

Submission to the NSW 20 Year Waste Strategy Issues Paper

June 2020

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Opening

LGNSW welcomes the opportunity to contribute to the development of the NSW 20 Year Waste Strategy (20YWS). Local Government NSW (LGNSW) is the peak body for local government in NSW, representing NSW general purpose councils and related entities. LGNSW facilitates the development of an effective community-based system of local government in the State.

The 20YWS presents the opportunity to transition NSW to a circular economy that will provide long-term economic, social and environmental benefits for NSW. LGNSW broadly supports the proposed directions contained in the issues paper and detailed comments on the consultative survey is provided in this submission. LGNSW has been involved in several consultations about the strategy attending DPIE online workshops on 20 to 24 April 2020 to hear the NSW Government's direction and input from NSW local governments. LGNSW has also run two online workshops to gather the views of local government.

LGNSW has concerns the issues paper focusses too much on the collection of municipal solid waste (MSW) which represents less than 20% of total waste, with limited actions to address construction and demolition waste and commercial and industrial waste. A focus on recycling is a narrow, closed loop approach and local government would like to work with the NSW Government to take a broader whole of economy approach. The past approach of leaving the end of the supply chain to manage products at their end-of-life results in limited opportunities and costs borne by ratepayers. The beginning of the supply chain offers more opportunity to avoid waste, design in reuse opportunities, stimulate innovation and promote economic growth through jobs in design and manufacture. This will require regulatory change to prevent resources becoming waste; and changes to the planning system to allow for waste precincts and infrastructure and enable collection systems.

Background

The NSW Waste and Resource Recovery Strategy 2013-2021 is due to end shortly. On 8 March 2020 the NSW Government released the issues paper, *Cleaning Up Our Act: The Future for Waste and Resource Recovery in NSW*, to help shape the development of a 20-Year Waste Strategy for NSW (20YWS). Substantial work has been undertaken by DPIE and EPA in situational, benchmarking and foresighting studies to inform its development.

The 20YWS will ultimately set the future direction of the state's waste and recovery system. The issues paper identifies the challenges and proposes a vision for the NSW circular economy. The paper covers four Directions: (1) generate less waste; (2) improve what is collected and how and reviewing the waste levy; (3) planning for future infrastructure (both in terms of the land/location of infrastructure, as well as increasing capacity), and (4) creating end markets (eg through procurement).

Overall the Directions and Options presented in the issues paper map well to LGNSW's Save our Recycling campaign, and many issues of interest and concern to local government are addressed.

Summary of Recommendations to NSW Government

Key recommendations are in **bold**.

To generate less waste LGNSW recommends:

- **Avoidance and reuse be key focus areas.**
- Food waste prior to food sale or service be prioritised.
- Local, small scale 'closed loop' economies for reuse, repair and sharing be prioritised.

For state-wide targets LGNSW recommends:

- Strong collaboration with stakeholders, including local government, industry and producers on target development.
- Flexible targets to accommodate changing consumer, operational and regulatory environments.
- Localised targets reflecting diversity across regions and local governments.
- Staged targets for all waste streams – MSW, C&I and C&D that recognise both existing and potential service offerings.

To design out waste LGNSW recommends the NSW Government examine the recommendations to design out waste presented in our submissions to both the Product Stewardship Act Review and the Product Impact Management prioritisation process.

For awareness and behavioural change LGNSW recommends:

- A framework and strategies for awareness and behaviour change to enable the success of the 20YWS in partnership with local government.
- **Funded delivery of state-wide campaigns on the importance of recycling, to encourage the right way to recycle, the purchase of products with recycled content, as well as promote waste avoidance, underpinned by funded on-the-ground initiatives delivered by local government.**

For targets for government agencies LGNSW recommends:

- Mandatory NSW Government agency targets and a reporting framework to drive down waste and increase resource recovery and recycled content use in government agency operations and spheres of control e.g. schools, hospitals, compliance against SSI/SSD approvals.
- A local government reporting framework for waste and resource recovery that accounts for geographic and economic variations and is the basis for a staged approach to mandatory targets.

For regulatory safeguards LGNSW recommends:

- A market development approach for the NSW Resource Recovery Framework, similar to Sustainable Victoria's or South Australia's Green Industries model.
- Better regulations in new developments to enable waste to be collected safely and efficiently for best resource recovery outcomes.
- Improved waste tracking to guard against improper use and illegal dumping.

For recovering food and garden organics LGNSW recommends:

- **A research framework for regulatory and scientific certainty for household FOGO/FO.**
- Any mandate for recovering organics applies across the supply chain, spreading infrastructure and processing costs, starting with large producers of food waste.
- **Focus on mandating the outcome sought (eg ban organics from landfill) in a flexible and staged way rather than the process.**
- **An action plan to identify and fill gaps in organic processing capacity and end markets.**
- Make it easy for precincts and residential developments to purchase and use organic processing equipment by addressing legislative barriers to uptake.
- State level engagement with the community about the NSW Government direction and engagement to build a social licence for any mandated change.
- **Considerable investment of resources to ensure no significant cost increase for ratepayers.**
- State level support for contract negotiation and contamination management programs.

To improve the separation of materials for recycling across local government LGNSW recommends exploring these actions:

- Extend CDS to take more glass and/or introduce precinct-based glass collection funded by producers.
- **Introduce NSW producer take back scheme for large appliance packaging through the retail sector.**
- **Introduce precinct based collection of soft plastics to extend the existing away from home recycling.**
- Investigate the feasibility of using spare capacity in the kerbside recycling bin to collect bagged recycling such as soft plastics and textiles in too poor a quality to donate.
- Phase out packaging materials that cannot be recycled in Australia, for example, polymer coated paper board or build processing facilities in Australia paid by producer/importer.
- Fund new technologies for recycling PVC, MDF and impregnated wood collected in clean ups.
- **Use planning controls to design and incentivise precinct level collection, sorting and primary processing of waste and recycling onsite.**
- Introduce better systems to recycle away from home such as for coffee cups and food packaging to reduce litter and recycling contamination issues.

- Extend recycling services in regional and remote communities supported by the waste levy or producer responsibility.
- Trial technologies for user pay charging of waste via a pay as you through waste management system.

For network-based waste drop-off centres LGNSW recommends:

- Funding models be developed, supported by producers, to expand community collection points.
- The planning system be leveraged to provide a retail takeback network for bulky packaging waste from large consumer goods.
- Open up CRC contracts to neighbouring local governments to encourage them to provide collection points for lower risk small CRC items (batteries, small e-waste).

To stimulate innovation, LGNSW recommends:

- Provide policy certainty for resource recovery projects and investigate mechanisms to make all businesses in the supply chain responsible for waste to encourage innovation across the chain.
- Provide grant funding specifically for joint or social enterprise ventures that target innovation in reuse and recycling and development of new markets.
- **Invest more of the waste levy to foster innovation to transition NSW to the circular economy.**
- Support commercialisation of innovation and incentivise those with problems to collaborate with problem solvers.
- **Be the demand to drive new innovations to market, for example, government procurement as the anchor consumer for the innovation.**
- Transparently and openly partner with local government to trial innovative and cost effective kerbside and away from home collection systems.
- Work with the sector to make it world's best practice and export know-how and skills to neighbouring countries.
- Facilitate simplified public private partnerships such as partnerships found in Denmark's State of Green project and the Ellen MacArthur Foundation's New Plastics Economy Action Plan.
- Facilitate knowledge sharing networks that share information and encourage deep collaboration at the right scale such as the UK's National Industrial Symbiosis Program and the Scottish Institute for Remanufacture.

To increase joint procurement, LGNSW recommends:

- **Partner with regional waste organisations to identify opportunities and challenges and break down barriers to joint local government procurement, building on the work already undertaken.**

- Review the Local Government Regulation tendering requirements to identify improvements and work to streamline Australian Competition and Consumer Commission requirements.
- Develop a centre of excellence for local government procurement that identifies opportunities for joint procurement based on material flows and benefits to ratepayers, and provides support to regional waste groups and others that wish to initiate and deliver joint procurement.

To get the settings right for the waste levy **LGNSW recommends a review of the waste levy as a priority to inform the development and implementation framework of the 20YWS.**

To plan for future infrastructure LGNSW recommends:

- **A NSW waste and resource recovery infrastructure plan and roadmap for implementation that meets identified landfill, recycling and resource recovery needs and includes circular economy solutions.**
- **Fund local government regional plans to address the needs of our cities and regions, which relate to the NSW plan.**
- **Priority infrastructure and other projects procured by local government in implementing regional plans are funded, particularly where markets fail.**
- Planning instruments preference priority waste infrastructure in industrial zones, for example:
 - Prioritise planning and infrastructure to reuse what we can – reuse and repair shops.
 - Change the infrastructure SEPP to identify preferred industrial land for waste and resource recovery infrastructure with adequate provisions for infrastructure in all new developments.
 - Escalate waste and recycling provisions within the planning policy framework including early consideration of waste at LEP stage and embedding waste in DCPs.
 - Find ways to protect existing essential infrastructure from encroachment and change of use, including essential transport links.
- Reform the landfill regulatory framework to enable planning of landfill infrastructure.

To create markets, LGNSW recommends exploring these actions:

- Deliver creative incentives such as fee waiver programs for local governments and businesses that use recycled content/process recyclables.
- **Provide support via the waste levy for recycling, such as transport subsidies for regional areas, until market failures are addressed, rather than leaving everything to the market.**
- Mandate minimum recycling content in all large-scale construction projects.
- Share recycling market intelligence.
- Create markets for recycled content at the design and tender stages of state significant developments.
- Give priority access to government markets if companies can demonstrate above target resource recovery levels.

For recycled content in government procurement LGNSW recommends:

- **Phase in NSW Government recycled content procurement targets and associated baselines, monitoring and reporting systems.**
- Provide support to Local Government Procurement to enhance the Sustainable Choice Database to include recycled materials and more products containing recycled content and provide the functionality to track and report on local government expenditure on recycled materials and products containing recycled content.
- Take a staged, individual approach towards introducing recycled content targets for local government procurement to enable supporting tools and databases to be developed and for regional and local variations to be taken into account.
- Fund further research, development and delivery of recycling technologies and products generated from recyclables, particularly by local or regional councils.

For standards for recycled content LGNSW recommends:

- Reviewing existing standards to ensure the use of recycled materials and products with recycled content is fairly considered for use.
- Investigating the feasibility of a MRF glass certification program where facilities commit to installing glass clean up equipment and implement procedures to produce higher quality material.

For matching suppliers with markets LGNSW recommends:

- **Facilitate a brokering service to match suppliers with markets to increase the uptake of recycled materials, for example building on CSIRO's ASPIRE model and utilising Local Government Procurement platforms.**
- The development and implementation of overarching procurement guidelines tailored to local government, for example through Local Government Procurement.
- All levels of government consider the adoption of the ISO 20400:2017 Sustainable Procurement – Guidance standard to embed sustainability across their procurement process.

A range of other issues warranted inclusion in the issues paper. These issues are important to the development of the 20YWS and the funding initiative to support strategy implementation.

LGNSW recommends:

- Further work on avoidance and reuse and recognition of the priority of this.
- Further work on actions for construction and demolition waste and commercial and industrial waste.
- Capabilities, resources and funding models as well as collaborative models for delivery of actions.
- **The role of regional, local and industry sector strategies and regional coordination models in supporting the NSW strategy and funding streams to support these.**

- The importance and role of collaboration, partnerships and capacity building, such as NSW Circular.
- **Transitional arrangements to retain experienced and knowledgeable local government waste and resource recovery staff funding through the WLRM initiative to ensure there are the human resources to build on previous strategy work to quickly start to implement the new strategy.**
- **The issues paper does touch on monitoring and reporting but does not outline the pathway or direction for the implementation and funding of the strategy. This should be discussed.**
- Industry development, jobs and growth and capacity building to evolve the sector to an advanced industry sector, including training and qualifications.
- An independent evaluation of the current strategy and funding mechanisms should form part of the set of research papers that inform strategy development.
- **Consultation on a time responsive integrated waste data framework essential for policy, regulation, innovation and investment.**

Response

1. Do you agree that it is important to transition New South Wales into a circular economy, supported by waste and resource recovery services that are sustainable, reliable and affordable?

Yes. A circular economy approach is supported to minimise waste and reduce our environmental impact so the community's collection efforts (delivered by local government and others) provide the right feedstock for secondary markets, and they in turn produce products that incorporate recycled content and can be readily recycled again. To work effectively circular economy frameworks need to consider every element of the circle and current NSW Government policy priorities are not well aligned to this. Designing out waste (avoidance) and keeping materials and products circulating in the economy for as long as possible, need to remain the highest priority. To achieve circular economy outcomes, legislative and market barriers also need to be addressed.

2. Where do you think the New South Wales government should prioritise efforts in improving recycling and resource recovery?

Generating less waste and 'designing out' waste is the critical **priority** step in moving to a circular economy. Improving collection and sorting of waste are necessary efforts to ensure that packaging and products that can't be avoided can be recovered and have a second life as part of a circular economy.

Better planning for waste and resource recovery infrastructure will assist in ensuring that we have the necessary infrastructure to enable materials to circulate in the economy, reducing virgin material use. However, collaboration needs to occur in what materials are being collected and recycled. Materials that are not readily recycled in Australia should be designed out.

Creating sustainable end markets and driving demand for recovered materials are crucial to creating a sustainable circular economy. This step needs to be considered as part of product and packaging design.

Collaboration and capacity building are priorities. The implementation of the current strategy has been delivered and supported by strong leadership from local government, including regional organisations through Regional Waste Coordinators. Such regional collaboration models should be a priority in developing the 20YWS.

3. Do you have other evidence (such as data, reports or specific examples) that can inform the 20-Year Waste Strategy for New South Wales?

Regional and local government waste strategies 2013-2021 and supporting resources and research; as well as other local government resources that support the delivery of waste and resource recovery services. LGNSW has a series of [case studies](#) that demonstrate innovative approaches to managing waste, resource recovery and behaviour change.

Direction 1: Generate less waste

4. What actions by government, industry and the community should be prioritised to avoid and 'design out' waste to keep materials circulating in the economy?

The discussion paper recognises that waste can drain productivity and environmental resources but does not focus enough on actions to decouple consumption from waste generation such as: second hand first (eg EU RREUSE), sharing economy, takeback systems, right to repair and leasing. Avoidance and reuse must have a strong focus in developing the 20YWS, particularly as they are low priorities for action in delivering the current strategy.

Supporting local, small scale 'closed loop' economies, particularly in regional areas, for reuse, repair and the sharing economy would contribute to keeping products circulating in the economy for longer and overcome often prohibitive transport costs to re-processors.

With 75% of food waste occurring before food is sold or served, reducing food waste prior to food sale or service is also a priority for action.

To generate less waste LGNSW recommends:

- Avoidance and reuse be key focus areas
- Food waste prior to food sale or service be prioritised
- Local, small scale 'closed loop' economies for reuse, repair and sharing be prioritised

Option 1.1 State-wide targets

5. What targets and metrics would be most effective in driving waste avoidance, reuse and the circular economy?

Local government supports current strategy targets, adopting these in regional and local Waste and Resource Recovery (WARR) strategies, balanced against cost and community willingness and acceptance. However the current weight-based targets are somewhat ineffective in

measuring waste avoidance and resource recovery or circular economy outcomes with many local and regional targets moving backwards despite improvements being made.

Targets may be more effective when applied across critical material supply chains in the form of incentives, reflecting the contribution businesses make to the circular economy and stimulating continuous improvement. Metrics could include: recycling and recycled content outcomes in manufacturing, waste flows and carbon and material footprints. Composite indicators/metrics contributing to a scorecard may provide more flexibility for innovation and changing consumer, operational and regulatory environments. Soft targets around industry development and innovation, such as workforce capacity and capabilities and intellectual property would help develop the sector to be more advanced.

Any targets relying on local government contributions require collaboration if the target is to be deliverable, achievable and accommodate a level of flexibility for changing policy and consumer settings. Recent experiences with the container deposit scheme (CDS) and Mixed waste organic outputs (MWOO) highlight the implications of not understanding the impact of policy decisions on local government long term contracts and the availability of service offerings. Targets alone will be ineffective unless they are supported by clear policy directions and pathways as well as actions that incentivise change.

6. How can these be implemented so they are most effective?

A tailored approach to targets that considers regional variations may be appropriate. For example, different levels of targets for metropolitan and regional areas could be considered given differences in population density, transport costs and processing options and access to markets.

A level playing field should exist across MSW, C&D and C&I targets. Exclusions should not be considered for one stream and not others. Transparent targets could be considered across critical supply chains to share the responsibility to stimulate a circular economy.

7. What limitations should be considered?

The burden of reporting on targets and metrics should be recognised and supported including providing funding, guidelines, tools and training. The variation in collection methods and resourcing across councils is a limitation, so too the irregularity of reporting due to competing demands. Lack of transparency of commercial operators' data can limit good policy making at state and local government levels.

The limitations of NSW Government agencies in delivering timely data, analysis and reporting should also be considered. Moving to a circular economy requires timely access to reliable data.

8. What additional targets and metrics could be used to drive emissions reductions from the waste system?

Metrics such as recycled materials to raw materials supply and demand, percentage of recycled content used, private investment, jobs, numbers of patents for technology and processes,

average product durability and repairability across key products such as large electrical appliances would assist measure the transition to the circular economy.

9. What are other opportunities to reduce greenhouse gas emissions from waste, while supporting the economy?

The diversion and reprocessing of textiles and organics are a priority to reduce carbon emissions. Waste to energy facilities replacing landfills would reduce greenhouse gas emissions.

As Australia is a net importer of plastic packaging, reprocessing plastics could actually increase Australia's greenhouse gas accounts.

LGNSW recommendations for state-wide targets:

- Strong collaboration with stakeholders, including local government, industry and producers on target development
- Flexible targets to accommodate changing consumer, operational and regulatory environments
- Localised targets reflecting diversity across regions and local governments
- Staged targets for all waste streams – MSW, C&I and C&D that recognise both existing and potential service offerings

Option 1.2 Designing out waste

10. How do we better design out waste? 11. What priorities should inform product stewardship schemes and extended producer responsibility? 12. How do we drive uptake of materials and products with lower life-cycle emissions?

Producers and manufacturers must take responsibility for the end of life management of their products rather than leaving it to local government. Considering end of life aspects at the design stage avoids unnecessary packaging and unsustainable material choices. There appears to be inconsistency between what can theoretically be recycled (eg sourced from the APCO PREP tool used by designers) and the materials that are processed locally by MRFs and reprocessors. Producers should be able to design products that can be reused, reprocessed or recycled in collaboration with others in the chain. Phasing out products and packaging that are problematic to recycle should have the highest priority.

A lens also needs to be placed on new to market products and materials to identify and phase out those that have high environmental impacts during and at end of life.

Action is required at the NSW Government level in line with state legislation on extended producer responsibility to phase out problematic materials and stimulate and accelerate national action.

In 2018 LGNSW made submissions to both the [Product Stewardship Act Review](#) and the [Product Impact Management prioritisation process](#) that addressed designing out waste in detail and made recommendations relevant to designing out waste (see embedded links).

LGNSW recommends the NSW Government examine the recommendations to design out waste presented in our submissions to both the Product Stewardship Act Review and the Product Impact Management prioritisation process.

Option 1.3 Awareness and behavioural change

13. What are new and innovative ways to engage consumers to reduce waste generation and increase recycling? 14. How can these be implemented so they are most effective?

Awareness raising through ongoing campaigns at state level supported by local government behaviour change programs at the regional and local level would increase engagement, particularly with transient community members. Local Government is the major source of education and information for the community and is pivotal to engaging with residents, delivering ground level programs that could reinforce state level campaigns and other initiatives.

While the Australasian Product Label is a step forward, consumers also require information on repairability, durability and environmental impacts of end of life disposal to inform purchasing decisions. NSW legislators and other decision makers across agencies also need to be engaged about the importance of recycling and resource recovery as an economic driver.

Priorities for consideration for NSW level campaigns include:

- Consumption and waste avoidance (according to the National Waste Report 2018 Australians produce 9% more waste per person than comparable nations).
- The fate of kerbside recycling and the impacts of contamination
- The communities' understanding of their role in the circular economy and the part the economy plays in climate change and resilience

LGNSW recommendations for awareness and behavioural change:

- A framework and strategies for awareness and behaviour change to enable the success of the 20YWS in partnership with local government.
- Funded delivery of state-wide campaigns on the importance of recycling, to encourage the right way to recycle, the purchase of products with recycled content, as well as promote waste avoidance, underpinned by funded on-the-ground initiatives delivered by local government.

Option 1.4 Targets for government agencies

15. Would mandating waste reduction targets and data reporting requirements be effective? 16. What issues or limitations should be considered?

The latest NSW Government Resource Efficiency Policy reporting scorecard (2017/18) shows that nearly 50% of government sector agencies did not report waste data on their top three waste streams, and of those that did report, only 8% reported on waste quantities. Working

towards mandatory targets and reporting to drive down waste and increase resource use and reuse in government agency operations is supported by LGNSW.

State significant developments should also have mandatory waste and resource recovery reporting requirements for each stage of the development including their operation and decommissioning.

Mandating targets for some regional smaller councils may have limitations due to resourcing and adequacy of data collection methods, such as lack of weighbridges or joint collection of commercial and MSW in the same collection truck. Some councils would consider reporting an imposition, with additional workload requirements in smaller councils not easily met with current staffing levels.

LGNSW recommendations for targets for government agencies:

- Mandatory NSW Government agency targets and reporting framework to drive down waste and increase resource recovery and recycled content use in government agency operations and spheres of control e.g. schools, hospitals, compliance against SSI/SSD approvals.
- A local government reporting framework for waste and resource recovery that accounts for geographic and economic variations and is the basis for a staged approach to mandatory targets.

Option 1.5 Regulatory safeguards

17. What are the key opportunities for improving current waste regulations and regulatory processes in NSW?

The NSW Government's resource recovery framework discourages investment and innovation. Applicants face uncertainty around the outcomes of applications for orders and exemptions and the lengthy processes add delays, costs and lost opportunities. A market development approach, similar to Sustainable Victoria or South Australia's Green Industries, should be considered to facilitate the regulatory process and provide advice as this would encourage investment in resource recovery. The UK WRAP has extensive protocols and guidance on what is needed to turn waste into a product and then be exempt from waste. This is a more user friendly process that could be considered for adoption in NSW.

The extensive EPA testing requirements for organic outputs that already comply with Australian standards should be reviewed to ensure these testing requirements do not act as a barrier to uptake of precinct or large development scale organics processing and use of output onsite.

Regulations that better track waste past its initial destination point or interstate or overseas would improve inappropriate use and illegal dumping. It would require greater transparency from industry regarding end markets.

Regulatory restrictions are needed on the import of products containing problem wastes. Regulations on waste exports are needed to identify overseas destinations and treatment processes.

Regulations for new developments should enable waste to be collected safely and efficiently for best resource recovery outcomes.

There is opportunity to consider waste and resource recovery in relevant regulations and regulatory processes as nearly every regulated activity produces some form of waste.

LGNSW recommendations for regulatory safeguards:

- A market development approach for the NSW Resource Recovery Framework, similar to Sustainable Victoria's or South Australia's Green Industries model.
- Better regulations in new developments to enable waste to be collected safely and efficiently for best resource recovery outcomes.
- Improved waste tracking to guard against improper use and illegal dumping.

Direction 2: Improve collection and sorting

18. What actions by government, industry and the community should be prioritised to improve the way waste is collected and sorted to maximise circular economy outcomes and lower costs?

Households are charged an annual flat fee for their waste service and have no financial incentive to reduce their waste. Household incentives for reducing waste, including weight based charging and other user pays systems, should be investigated. There may be potential for changes to the *Local Government Act* so that charging mechanisms for residents can be designed to incentivise waste reduction and improvements in source separation. Addressing the complexities of recycling contamination in multi-unit dwellings is a key action to improve collection and sorting.

Some mainstream MRFs and processors have outdated or inefficient technology so a range of kerbside materials are unable to be processed by operators or are downcycled. Performance standards and incentives for MRFs and processors may encourage higher quality output.

Reducing the confusion around disposal and recycling of compostable and biodegradable plastic packaging would improve sorting, particularly as FOGO is adopted more widely.

LGNSW recommendations for improving collection and sorting:

- Incentives for households to reduce waste and reduce recycling contamination be considered and trialled.
- The feasibility of MRF and processor performance standards be investigated.

Option 2.1 Recovering food and garden organics

19. What are the key opportunities and challenges associated with mandating food and garden organics (FOGO/FO) source separation? 20. What other options could be considered for recovery of food and garden waste? 21. What are the key opportunities and challenges with reducing emissions from food and garden waste to achieve net zero emissions from organics by 2030?

With 75% of food waste occurring before food is sold or served, the major opportunity for reducing food waste and increasing food organics recovery lies with the commercial sector. Mandating food waste separation of organic waste from the commercial and retail sectors that have cleaner streams than household FOGO/FO could be considered a logical first step in increasing recovery of food organics. This would assist to build the processing capacity and markets to support local government business cases for household FOGO/FO services. Actions that could be considered include using legislation to prevent, for example, supermarkets and other businesses from sending edible or useable food waste to landfill and working with supermarkets and grocers to relax their specifications for fruit and vegetables.

There is opportunity for the NSW Government to incentivise at the planning stage FOGO source separation and onsite processing in new large residential, mixed use and precinct developments, requiring EPA to review and approve suitably scaled processing technology.

Focusing on the outcome sought – no organics to landfill - rather than mandating FOGO/FO separation could be considered to stimulate innovation and investment, resulting in better environmental outcomes as processing technologies evolve.

Local government supports the concept of FOGO/FO separation at household level. However the transition will take time and needs to be underpinned by policy and regulatory certainty and consistency. There are still many barriers to be overcome before this service offering becomes more common in metropolitan Sydney, such as increased costs vs benefits, contractual issues, contamination issues particularly in multi-unit dwellings (MUDs), and lack of community or elected official support. Other significant barriers include high transport costs, current capacity of processing infrastructure, lack of strategically placed transfer stations in metropolitan Sydney (SSROC councils would have a four hour round trip to access their nearest processing facility) and the capacity and financial sustainability of markets for compost products. A plan is needed to detail how infrastructure capacity gaps can be filled and to identify accessible economically viable markets.

The NSW Government's understanding and support of each local government's approach to FOGO services and their unique characteristics is critical to the transition. Councils need flexibility on when the transition occurs, for example at end of current contract, and how the transition occurs, for example in SUDs but not MUDs, or in new developments only, or if households don't home compost. Innovative approaches and incentives to setting and reaching more tailored targets across local government for organic waste should be considered however these may be challenging for corporate investment.

Mandating household FOGO/FO without adequate engagement support and market development is likely to result in high levels of contamination, increasing overall cost and the potential to compromise processing viability.

Better product disclosures (eg standards, specifications, eco-labelling) for recycled organic materials would support stronger end markets, for example government procurement of recycled content landscaping supplies. Food safety standards could be reviewed to assess if FOGO/FO output is suitable on certain food crops to establish more end markets to encourage investment in infrastructure. Clear guidance is also required around biodegradable and

compostable packaging - what is permitted in processing facilities, is it labelled, is it certified/to a standard?

An ongoing R&D program to ensure environmental and human health of FOGO/FO output through time, particularly with increasing compostable and biodegradable food packaging development, is essential to avoid another MWOO situation.

With organics removed from landfills, the viability of existing landfill gas collection systems may be reduced. Innovations to improve emission capture from FOGO/FO processing will be required.

LGNSW recommendations for recovering food and garden organics:

- A research framework for regulatory and scientific certainty for household FOGO/FO
- Any mandate for recovering organics applies across the supply chain, spreading infrastructure and processing costs, starting with large producers of food waste
- Focus on mandating the outcome sought (eg ban organics from landfill) in a flexible and staged way rather than the process
- An action plan to identify and fill gaps in organic processing capacity and end markets
- Make it easy for precincts and residential developments to purchase and use organic processing equipment by addressing legislative barriers to uptake
- State level engagement with the community about the NSW Government direction and engagement to build a social licence for any mandated change
- Considerable investment of resources to ensure no significant cost increase for ratepayers
- State level support for contract negotiation and contamination management programs

Option 2.2 Standardise collection systems for households and businesses

22. How could collection systems (including bins and drop off facilities) be designed to improve the separation of materials for recycling in your area and/or business?

Extensive research and piloting is required to determine how collection systems can be designed to improve source separation for local government service offerings such as kerbside recycling, bulky goods collection, public place litter and recycling and other away from home offerings such as CRCs and e-waste drop off events. It is unlikely that a one size fits all approach to kerbside bin systems will work for the community or business. The scale and timing given lengthy existing contracts for collection systems and bin infrastructure, the lack of bin bay and kerbside presentation space, and the impact on outcome based contracts and innovation need careful consideration; as well as the impacts on councils using interstate MRFs.

The system needs to have more flexibility built in to respond to changes in technology, economic and environmental conditions and changing consumer behaviour. For example, glass could be separated at the kerb at considerable cost payback period and all councils could introduce a paper bin, yet advanced treatment technologies may make these separations unnecessary and the standardisation could lock in redundant technology for contract life.

Bringing some consistency to what is accepted for recycling would increase the opportunity for state-wide campaigns to reduce contamination and would require all MRFs and processors to

reach a level of agreement about what and how they accept material. This must be accompanied by financial incentives to upgrade outdated MRFs and processors to raise the bar and produce higher quality recycled materials. The rules around the materials - such as containers to be washed/scraped out to remove food, aerosols in/out, lids on/off, minimal material size accepted and definition of hard/soft plastics - could also be made consistent. A better understanding of the communities' attitudes and perceptions of how they sort their waste at home and their willingness to change behaviour to particular systems is needed. The [Wales Collections Blueprint](#) is one example of a consistent approach across local authorities.

Consistency would also require re-processors to lock in long term contracts for supply of recycled content to packaging manufacturers to stabilise end markets for recycled content. Some packaging such as multiple material packaging would likely end up in the residual bin so a readjustment of bin sizes may also need to be considered. The packaging industry should be accountable for packaging in kerbside bins and provide financial and educational support to local government and the waste industry.

Local government recycling collection and processing contracts have traditionally outlined the material types accepted for recycling over the life of the contract assuming there will be no change to kerbside collection configurations over the life of the infrastructure (locking in feedstock 'recipe' or composition). The feedstock can vary even across councils using the same MRF, depending on the economic conditions at the time the contract terms were agreed to. In some contracts the collection contractor owns the material and shops around for the best MRF price. When the feedstock changes, such as with CDS, it can negatively impact the required feedstock and result in increased costs.

The NSW Government's focus on household FOGO should consider consistencies for what is accepted in any new metropolitan FOGO services, particularly given the confusion surrounding biodegradable and compostable packaging.

Innovative away from home recycling/take back systems for recyclable materials of value are also required to reduce contamination through industry product stewardship, for example better systems for soft plastics and precinct level recycling through, for example, bottle banks and cardboard and polystyrene collection points. Drop off points for other kerbside recycling can also build resilience in the system to guard against shocks.

Householders cannot continue to foot the bill for dealing with materials at end of life. The cost of recycling contracts continues to rise. A recent large metro council recycling tender saw a three-fold increase in the price of recycling.

New 'precincts' could be designed with designated areas and incentivised to sort, basic process and collect waste and reusable items on the property rather than the traditional kerbside model, including processing FOGO on site, separating and crushing glass, and baling/compacting separated cardboard, with the onus on the strata/complex manager to manage waste operations. Alternatively drop off facilities could be located within a short walk of higher density living eg MUDs, as is done overseas.

Combining commercial and household services in regional NSW may provide additional opportunities for economies of scale, reduce truck movements, reduce carbon emissions and

achieve better environmental outcomes from improved processing of waste. This may also be the case in metropolitan mixed use developments/precincts.

LGNSW recommends exploring these actions to improve the separation of materials for recycling across local government:

- Extend CDS to take more glass and/or introduce precinct-based glass collection funded by producers
- Introduce NSW producer take back scheme for large appliance packaging through the retail sector
- Introduce precinct-based collection of soft plastics to extend the existing away from home recycling
- Investigate the feasibility of using spare capacity in the kerbside recycling bin to collect bagged recycling such as soft plastics and textiles in too poor a quality to donate
- Phase out packaging materials that cannot be recycled in Australia, for example, polymer coated paper board or build processing facilities in Australia paid by producer/importer
- Fund new technologies for recycling PVC, MDF and impregnated wood collected in clean ups
- Use planning controls to design and incentivise precinct level collection, sorting and primary processing of waste and recycling onsite.
- Introduce better systems to recycle away from home such as for coffee cups and food packaging to reduce litter and recycling contamination issues.
- Extend recycling services in regional and remote communities supported by the waste levy or producer responsibility
- Trial technologies for user pay charging of waste via a pay as you through waste management system.

Option 2.3 Network-based waste drop-off centres

25. How do we further optimise NSW's network of waste drop-off centres and collection points?

Local government is a willing owner and partner of drop off and collection points that present the opportunity to divert waste from landfill and increase employment, particularly through social enterprises.

To optimise CRC networks in regional and metropolitan areas, more mobile options are needed to service residents too far from existing fixed centres or those who are mobility constrained. In metropolitan areas existing centres are constrained by available space and appropriate sites to extend the network are scarce due to high land values.

Pop up events on school grounds, community centres, churches or corporate spaces could be incentivised, and there are opportunities within planning conditions to incentivise shopping centres and other corporate entities to be drop off points, particularly for products sold at that shopping centre or produced by that corporate entity.

In metropolitan Sydney, the Chem Cleanout service complements CRCs that are not licenced to accept many household chemicals. However in regional NSW, the Chem Cleanout service is expensive and alternative solutions for high risk wastes may be needed.

Local government is supportive of extending away from home recycling for items not processed by traditional MRFs such as soft plastics, end of life textiles, and batteries. Councils often offer collection of low risk/high volume problem wastes such as batteries and mobile phones in council facilities such as libraries. This could be further optimised by the provision of standard infrastructure and branding, and support for transport and processing costs that should be met by producers.

LGNSW recommendations for network-based waste drop-off centres:

- Funding models be developed, supported by producers, to expand community collection points.
- The planning system be leveraged to provide a retail takeback network for bulky packaging waste from large consumer goods.
- Open up CRC contracts to neighbouring local governments to encourage them to provide collection points for lower risk small CRC items (batteries, small e-waste)

Option 2.4 Waste benchmarks for the commercial sector

26. How can National Australian Built Environment Rating System (NABERS) Waste ratings be used as an effective tool to drive better waste management practices in the commercial sector?

27. What opportunities and challenges do you anticipate if the NSW Government were to introduce minimum NABERS Waste requirements for the buildings it leases and owns? 28. Are there opportunities to roll out similar requirements to other sectors?

The NSW Government could lead by example and play a pivotal role in supporting the roll out of NABERS Waste requirements, particularly in leased premises. This could also provide waste data on NSW Government operations. The waste data collected through ratings could be used as a baseline to develop asset level strategies aimed at improving the management of operational waste within buildings. It would provide greater visibility across government of current waste arising and recycling rates, leading to opportunities for economies of scale for processing and procurement.

The benefits of the NABERS waste tool are applicable to all sectors and could be rolled out as an extension of other environmental programs delivered to other sectors, including MUDs and mixed-use developments.

Option 2.5 Innovation and ‘waste-tech’

29. What are the key barriers to innovation in the waste and resource recovery sector? 30. How can the NSW Government help to foster innovation and partnerships in waste management?

Local government is keen to work with industry and other levels of government to find innovative solutions for waste and resource recovery. The 20YWS, along with better product stewardship, is an opportunity to reset the policy framework to drive innovation along the entire supply chain.

Local government's risk management can be a barrier to innovation at times and trialling potential innovative solutions locally presents expectations of service delivery in the community that may not be met. Scaling up and resourcing innovative solutions is also difficult. Better partnerships with the NSW Government that publicly share this risk is an opportunity for increased innovation.

Uncertain policy direction at all levels of government is a barrier to investment in innovative technologies. The MWOO experience is likely to have reduced the willingness of councils and contractors to invest in innovative technology. The lack of competition in the market also stifles innovation. As addressed under Option 1.5, the resource recovery framework in NSW (such as the definition of waste) can be a barrier to resource reuse projects.

The lack of alignment of waste levies across jurisdictions can create market distortions and the small reinvestment of the levy back into innovation and trialling new technologies is also a barrier. The waste levy settings result in a focus on finding ways to avoid paying the levy rather than creating useful recycled content.

Sharing of experiences across councils in a timely manner is critical to incremental innovation and this has been ad hoc in current strategy implementation. Better methods to share and build on the experiences of others should be a focus of the 20YWS.

To stimulate innovation, LGNSW recommends the NSW Government:

- Provide policy certainty for resource recovery projects and investigate mechanisms to make all businesses in the supply chain responsible for waste to encourage innovation across the chain
- Provide grant funding specifically for joint or social enterprise ventures that target innovation in reuse and recycling and development of new markets
- Invest more of the waste levy to foster innovation to transition NSW to the circular economy
- Support commercialisation of innovation and incentivise those with problems to collaborate with problem solvers
- Be the demand to drive new innovations to market, for example, government procurement as the anchor consumer for the innovation.
- Transparently and openly partner with local government to trial innovative and cost effective kerbside and away from home collection systems
- Work with the sector to make it world's best practice and export know-how and skills to neighbouring countries
- Facilitate simplified public private partnerships such as partnerships found in Denmark's State of Green project and the Ellen MacArthur Foundation's New Plastics Economy Action Plan
- Facilitate knowledge sharing networks that share information and encourage deep collaboration at the right scale such as the UK's National Industrial Symbiosis Program and the Scottish Institute for Remanufacture.

Option 2.6 Joint local council procurement

31. How can local councils best be encouraged or supported to collectively procure waste services? 32. What are the key issues that should be considered?

Many local governments already jointly procure where benefits to ratepayers can be clearly shown. The barriers around joint local council procurement experienced and explored by several regional organisations have been provided previously to the NSW Government. Their experiences have identified legislative challenges that could be addressed to enable easier facilitation of joint local council procurement by regional organisations.

Joint procurement may not be appropriate in certain circumstances and may not always provide the best solution for all councils, particularly those with high waste volumes. It can be both time consuming and costly and can sometimes result in a suboptimum solution for some councils that decide to discontinue the process.

To increase joint procurement, LGNSW recommends the NSW Government:

- Partner with regional waste organisations to identify opportunities and challenges and break down barriers to joint local government procurement, building on the work already undertaken.
- Review the Local Government Regulation tendering requirements to identify improvements and work to streamline Australian Competition and Consumer Commission requirements
- Develop a centre of excellence for local government procurement that identifies opportunities for joint procurement based on material flows and benefits to ratepayers, and provides support to regional waste groups and others that wish to initiate and deliver joint procurement

Option 2.7 Combining commercial and industrial waste collection services

33. What are your views on the opportunities and challenges of combining commercial and industrial waste streams? 34. What are your views on the potential solutions of creating commercial waste zones, or combining municipal solid waste and commercial and industrial waste collections?

In principle there may be the opportunity in metropolitan Sydney for commercial waste zones like in New York and Los Angeles. However there needs to be an understanding of the impact of commercial and industrial waste services on LGAs. Local governments do not have the data or information on these services to consider this opportunity and develop a view.

Option 2.8 Economic incentives and the waste levy

35. What are your views on the right settings for these waste levy parameters? 36. What other price-based incentives should be considered? 37. Which would work best in practice?

The last review of the waste levy was in 2012. Since then there have been several consultant reports and Parliamentary Inquiries that have made recommendations regarding the levy. A separate review of the waste levy should be undertaken as a priority to inform the 20YWS

development. A transparent and forward-thinking analysis of how the levy is best structured and then used is essential.

LGNSW has long advocated for a review of the regulated boundary for the waste levy, including reassessment of which LGAs are classified as regional or metropolitan, or subject to the levy at all. The inclusion of some rural and regional local government areas in the levy area has resulted in increased costs for residents with no tangible benefits. The proportion of the levy returned for waste and resource recovery programs must be increased, and the mechanism for this as well as other transparency issues must be discussed. Other price incentives should also be explored as well as the levy application on problem wastes. This survey is not the place to address these complex issues.

LGNSW recommends the NSW Government undertake a review of the waste levy as a priority to inform the development and implementation framework of the 20YWS.

Direction 3: Plan for future infrastructure

38. What actions by government, industry and the community should be prioritised to ensure that infrastructure for managing waste is effectively planned, retained and managed?

Recognition of waste and resource recovery as an essential and priority service is the key opportunity for improvement. Planning frameworks need to elevate waste and resource recovery outcomes to a higher level. This includes prioritising short, medium and long term planning for delivery, operation, maintenance and retention of waste and resource recovery infrastructure and services at local, regional and state levels and reporting of outcomes against planned objectives.

The EPA and DPIE need a stronger working relationship so that waste and resource recovery is viewed as a core function in the processes of both organisations.

Strategic infrastructure planning that involves industry and local government is crucial given the exponential rate of land development and urban growth. Local government waste officers have been raising the priority of waste and resource recovery planning in District and Local Strategic Planning Instruments to ensure waste and resource recovery are considered in all aspects of current and future planning, including waste transport planning. However the priority given to this in implementation remains low given competing objectives.

LGNSW recommends the NSW Government take a stronger leadership role to raise the profile of waste and resource recovery within the planning framework. NSW needs a plan now to maintain and protect existing infrastructure, as well as identify and protect short and longer term infrastructure sites. This is increasingly important in the transition to the circular economy and may require an independent coordinating body for metropolitan Sydney.

There are immediate opportunities to improve waste and resource recovery planning controls for new residential and commercial developments and in state-led rezoning and precincts. Waste and resource recovery infrastructure planning is a cross council/cross regional and at times cross state border issue and the NSW Government needs to show leadership by including

waste requirements in planning controls and strategic planning requirements rather than leave them as optional for councils to consider including.

Existing planning controls that contain most of the guidance and specifications for waste and resource recovery, such as DCPs, are no longer effective and including this level of detail in council LEPs has had mixed success.

Private and government investment in waste infrastructure has been reduced due to a lack of clear policy direction and complex regulatory framework compared to other states. Local government is keen to see investment in regional NSW to drive jobs and economic development and would welcome funding for the development of regional infrastructure plans, as well as funding for the delivery of priority infrastructure identified by these plans procured by local government, particularly where a market failure has been identified. Priority should be for infrastructure in areas with transport links and/or within special activation precincts. However as facilities accept materials from many LGAs, higher level planning is also required to coordinate across regions.

A continuing dialogue with the domestic packaging industry is needed to determine what they can phase out, what new packaging is expected, how the sorting and processing infrastructure can deal with it, as well as to forecast the recycled content market demand for packaging. A national/state mechanism to facilitate this is needed to give industry and councils clear policy to guide the types of infrastructure investment required to ensure localised circular economies for packaging.

Any requirements for new developments to have their own waste management plans should be accompanied by strong governance, reporting and monitoring systems to ensure that plans' objectives are met. The failure of this has been shown in the waste management plans for state significant developments such as wind and solar farms in regional NSW where packaging and end-of life equipment has, or threatens to, overwhelm local landfills.

Option 3.1 Long-term waste and resource recovery infrastructure needs

39. What data and information needs to be included in a waste infrastructure needs assessment to ensure it will effectively support planning and investment? 40. What role should the NSW government, local councils and industry play in meeting landfill and recycling capacity needs?

Assessing infrastructure needs is the start. This then requires strategic analysis and assessment at different geographic scales in partnership with stakeholders to form an agreed NSW infrastructure plan and roadmap with accompanying investment prospectus, supported by regional and local plans and prospectuses. A high level overseer mechanism is needed to address competing and priority needs and cross border issues to ensure priority long-term waste and resource recovery infrastructure is delivered strategically.

To inform policy and resource allocation and investment decisions that ultimately strengthen markets, data systems that forecast and map priority material flows, preferred supply and demand pathways and infrastructure capacities to deliver, integrated with freight logistic data are needed to measure the efficiency, effectiveness and environmental impact of the system at

various scales. Scans of current and emerging technologies, innovations and business models are also needed. This could be delivered through a centre of excellence.

Data needs to be close to real time, accurate and accessible and include aggregated/redacted industry data. We need to know what is actually recycled if we are to restore the community's faith in recycling. Landfill capacity mapping including disaster/contingency planning and mapping is needed, particularly for metropolitan Sydney.

41. How can government and industry better encourage innovation in waste infrastructure, to ensure it is sustainable, adaptive and responsive over time? 42. What are the barriers and opportunities to reducing greenhouse gas emissions from waste collection, processing, recovery and disposal?

Agile streamlined planning and regulatory approval processes that take into account metropolitan and regional differences are needed to deliver priority infrastructure. For example, the NSW Landfill Guidelines lack flexibility and apply tight environmental controls at a large cost imposition that may not be appropriate in rural areas with lower volumes and different waste profiles.

With high transport costs making it more economic to landfill than recycle in some regional areas that lack MRF and processing capacity, innovative ways to appropriately scale and design local closed loop economies for recycling that lower transport costs and emissions and create more local jobs are needed.

Increasing market competition would encourage innovation. In metropolitan Sydney since the sale of state owned WSN Environmental Solutions in 2010 the majority of waste infrastructure is operated by a very small number of companies limiting competition, with these companies also processing material from the regions. Providing certainty around investment through clear reliable policy direction and sound regulations would encourage new players to enter the market.

Better knowledge transfer networks and mechanisms can build incremental innovation and spark major innovations through partnerships. Local government, as well as being a major provider of feedstock, is a major provider of waste infrastructure particularly in regional areas and has a responsibility to manage facilities in a sustainable way to meet the needs of current and future generations. Innovations that support small scale infrastructure that supports delivery of recycling and resource recovery to more remote NSW residents is needed.

Innovative solutions and technologies can take too long to be approved, even for trials. New pathways are needed to streamline and quicken the approvals process. Support for commercialisation is low and some technologies have been forced overseas to be viable.

The waste sector to date has had a good record in reducing emissions compared to other sectors but there is still more that could be done. Landfill gas capture could still be improved and there is also the opportunity to avoid emissions through energy from waste (EfW) technologies. There is also opportunity to improve resource recovery from recycling and save the embodied energy from recycled materials. Smarter infrastructure and transport planning

could cut route distances. The industry could also embrace the use of electric waste trucks or extend the use of biofuels.

A lack of clear guidance from the EPA on how technologies will be assessed has made it difficult to invest or attract investment in technologies. There is an opportunity for the NSW Government to provide advice regarding best available technologies for the sector including for EfW technologies, similar to the Best Available Techniques Reference documents produced by the European Union.

There is also an opportunity for the NSW Government, as a trusted source, to make available to the community the health and environmental impacts of various waste technologies.

43. What are the barriers and opportunities to improve waste transportation and logistics issues?

Lack of data transparency is a major barrier. It is recommended that the NSW Government invest in the development of a transparent database to be used by all licensed waste facilities to report reuse, recycling, recovery and disposal as well as the movement of waste in NSW and develop protocols so that aggregated data can be accessed by the public. The movement of waste across jurisdictions should be included, particularly with the pending Waste Export Ban.

There is an opportunity to get it right with FOGO and build transfer/bulking up points, particularly in metropolitan Sydney.

In more remote regional areas a major barrier to the viability of FOGO and recycling services is often the cost of transporting recyclables to processing facilities, with the opportunity for better placed facilities, subsidies for transportation or some form of reverse logistics. The Queensland Government's Regional Recycling Transport Assistance Package supports regional recycling by helping to fund the cost of transporting recyclables to processing facilities, reducing the environmental and social impacts of waste on regional communities.

Option 3.2 Place-based developments

44. What are the key opportunities and barriers to developing place-based waste infrastructure?

45. What would a modern waste precinct look like and where in NSW could this work? 46. What is the role for government in achieving the desired outcomes and what are the most effective levers it can apply?

A major barrier to place-based waste infrastructure is the community and business perceptions of what waste infrastructure will look like and its environmental impacts onsite.

The track record of successful waste and resource recovery outcomes from waste infrastructure at state significant place-based developments such as wind farms, solar farms and major high density housing precincts has been poor to date, with little onsite processing and recovery. Local governments do not necessarily see these developments until concept plans have been approved and have little influence to improve waste and resource recovery outcomes, yet are often left to deal with the high volume of wastes flowing from their construction, operation and decommissioning. All state significant developments should have strategic waste and resource

recovery plans based on circular economy principles and associated targets and monitoring with strong governance arrangements.

There are major opportunities for the development of waste precincts/hubs for onsite waste collection and processing, removing kerbside bin presentations, facilitating activated street frontages and increased amenity outcomes within urban densification for place-based developments through stronger extended developer and manager responsibility approaches.

Developer and builder's responsibility for materials at end of life also should be recognised in regulation. The multi-award winning Macquarie University Incubator, for example, has been designed specifically for de-assembly and re-use of all building elements.

Place based developments that the NSW Government are responsible for, such as the Sydney Fish Markets, are an opportunity for investing in integrated place-based solutions encompassing waste and energy.

Place-based precincts should also include identified waste and resource recovery precincts with sound transport logistics. Plans should be developed for such precincts to identify and protect critical infrastructure, implement opportunities for increased capacity and reprocessing, and for best practice technologies and operation, similar to Victoria's Waste and Resource Recovery Hub Plans.

Option 3.3 Making it easier to do business

47. What mechanisms could be used to improve regulatory and financial certainty for investors and how could these be implemented? 48. What are the priority measures that could be introduced to make it easier to do business?

Adopt a market development approach to facilitate proposals through the planning and regulatory system. This could include an advisory service to proponents similar to the Sustainability Victoria's Investment Facilitation Service that helps organisations invest in resource recovery.

Fast-track waste and resource recovery infrastructure assessments and decisions, particularly those stuck in the system, and introduce a 'one stop shop' to streamline the approvals process.

Improve legislation around end of waste (e.g. when does a waste become a resource) to make it easier to market secondary materials.

Option 3.4 Innovative financing models

49. What are your views on the opportunities for innovative financing models in the waste and resource recovery sector? 50. How can government best facilitate investment in infrastructure and services that contribute to circular economy objectives?

The NSW Government could consider developing further state-based producer responsibility schemes to shift waste and resource recovery costs from ratepayers to producers in the shift to the circular economy. There are also opportunities to introduce levies on products with

problematic environmental impacts during and at end of life to encourage their phase out or better design.

The reinvestment of the waste levy is an opportunity to develop innovative financing models.

Clear policy and regulatory direction is essential to facilitate investment in infrastructure and services. This includes a clear strategic waste infrastructure plan with supporting policies and instruments to provide certainty for investment including an enabling regulatory framework.

The use of the Public Private Partnership model by local government for waste and resource recovery infrastructure should be reviewed as the smaller scale of local government projects lends itself to a simplified model. NSW Government support to navigate these partnerships would reduce resourcing and risk to councils.

LGNSW recommendations for planning for infrastructure:

- A NSW waste and resource recovery infrastructure plan and roadmap for implementation that meets identified landfill, recycling and resource recovery needs and includes circular economy solutions.
- Fund local government regional plans to address the needs of our cities and regions, which relate to the NSW plan.
- Priority infrastructure and other projects procured by local government in implementing regional plans are funded, particularly where markets fail.
- Planning instruments preference priority waste infrastructure in industrial zones, for example:
 - Prioritise planning and infrastructure to reuse what we can – reuse and repair shops
 - Change the infrastructure SEPP to identify preferred industrial land for waste and resource recovery infrastructure with adequate provisions for infrastructure in all new developments.
 - Escalate waste and recycling provisions within the planning policy framework including early consideration of waste at LEP stage and embedding waste in DCPs
 - Find ways to protect existing essential infrastructure from encroachment and change of use, including essential transport links.
- Reform the landfill regulatory framework to enable planning of landfill infrastructure.

Direction 4: Create markets

51. What actions by government, industry and the community should be prioritised to grow sustainable markets for recycled materials?

The circular economy is more than creating markets for recycled material. The strategy should consider how to grow sustainable markets that decouple waste generation from consumption such as the second hand, leasing, sharing and repair and reuse markets.

The focus should be on developing policies that incentivise markets that extract the highest value from recovered materials to improve the chance of further recycling materials. This will support domestic jobs by retaining the value of recycled materials and avoiding downcycling.

As discussed earlier, waste regulations also need to be improved so that waste can be considered as a resource (legitimate feedstock) rather than a waste after its been treated to a specification.

To create markets, LGNSW recommends the NSW Government give consideration to actions that:

- Deliver creative incentives such as fee waiver programs for local governments and businesses that use recycled content/process recyclables.
- Provide support via the waste levy for recycling, such as transport subsidies for regional areas, until market failures are addressed, rather than leaving everything to the market.
- Mandate minimum recycling content in all large-scale construction projects.
- Share recycling market intelligence
- Create markets for recycled content at the design and tender stages of state significant developments.
- Give priority access to government markets if companies can demonstrate above target resource recovery levels.

Option 4.1 Recycled content in government procurement

52. What are the main challenges and opportunities for using recycled content in state and local infrastructure projects and major development areas? 53. Should procurement targets be established and what is the best way to develop and implement them?

There is opportunity to develop policies and procedures that require the investigation of recycled content substitutes and their availability in all procurement decisions, as well as a weighting for recycled content relative to virgin materials in existing procurement guidelines. Local government feedback indicates there is often a perceived unsuitability of recycled content that is not informed by research and a lack of awareness or confidence in recycled materials, as well as concerns of guaranteeing quality and supply.

NSW Government and local government procurement organisations can show leadership through adding recycled content producers to their procurement panels.

Currently recycled content is often more expensive than virgin so any mandated targets would need to be supported by waste levy funds to be viable, particularly in less financially sound councils.

Outcome-focused procurement of recycled content should be explicit about the value of environmental and economic outcomes as well as technical and financial benefits.

Mandating reporting requirements for use of local recycled material in government infrastructure projects would assist in establishing baseline levels of use to allow reporting of effectiveness of policy interventions, and would allow contractors to liaise with suppliers of recycled material on a project by project basis.

A framework for the use of recycled content and products in major transport infrastructure projects should be considered, similar to Victoria's *Recycled First* initiative, that incorporates

recycled and reused materials that meet existing standards taking precedence over brand new materials. Companies interested in delivering are required to demonstrate how they will prioritise recycled and reused materials, while maintaining compliance and quality standards.

The NSW Government could also introduce policy similar to EU's Green Public Procurement Policy that enquires public authorities to procure goods, services and works that have a reduced environmental impact throughout their life cycle when compared to others with the same primary function.

In principle LGNSW supports the establishment of procurement targets and obligations for agencies to publicly report on these targets supported by appropriate standards and regulation. However any targets and reporting needs to recognise that NSW regions vary on what recycled materials they can access and make best use of locally.

LGNSW recommendations for recycled content in government procurement:

- Phase in NSW Government recycled content procurement targets and associated baselines, monitoring and reporting systems
- Provide support to Local Government Procurement to enhance the Sustainable Choice Database to include recycled materials and more products containing recycled content and provide the functionality to track and report on local government expenditure on recycled materials and products containing recycled content.
- Take a staged, individual approach towards introducing recycled content targets for local government procurement to enable supporting tools and databases to be developed and for regional and local variations to be taken into account.
- Fund further research, development and delivery of recycling technologies and products generated from recyclables, particularly by local or regional councils.

Option 4.2 Standards for recycled content and materials

54. What are the priority areas that standards and certifications should focus on? 55. How critical do you think standards and certification are to developing markets for recycled content?

Manufacturers need support to streamline testing of products containing recycled materials and processes to ensure that standards are met however product certification is costly. Standards for recycled content should also be introduced to imports.

Standards and agreed specifications for high value recycled content, particularly in civil engineering applications are critical to de-risk local government procurement. Standards, trials and testing are important for council engineers to feel comfortable buying recycled content and materials. Priority areas of improvement for standards and certifications include glass and plastic in civil construction, compost and landscaping materials and compostable plastics.

Local governments need to be sure that recycled content products present value for money across whole of lifecycle costings through relevant assessment/testing programs and that any safety issues are identified and mitigated.

The development of national standards should be strongly encouraged rather than individual state-based approaches.

LGNSW recommendations for standards for recycled content:

- Reviewing existing standards to ensure the use of recycled materials and products with recycled content is fairly considered for use.
- Investigating the feasibility of a MRF glass certification program where facilities commit to installing glass clean up equipment and implement procedures to produce higher quality material.

Option 4.3 Match suppliers with markets

56. How can industry and government best work together to foster partnerships and address information barriers to the uptake of recycled materials?

Establishing clearing house/brokering service (virtual) matching waste/resource materials to potential users/manufacturers of recycled products would address some of the uptake barriers.

Develop and financially support a mechanism to facilitate the generation/bulking up of volumes at an appropriate geographic distribution through co-operative arrangements across suppliers including support for infrastructure. This may be needed both at state and regional levels.

Work with stakeholders across supply chains to find opportunities to not only reduce waste, but also ensure recycled content is valued and used over and over as a renewable resource through new clean technologies.

LGNSW recommendations for matching suppliers with markets:

- The NSW Government facilitates a brokering service to match suppliers with markets to increase the uptake of recycled materials, for example building on CSIRO's ASPIRE model and utilising Local Government Procurement platforms.
- The NSW Government funds the development and implementation of overarching procurement guidelines tailored to local government, for example through Local Government Procurement
- All levels of government consider the adoption of the ISO 20400:2017 Sustainable Procurement – Guidance standard to embed sustainability across their procurement process

Option 4.4 Best-practice regulatory environment for energy from waste projects

57. Are there policy and regulatory improvements that can be made to facilitate innovation and market development in the energy from waste sector, that do not compromise best practice environmental standards?

The NSW Government could provide guidance/policy direction on the energy from waste (EfW) projects the government would like to see in NSW to ensure that policy objectives are met, whilst still providing certainty to the private sector.

Transparent data should be made available to build the community's confidence that truly end of life materials are used as feedstock for energy recovery.

Building a social licence to operate is crucial to the future development of waste and resource recovery facilities in NSW, particularly for EfW. Other Australian state governments have facilitated this license through policy and trialling technology. Communities need to be aware of the sophisticated factories that deliver EfW and the technology improvements made to reduce environmental impacts compared to landfill.

Consideration should be given to closer coordination between waste management and energy planning as offtake agreements for energy and heat make EfW viable.

58. Are there any other views, ideas or feedback you would like to provide?

A range of other issues warranted inclusion in the issues paper. These issues are important to the development of 20YWS and the funding initiative to support strategy implementation.

LGNSW recommends that the following issues are addressed in the development of 20YWS as well as its funding and implementation initiatives:

- Further work on avoidance and reuse and recognition of the priority of this
- Further work on actions for construction and demolition waste and commercial and industrial waste
- Capabilities, resources and funding models as well as collaborative models for delivery of actions
- The role of regional, local and industry sector strategies and regional coordination models in supporting the NSW strategy and funding streams to support these
- The importance and role of collaboration, partnerships and capacity building, such as NSW Circular
- Transitional arrangements to retain experienced and knowledgeable local government waste and resource recovery staff funding through the WLRM initiative to ensure there are the human resources to build on previous strategy work to quickly start to implement the new strategy.
- The issues paper does touch on monitoring and reporting but does not outline the pathway or direction for the implementation and funding of the strategy. This should be discussed.
- Industry development, jobs and growth and capacity building to evolve the sector to an advanced industry sector, including training and qualifications.
- An independent evaluation of the current strategy and funding mechanisms should form part of the set of research papers that inform strategy development
- Consultation on a time responsive integrated waste data framework essential for policy, regulation, innovation and investment.

Conclusion

LGNSW welcomes the progress made towards the 20YWS development and the actions that align with our Save our Recycling Campaign. The 20YWS will need to include a deeper dive than what has been presented in the issues paper to truly encompass circular economy

principles and extend the issues paper from its current focus of a closed loop economy for MSW.

Critical to the success of the 20YWS is the elevation of waste and resource recovery as a priority area and essential service within planning and regulatory frameworks. A consultative process to explore improvements to the waste levy and levy distribution, collaborative and funding models for 20YWS delivery, as well options for the implementation framework are all areas that LGNSW would be keen to discuss.

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