SSROC submission on the

Minister's Product Stewardship Priority List Nominations

Submitted to the Australian Government Department of Agriculture, Water and Environment (DAWE) via the online survey at:

https://haveyoursay.awe.gov.au/ministers-product-stewardship-priority-list-nominations/survey_tools/ministers-product-stewardship-priority-list-nominations

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1. *Nominator:* Helen Sloan, CEO of Southern Sydney Regional Organisation of Councils

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3. *Briefly describe the product or material you are nominating for inclusion on the Minister's priority list.*

    a) Fridges, freezers and air conditioning units (both portable and fixed air conditioning units).
    b) Carpets and rugs.
    c) Manchester (towels, sheets, quilts etc).
    d) Disposable nappies.
    e) Household furniture.
    f) Medical sharps.

4. *Provide one or more measurable and realistic target(s) for the nominated product or material that could be achieved once the proposed actions have been taken. (e.g. waste to landfill reduced by x%, increased market share for reusable / recycled product).*

    a) **Fridges, freezers and air conditioning units** – A reduction in the release of harmful refrigerant gases, increased recovery of the metal in these bulky whitegoods and a reduction in tonnes to landfill for these products.

    b) **Carpets and rugs** – Reduction of carpets disposed to landfill (from the municipal waste stream (MSW), construction and demolition (C&D) waste stream and the commercial and industrial (C&I) waste stream). Carpet brand owners could be encouraged to set up a recycling target for worn carpets that couldn't be reused (e.g. Dunlop is recycling pillow top from old mattresses into carpet underlay).

    c) **Manchester** – Reduction of manchester disposed to landfill (from both the MSW and the C&I waste stream). Manchester brand owners could be encouraged to set a recovery target where worn manchester that couldn't be reused could be recycled into other products.

    d) **Disposable Nappies** – Nappies make up over 6% of household waste bins in our region, with no recycling options. The nappy market is highly concentrated, with around 5 providers representing the significant majority of all disposable nappy products sold. Nappy waste generators are relatively easy to identify and target, including childcare centres, nursing homes, and families with small children or users of incontinence products. Reasonable targets could start at collection of 30% of all nappy waste and recovery rates of 80% of materials collected—representing over 150,000 tonnes of waste diverted from landfill per year in Australia (higher than any other current product stewardship scheme in the country). These targets could increase over time.

    e) **Household furniture** – Increase in the number of major furniture retailers/manufacturers offering take back and repair schemes (currently whilst some manufacturers may offer a repair during a warranty period, we are only aware of IKEA offering a take back service for second-hand IKEA furniture). A reduction in the presentation of furniture in household clean up collections (in the SSROC region of 11 Sydney councils, furniture represented 30% of the household clean up stream, of this, 4,080 tonnes was reusable furniture (SSROC Clean Up Audit 2014).

f) **Medical sharps** – Adequately resourced collection and disposal scheme for medical sharps across Australia and a reduction in the number of sharps found in MSW stream and litter audits.

5. *Provide evidence that the proposed actions are likely to be led, driven and achieved by industry groups, consumer groups, local, state and territory governments and / or others that have sufficient capacity and resources.*

a) Fridges, freezers and air conditioning units

Some retailers already offer to take back old fridges, freezers and portable air conditioning units already when a customer purchases a new one however, this needs to be standardised across the market so that all retailers/brand owners offer this service. Fixed air conditioning units that require an onsite installer may also offer to collect old units. A product stewardship scheme is needed to ensure all sellers of these products both collect, degas and recover fridges, freezers and air conditioners appropriately.

Already there an industry body (the Australian Refrigeration Council) that administers refrigerant handling licences and refrigerant trading authorisations, what is missing is a standardised national approach to recovering fridges, freezes and air conditioning units that doesn't just look at the refrigerant gas issue in isolation but also considers:

- A national approach to recovering these units for recycling that meets the legislative requirements for safely disposing of refrigerant gases and that looks at some of the logistical issues (e.g. it is much more affordable to collect and degas multiple units at a time so there are some aggregation issues that would benefit from a product stewardship scheme).
- Fairer cost sharing arrangements between manufacturers and councils that have to collect these units when placed on the kerbside.
- National data aggregation on units recovered and degassed.

b) Carpets

Already at least a few carpet manufacturers offer a take back scheme and have identified ways to recycle some types of carpets or rugs but it has not been adopted by majority of manufacturers/retailers. Carpets and rugs due to their bulk and weight are often delivered to households providing a logistical solution for collection of old units although not all households may dispose of carpets and rugs just when buying a new one so there would need to be consideration for other collection possibilities in a take back scheme.

c) Manchester

Sheets, towels, doonas and other types of manchester once worn or damaged currently have little pathways for recovery. Technologies exist now to separate polyester and cotton fibres that are typically combined in these products (e.g. Blocktexx). Carpets and manchester products can incorporate recycled fibres and this could be an opportunity to leverage the Australian Government's recently announced Remade campaign to champion Australian products made from recycled materials.

d) Disposable Nappies

The nappy industry is highly concentrated. Recent reports indicate that one supplier (Kimberly-Clark, provider of Huggies, Depend and other products) represents around 60% of the market, and combined with only four other providers (Aldi, Coles,

Woolworths and BabyLove) makes up the significant majority of the market. These organisations have sufficient resources to collect and process nappies if encouraged or mandated by product stewardship legislation.

Profit margins on these products can be relatively high, and even a cost of 1c or 2c per item could represent over $40M per annum (based on public media reporting of over 5 million products used per day), sufficient revenue to develop processing infrastructure and incentivise collection.

Recycling of disposable nappies is proven overseas, including shredding, recovery of plastic components, and composting the organic components that make up over 40% of unused nappies, along with the waste products. Recycling has also previously been achieved in Victoria and New Zealand, however, both of those facilities have since closed (primarily for economic reasons) demonstrating the need for industry product stewardship for these products that otherwise are entirely sent to landfill.

e) **Household furniture** – Australian Furnishing Association are leading the development of an Australian Furnishing Products Stewardship Scheme but nothing on actual furniture. Federal government funding has been provided to design a product stewardship scheme for commercial office furniture but nothing for household furniture yet it's a significant portion of the domestic waste stream. A stewardship program for household furniture could capitalise on the learnings already captured for office furniture but designed with different requirements in mind due to the types of furniture and collection methods.

f) **Medical sharps** – Collection systems are already in place in health venues and in community collection points because of the serious health and safety concerns with medical sharps. What is missing is a reliable funding stream for the collection of medical sharps outside of hospitals and health centres which a product stewardship scheme could address. Some councils are completely reliant on the NSW EPA's grant scheme 'Better Waste and Recycling Fund' that is forecasted to be massively reduced in 2022-23, putting the continuing of this service at risk. The collection of medical sharps is not necessarily classified as an eligible domestic waste charge either which means councils may not be able to fund it through their waste budgets. A product stewardship scheme for medical sharps would help ensure that there are adequate collection points across Australia, that this service is not reliant on grants and that manufacturers of medical sharps share the costs for recovering and safely disposing of this waste. Some consideration may be needed in the design of the scheme to ensure that vulnerable or disadvantaged people reliant on using medical sharps for health reasons aren't negatively impacted.

6. *Upload a document to support your answer.*

   Textiles Action Plan for Sydney councils (which contains data on carpets).

7. *Provide evidence that the product or material is sold in more than one state or territory – consistent with the product stewardship criteria set out in section 14 of the Recycling and Waste Reduction Act 2020.*

   All the products nominated are sold throughout Australia and imported from overseas.

8. *Which criteria does this product or material address – consistent with the product stewardship criteria set out in section 14 of the Recycling and Waste Reduction Act 2020 [choose as many as are relevant]:*

- *the product contains hazardous substances;*
- *there is the potential to significantly increase the conservation of materials used in the product or the recovery of resources (including materials and energy) from waste from the product;*
- *there is the potential to significantly reduce the impact that the product has on the environment, or that substances in the product have on the environment, or on the health or safety of humans.*

9. *Provide evidence of how this applies in relation to the product or material*

a) Fridges, freezers and air conditioning units – All three criteria. Due to the harmful refrigerant gases that are known GHGs and there is a legislative requirement to degas them before compressing them. These units contain recyclable steel but need to be degassed first to recover it. Not all materials in these units are recoverable and they are high embodied energy products at all lifecycle stages (production, use and end of life). An analysis of these impacts is well documented on the DAWE website at https://www.awe.gov.au/environment/protection/ozone/rac/consumers

b) Carpet, rugs and manchester – Second and third criteria, as they are high embodied energy products that typically require large amounts of energy, water and sometimes chemicals in the production stage. They also have the potential to use recycled materials in production and to be recovered (most carpets, sheets, old towels etc.) are not currently recovered yet they are bulky, heavy and costly to landfill. As well as taking up valuable space in landfill, these products also have a carbon impact at the end of life stage. For councils utilising Mechanical Biological Treatment (MBT) of residual waste, some textiles are known to contain Polybrominated Diphenyl Ethers (PBDEs) that require constant monitoring following the NSW EPA's revision of MBT outputs in 2019. At high concentrations PBDEs will affect the end-use case for the recovered organics fraction. The percentage of carpets and manchester that are treated with fire retardants is unknown.

c) Disposable Nappies – Second and third criteria because disposable nappies in Australia are generally made of materials including plastic polymers, which have high embedded energy and can sometimes be recovered, and softwood pulp, which breaks down into methane in landfill but can be composted into a valuable product if recovered. Overall, disposable nappies have a high environmental impact including water use, energy use and greenhouse emissions. Recovery of these products can reduce this impact on our environment.

d) Household furniture – Second and third criteria because it constitutes 7% of the MSW stream, a high percentage of furniture is suitable for reuse and many furniture products contain harmful substances such as formaldehyde.

e) Medical sharps – All criteria because syringes and needles can have infectious properties and can cause injury if littered or placed in household or public waste bins. If disposed of in household or public street bins they can injure workers, effect processing machinery, and create contamination issues at the point of disposal.

10. *What are the current negative environmental and health impacts of this product or material? At what stages of the product's or material's lifecycle do these impacts occur? How will these impacts increase, decrease, or remain unchanged if action is taken and if action is not taken?*

    Fridges, freezers and air conditioning units – These are high embodied products made from composite materials, whilst the steel can be recovered other materials currently are not recovered. These products are heavy and bulky and take up space in landfill and if not degassed probably release harmful refrigerant gases. When left on the kerbside they create safety issues.

    Carpets are a significant portion of the textile waste in both the C&I waste stream (estimated as 50% of the textiles landfilled); and in the MSW stream (of the 10% of textiles represented in council clean up collections, carpets are estimated at between third and a half of the textiles waste). See attached *Textiles Action Plan for Sydney councils* for more information on this data and on the environmental impacts of landfilling textiles.

    For **disposable nappies**, environmental impacts occur at both production and disposal. While governments and industry can aim to reduce impacts in production (e.g. encouraging reusable nappies), currently 95% of parents use disposable nappies and this is unlikely to change significantly. There are greater opportunities to reduce impacts at point of disposal, through product stewardship that requires investment in processing and incentivises collection. If product stewardship is not encouraged through national policy or legislation then hundreds of thousands of tonnes of disposable nappies will continue to be sent to landfill. There is currently no alternative to disposal for these products, and without investment from manufacturers the economics for collection and processing are unlikely to be sustainable.

    Household furniture - The large volumes of furniture waste that is largely not reused or recycled is destined for landfill or energy from waste (low down on the waste hierarchy) and represents a significant loss of valuable resources. Furniture (like fridges and carpets) are bulky, heavy and costly to landfill.

    Medical sharps - There are environmental impacts at the point of manufacture in the materials used to create medical sharps and the single use packaging for needles and syringes, as well as health, safety and environmental issues in the use and disposal phases if medical sharps are littered and not disposed of correctly.

11. *What actions need to be taken at relevant steps in the product's lifecycle to help achieve the product stewardship targets described in Question 4? How do you propose these actions will be conducted and who is responsible for these actions? What timeframes are required to complete the proposed actions?*

For all nominated items, actions and targets need to be identified through a consultation process with the organisations involved in the supply chain to consider issues such as if a levy for the recycling cost is needed and how some of the recovery and collection challenges could be resolved. The consultation process could also determine what is in scope for each product category, for example, whether for medical sharps category you would need to include disposable blades and scissors; and if the manchester category should encompass all bedding items except mattresses.

12. *How likely is the adoption by industry of the proposed actions (e.g. technology is ready and available at scale, action could be economically viable, action is easy to implement). Are there any key barriers that need addressing for large-scale adoption of new practices?*

Fridges, freezers and air conditioning units: See *Cold Hard Facts 3 2019 Update report* commissioned by DAWE for an analysis of this industry. The technology is available, the barriers are dealing with some of the collection and recovering logistics which can be expensive but can be overcome with adequate planning, resources and education.

Carpets, rugs and manchester: Recycling of mixed fibres at a commercial scale may not be accessible for all manufacturers in Australia yet this needs to be tested with manufacturers because if some are already able to recycle some types of carpets and rugs then more consultation is needed to understand what the barriers and opportunities are.

Disposable Nappies: All major importers and producers of disposable nappy products should contribute towards reducing the environmental impact of these currently non-recyclable products. To set a fair playing field, all producers could contribute a set amount per nappy to a single product stewardship arrangement, under either a co-regulatory or mandatory model. Prices could be based on infrastructure and collection costs, but even 1c or 2c per nappy would greatly improve the economics for nappy recycling. This arrangement would be responsible for developing processing facilities capable of recovering at least a minimum recovery target, such as 80% of nappy material received. Recycling processes for these products are already proven overseas and in Australia.

Collection of waste nappies could be managed by this arrangement, contracted to other organisations, or through incentivising Councils. Childcare facilities and nursing homes already commonly have separate nappy bins and collections to manage odour and reduce risks of disease spread.

Collection from households with users of incontinence pads or with small children could be managed by separate, small nappy bins. This could be promoted to households by noting environmental impacts of nappies, by providing more frequent collections to manage odour, by offering bin cleaning services for nappy bins, and by offering a small financial incentive for households taking part (such as a box of free nappies per year, also offsetting any price impacts of product stewardship for these families). More discussion with councils would be needed on suitable incentives and collection logistics however, it should be noted that already there are collection models and existing collection services for individual problem waste items from households such as RecycleSmart (collecting e-waste, used clothing, soft plastics etc.) and collection companies offering a free, serviced bin for eligible containers in NSW's CDS scheme for households that meet their requirements).

Household furniture – The main barriers are collection logistics and costs however, these can be overcome with planning, consultation with key stakeholders and education of consumers and retailers. There are already opportunities in place such as some retailers offering to take back old major appliances when a new one is purchased which could be extended to furniture, retailers could also follow IKEA's example of taking back their brand of furniture when it meets their requirements and offering more flexible and affordable repair options. Old furniture that can't be reused can be broken down into the major recoverable materials in the way that mattresses are be recycled already. Learnings from both the emerging stewardship schemes for mattresses and office furniture could be applied to household furniture.

A product stewardship scheme could facilitate fairer cost sharing arrangements with manufacturers for the recovery of these nominated products, provide the necessary centralisation of data and a coordinated approach to recovering recyclable materials from these products. For many of these nominated items, councils rather than manufacturers usually bear the costs of collection and recycling these products when placed at the kerbside or illegally dumped. Collection and processing of these products comes at a very high cost (particularly for fridges and furniture due to their weight and collection challenges) and currently councils and the communities they serve unfairly bear the end of life costs for these products.

13. *How will the proposed action contribute to Australia meeting its domestic and international commitments on waste and possibly greenhouse gas emissions reduction? For example, how will they contribute to targets set out in the National Waste Policy Action Plan.*

Establishing product stewardship schemes for the nominated products will help meet targets 2, 3, 4 and 7 in the National Waste Policy Action plan 2019, reduce carbon emissions and help support the Australian Government's Remade campaign.

14. How will outcomes be measured, and the achievement of targets be demonstrated?

Product stewardship schemes for the nominated products should provide the necessary centralisation of data and reporting to measure outcomes and achievements. An overall target for all product stewardship schemes should be to facilitate fairer cost sharing arrangements with manufacturers for the recovery of these nominated products.

15. What adverse environmental and health impacts may the proposed action have – if any?

This needs to be identified through consultation with organisations in the supply chain for each product nominated to understand if there would be any adverse outcomes. For many of these nominated items, they already have significant environmental and health impacts and currently councils and the communities they serve unfairly bear the end of life economic, safety and environmental costs for all these products when placed at the kerbside or illegally dumped.