastic pollution. However, more research may be needed on whether there is a sustainable alternative that performs like EPS in insulating food and liquids. If not, this transition may not be achievable for food businesses selling hot food and takeaway ice cream packs. Funding is needed for research to determine if there is a viable alternative to EPS packaging that insulates food as effectively and can be recovered easily.

Q17. Do you support the phase out of all oxo-degradable plastics (a type of plastic that can break up into microplastics faster and may cause other environmental harm)?

Yes – Near Term.

There is a high risk that members of the community will mistake these plastics for biodegradable compostable plastics derived from organic sources which can cause issues for the community and recyclers.

Q18. Are there other plastics that should be phased out?

Consultation is needed with recycling and resource recovery facilities in Australia to confirm which types of packaging are difficult to recycle and/or find end markets for. Interviews with some recycling facilities and manufacturers of recycled plastics as part of our Circular Economy Think Tank Series indicated that PVC food and beverage containers need to be phased out. Other items needing further consultation with MRFs, plastic processors and manufacturers are PVC labels, fruit stickers, PS trays and some types of coloured plastic (e.g. coloured PET can contaminate a high value stream of clear PET that has good recovery rates); as well as plastic packaging categorised as number seven (acrylic, polycarbonate, nylon, fibreglass and others).



Aseptic (long life) containers are widely used for long life products consumed in vast quantities, yet there are few (if any) facilities that will sort, process and recover them in Australia. There are likely opportunities to reduce the number of aseptic containers in NSW. It appears that these containers, particularly for milk, are a legacy issue for areas that lack refrigeration. As refrigeration is now so common there may be an opportunity to phase out the use of this type of packaging for products that do not require it, such as juice poppers.

EPS packaging used around appliances and fragile household items should be phased out as this is very bulky and difficult for consumers to recycle (in Sydney, we are aware of only two community recycling centres that accept EPS packaging although some individual councils may accept it at their drop off events). Whilst there are some manufacturers of recycled plastic that will take recovered EPS and PS (such as [Integrated Recycling](#) in Mildura and there may be others in NSW and interstate); it would need to be densified and collected in large enough volumes to make transportation to the recycling facility economically viable. For example, one manufacturer shared that a Double B truck full of compacted EPS once densified reduced to just half a standard pallet of transportable waste. An expansion of collection points for EPS is needed, and business and MRFs need the machinery to densify it (or process it onsite using technologies like [Polywaste](#)) so that it is viable to transport to recycling facilities.

There are some cellulose, corrugated cardboard or wood pulp alternatives to EPS packaging on the market; the NSW Government could provide financial support for manufacturers to undertake case studies and trials of alternatives to EPS packaging or support further research to address any concerns about the performance of these alternatives in protecting fragile goods. Funding is also needed for collection and processing systems for these alternatives, as some, such as cellulose are not suitable for kerbside recycling bins.

In SSROC's recent submission on the Product Stewardship Amendment (Packaging and Plastics) Bill 2019, we also recommended that balloons (not just balloon straws), plastic glitter and confetti are added to the list of prohibited plastics on page 14 of the Bill, as these items are very difficult to clean up and are harmful to the environment. More research may be needed on sustainable alternatives to glitter and balloons.

Plastic glitter or other microparticles in cosmetics should preferably be phased out or alternatively, at least a labelling system should be developed to indicate cosmetic and beauty products that contain plastic particles. Whilst ingredients are already labelled, the typical consumer does not have the required knowledge to determine whether any of the listed ingredients are a plastic material.

In addition, the Plan should include strategies to phase out or regulate the growing volume of both light and industrial forms of plastic "cling" wrap including:

- Plastic wrap on newspapers, magazines and advertising as these items continue to be a significant contaminant in the yellow recycling stream for SSROC councils⁶. Whilst the trend towards digital news may gradually reduce this, even a small amount in the recycling stream can cause major disruptions in the sorting process, just as plastic bags do. If the state government were to regulate a change that advertising

⁶ SSROC 2019 Waste Audit conducted by APC is the seventh regional audit undertaken over a time span of 20 years, available at: <https://ssroc.nsw.gov.au/ssroc-2019-waste-audit/>



cannot be wrapped in plastic, that would achieve a great reduction in the soft plastic waste. Local councils have advocated with local newspapers to make this change with no result. It must come from the state government.

- Consider regulation change, incentives and/or penalties for supermarkets and fruit and vegetable suppliers to phase out unnecessary plastic packaging on goods packed by their stores (such as cling wrap and polystyrene trays on prepacked fruit and vegetables) and on producing unnecessary promotional plastic toys and promotional gifts for shoppers. Woolworths produced cardboard Christmas collectables one year showing there are easy alternatives to stickers and tiny plastic toy giveaways.
- A growing recent trend at airports is to wrap luggage in large amounts of industrial strength plastic wrap, this may only cost travellers \$10-15 but the true cost of manufacturing and disposing of this single use product is much higher. The NSW government could ask all airports to remove the machines and this unnecessary use of plastic that have little proven benefits for the consumer in protecting their luggage. Sustainable alternatives could be explored by the NSW Plastic Research Network.
- Similarly, the same type of wrap is often used around pallets in a number of industries and further research is needed to see which applications are actually necessary considering many sectors were able to move pallets with loaded items without wrap in the past.
- Takeaway containers from food outlets are often wrapped in plastic cling wrap to avoid leakage; designing different take away containers that do not leak and that are made from a polymer that is easy to recycle may be needed and could be presented as a design challenge to plastic manufacturers. For example, one manufacturer interviewed as part of the Think Tank series suggested that changing the polymers used in standard takeaway containers from polypropylene homo-polymer to polypropylene impact co-polymer would increase recovery of this type of packaging but this needs to be further explored and tested with both the waste and plastic manufacturing industry. A consumer campaign to get customers to bring their own container is also needed, and would be a quick, simple and effective improvement.
- Whilst not a significant issue for metropolitan councils, many regional areas are seeing large volumes of agricultural plastic film used in a range of crops as well as hay bales; with some recycled plastic manufacturers ([Plastic Forests](#) and Integrated Recycling) collecting these and using them to make recycled plastic products. Further research needs to be undertaken with the agricultural sector and regional councils in NSW to better understand the volumes and types of agricultural film used and how much is recovered and by who; considering that many agricultural areas will not be located near a recycling facility and transporting this agricultural film may not be economically viable. Woven polypropylene bags should also be included in this research.
- Consider including additional plastic containers in the Container Deposit Scheme (i.e. those listed as non-eligible after consultation with councils, MRFs and plastic manufacturers to determine which types of products have the best recycling potential).

Plastic children's toys with toxic or difficult to recycle types of plastics need to be phased out. This includes promotional items often given out as giveaways at large retail chains and at events. PVC can still be found in children toys on the Australia marketplace despite a [product safety ban](#) highlighting the need for more enforcement and regulation in this space on imported plastic products like toys. Certain types of plastic can be banned for safety reasons: this should extend to environmental safety – if certain types of plastic cannot be



recycled or recovered, they will at best end in landfill or at worst result in environmental pollution that then becomes a health issue as well.

There are many examples of unnecessary plastic packaging on gift cards, food and beverage products, in dry cleaning services, merchandise in both the retail and event sector, mini fish-shaped soy sauce bottles and decorative plastic in sushi trays; and a variety of household items. A sustainable replacement for alcohol wipes may be needed after COVID19, so that synthetic wipes can be phased out once viable alternatives are readily available. An example is new antibacterial wipes which are biodegradable, compostable and made from bamboo fibres (although further testing may be needed to see if these breakdown adequately in NSW facilities). A penalty or economic incentive for manufacturers and retailers to phase out unnecessary plastic packaging may be needed to enable change, as well as collection or take back schemes.

Q19. What should the NSW Government consider when implementing these phase outs?

- Are alternatives available and are there collection and processing options for these alternatives in Australia?
- Are there vulnerable groups that will be disproportionately disadvantaged by these phase-outs, such as people with disabilities, people with medical issues or the elderly?
- How much NSW Government funding will be required to implement these phase-outs successfully?
- What is the life cycle analysis of the proposed alternatives?
- What hygiene concerns, such as those presented by the COVID panic, will require a delay or rethink of phase outs?
- What research is needed to provide more clarity regarding viable non-plastic alternatives and how much NSW Government funding is required to make this happen?
- What percentage of Australian derived recycled content is required in products as an alternative to a full phase out?
- Have plastic sorting and reprocessing industries been consulted in the determination of this phase out including priorities and timeframes?
- Consultation with industry expert organisations on non-plastic alternatives such as the Australian Organics and Recycling Associations (AORA) and the Australasian Bioplastics Association.
- How to manage and incentivise phase-out of plastic items and packaging imported from overseas?



Outcome 2: Make the most of our plastic resources

Q20. Do you support the target to triple the proportion of plastic we recycle in NSW across all sectors and streams by 2030?

SSROC supports this target if it is accompanied by considerable government funding for recycling and reprocessing facilities in NSW and a clear action plan for how to achieve this target for each stream for both domestic and imported plastic products. The facilities currently available to our councils are unlikely to be able to achieve this target for municipal waste streams. Australia imports a large volume of plastic, and sorting and recycling facilities can find it difficult to find end markets for some types of plastics collected in the kerbside stream particularly PVC, LDPE, PS, EPS and plastics categorised as number seven (acrylic, polycarbonate, nylon, fibreglass and others). Urgent investment in facilities to collect, sort, reprocess and recover plastic resources collected in the kerbside recycling stream is needed in suitable locations with adequate transport links to serve metropolitan and regional councils.

It is very difficult for our councils to track and access data on what happens to materials collected in the kerbside recycling stream after they have been processed by the Material Recovering Facilities (MRFs). To achieve this target, NSW Government may need to have a larger regulation role in how these materials are traded in the Australian marketplace once they leave a MRF. This is a really complex recycled plastics supply chain and marketplace that the NSW Government needs further analysis on to achieve this target. Some of the manufacturers using recycled plastics in their products that SSROC interviewed for the Think Tank series, purchased their recycled plastic from a variety of sources including waste brokers, directly from MRFs, from a processor who could clean, sort and bale the plastic; or from a plastic compounder who can process it into pellets or flakes, or directly from a trusted plastic manufacturing company who has offcuts (pre-consumer plastic to sell which were cited as a more reliable quality to use as feedstock). There are many steps and players in both the trading and processing of these plastic materials before they are ready to be delivered to a company that can use them as input material for their recycled plastic products. This part of the supply chain urgently needs improvement and greater transparency to achieve this target, illustrated by this insight from a recycled plastic manufacturer:

“If MRFs are upscaling and separating products that they are receiving then its understanding that person in the middle – who reprocesses the plastics. We need some tier one style companies involved in that part of the supply chain and it requires more government regulation. It needs to be handled by professional companies - ideally you have those businesses located next to a MRF like in a waste precinct then you can have a better business case for lifecycle analysis, using renewables and reducing truck movements.”⁷

If the amount of plastic recycled is tripled in NSW, then end markets for this recycled plastic also needs to at least triple in Australia within ten years. This is a great aspirational goal that needs to be accompanied by detailed implementation plans, monitoring and evaluation plans, transparency regarding data capture and reporting and dedicated funding in the finalised NSW Plastics Plan, this is discussed more in our submission under Q27.

⁷ Quote from phone interviews with manufacturers of recycled plastic as part of SSROC, NSW Circular and UNSW SMaRT Circular Economy Think Tank Series. Final report will be shared with DPIE when available, expect July 2020.

Priority direction 4: Make producers of plastic items more responsible for collecting and recycling in NSW

Q21. Do you support schemes where producers take greater responsibility for the plastics they generate? Are there challenges with such schemes?

PS and EPR schemes need to prioritise avoiding and reducing the generation of waste from products in the design and manufacturing stages. Economic incentives are needed to ensure that product designers and manufacturers reduce the use of materials that are difficult to recover. For example, consider a tax on products that are packaged in plastic (with exemptions for medical applications where it is necessary) to make nude products more appealing to the consumer.

Effective PS and EPR schemes should ensure that there is a shared responsibility between producers, retailers and consumers. Councils are often put in a position to collect and organise processing for products at the end of their life, as well as educating the public on the correct recycling and disposal of these products. Councils currently carry most of the financial burden of dealing with the waste from products rather than the producers and manufacturers. There should be more effective actions and regulations to ensure that the burden of recycling and disposing of these plastics products is shared equitably.

Page 16-17 of the draft Plan states ‘An example of a composite material is liquid paperboard, which is used in items like takeaway coffee cups. Liquid paperboard (LPB) can be made of very thin layers of paper, aluminium and plastic that are glued together, and it can be difficult to cost-effectively separate these materials for recycling.’ It is our understanding that some LPB, such as traditional milk cartons may not be a composite material and are considered a high value paper product. Clarity on this should be sought from producers, MRF operators and paper/cardboard recyclers so that only problematic LPB materials are targeted for change, while the valuable containers are incorporated into the appropriate recycling stream.

Q22. What plastic items or materials could be considered for such schemes?

- Priority should be given to encouraging some of the biggest toy manufacturers to develop EPS schemes with collection points in toy stores. Lego for instance retains its value so it is often donated or sold second hand but if it is worn or broken the Lego website states [“If your bricks are worn and no longer suitable to play with, they can be recycled with the rest of your household plastic”](#); yet in Australia small plastic toys like Lego would be contaminants in the kerbside stream. Global toy manufacturers need to be responsible for collecting and recycling plastics used in toys wherever they are sold.
- Dry cleaners use a huge amount of plastic covers on dry cleaned clothes when perhaps there are reusable alternatives that customers could take back when they next get their clothes dry cleaned; or at least dry cleaners could use a recycled form of plastic.
- Fishing hooks, sinkers, bait/fly's, commercial fishing nets and equipment. Fishing line, hooks, sinkers and plastic bait are cheap to purchase and easy to lose, snap or break. Fishing stores could provide collection points for broken plastic fishing accessories that are sent for recycling.
- EPS and PS packaging.

Manufacturers should be given targets to utilise the recycled plastics, and their manufacturing capacity approval could be based on their commitment to use recycled plastic.

Q23. Are there challenges with such schemes?

There are many challenges with these schemes including:

- Transport from collection to recycling.
- The lack of collection points funded by producers or retailers and a lack of processing infrastructure.
- Increasing consumption of composite materials that are either not covered by a scheme or are very difficult to recycle (e.g. growing consumption in latex mattresses and pillows that cannot easily be recycled).
- Residents wanting to recycle a variety of materials at convenient collection points that are out of scope or hazardous (e.g. councils receive large volumes of electronic items at e-waste collection events that are out of scope in the National Television and Computer Recycling Scheme).
- Most schemes are voluntary, resulting in freeloaders and not all producers contributing to collecting and recovering waste. One of the outcomes is that councils and in turn rate payers unfairly bear the costs of collecting and often processing these materials rather than producers.

Priority direction 5: Mandate 30% minimum recycled content in plastic packaging in NSW by 2025

Q25. Do you support a requirement for all new plastic packaging to contain at least 30% recycled plastic content by 2025?

SSROC supports a minimum requirement of 30% recycled plastic content if it is sourced from Australia as that helps create end markets for recycled plastic products however, we are concerned that there is insufficient infrastructure capacity and funding to achieve this target in less than five years. Modelling of the various impacts this target may have is needed to avoid any perverse outcomes. For example, this target may result in an increase in imported recycled plastic pellets or flakes unless infrastructure development is accelerated in Australia; or it cause additional transportation or lifecycle costs. It could also lead to an increase in the kerbside presentation of composite plastic products if not carefully designed. Closing the loop on plastic packaging, requires standards for plastic packaging to include not just 30% recycled plastic but also to be repeatedly recycled. The final Plastic Plan will need: a clear implementation strategy; the necessary funding to achieve the target; and leadership from packaging companies to realise it.

Again, the design standards for all packaging should have criteria that focus on the top of the waste hierarchy: avoid plastic packaging that is not necessary.



Q26. Do you support all new plastic items to be made with recycled plastic?

Ideally yes, but further consultation with industry associations such as the Plastics Industry Manufacturers of Australia (PIMA) and the Society of Plastics Engineers (SPE) is required to understand and address any barriers to this, and to identify any applications where virgin plastic is truly necessary. For example, any barriers to using recycled plastic in engineered plastic products designed to carry different weight loads, to using recycled plastic in food grade plastic containers or in medical applications and if these barriers can be addressed through further research and specifications.

The NSW Government should clarify with producers and health professionals that no exemptions to this requirement are required on medical or WHS grounds. Where medical or WHS grounds are raised, investigations will be needed into how to overcome these issues.

Q27. Would a requirement to use recycled plastic drive demand for recycled content?

Currently, the volume of plastic collected for recycling exceeds demand for remanufactured recycled products. Creating end markets for recycled plastic needs a combination of strategies including:

- Preferencing for recycled plastic materials manufactured in Australia from locally recovered plastic in procurements by all government agencies; SSROC councils have signed an agreement to preference products made with recycled content. Introduce regulation that requires state agencies to purchase products with recycled content or remanufactured products if the cost is reasonable and the quality is fit for purpose.
- Funding and support to progress Australian Standards and specifications for products made from recycled materials for engineered plastic products.
- Professional development and targeted education on circular procurement for government agencies to address the knowledge gap in buying recycled materials and to shift business as usual approaches to procurement.
- Providing NSW Government funding or low interest loans for recycling and re-manufacturing facilities in NSW to upgrade their facilities to increase the types of plastics they can use in recycled plastic products and to enable them to install machinery that can clean (remove contaminants), sort and recover these materials more efficiently.
- Work closely with plastic industry organisations including Plastics Industry Manufacturers of Australia (PIMA) and the Society of Plastics Engineers (SPE) to understand why plastic moulders use virgin, imported plastic and how government can work with industry to develop end markets. For example, develop incentives for manufacturers and remanufacturers to utilise domestically recovered materials to reduce transport distance and emissions.
- The Plan mentions the low cost of plastic, both plastic processors and manufacturers interviewed as part of the Think Tank series said that virgin material is more price-competitive than recycled materials. This significant barrier needs to be addressed to achieve the targets in the Plan. More analysis and consultation with the plastic manufacturing sector is needed on ways to make recycled plastic more competitive with the often-cheaper virgin plastic and imported recycled plastic. For instance, would a tax or tariff on imported virgin plastic be appropriate and how would that impact the sector?



- The Plan also needs to address another barrier raised by plastic manufacturers in the Think Tank series which is that their input stock (e.g. plastic pellets or flakes) needs to be a consistent mix with quality feedstock as they have specific recipes for their moulded plastic. This means sorting and processing technologies in NSW may need to be upgraded or regulated to improve the quality of materials collected through the kerbside recycling stream. Some further market analysis may be needed comparing the cost and quality of different types polymers in a virgin or recycled form in both domestic and export markets, to enable the NSW Government to set the right strategies for the Plan to influence that market. SSROC recommends having a targeted consultation with plastic manufacturers through PIMA and SPE to ensure that they are engaged in this plan and that they participate in any targets and funding schemes established in the finalised Plan.

Q28. Are there barriers to creating a reliable supply of locally recycled materials for reprocessing?

There are a number of barriers to creating a reliable supply of locally recycled materials already identified in responses to previous questions. To summarise these are:

- Lack of investment of waste levy or other funds into the recycling industry.
- Inadequate infrastructure for sorting, reprocessing and remanufacturing in NSW and in suitable locations to facilitate a reliable supply.
- Contamination of higher quality recycled materials generated from food and liquid, dirt, PVC labels and soft plastics.
- Difficulties in identifying, sorting and baling single types of plastic materials (that may need further sorting based on colour or polymer type) to the standards required for remanufacturing.
- The quality of materials. Plastic moulders have specific requirements to meet to manufacture their products and require consistent quality feedstock that is uniform and clean.
- The lack of transparency on how recycled materials are sold and processed once they leave a MRF; the complexity of this part of the supply chain requires deeper understanding and possibly regulation by the NSW Government.
- Design standards for recycled plastic products, clear consumer labelling and a consumer awareness campaign (e.g. similar to the reach of the “Made in Australia” label) is needed to create significant shift in the marketplace for recycled plastic products that are sourced and made in Australia.
- Competition with overseas suppliers.
- Competition with virgin materials.

Priority direction 6: Support demand and industry capacity

29. How can NSW Government procurement best encourage increased use of recycled plastic?

See response to question 27 above. Additionally, page 22 of the draft Plan says that “The NSW Government currently applies a weighting of 15% for social and environmental issues when it assesses procurement tenders,” This is likely to be too low to encourage the use of recycled plastic and as suggested, a specific weighting for recycled plastic content in particular goods should be considered.



Q30. What type of funding would encourage investment in the plastics recycling sector?

- Direct grants
- Low-interest loans

Likely a combination of both, SSROC recommends having a targeted consultation with plastic manufacturers through PIMA and SPE, and other companies (i.e. those that make recycled plastic products but which not fall within an industry association) to ensure that they are engaged and participate in any targets and funding schemes established in the finalised Plan. There is a high risk that with the COVID19 crisis that this Plan will fail to engage enough with manufacturing companies and the plastics recycling sector, which are a critical part of the solution.

Another option is for an environmental tax on non-recycled content products (where recycled content would be suitable) that goes into funding the creation of those that are made from recycled content, or that funds research into sustainable alternatives.

Outcome 3: Reduce plastic waste leakage

Proposed target: Reduce plastic litter by 25% by item by 2025

32. Do you support the target to reduce plastic litter by 25% by 2025?

Clarification is needed on what the baseline level that the target will be based on; is it a further 25% reduction on 2020 levels? Some of our councils that actively implement litter prevention programs have commented that the target may be feasible with sufficient funding support (for litter bin infrastructure), broader education and state regulation; others commented it may not be realistic. More consultation is needed on this target.

Some of the challenges with this target are that it does not address priority litter categories such as:

1. Cigarette butt litter.
2. Microplastics.

A percentage reduction in litter by item would be challenging to quantify. Would each microparticle or cigarette butt be considered a litter item? More details around this is required before this target is finalised. Previously NSW had a target based on litter volume, which was also problematic as it did not capture smaller litter items.

More than one metric (for instance, litter item and the volume of litter) may be needed to measure litter in NSW and clear definitions of what litter items/categories are being measured. Litter grant programs should be restructured to support not only projects that can be delivered within one year, but also behaviour change litter reduction programs that need to be sustained over longer periods such as five years.

SSROC recommends the removal the waste levy on litter collected by councils, either collected by litter picks (employees or external parties) or deposited in council provided litter bins. There is currently no viable resource recovery option for this material. The CDS provides an incentive to recover some litter but the remainder, which is either left in the environment or placed in council provided litter bins, is too contaminated to have a recovery option under current NSW government policy. The purpose of the levy is to encourage



resource recovery: where there is no resource recovery option, there is no purpose to the waste levy.

Ratepayers already pay the cost of landfilling litter, some of which is brought in by non-rate-paying residents. This is currently about \$100 per tonne. Adding the Waste Levy to this amount unreasonably increases the cost of litter disposal and takes money away from the community which could be spent on resource recovery initiatives. The NSW Government has historically offered a levy exemption for litter collected as part of the yearly Clean Up Australia Day events and this exemption should equally apply to all council collected litter. This would make waste management more affordable to NSW residents, without affecting resource recovery.

Priority direction 7: Use extended producer responsibility schemes to fund litter collection and end-of-life plastic management

Q33. Do you support schemes that enable producers to be more responsible for the collection and management of plastic items like cigarette butts and fishing gear?

Yes, cigarette companies and fishing gear suppliers may need economic or regulatory incentives to trial:

- Compostable alternatives to plastic filters for cigarettes and the plastic wrap on cigarette boxes.
- Research into biodegradable alternatives to fishing hooks, sinkers, bait/fly's, commercial fishing nets and equipment. Fishing line, hooks, sinkers and plastic bait are cheap to purchase and easy to lose, snap or break.
- Collection points in fishing stores for broken plastic fishing accessories that are sent for recycling.
- Cigarette companies should pay for the collection, processing and recycling of cigarette butts
- Soft plastics manufacturers could also pay for these products to be recovered and made into new products.
- Producers of these products should also support education and behaviour change initiatives with their customers.

Priority direction 8: Invest in infrastructure that can better manage plastic before it causes harm

Q34. Do you support the NSW Government investing in infrastructure to prevent plastic leaking into the environment?

Yes. NSW Government investment in infrastructure is urgently needed especially in and near metropolitan areas where residential encroachment is fast reducing land availability for recycling and remanufacturing infrastructure. This is one of the most important issues to our councils. As a result, SSROC is collaborating closely with DPIE, the EPA, and other metropolitan regional organisations of councils to quantify current municipal and commercial and industrial material flows, projected material flows for the next 20 years, current infrastructure capacity, and a future infrastructure needs analysis from generation to end markets; due to be delivered by early July 2020.



Q35. What infrastructure or processes would most effectively prevent plastic leakage? Choose all that apply

- √ Improved wastewater treatment infrastructure to reduce microplastics entering our oceans and being spread on soil in bio solids
- √ Mandated sweeping practices at plastic manufacturing facilities to prevent plastic pellets escaping into the environment
- √ Improved drinking water filtration to remove microplastics from our drinking water
- √ Improved stormwater and pollutant traps to prevent plastic litter entering our waterways
- √ **Other (please specify):**
 - Urgently needed sorting, processing and recycling and re-manufacturing infrastructure to recover plastics.
 - Inclusion of stormwater retention tanks (also natural wetland areas) that filter microparticles.
 - Include more monitoring and evaluation procedures to ensure the design of any system is meeting its objectives and if not, adjust accordingly.
 - Funding for stormwater and pollution traps and bins to collect plastic wastes, such as the Seabins used in the case study on Page 26 of the draft Plan. This should include a waste levy exemption for the non-recoverable materials collected from these traps and bins.

Outcome 4: Improve our understanding of the future of plastics

Proposed target: Make NSW a leader in national and international research on plastics

Q36. Do you support the proposed target to make NSW a leader in national and international research on plastics?

Yes. SSROC supports this target. Innovative research is already conducted by research centres, universities, local government and the waste and manufacturing sectors. More funding and support are needed in research and development in the use of recycled plastics to achieve all the targets discussed in the Plan.

A timeframe for achieving this is required, including specific key outcomes that will confirm NSW as a leader in this research. Funding to support this timeframe and key outcomes also needs to be identified.

Funding should be considered for research, pilots and commercial scale projects.



Priority direction 9: Set up a NSW plastics research network by 2021

Q37. Do you support the establishment of a NSW Plastic Research Network?

SSROC supports this if it is adequately funded with appropriate staffing resources (two or three people would not be adequate). Funding is needed for an appropriately large team of staff), with separate funding for research projects and representation by different sectors including manufacturing, waste, packaging, retail and government. Long term funding (minimum of five years) for this network is needed, with annual key performance criteria linked to targets in the final Plan, with continual evaluation to ensure outcomes are met.

Research areas to support targets in the plan should include design standards, labelling and end markets for different recycled plastic products and particularly for recycled plastic packaging to meet the 30% minimum recycled content. Further research is also needed into the impact of compostable plastics and synthetic textile fibres, as well as trialling sustainable alternatives to light and industrial cling wrap, EPS, PS, PVC, nappies, fishing gear, plastic cigarette filters, takeaway food and beverage plastic and solar panel plastic parts amongst others. Data collection and management could also be another function of this Network.

The network should focus on collaboration with scientists at SIMS, CSIRO and Universities to research evidence-based approaches to regulation and innovative solutions; to gain a better understanding of where the plastic waste ends up, litter routes, recovery options and end of life markets.

Priority direction 10: Support commercialisation of research-driven plastics solutions

Q38. Do you support the NSW Government funding the commercialisation of research-driven plastics solutions?

Yes, but more information is needed on which areas will be prioritised for funding in the final Plan so that we can provide more comment on this question. A high priority for SSROC councils is having research to inform which types of technologies and infrastructure are needed to avoid and recover more plastics from municipal waste; this then guides procurement and waste contracts.

Facilitate research into affordable, robust solutions to replace plastic litter bags (such as those used by local government and Clean Up Australia Day participants) with more sustainable solutions.

Q39. Do you need support from government to commercialise a viable plastics management solution and bring it to market?

Yes. Further funding to leverage joint council procurement to close the loop on the materials collected through the kerbside recycling stream. There is potential for SSROC's Procure Recycled Project, which initially focuses on recycled crushed glass, to next focus on using procurement to help create a pull market for recycled plastics that could be used by councils in infrastructure, construction projects, traffic control equipment, upgrades to community facilities, garbage bins, stadium seating, stationery and office supplies.



Local government is a small percentage of the purchasing market as public place infrastructure is only replaced about every 7 years and construction projects are intermittent. There are other limitations to including recycled content in products such as rubbish bins as it may reduce the lifespan of the infrastructure, requiring more frequent replacement. All these aspects must be considered when identifying the most sustainable solution.

The NSW Government can help fund and provide resources for procurement policy guidelines, capacity-building to develop staff capability to assess different materials, standards that provide assurance of quality, along with: procedures for implementation and monitoring and evaluation; research to inform best practice; and funding for projects to test the incorporation of recycled content in infrastructure.

Provide a separate grant funding program (in addition to council BWRP non-contestable funding) to install water station infrastructure in public places as discussed in the Case Study on Page 12 of the draft plan. Given that local government or private land participants will be responsible for maintaining this infrastructure, the initial infrastructure should be 100% funded from the waste levy.

NSW Government state-wide education program on the impact of plastic litter and single use plastics across a number of digital and face to face platforms is needed (digital media, social media, television, streaming services, cinema advertisements, print media and schools education programs). These resources should be funded out of the waste levy.

Provide funding for industry and research bodies on plastic alternatives including compostable bioplastics, as well as systems to recover and compost this material. Fund soft plastic collection at drop off events/facilities/CRCs including sourcing processors and end markets.

Provide a separate grant funding program for compostable bioplastic dog poo bags and associated composting solutions. Bayside Council is currently trialling solutions in their off-leash dog parks.

Q40. What is the most important action the NSW Government can take to minimise the impact of plastics and why do you think this?

Use economic incentives and regulatory options to design out problematic plastics, invest and fund infrastructure, circular procurement, education, research and development as outlined in this submission and have clear implementation plans and budgets for all targets in the NSW Plastic Plan. Focus on waste avoidance and support initiatives that avoid plastic altogether, perhaps even targeting problem plastics like soft plastic as a priority.



Thank you for the opportunity to provide feedback on the NSW Plastic Plan and we hope through further engagement with key stakeholders that the finalised Plan will help support NSW's transition to a circular economy and galvanise all sectors to reduce plastic pollution. For any enquiries, please contact me on 02 8396 3800 or email: ssroc@ssroc.nsw.gov.au

A handwritten signature in black ink that reads 'H Sloan'.

Helen Sloan

**Acting General Manager
Southern Sydney Regional Organisation of Councils**