

Submission
No 125

**INQUIRY INTO PLANNING SYSTEM AND THE IMPACTS
OF CLIMATE CHANGE ON THE ENVIRONMENT AND
COMMUNITIES**

Organisation: Southern Sydney Regional Organisation of Councils
Date Received: 3 November 2023



03 November 2023

The Director
Portfolio Committee No. 7 - Planning and Environment
Parliament House
Macquarie Street
Sydney NSW 2000

Dear Director

Re: Legislative Council Inquiry into the planning system and the impacts of climate change on the environment and communities

The Southern Sydney Regional Organisation of Councils (SSROC) is an association of twelve local and municipal councils in the area south of Sydney harbour. SSROC provides a forum for the exchange of ideas between our member councils, and an interface between governments, other councils and key bodies on issues of common interest. The SSROC area covers central, inner west, eastern and southern Sydney, an area with a population of over 1.8 million and contributes much of Sydney's gross domestic product.

The SSROC Secretariat welcomes the NSW Legislative Council's Portfolio Committee No. 7 - Planning and Environment Inquiry into the Planning System and the Impacts of Climate Change on the Environment and Communities. There is clear need for this enquiry, which presents the opportunity to approach the impacts of climate change in a strategic, planned and systematic way. Such an approach is critical to NSW's successful transition to a future in which we thrive in changing and changed conditions. Our recommendations and detailed comments are offered below.

SUMMARY OF RECOMMENDATIONS

Agency responsible for strategic land use planning for waste infrastructure

1. NSW Government should articulate legislative and regulatory roles and responsibilities for waste infrastructure planning and delivery.

Floods and NSW planning system response

2. Significant flood events, such as those experienced across NSW in 2021 and 2022 clearly show that it is important to consider flood risk up to and beyond the 1% annual exceedance probability (AEP) flood.
3. The risk of flood must be accounted for at a catchment scale as floodplains can operate beyond the spatial bounds of a community of interest, a local government area or a planning authority zone.
4. Taking steps to reinforce and further enhance the intent of the EIE will reduce the risk and cost of flooding in flood-prone regions.
5. Councils will need to be assisted to understand the full implications of adopting the special flood considerations clause.

6. A transition period and resourcing to enable council to prepare to meet its new responsibilities and obligations arising from the adoption of the special flood considerations clause.
7. Councils will need additional resources to enable them to:
 - adapt their planning controls quickly,
 - conduct local technical studies for evidence-based planning
 - plan, fund and undertake drainage-related civil works to meet the new expectations for adaptive flood management.
8. A holistic resilience approach is necessary in NSW.
9. The ramifications of climate change for the environment and communities are huge, and governments cannot be complacent or limited in the scope of their planning.

Sydney Waste Risk and Resilience, Climate, Infrastructure and Planning

10. There is need for proactive planning and collaboration between local/state government and industry stakeholders.
11. The Essential Service Act 1988 requires review to ensure the system of waste management, and other essential services are appropriately addressed
12. Transfer facilities are needed as there are no organics processing facilities in the region.

Transport

13. Waste transport and logistics should not be just seen as council and private waste service providers problem. The NSW Government needs to recognise the waste management system and logistics as essential infrastructure.

Waste Processing and Disposal Destination

14. Limited disposal capacity in the Sydney metro area requires additional transfer and haulage and exposes the system to additional risks.
15. Alternative processing and disposal options in the Sydney metro area could reduce impacts from transfer and transport.
16. Long distance disposal options could be re-designed to provide improved accessibility in all weather conditions, for example by road and rail.
17. State significant hubs are needed to address facility capacity gaps both in the present, near future and for the long term.

Resilience and sustainability approach to planning

18. Promote a resilience and sustainability approach that accelerates the race to net zero, circular economy and the wider adoption of renewable energy across the system.
19. Establish outcome measures and benchmarks for climate change, environment and sustainability.

DETAILED SUBMISSION

1. Responsibility for waste infrastructure

As Sydney grows and expands, and volumes of wastes generated increase, there is increasing concern that Sydney will run out of landfill. In May 2023, SSROC hosted a Mayoral Summit on Waste on behalf of Resilient Sydney. All 33 councils in metropolitan Sydney were represented at the Summit, most of them by the Mayor, and over 140 attendees in total.

The current waste management processing capacity of Sydney will not meet future demand, and adequate improvements cannot be made without integrated strategic land use planning, waste management and logistics solutions by all stakeholders, including the State Government.

SSROC recognises the crucial importance of the need for strategic planning for waste (and other essential services), reserving land, and delivering the infrastructure for present and future growth. Resilient Sydney's map of the functions of government agencies and councils in waste management highlights the lack of any clear responsibility for strategic land use planning for, or delivery of, waste infrastructure in NSW.

Infrastructure NSW in its State Infrastructure Strategy 2022-2042 noted that NSW Government ought to take more active role in strategic planning for waste infrastructure and *"The location and timing of waste infrastructure should align with the Greater Sydney Region Plan and District Plans, as well the Industrial Lands Policy Review, and may require preserving land in the near term for use in the long term."*¹

Clarity is needed about the responsibilities and roles in relation to waste systems and infrastructure. Councils, Department of Planning and Environment, Office of Energy and Climate Change, EPA, Infrastructure NSW and the Greater Cities Commission are all stakeholders in waste management and the shift towards the circular economy.

Recommendation 1: NSW Government should articulate legislative and regulatory roles and responsibilities for waste infrastructure planning and delivery.

2. Floods and NSW planning system response

In 2021 NSW Government attempted to establish a framework to address serious deficiencies with earlier state-wide policy that did not fully encourage a risk-based approach to land use planning in floodplains. The previous approach relied heavily on a 1% Annual Exceedance Probability (AEP) and with insufficient focus on safe evacuation capacity, cost-effective mitigation and the changing risk due to climate change.

The NSW Flood Inquiry Report made recommendations to simplify the planning system disaster provisions. It includes ensuring there is a clear line of sight directing councils and planning authorities to include disaster response and resilient settlement outcomes in long term strategic plans (Regional and District Plans as well as Local Strategic Planning Statements).

This will require more prominence to be given to Planning for a more Resilient NSW: A Strategic Guide to Planning for Natural Hazards (Department of Planning and Environment) as well as a clear link to the risk-based approach to hazard identification and the disaster adaptation plans.

The Flood Report also included that Ministerial Directions on hazard and natural disasters be updated to reflect the new risk-based approach to flood planning levels. The updated Direction will require that strategic land use frameworks enable higher density flood resilient precincts to have more development at a higher flood planning level. This will reduce or eliminate the risk of catastrophic costs from extreme flooding.

NSW accepted the Flood Inquiry recommendations in principle, and accepted that further work is required on implementation. Last year, the Department of Planning and Environment exhibited the explanation of intended effect (EIE) that outlined changes to strengthen

¹ [State Infrastructure Strategy 2022-2042](#), p124

planning rules that would lead to better managed development in areas that are prone to floods (clause 5.22 of the Standard Instrument – Principal Local Environmental Plan).

Recommendation 2: Significant flood events, such as those experienced across NSW in 2021 and 2022 clearly show that it is important to consider flood risk up to and beyond the 1% annual exceedance probability (AEP) flood.

As evident in the Flood Inquiry report, floodplain planning needs to be consistent with principles governing the use of floodplains. It also needs to sit within at least two hierarchies of plans: for emergency management planning and for land use planning. It should *inform* broader strategies and be *integrated* into local strategies across the range of activities that affect the floodplain, while also advancing strategic state-wide aims such as the application of environmental and catchment management policies, and emergency management.

Recommendation 3: The risk of flood must be accounted for at a catchment scale as floodplains can operate beyond the spatial bounds of a community of interest, a local government area or a planning authority zone.

Floodplain planning sits within a hierarchy of plans and should both respond to and inform the contents of other plans to ensure that floodplain risk management is integrated. This is why SSROC supported the EIE clause proposed by the Department of Planning and Environment that will help promote at LEP level, floodplain studies, management plans, policies and development control plans. This could result in reduced risk to life and fewer development applications for inappropriate development.

Recommendation 4: Taking steps to reinforce and further enhance the intent of the EIE will reduce the risk and cost of flooding in flood-prone regions.

SSROC recommends that, to ensure that flood planning is integrated and evidence-based, any implementation of the special flood considerations clause in the metropolitan area should take into account the Greater Cities Commission draft Greater Cities Regional and City Plans when they are released. This will help to ensure consideration of catchments and strategic alignment with LEPs, improve clarity and deliver greater transparency and consistency for all stakeholders.

Recommendation 5: Councils will need to be assisted to understand the full implications of adopting the special flood considerations clause

SSROC acknowledges that awareness and information about flooding is continuing to evolve as climate change happens. Commonwealth and State agencies are key holders of this changing knowledge and evidence base. Primary responsibility for databases and regulatory oversight was vested in the state government agencies, such as the Department of Planning and Environment, including the EPA. Their advice, rules and regulations, have informed and directed the making of local council LEPs as well as their planning and building controls around flood and fire mitigation.

With a changing climate, properties and people in established areas such as that covered by SSROC with its many riverine environments, locations previously not at risk may become threatened. Councils will face an ongoing challenge as state agencies progressively adapt and change controls to mitigate this emerging risk. Councils with areas previously at low-risk may face unexpected liabilities in the future, as developing flood risks are identified and better understood.

Recommendation 6: A transition period and adequate resources will be needed to enable councils to prepare to meet new responsibilities and obligations arising from the adoption of the special flood considerations clause

Landholders, land purchasers, and developers rely on the planning system for making judgements about land use suitability, land values and their capacity to obtain insurance cover. They have expectations about the value and use of their land and property that may change with new information about property and safety risks and the imposition of new planning controls that respond to the flooding risks.

After severe weather and flooding across NSW in 2022, the Valuer General NSW monitored and reviewed the impact of flooding on land values. For example, in Hawkesbury, most areas saw an increase in land values while the more significantly impacted areas along the Hawkesbury River between Richmond and Wilberforce had a 20% reduction applied compared to prior 1 July 2021 land values². Council rate revenue calculations were affected as a result.

The proposed changes from the EIE about floods (and other natural hazards in future) could trigger the adoption of special flood considerations and other risk and resilience clauses. This would have the effect of rapidly transferring new responsibilities, risks, and some major additional costs to affected local councils.

Recommendation 7: Councils will need additional resources to enable them to:

- **adapt their planning controls quickly,**
- **conduct local technical studies for evidence-based planning**
- **plan, fund and undertake drainage-related civil works to meet the new expectations for adaptive flood management.**

It is entirely appropriate that the state government provide grants to enable local councils to make these changes as quickly as possible, where the risks are now deemed to be high and significant.

Recommendation 8: A holistic resilience approach is necessary in NSW

While the EIE special flood considerations clause changes are focussed on flooding, other climate related events and risks like fires and rising sea levels intersect and exacerbate flooding risks.

3. Climate Change Impacts on Sydney Waste Systems, Infrastructure and Planning

Waste management processes in Sydney are vulnerable to natural disaster events. These events have become increasingly frequent. Severe storms and floods hinder waste collection trucks, impede logistics, cause contamination and prevent resource recovery. Due recognition of the impact of climatic changes and related natural occurrences and the implications for planning for waste and related infrastructure need to be prioritised.

The flood disaster in Sydney in 2022 disrupted waste services, with landslides damaging freight-rail lines used to transport containerised waste to Woodlawn Eco Precinct. Though the contractor's and councils' urgent responses minimised adverse impacts, the incidents exposed systemic vulnerabilities and risks. Councils scrambled to find temporary

² Review of the impact of flooding on the 1 July 2022 land values, Valuer general NSW, November 2022
https://www.valuergeneral.nsw.gov.au/_data/assets/pdf_file/0018/231444/Review_of_the_impact_of_flooding_on_the_1_July_2022_land_values_-_November_2022.pdf

alternatives, transporting waste by road to facilities such as Woy Woy, Somersby or Newcastle. Without systems to transfer waste by train or road, much was transported in collection trucks, limiting the daily tonnages collected and straining waste operations teams. Had the disruption lasted longer, uncollected and over-flowing refuse bins on streets of Sydney could have led to public concerns and presented a public health risk.

These incidents were caused by landslides due to a long period of heavy rain. But the same effects could result from extreme heat or bushfire causing rail lines to buckle, bushfires preventing the operation of transport, or extreme heat necessitating workforce relief.

SSROC's current waste risk and resilience project is an example of the complexity and extent of the responses necessary, just to maintain one essential service. With increasing frequency and intensity of extreme events like the 2022 floods, projects like this one will be needed in other sectors and industries.

Recommendation 9: The ramifications of climate change for the environment and communities are huge, and governments cannot be complacent or limited in the scope of their planning.

SSROC waste risk and resilience project

SSROC is at advanced stage of a collaborative project to improve the resilience of Sydney's waste management services, with funding from the NSW Reconstruction Authority. The Local Government collaboration partners include SSROC's 12-member councils, Western Sydney Regional Organisation of Councils (WSROC), the Northern Sydney Regional Organisation of Councils (NSROC), Macarthur Strategic Waste Alliance. Key industry partners include Veolia, Visy, Bingo, Re.Group, Waste Contractors and Recyclers Association of NSW and Cleanaway. As well as bringing together cross-sector stakeholders, state agencies such as NSW Environment Protection Authority and NSW Reconstruction Authority are also participating.

This SSROC waste risk and resilience project involves a comprehensive analysis of household waste flows and how they would be affected in the case of a natural disaster (household residual, recycling, organics, bulky, illegal dumping, and other such as e-waste and mattresses). Any of the project partners could be affected by a disaster. The project will develop mitigation strategies to reduce waste risks and improve resilience during disasters and related events that disrupt waste services delivery. A key strategy will be the establishment of an ongoing cross-sector liaison group to ensure the continuing relevance of mitigation interventions.

The findings and emerging recommendations of SSROC's waste risk and resilience project and earlier studies inform comments below on the need for the NSW Government to identify and act on the recognition that waste services are essential, and therefore waste systems and facilities are essential infrastructure.

Recommendation 10: There is need for proactive planning and collaboration between local and state governments, and industry stakeholders.

In collaborating with the NSW Reconstruction Authority, other regional organisations, waste industry actors and government bodies, SSROC expects to enhance waste management resilience within the Southern Sydney region. The participation of colleagues from the other Greater Sydney regional organisations is intended to make the approach applicable across Greater Sydney since waste systems throughout are deeply interconnected. This will benefit communities and promote environmental sustainability throughout Sydney.

The SSROC’s project has developed Risk Mitigation and Action Plan (RMAP) to proactively address the impacts from the range of hazards that effect waste management systems. It is expected that through **resilient infrastructure investment**, risk assessment, collaboration, continuous monitoring, public awareness and advocacy, the waste management sector can adapt and mitigate the effects of disaster events and contribute to a more resilient city.

As climate changes and impacts on occurrence of natural disaster become more frequent and with extensive regional impacts, this raises the crucial question and urgency of viewing the impact of climate change and natural disasters on municipal waste collection, transport and logistics, disposal and resource recovery beyond the conventional role of local government.

Waste management system and logistics as essential infrastructure

Under the Essential Services Act 1988, waste barely features except:

“(1) For the purposes of this Act, a service is an essential service if it consists of any of the following:

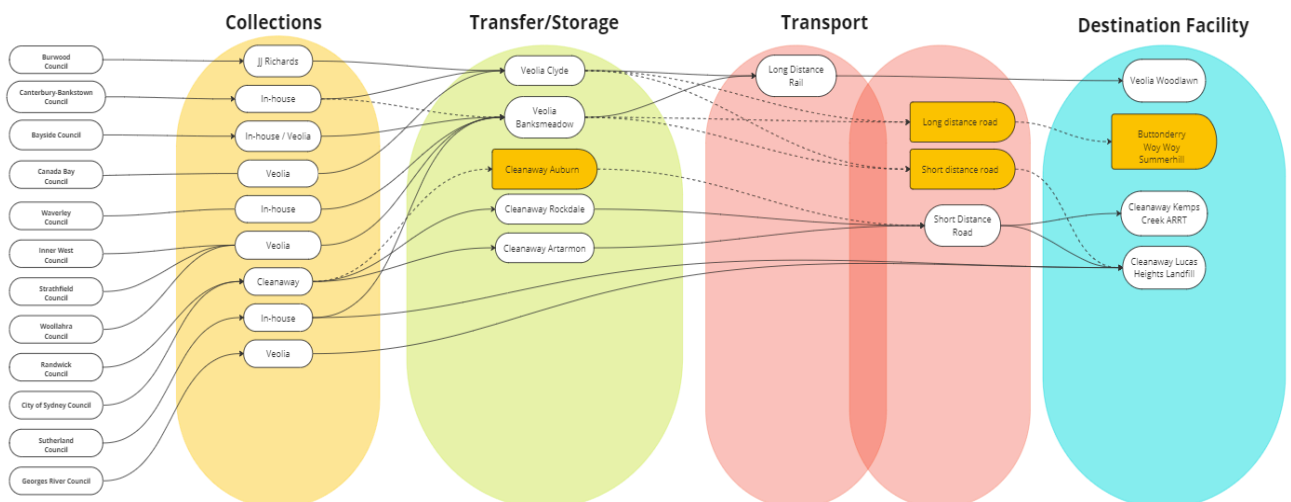
...
 (g) the provision of **garbage**, sanitary cleaning ...”

Clearly this reflects a very outdated concept of waste management, and does not acknowledge the complex network of interconnected systems and infrastructure of today’s services. Waste management systems rely on the utilisation of transport systems and availability of suitable infrastructure to function effectively.

Recommendation 11: The Essential Service Act 1988 requires review to ensure the system of waste management, and other essential services are appropriately addressed

Waste has different streams: residual waste, co-mingled waste, organics waste and clean-up waste. (In the near future a food organics waste stream will also feature.) The following figure illustrates the current waste system and logistics for residual waste.

Residual waste system map

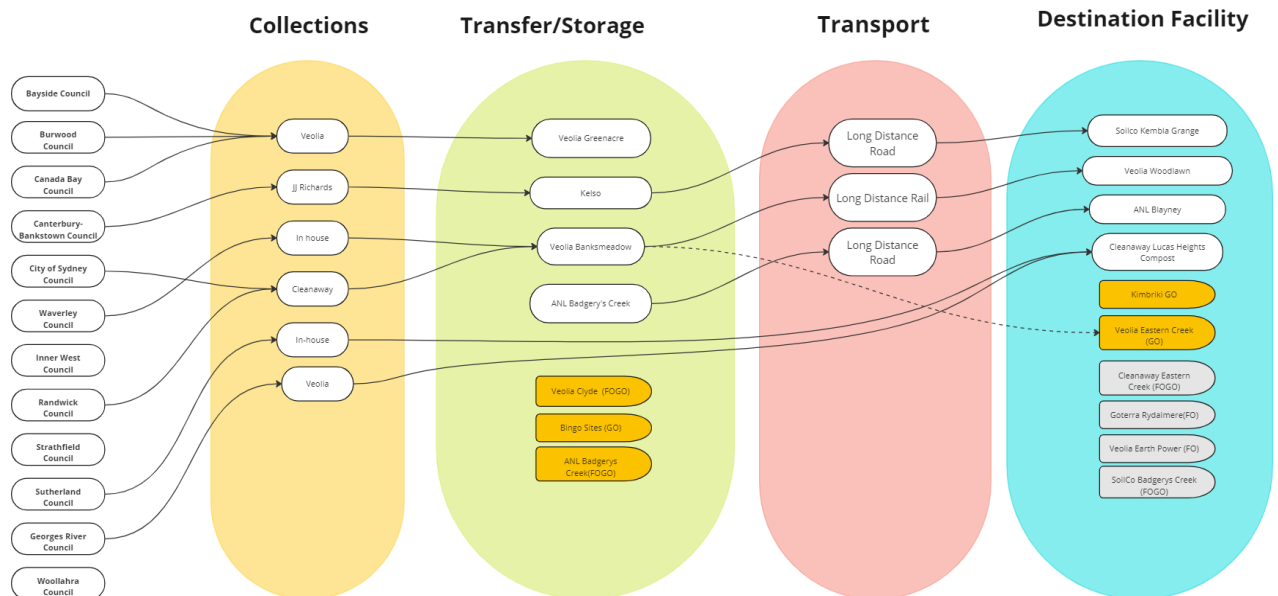


Source: SSROC - Sydney waste management risk and resilience plan project (in progress)

The diagram above shows where common pathways exist, either through specific contractors or facilities, which helps to highlight concentration risks for SSROC councils in the Greater Sydney waste management system.

For example, 9 of the 12 SSROC member councils use two Veolia transfer stations, which together rely on one transport option (long distance rail) and related facility for processing/disposal (Woodlawn). Three council use Lucas Heights landfill which has limited access and capacity. When the one transport option is affected for example by bush fire, flood, storm or landslide, the whole waste management system and logistics are impacted.

Organics System Map



Source: SSROC - Sydney waste management risk and resilience plan project (in progress)

Recommendation 12: Transfer facilities are needed as there are no organics processing facilities in the region.

Four organics processing facilities are currently used and more are needed. Meanwhile, long-distance transfer is necessary, and risk mitigation or avoidance opportunities are dangerously few. The risks will increase as the food organics waste stream is introduced throughout NSW.

Waste Infrastructure - Constraints and Opportunities

The SSROC waste risk and resilience project has unpacked some constraints and opportunities of waste management system, including logistics for Sydney.

Collection systems

- Collection routes are well planned and structured. Normally, collection systems are designed to align with transfer facilities or direct delivery. Long-range haulage usually impacts turnaround times.

Transfer stations

- Most councils in Sydney require a transfer station due to limited directly accessible processing and disposal capacity.
- Transfer facilities are primarily intermodal, moving waste from collection vehicle to container for onward transport by road or rail. The locations of intermodal transfer stations are limited by constraints such as traffic controls, zoning and proximity to residential development.

- Capacity of transfer stations are capped by licence limits, and have very limited storage capacity.
- Storage of waste at transfer stations requires additional environmental controls.
- Temporary storage capacity at transfer stations can buffer any inflow and outflow constraints. (If there is room this may be permitted by the EPA in an emergency.)
- Transfer stations provide a consistent and controlled interface with collection vehicles mitigating upstream impacts to service.
- Modification of loading systems and technologies might in some cases facilitate transfer to bulk road haulage.

Transport

- Rail transport is used for long range transfer to Woodlawn, and the contingency plan diverts the load to different rail line. But it cannot be diverted to road as rail containers are not of suitable size and weight for road use.
- Rail routing and scheduling are pre-planned and any deviation from these can be costly and are often impacted by rail maintenance or operational issues.
- There are only very limited alternative available routes for use when climate events cause major disruption.

There are opportunities for:

- Alternative rail destinations to relieve pressures on paths and schedules.
- Modulating between rail and road transport options to provide greater flexibility to manage downtime.
- Bulk road transport offers greater flexibility with timing, routes and tonnages - but at financial, social and environmental cost.

Recommendation 13: Waste transport and logistics should not be seen as the problem of councils and private waste service providers. The NSW Government needs to recognise the extensive and complex waste management system, infrastructure and logistics as essential, and plan for it accordingly.

Strategic planning for managing urban infrastructure services delivery, urban densification and new land release for residential development to meet housing targets, has to include land use planning for waste infrastructure development and delivery.

Waste Processing and Disposal Destination

There is limited processing and disposal capacity in Sydney the metropolitan area. This has led to reliance on more distant facilities. Woodlawn is a long-distance disposal option but is only accessible from Sydney by rail and has constrained route capacity.

Recommendation 14: Limited disposal capacity in the Sydney metro area requires more transfer and haulage and exposes the system to additional risks.

Demand for local landfill capacity reduces the operational life and increases the value of that capacity. There is usually increased demand for local capacity during disaster events as accessibility to distant disposal option is impeded or reduced.

Recommendation 15: Alternative processing and disposal options in the Sydney metropolitan area could reduce reliance on transfer and transport.

Recommendation 16: Long distance disposal options could be re-designed to improve accessibility in all weather conditions, for example by road and rail.

This is only likely to be possible where there is a comprehensive and strategic approach to land use planning for critical infrastructure that is forward looking and identifies sites, options and delivery pathways. This is why the involvement of state agencies is very important.

The State Emergency and Rescue Management Act 1989 (as amended), Local Government Act 1993 and the Essential Services Act 1988 (as amended) require councils to identify and evaluate risk and risk controls and timeframes. However, regional waste risk review and impact mapping and regional risk mitigation measures are not covered, leaving a critical gap that the SSROC project is seeking to bridge through establishing a Cross-Sector Liaison Group, involving state and local government, waste industry and regional organisation of councils.

Recommendation 16: Proactive involvement of NSW EPA, Transport for NSW, Infrastructure NSW, Department of Planning and Environment and Greater Cities Commission is necessary.

Increasing waste generation and decreasing processing and disposal capacity

Sydney's increasing waste and diminishing capacity will worsen as climate change impacts take effect. Greater Sydney's waste generation is increasing: as of 2018/19, putrescible waste was 1.6 million tonnes per annum (tpa) and forecast to increase to 2.5 million tpa by 2040. Non-putrescible waste was 2.5 million tpa as of 2018/19 and estimated to increase to 4.7 million tpa by 2040³.

Greater Sydney relies heavily on two putrescible landfills, Woodlawn bioreactor, near Goulburn (900,000 tpa) and Lucas Heights (850,000 tpa). Lucas Heights facilities will close around 2036. Future putrescible facility proposals are two Energy from Waste proposals for Woodlawn and Parkes and total only 700,000 tpa, not enough to replace lost capacity when Lucas Heights closes. And this does not take into account the increased need for capacity as the Sydney population and households increase.

The last new putrescible landfill to service greater Sydney was Woodlawn, built in 2002 and taking 10 years for approval and construction: the urgency for residual waste for Greater Sydney cannot be over-emphasised.

The urgency is exacerbated as worsening risks and impacts driven by climate-driven events, and once-in-a-century and once-in-a-generation natural disasters become more frequent.

Integrated strategic land use plan for waste infrastructure

NSW is the only major state in Australia that has no integrated, spatial land use plan for waste infrastructure. In Victoria, there are local hubs, regional hubs and State hubs for waste and resource recovery and defined in State Infrastructure Plan. For example, Melbourne has 14 state significant hubs receive consolidated material streams from both local and regional streams and undertake higher order waste recovery and reprocessing. In Brisbane, waste transfer stations are strategically located for spatial coverage.

Sydney will require equivalent to regional and state significant hubs and preferably identified in the Greater Cities Commission's proposed Sydney Regional and City Plans. The NSW Government needs to take a lead role, in close consultation with local councils.

³ Source: DPE, NSW Waste Infrastructure Needs Assessment, 2021 (unpublished)

Recommendation 17: NSW needs State significant hubs to address facility capacity gaps both in the present, near future and for the long term.

4. Resilience and sustainability approach to planning

The NSW Government could encourage resilience and sustainability in the planning system through various mechanisms. For example:

- A long-term vision for improved environmental performance of all the parts of Sydney's six cities. The articulation of regional initiatives that move communities closer to achieving a net zero circular economy are necessary. A state-of-the-environment dashboard could help capture the dynamism of this area, and mapped (similar to the Resilient Sydney dashboard) could spatially link climate change impacts with adaptation interventions.
- Increased focus on the condition and management of Sydney Harbour and its foreshores as a strategic priority (previously we had the Harbour REP and attempts to translate this into the Environment SEPP).
- Regional approach to waste management, water and energy use, and the circular economy needs to be enabled and driven by the Six Cities Regional Plan.

Recommendation 18: Promote a resilience and sustainability approach that accelerates the race to net zero, circular economy and the wider adoption of renewable energy across the system.

Recommendation 19: Establish outcome measures and benchmarks for climate change, environment and sustainability.

Conclusion

Thank you for the opportunity to contribute this submission the Inquiry into the planning system and the impacts of climate change on the environment and communities. The Inquiry is hugely important, and has the potential to move NSW from piecemeal efforts at individual climate change impacts at a small scale into a coherent, strategic overarching approach to planning for the extensive and complex adaptation and mitigation actions that will be required.

SSROC and its member councils will welcome opportunities for collaboration and integration in the development and implementation of better climate-sensitive planning system outcomes for councils, community and the environment.

In order to make this submission within the timeframe for receiving comments, it has not been possible for it to be formally reviewed by councils or to be endorsed by the SSROC. I will contact you further if any issues arise as it is reviewed. If you have any queries, please do not hesitate to contact me

Yours faithfully

Helen Sloan
Chief Executive Officer
Southern Sydney Regional Organisation of Councils