



**Regional Waste Stream Management Strategy
2012-2032
Revised 2014**

South East Resource Recovery Group (SERRG)



South East Regional Organisation of Councils



Overview

This document sets out a Regional Waste Management Strategy for the South East Regional Organisation of Councils (SEROC), for the period from 2012 to 2032. The Strategy is a living document and this version has been updated in 2014.

Within SEROC, which consists of 12 councils in the South East New South Wales, there is a sub committee dealing with waste stream matters. The South East Resource Recovery group (SERRG) developed the Regional Waste Management Strategy for SEROC and its Council members and whose operations will be guided by this document.

This document explains the need for a waste strategy. It begins with an outline of what is happening now in waste stream management and covers key directions for the future based on a wide range of research reports and consultation with stakeholders.

Although this document is focussed upon council actions, wider regional waste stream issues will also be addressed both directly and indirectly.

This document sets down the Vision which guides the Strategy and is supported by goals, action areas and detailed activities.

This strategy has been supported by the NSW Environment Protection Authority (EPA) with funding from the waste levy and originally a grant from the NSW Environment Trust.



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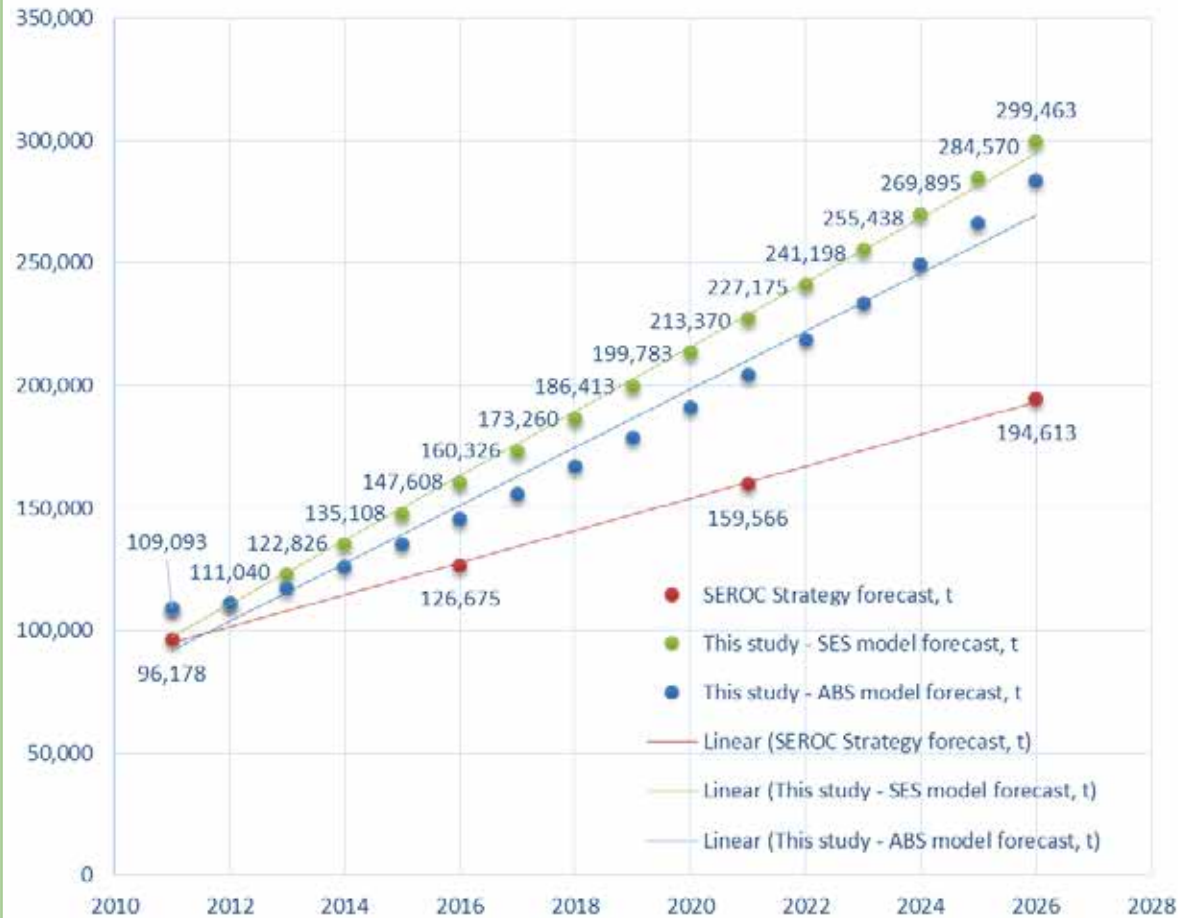
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1. The Problem

Different data sets all show waste stream quantities will grow rapidly in the next 25 years unless we do something differently.

Total domestic waste produced (tonnes)

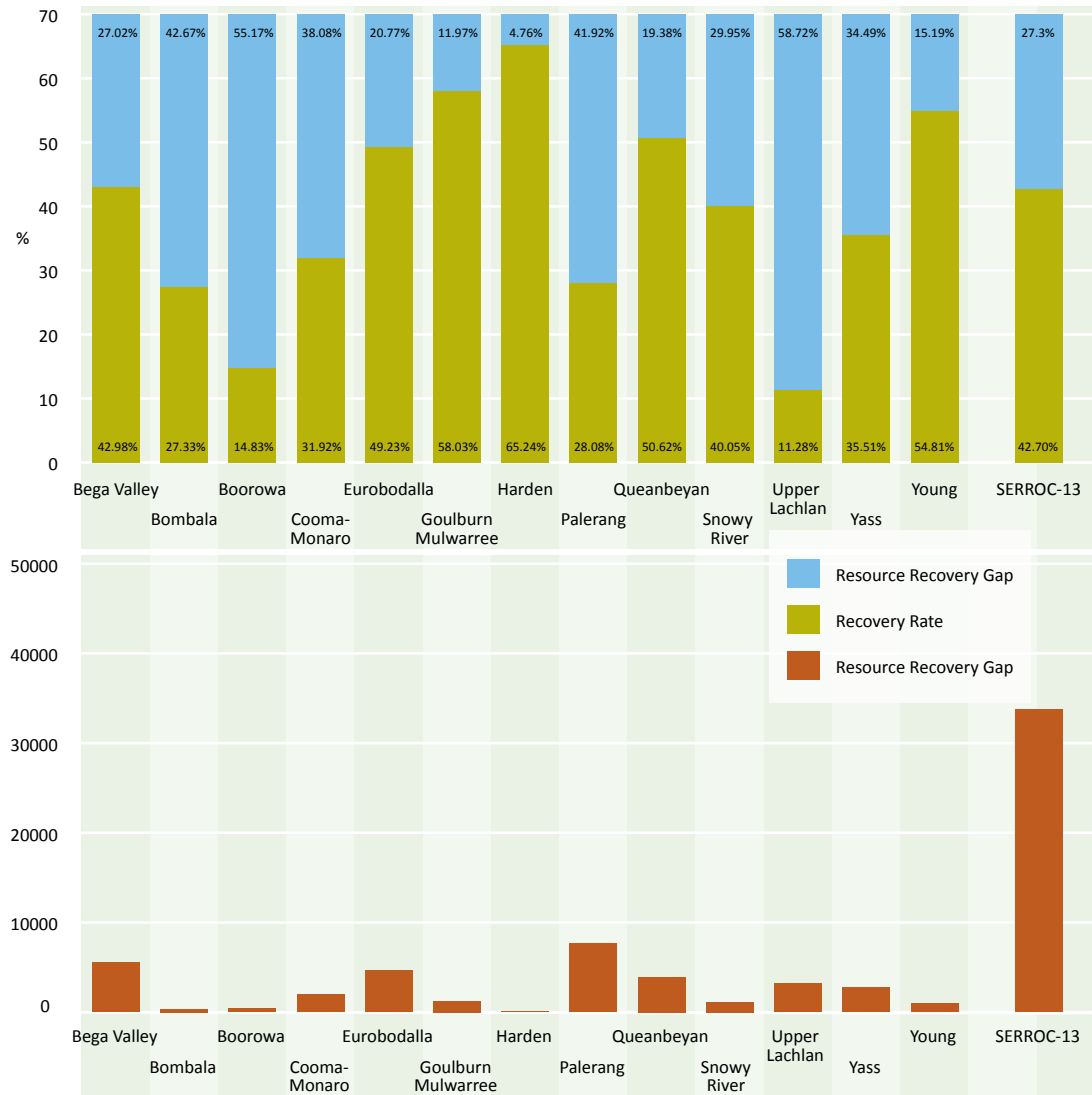




2. The present situation

The SEROC region has a varied domestic resource recovery rate among Councils but overall is a long way from the 70% level sought under the NSW Government's WARR strategy.

% domestic resource recovery rate

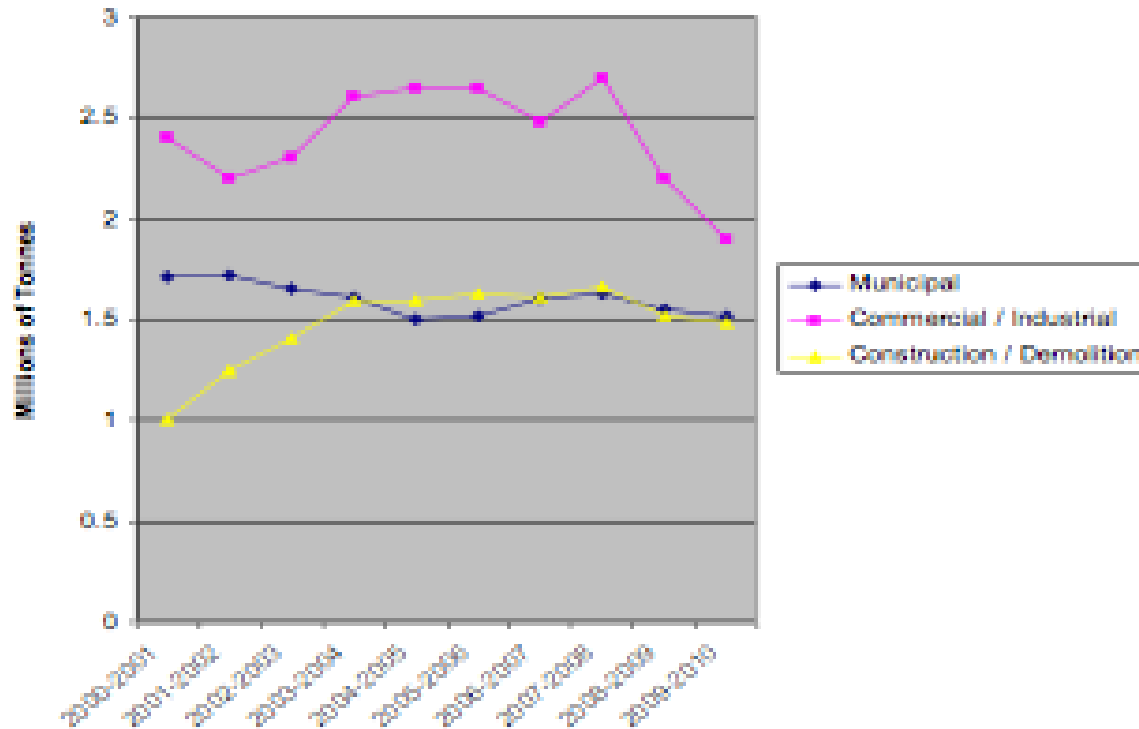


The tables above highlight the recovery gap for each council and the region if they were to meet the WARR strategy Municipal Diversion Rate of 70% by 2021.

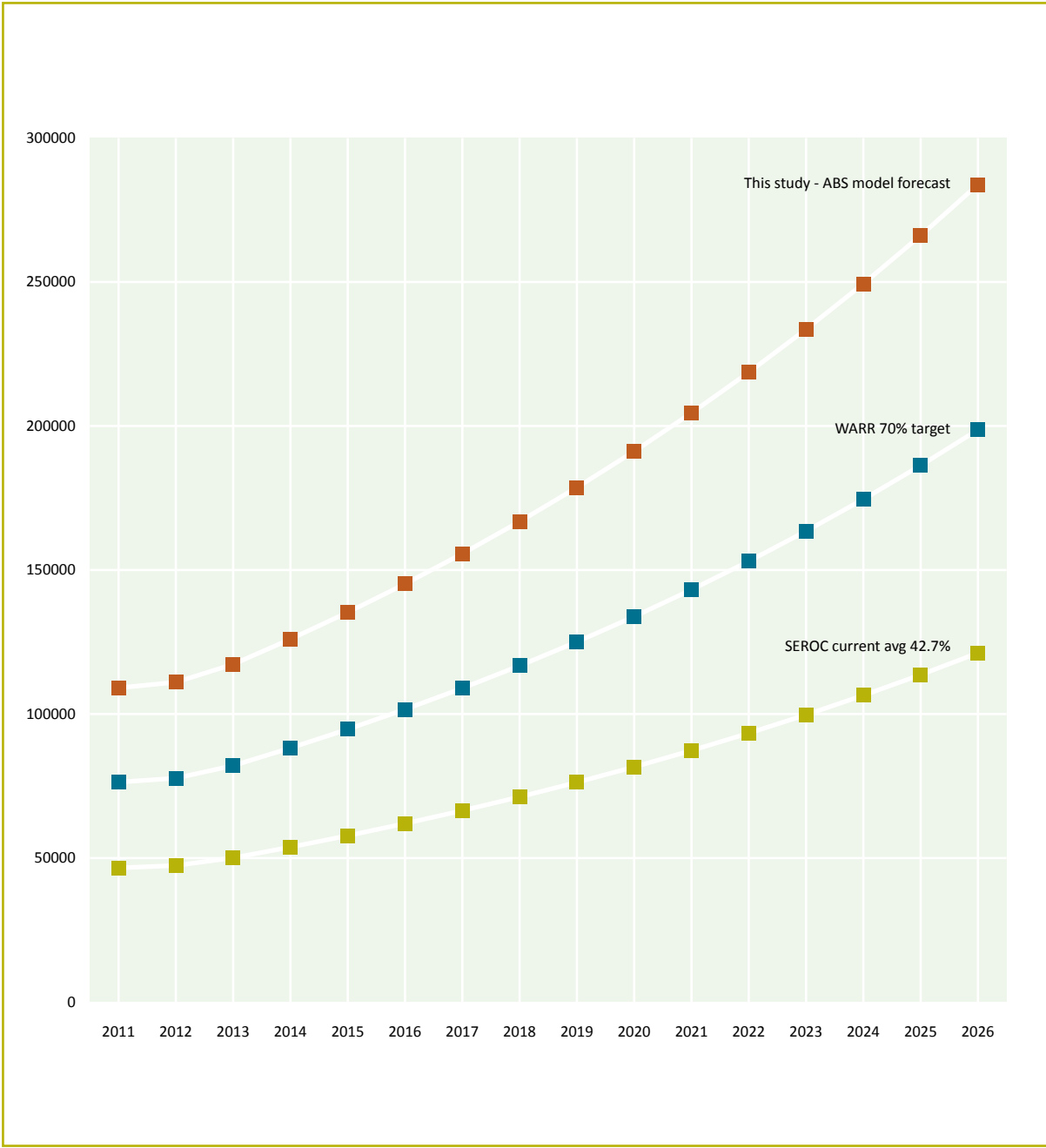
| LGA | 2011/2012 |
|---------------|-----------|
| Bega | 42.98% |
| Bombala | 27.33% |
| Boorowa | 14.83% |
| Cooma | 31.92% |
| Eurobodalla | 49.23% |
| Goulburn | 58.03% |
| Harden | 65.24% |
| Palerang | 28.03% |
| Queanbeyan | 50.62% |
| Snowy River | 40.05% |
| Upper Lachlan | 11.28% |
| Yass | 35.51% |
| Young | 54.81% |
| Region | 42.70% |
| WARR | 70.00% |



Waste Disposal



The graph is from the Local Government and Shires Association submission to the 2012 NSW Waste Levy Review. The blue line in the graph strongly suggests that as the waste levy has risen over time, no concomitant decline in domestic waste quantities occurs, unlike the changes noted in the C&D sector. On such a trend line, the WARR strategy goal of 70% domestic recovery rates by 2021 is unlikely to be achieved and the same conclusion be drawn for the SEROC region based on its waste diversion trend lines.



The graph is SEROC region data. It shows that even meeting the WARR strategy goal of 70% diversion of domestic waste streams will not address the potential increases of generated waste in our region. Something different has to be done!

3. Why a SEROC Regional Waste Stream Management Strategy?

The Regional Waste Stream Management Strategy has been developed because:

- There is a potentially a very significant problem of waste stream management if not addressed
- The NSW Government has a policy goal of considerable improvement in waste diversion rates across the state
- The task of developing a strategy is in the SERRG work program for SEROC as part of a 3 year funding agreement with the NSW Government via the Environment Protection Authority (EPA)
- While now funded by the NSW EPA, SEROC received a grant from the NSW Government's Environment Trust in 2012 to enable it to carry out a comprehensive process to develop its original regional waste strategy and to facilitate innovation in the process
- A capacity is required within councils to address issues thrown up concerning waste stream management, stemming from developing policy at a government level, technological and commercial drivers and community interest
- An effective waste stream management strategy enables councils to best manage change
- The strategy can assist Councils move from an existing end-of-pipe paradigm to one which is pro-active with considerable economic and environmental returns to the local communities they work for

This is a regional level strategy. It is designed to support SEROC councils operations but not replace them.

This Strategy has a timeline of 20 years (from its original iteration in 2012) – consistent with other local government considerations when looking to how to best manage into the future. Such a period also has the benefit of alignment with the 4 year timelines of reporting upon Council's Community Strategy plans.

This strategy is adopted by Councils and incorporated into their Community Strategy plans.



4. Background

The South East Resource Recovery Group (SERRG) is a subcommittee of SEROC and known as a Voluntary Regional Waste Group of Councils in the south east of NSW.

The 12 councils which presently form the group are:

- Bombala Shire Council
- Boorowa Council
- Cooma-Monaro Shire Council
- Eurobodalla Shire Council
- Goulburn Mulwaree Council
- Harden Shire Council
- Palerang Council
- Queanbeyan City Council
- Snowy River Shire Council
- Upper Lachlan Shire Council
- Yass Valley Council
- Young Shire Council

Additionally, the ACT is a member by virtue of being a member of SEROC and close links are maintained with Bega Valley Shire Council.

The SEROC region covers an area of approximately 50,000 square kilometres and supports a population of approximately 185,000 people, excluding the ACT.

The essential premise upon which this long term Regional Waste Stream Management Strategy is based is the same as that stated in the Introduction to the Destination 2036 Local Government Draft Action Plan for local government in NSW and prepared in December 2011. That is *“Over the next 25 years, our local communities will undergo considerable transformation. Demographic, economic, technological and environmental change will present significant challenges and opportunities for both our communities and the councils that serve them.”*¹

Past Reports

This strategy is the result of knowledge gained from studies and consultations with key stakeholders. In this section, a summary is provided of this previous work with relevance to the specific details of the Strategy.

In June 2010, a report was prepared for SERRG Councils entitled “Regional Resource Recovery strategy options – including waste prevention.”. Among its conclusions is that significant potential increases in quantities of waste are likely while other important sectoral changes will need to be

¹ Destination 2036 Draft Action Plan from local government, December 2011 para 1, page 5



addressed in waste stream management in the future. For smaller rural councils, 'next steps' in the short term future are different from those of larger urban centres, reflecting their different situation.

The report highlighted the importance of sound data collection to underpin future strategies, but noted data quality and its use for decision-making are presently quite variable in the SEROC region.

SERRG produced a follow-up paper in 2011 entitled, "Towards Developing a Regional Waste Management Strategy for NSW South East Region". Its purpose was to catalyse discussion on developments and issues important in an Innovative Waste Stream Management Strategy. Key points from this document are:

- the need for a model of operation specifically suited to the region's smaller, non-metropolitan communities
- benefits can accrue to the local economy with increased numbers of local businesses and associated employment, if waste stream management is based upon effective processing of separated products found in the local waste stream
- there is a need to do things differently from the past, as past strategies and schemes have not fundamentally improved recovery rates

A third paper entitled 'Transforming Waste in the SE NSW', summarised the main characteristics and market opportunities for the three recognised waste streams - Municipal,

Commercial & Industrial, and Construction and Demolition, split into waste types of organic, putrescibles, recyclable and hazardous.

Subsequently a research document entitled 'Discovering Best Practice in Regional Waste Management' identified key themes regarding best practice waste stream management and these are:

- a move toward zero waste as a concept and a goal is good
- providing support to business in reducing waste and increasing resource recovery – by way of advice, data, regulatory assistance and/or funding
- alliances need to be developed particularly with business and the education sector
- virtually none of the practices identified in the (Best Practice) study hinge on the use of new technology, although some may lead to technological break-throughs
- transparency and keeping the community informed is very important
- being closely connected with communities and working at the 'grass roots' is also important
- there is a need to include waste minimisation thinking as part of a broader issue of sustainability

In developing the results of this Best Practice report, SERRG consulted extensively with members. The results of these consultations are included in the actions section found later in the Work Plan section of this document.



Other reports prepared in the development of this Strategy document addressed the benefits of organics recycling and the situation of waste-to-energy technologies. Organics recycling is identified as a significant opportunity while waste-to-energy actions are to be monitored.

The practice of collecting e-waste is evolving under the Product Stewardship legislation of the Commonwealth government and will be monitored.

A significant report examined the economics of the waste stream in our region. This report highlighted that diverting recyclable waste as a free good for export and of disposing residual waste to landfill deprives the SEROC region of economic development benefits. It notes that a regional economic development approach to waste can provide a solution to the cost of waste stream management service provision of local government in two ways. First, re-engineered and reused waste when viewed as a market opportunity can stimulate new enterprise development. A healthier regional economy means stronger local government. Second, it can reduce the costs, including the external costs on the broader community, associated with land fill establishment, management and end-use restoration.

The report generally concludes that for a relatively small open economy like the SEROC region, current economic activity could be increased by around seven per cent of manufactured output, equivalent to an additional output value of around \$110m (2006 prices). It further estimates that for every one person employed directly in waste recovery and processing a further 1.3 jobs will be created as a result of the patterns of

purchasing and sale within intermediate industries and final demand in the regional economy.

The economics report found that the waste stream sector is undervalued in its local impact and associated opportunities are overlooked. The concept of a Sustainability Hub merits attention as a way to capture the economic benefits outlined above.

The ACT Government, NSW Government, South East Regional Organisation of Councils (SEROC), and Southern Inlands Regional Development Authority formed a body called the Greater Capital Region. This body initiated a joint project mapping waste in south east of NSW and the ACT region and looking at opportunities for new business developments in resource recovery and recycling.

This report concluded a range of economic and business opportunities exist in local materials transformation but the challenge is how to realise these opportunities.

The waste mapping report supported previous studies which highlighted current poor data quality and data collection processes which could be addressed by establishing common systems and processes through a centralised data management function for the region, to provide data on an ongoing basis.

The report concluded that at least three waste stream materials transformation opportunities (glass, organics, and mattresses) would seem immediately viable but required further detailed business cases to be undertaken.



Councils in the region are encouraged to use the data and approaches taken in the report to take advantage of existing or improved government enterprise development programs to foster real outcomes.

The report recommended that councils adopt variable cost structures in the commercial and internal arrangements for landfill operation, to achieve actual cost reductions where there is a reduction in additions to landfill growth, as the means for funding or subsidising alternative materials transformation opportunities.

The report also stated that the data indicates that aggregated demand for transformation opportunities can at the very least enable SEROC councils to negotiate better deals with waste and processing operators by leveraging their group “buying power”.

Finally a report considered the Infrastructure needs of all councils in the SEROC region.

These excellent papers provide a sound base for establishing an Innovative Regional Waste Stream Management Strategy for the SEROC region. They encompass emerging issues and opportunities, and are compatible with Commonwealth and State government actions such as Product Stewardship legislation, and in NSW, the State Plan, the WARR Strategy, Waste Levy review, and the Waste Less Recycle More programs. These reports also assist members to think more broadly and develop innovative operations.

The Strategy

The Strategy set out below is clearly based on consideration of a wide range of investigation results and data sets, as well as closely involving all members.

The strategy is based on a vision statement and supporting goals agreed by members. Six key action areas were developed to underpin the Vision and strategy goals and form the basis of a detailed annual Work plan.

Importantly, this strategy alone will not result in change. There are many stakeholders in the overall sector whose actions will have significant impacts: State and Federal Governments, business, local communities.

Significant waste prevention and minimisation is a practical outcome to reach a zero waste result, plus access to adequate resources and collaboration with, and commitment from all stakeholders.

This strategy aims to best position local government to manage all these forces in a positive way to benefit their local communities.

Finally, as a living document, this Strategy will be monitored, reviewed and possibly changed in response to altered or unforeseen circumstances.

In preparing this Strategy document, SERRG has engaged consultants to assist in developing background papers and data collection. This has been possible due to financial support from the NSW Environment Protection Authority and an earlier grant from the NSW Environment Trust.



5. Vision Statement – what we want to happen!

A waste-free south-east community where sustainability is second nature
(based on a localised, materials transformation future)



6. SERRG Strategy goals

These are the key outcomes sought by the Strategy

1. Help member councils be pro-active, holistic and innovative in addressing the concept of 'waste'
2. Help member councils to provide efficient waste services to meet community needs
3. Foster the take-up of sustainable behaviours in member councils and their community
4. Improve council bargaining power in service contracts and managing difficult products
5. Increase local markets for, and business and employment opportunities in, recovered resources
6. Educate and advocate for life cycle responsibility, and against the creation of 'waste'



A waste-free south-east community where sustainability is second nature

A localised materials transformation future

Help member councils be proactive, holistic and innovative in addressing the concept of 'waste'

Help member councils to provide efficient waste services to meet community needs

Foster the take-up of sustainable behaviours in member councils and their communities

Improve council bargaining power in service contracts and managing difficult products

Increase local markets, business and employment opportunities for recovered resources

Educate and advocate for life cycle responsibility, and against the creation of 'waste'

7. Key action areas overview

The following Table sets out the six key action areas and their activities

| | | | | | |
|----------------------------|--|--|---|--|---|
| 1. Promotion and awareness | 2. Integrated systems thinking and material flows | 3. Finances | 4. Business development & employment | 5. Overturning end-of-pipe status of local government | 6. Improving SERRG operations |
| Get the message out! | Incorporating a holistic view in councils thinking to link apparently disparate fields e.g. fluids, energy, suburban design, procurement etc | How to ensure the finances are available to enable councils to do their work | Fostering local economic development through innovative waste stream product management | Taking a more pro-active stance, and not accepting that waste streams are just a local government responsibility | SERRG offers best practice service to members |



Effective
SERRG
Operations





8. Time line for this project

This strategy is to be reviewed in 4 year periods¹, consistent with Community Strategy plan reviews. At the end of each 4 year period, the review will assess whether the goals have been reached or not, and explains any outcome.



¹ The period is four years in this document because it is part of the original Strategy adopted in 2012. This revised strategy starts 2014/15.

9. Outcomes description

The following table sets down in more expansive mode what the 4 year outcomes might look like. Refer to diagram on progressive outcomes above, noting this revised strategy begins in 2014/2015.

| Year | Outcomes | Explanation |
|---------|---|--|
| 2014/15 | Revised strategy endorsed, actions begun to be implemented | Strategy endorsed by SEROC. This document then forms a work program for SERRG and is closely linked to individual Councils Community Strategy plans |
| 2016/17 | Regional level action sets a strong base for coping with change | SERRG has in place structures such as a regional data processing capacity, regional education working party, web site and social media use, consideration by councils of holistic systems incorporating waste, proposals regarding longer term financing, links with local businesses, strong support for Sustainability Hub, good policy alerts and research system in place. |
| 2020/21 | Evidence of real change in the way 'waste' and waste streams are managed | SERRG has facilitated continued data collection but progressed to high quality analysis and reports, support burgeoning local waste stream transformation, facilitated regional level contracts where local production not yet in place, supported Sustainability Hub promotion and development, sees a long term financing model in place, works with members to ensure LGSA leads the push for Product Stewardship |
| 2024/25 | Sustainability is embedded in all waste stream and associated management activities | Council member operations are sustainable and there is continued economic growth based on materials transformation and knowledge growth, effective social media campaigns and exchanges, education programs now an automatic element of community life |
| 2028/29 | Significant waste prevention and minimisation | Councils have substantially altered their activities regarding what used to be waste stream management issues, and local economies are managing all products which flow from region-wide behaviours of the community |
| 2032/33 | Vision is reality | SEROC Vision is a reality |

10. Action areas content overview

This section of the strategy provides an overview of actions outcomes

| Key Action Areas | 1. Promotion and awareness |
|-----------------------------------|--|
| Purpose | <ul style="list-style-type: none"> • To get the message out about improved resource recovery and significant waste prevention and minimisation goals |
| Objectives | <ul style="list-style-type: none"> • Have better knowledge about waste streams in the SEROC region based on better data and its analysis, plus an understanding of the forces at work in relevant sectors • Promote key messages regarding waste minimisation, resource recovery and waste-free aspirations to all council staff and the wider community • Initiate and implement smart education and training programs |
| Key Performance Indicators | <ul style="list-style-type: none"> • SERRG Education Working Party operating • Regional school forums taking place • High use of web by a range of stakeholders • Training needs programs developed and implemented • Love Food Hate Waste (LFHW) program successfully operating • Regional events occurring |

Key Action Areas**2. Integrated systems thinking and material flows – incorporating a holistic view to include fluids and energy****Purpose**

- To incorporate a holistic view to Council operations and include fluids and renewable energy

Objectives

- To assist in reviews of existing waste stream systems of councils, linked to all Council operations, and support re-design, where appropriate, from an integrated planning and best-practice viewpoint
- Facilitate the emergence of region-wide standardisation of systems
- Initiate and pilot innovative system approaches to waste stream materials flows and handling
- Have as priority areas managing organics, including bio-solids, waste waters and renewable energy

Key Performance Indicator(s)

- Whole-of-system review information and mechanisms developed
- Community Strategy Plans incorporate waste stream issues
- A centre of expertise established initially around data analysis and interpretation, providing reports to Councils
- Pilot testing innovative waste stream management systems
- Common period contracting for members

Key Action Areas**3. Finances**

Purpose

- To identify sources and obtain the finances to enable councils to significantly improve total waste stream management performance

Objectives

- Review financial streams available to councils and allocated to waste stream management systems
- Research and identify alternative and sustained financing options
- Identify costs savings from smart systems, including returns from materials transformation

Key Performance Indicators

- Detailed analysis of waste stream management costs to councils completed
- Programs highlight true costs of poor waste stream management
- Members kept abreast of policy changes with financial impacts e.g. Landfill, carbon economy
- Innovative research and options regarding finances identified for consideration of members
- Regional contracts in place and Councils have strong bargaining position
- Pilot projects have financial support from different sources

Key Action Areas**4. Business development and employment**

| | |
|----------------------------|--|
| Purpose | <ul style="list-style-type: none">• Fostering local economic development through innovative waste stream management |
| Objectives | <ul style="list-style-type: none">• Work closely with local businesses• Identify the issues and needs of local businesses with respect to waste stream management• Identify local and regional business opportunities, including collaborative networks and arrangements• Develop regional and common contracts for SERRG councils |
| Key Performance Indicators | <ul style="list-style-type: none">• Productive working relationships in place with local businesses around waste stream management• Provide support for establishment of local businesses based on waste stream materials transformation• Promoting and supporting business in improving their recycling activities• Education and training programs provided in support of employment and careers around waste stream materials transformation |

Key Action Areas**5. Overturning end-of-pipe status of local government**

| | |
|----------------------------|---|
| Purpose | <ul style="list-style-type: none">• Provide the support to assist Councils take a more pro-active stance, and not accept that managing waste streams is solely a local government responsibility |
| Objectives | <ul style="list-style-type: none">• Identify areas where councils are negatively impacted by policy or business practices• Undertake research to support positive policy stances• Promote product stewardship |
| Key Performance Indicators | <ul style="list-style-type: none">• Councils are identifying key areas for pro-active policy action• Effective research underpins matters of policy interest and concern• Educate and advocate for life cycle responsibility• Supporting the Love Food Hate Waste campaign as an example of pro-active policy against the formation of waste |

Key Action Areas**6. Improving SERRG operations**

| | |
|----------------------------|---|
| Purpose | <ul style="list-style-type: none">• To provide best possible service members |
| Objectives | <ul style="list-style-type: none">• Monitor operations to achieve best practice• Expand operations to include SERRG subgroups• Provide an excellent forum for exchange and learning• Be a source of innovation |
| Key Performance Indicators | <ul style="list-style-type: none">• Regional strategy drives SERRG activities with reports on outcomes a regular feature of meetings• SERRG meetings and activities are vibrant and productive• Increased engagement by Council representatives in SERRG initiated activities• Continue with productive association with other voluntary waste groups and the ACT• A relevant, productive benchmarking methodology in place |